



Internal Quality Assurance Cell (IQAC)

Report on Technical / Industrial Visit
(For Institute Faculty Members)

Date: 18th Dec. 2019

Name of Industry Visited: **ELECTRONICS TEST AND DEVELOPMENT CENTRE,
(ETDC), PUNE**

Address: Ministry of Communication & Information Technology,
Department of Information Technology, STQC Directorate
ETDC, Agriculture College Campus, Shivajinagar, Pune,
Maharashtra, 411005, India. Tel: 020-25452922

etdcpu@stqc.gov.in, vkb9@hotmail.co

Website: <http://www.stqc.gov.in>

<http://www.stqc.gov.in/testing-and-calibration-lab-main-page/354>

Date of Technical Visit: Monday, 16th & 17th Dec. 2019

Technical Visit In-charge: Dr. Sanjay L. Kurkute

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Type of industry: Central Govt. Of India

Type of industry: Test Laboratories

No of Employees: 10

Name of Industry Expert: Mr. Narendra Kumar

Name of Director: Mr. C.R. Kathalay

Products: Electronic Test & Development Centre - Laboratories

Faculty Visit Details:

Sr. No.	Department	No. Of Faculty Visited
1	E&TC Engg.	40
2	Computer Engg.	19
3	IT Engg.	10
4	Electrical Engg.	10
5	Instrumentation Engg.	08
6	Electronics Engg.	02
7	Engineering Science (FE)	19



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Brief summary of knowledge gained or skills acquired during Industrial Visit:

ETDC, Pune:



ETDC, Pune offers test & calibration services since 1980 to various industries in & around Pune. It has offered on-site services to as far away as Nasik, Aurangabad, Sivassa & Indirasagar. Its clientele covers entire spectrum of industry- MNCs, Government, PSUs, Private and Defense.

In calibration area, it caters wide range of Electro-technical, Thermal, Dimension, Pressure, Weight & Sound level parameters. The lab has one of the best BMCs among labs in western Maharashtra. It also offers on-site calibration services.

The testing area covers electrical testing, EMC testing & environmental testing, as per various Indian/International standards.

The ETDC reports have wide acceptability. It has a wide pool of skilled manpower & is equipped with high-precision test & calibration facilities.

Recognitions / Accreditations

The Quality system is based on ISO/IEC 17025 for all sections of laboratory. The calibration lab is accredited as per IOS/IEC 17025 for Electro-technical & Thermal fields for in-house as well as on-site calibration.

Specialized Services

The lab offers fast services & total lead time is minimized to the best possible extent. Guidance is offered for drafting specifications for environmental/durability testing, preparation of jigs/fixtures for durability testing. In calibration, software/hardware trimming can be done. Calibration of calibrators like Fluke 5500/5100/9100 & DMMs upto 8-1/2



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digit can be done. Calibration of class 0.1 energy-meters (with pulse output) is available. A 2-ton vibration/shock machine meets most of the industry demand.

Electronics and Electrical Testing Unit:



The conformance to technical specifications, quality, reliability and performance of electrical and electronics products is an important aspect for consumers as well as equipment / products manufacturers. The compliance to various national and international standards / specifications is usually carried out by testing and evaluations of such products. STQC laboratories namely ERTLs and ETDCs located through out India, in houses state of the art facilities for testing of various products as per national & international specifications.

Recognitions and Accreditation:

STQC Test Laboratories are recognized by

- National accreditation by NABL under National laboratory accreditation programmed
- Test laboratories approved by BIS, DOT, RDSO, ISRO, DRDO, MNES, DG Mine Safety & Chief Controller Explosive and DG Shipping
- Recognition of Test Reports by International agencies like UL VDE, CSA & FCC etc through mutual recognition arrangements
- Assistance in comparative testing and evaluation of consumer electronic/electrical products (for consumer associations)

Services Offered:

- Component Testing
- Equipment System Testing
- Environmental Testing
- Safety Testing
- EMI/EMC Testing
- Explosive Atmosphere Compatibility Testing
- Opto Electronics Testing
- Solar PV Testing
- Reliability Testing and Analysis



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Software and System Testing

With new global demands for Security and Quality, the need for software product assurance is becoming more important. There are essentially two approaches that can be followed to ensure product quality, one being assurance of the process by which the product is developed, and the other being the evaluation of the quality of the end product. Both approaches are important and both require the presence of a system for managing quality

The centers offer testing for IT products and a variety of Software verification and Validation services. They are provided with well-trained manpower, state-of-the-art testing laboratories including software testing tools and office infrastructure. They act as a single point focus to provide third party validation services.

The software testing tools that enable the effective automation of the testing process available with the centers include Rational IBM Software test suite, Rational IBM AppScan and Policy Tester, Silk Performer and Server Analysis Module from Borland, WinRunner, Quick Test Professional and Load Runner from HP, Logiscope and TTCN from Telelogic besides tools from other minor vendors.

Service Offered:

- Software Testing and Assessment
- Software Process Assessment
- Information Security Testing and Assessment

Calibration

About Calibration

Accurate measurements play a vital role at each stage in development and production of quality product. The effectiveness of quality control steps depends directly on the accuracy and confidence with which the test & measuring instruments (TMI) can yield test results. Thus systematic and periodic checking of Test & measuring Instruments is very essential for reliable measurements. The process of periodic checking of TMI by comparison with another instrument of better accuracy is termed as Calibration.

Electro Technical Calibration

Electro Technical Calibration Service is one of the significant contributions of the STQC program in helping the Industries to compete in the world market. All the laboratories of STQC are rendering calibration services for electro technical parameters for more than three decades. The calibrations facilities are regularly upgraded with state of art technology equipments/standards. It helps STQC laboratories to maintain and Upgrade measurement capabilities traceable to the national and international standards.



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Non Electrical Calibration

Non Electrical Calibration Service is also an important calibration services to industry. Almost all the laboratories of STQC are providing non electrical calibration services for Temperature, Humidity, Acceleration, Dimensions, Mass, Pressure and Electro Optical parameters for more than two decades . The calibrations facilities are regularly upgraded with state of art technology equipments/standards. It helps STQC laboratories to maintain and Upgrade measurement capabilities traceable to the national and international standards.

Training:

About STQC Trainings

Training is critical enabler in an organization's pursuit of quality. Organizations need to upgrade the knowledge and skills of their professionals to achieve business goals with high quality products and services. STQC facilitates this requirement of industry through conducting and organizing...More...

Quality, Reliability and Laboratory Management

- Quality Management Programs
- Laboratory management Programs
- Reliability Engineering Programs
- Environmental Management Programs

IT and e-Governance

- Software Quality Engineering
- Information Security
- IT Service Management
- E-Governance Quality Assurance
- Common Criteria

Test Engineering and Skill Development

- Compliance Testing
- Measurement Assurance
- Electronics Manufacturing Technology
- Computer Education and Networking
- Industrial Automation
- Fiber Optics
- Repair and Maintenance



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Knowledge gained or skills acquired:

1. Calibration – Electrical & Non Electrical
2. EMI / EMC – Test Setup, Simulation etc.
3. Vibration & Environmental Lab – Humidity, Vibration etc.
4. Electronic Test Lab & Safety – Performance Parameters
5. Software Testing with Smart City Applications
6. Technical Interaction with all - ETDC Team Pune

Industry Visit Photographs:



Visit & Interaction at Various Laboratories – ETDC Pune



Academic Year: 2019-20

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Industry – Institute Interaction: Director – ETDC, Pune with AISSMS IOIT all HODs, R&D Team



Faculty Technical Visit at ETDC Pune on 16th Dec. 2019



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Faculty Technical Visit at ETDC Pune on 17th Dec. 2019

Feedback:

Technical Visit was very informative along with the Demo which was very helpful for the faculty members to know the real time applications such as Electronic Product Design & Testing.

Dr. Sanjay Kurkute
Technical Visit In-charge

Dr. P. B. Mane
Principal