



भारतीय मानक ब्यरो
Bureau of Indian Standards



A Report on Educational Outreach Programme at Institute of Technology, Nirma University, Ahmedabad, Gujarat

Introduction

The Education Outreach Programme on Standardization conducted at Institute of Technology, Nirma University, Ahmedabad, aimed to provide students and faculty with comprehensive insights into the significance of standardization across various industries and its impact on national and international trade, economy, and public welfare. The program was organized collaboratively by the team constituted by Bureau of Indian Standards and Institute of Technology, Nirma University, Ahmedabad, with a focus on fostering awareness, understanding, and engagement with standardization processes and principles. During the programme emphasis was given to the initiatives taken by IITs and detailed discussion to integrate the standards with the teaching-learning process.

Objectives

- ❖ To educate students, research scholars and faculty members about the role and importance of standardization in contemporary industries.
- ❖ To demonstrate the relevance of standards in ensuring quality, safety, interoperability and sustainability in products and services.
- ❖ To encourage active participation and contributions of research scholars, students and faculty towards standardization efforts.
- ❖ To highlight the career opportunities and professional development in collaboration with BIS. To share the latest initiatives taken by BIS to engage academia to contribute in standard formulation activity and also academia related information at BIS portal.
- ❖ To discuss the initiatives taken by IITs to incorporate a course in their academic curriculum on standardization and their importance.

Programme Highlights

Inaugural Address:

The program was started with rendering of Manak Geet and lamp lighting by all dignitaries present. Dr. Rajesh N Patel, Director, SoE and SoT(I/C) welcomed the BIS team and all the participants. He apprised the faculty members about the collaboration between BIS and Nirma University in the area of standardization and conformity assessment. He also appreciated the initiative of BIS of reaching out to the academic institutes to spread awareness about standards, their formulation and include academia in the standardization activity through R&D projects.

Shri Sumit Sengar, Director and Head (AHBO) highlighted the scope of the MoU and how Nirma University and BIS can mutually be benefited from this engagement. He requested all the faculties present to utilize the session and associate with BIS in the field of standardization as per their field of interest.

Sensitization Activities:

Shri Mitra Sen Verma, Sc-D, conducted the quiz BIS: Don't You Know Me? (An exercise through questionnaire). The participants answered all the questions with full enthusiasm and thrill. Also informed with the latest initiatives taken by BIS to collaborate with academia and the initiatives taken by IITs to include a course in their academic curriculum for 1st year students to understand the importance of standardization and their use in industry to shape of Nation.

Shri Sai Kaushik Kalle, Sc-C & Shri Vipul Bhaskar, Sc-C presented on "How you can contribute?" under which, a task was given to participants to write there standard or subjects on which they find useful to include in their lectures and also three subjects where they need standardization. All the participants give their inputs and the topics are given in Annex-1. Role of research and development projects in the formulation of standards and SNAP 2022-27.

Shri Pradeep Singh, Sc-D, presented the Mandate of SCs and how to access information on SCs and WGs. Also explained the details information available at our website and how to apply for the same.

Ms Anmol Agarwal, gave the demo on digital initiatives of BIS (Website, e-BIS, Academic dashboard, etc.) and demonstrated that how to access information on published standard, those under development, how to propose NWIPs, how to share comment etc.

Ms Alismita Khag, Sc-C, gave detailed demonstration on how to participate in R & D Projects and also explained scope, ToR and R& D guidelines etc. with their satisfaction.

Breakout Sessions

Discipline wise break-out sessions were conducted by BIS officials with the faculties of various technical departments, as per the following details:

S.No.	Officer	Discipline
1.	Shri Mitra Sen Verma, Sc-D	Mechanical (Nodal Officer)
2.	Shri Pradeep Singh, Sc-D	Civil
3.	Shri Sai Kaushik Kalle, Sc-C	Electrical
4.	Shri Vipin Bhaskar, Sc-C	Metallurgy
5.	Ms Alismita Khag, Sc-C	Electronics
6.	Ms Anmol Agarwal, Sc-B	Chemical

In this session, BIS officers explained the New Work Items in SNAP and discussed with the related information's. Taken the quires of participants on becoming members in various committees of BIS. Many questions were asked regarding the objective and their roles under MoU which were taken by all the officers and replied with their level of satisfaction. The questions also received on topics ranging from ISO standards to sector-specific standards relevant to the Indian context.

Sum-up Session

The summing up was given by Shri Mitra Sen Verma, Sc-D covering all the topics taken during session with a quick highlight. It was requested to the institute to introduce courses in their curriculum for 1st year students like other IITs started so that students would be aware of standardization process in our country and their benefits. The faculty and research scholars were encouraged to submit proposals under R&D projects and ensure their contributions in research based standard formulation activity.

Outcomes

R & D Project: So far, total 12 proposals are already submitted under R&D Projects on following topics:

- ❖ TED 0019 Preparation of Test Method for Vertical Fatigue Testing of Suspension Fork for Bicycles
- ❖ MTD 0028 Study of chemical, physical and mechanical properties of stainless-steel pipe and tubes made of low nickel stainless steel grades-- Project Team Leader is Prof. D B Shah of our department
- ❖ LITD 0030 Study of Impacts of Artificial Intelligence on Human Psychology -- Project Team Leader is Prof. Smita Agrawal of our institute and myself co-investigator
- ❖ MTD 0027 Study of Construction, safety requirements and types of Crane- Suspended ladles for iron and steel foundries -- Project Leader is Prof. Vipul Bhojawala of our department

Enhanced Awareness: Participants gained a deeper understanding of the importance and relevance of standardization in contemporary industries, as well as its implications for national and international trade.

Knowledge Enrichment: The programme provided attendees with valuable insights into various standards and their applications across different sectors, contributing to their academic and professional development.

Networking Opportunities: Participants could understand the opportunities to interact with experts, industry professionals, and peers, fostering valuable connections under this collaboration.

Motivated Engagement: The programme inspired faculty members to actively engage with standardization processes. The institute agreed to the idea to introduce a small course in their curriculum to give the faculty idea about standardization and their importance in achieving quality in product and services.

Conclusion

The Education Outreach Programme on Standardization at Institute of Technology, Nirma University, Ahmedabad, proved to be a resounding success, achieving its objectives of raising awareness, enhancing knowledge, and fostering engagement with standardization principles and practices. The programme not only provided valuable learning opportunities but also inspired participants to become proactive contributors to the standardization ecosystem. Such initiatives play a crucial role in nurturing a culture of quality, innovation, and excellence in academia and industry alike.

HODs attended the programme:

Sr No.	Name of Faculty	Designation	Department
1	DR. URMIL DAVE	Head of Department	Civil Engineering
2	DR. K M PATEL	Head of Department	Mechanical Engineering
3	DR. S C VORA	Head of Department	Electrical Engineering
4	DR. MILIND JOSHIPURA	Head of Department	Chemical Engineering
5	DR. S J JOSHI	Professor (Nodal Officer)	Mechanical Engineering

Annex-1

Following Indian Standards, they find useful for including in their lectures:

Sr No	Indian Standards
1.	Information Technology Data Centre Facilities and Infrastructure: IS/ISO/IEC 22237 (All Parts)
2.	Information Technology Artificial Intelligence: IS/ISO/IEC/TR 24368
3.	Information Technology-Security Techniques: IS/ISO/IEC 27034 (All Parts)
4.	Fuel Testing: IS 17655, 17832, 17833, 15441, 16612
5.	Oil Testing: IS 1448

New Topics:

Sr No	Indian Standards
1.	Cooling systems of electric vehicles and battery modules
2.	Indian Standards for medical diagnostic equipment including AI based.
3.	Standards for Network Security Tools

Glims of Educational Outreach programme at Nirma University, Ahmedabad



Felicitation by HAHBO to Director, SoE



Felicitation by Nodal Officer BIS to Nodal Officer Nirma U



Participants



Group Photograph



-----End of the Report-----