

## **Faculty Sensitization Programme organized by BIS in IIT Madras on Tuesday, 16 January 202 – A Write up**

The Bureau of Indian Standards organized a Sensitization Programme on Tuesday, 16 January 2024 in IIT Madras, Chennai for the faculty members of the institute. The Bureau of Indian Standards and the Indian Institute of Technology Madras had entered into a Memorandum of Understanding (MoU) and a BIS Standardization Chair has been established, a few months back.

The event was to take further the areas of co-operation as enshrined in the MoU, such as coordinating R&D efforts towards the development of standards, integration of existing R&D project outputs with standards, promoting the integration of standards in course curricula, knowledge exchange with incubation centres for promoting how standards can encourage and facilitate innovation.

Shri Sanjay Pant, Scientist 'G' & Deputy Director General (Standardization-II), BIS and Shri Arunkumar S, Scientist 'E'/ Director & Head (Civil Engineering), BIS organized the above event. Prof. Rupen Goswami, BIS Standardization Chair also spoke in the event and delivered the welcome address.

Around 40 audiences including the faculty members, Heads of the academic departments and students of IIT Madras attended the event.

Shri Sanjay Pant in his lecture briefed the participants about the standardization activities in BIS and how standards can be the tools for development in a nation. The role of various national standards bodies in every country was explained by him to the audience. While briefing about the standards formulation process that comprises participation and representation of producers, technologists, consumers, government, regulatory bodies, laboratories, etc, Shri Pant exhorted on the need for the right quality scientific inputs in the standards making which is possible by the support of academic and research organizations. The right balance of prescriptive vs performance approach in standards, the need for making Indian Standards mandatory, the Quality Control Orders issued by the relevant Ministries based on Indian Standards, the Standards National Action Plan, the exclusive online portal of BIS for standardization, the various (around 90) institutes with whom BIS has entered into MoU with and importantly the R&D projects of BIS in standardization were also highlighted by Shri Pant. He briefed about the various process reforms undertaken in the standardization BIS in recent times and the enhanced role the academia can now play in the development of not just Indian standards but on the international front.

Shri Arunkumar S, (the nodal officer in BIS for IIT Madras) made a detailed presentation covering an introduction to how the standards are formulated in BIS, the

subjects on which Indian Standards are developed, the working structure of technical committees, aspects & levels of standardization, the process of national standards development highlighting the five key stages (including the wide circulation stage) and their associated documents. A live demonstration of the Standardization Portal (through ManakOnline) was made covering, the ways to propose new subjects, download the published standards, and access and offer technical comments on the published and draft standards. The department-wise up-to-date Programme of Work covering both published standards and those under development was briefed. The use and incorporation of Indian Standards in teaching/learning, examples of course syllabus in Civil Engineering referring to the Indian Standards and Special Publications; the recently released **17** reference materials for educational purposes were also explained to the participants of the programme. The importance of standardization as a subject to Undergraduate students was also emphasized. On the R&D sponsorship avenues of BIS, another live demonstration was made by guiding the participants to the R&D Portal, the approved topics on offer (under various disciplines), the procedure to submit proposals, the extant guidelines and the FAQ sections were also highlighted. A gist of the recently published standards under various Division Councils of BIS, the emerging areas/ subjects under working were also informed. A slide depicting the 17 academic departments in IIT Madras mapped to the relevant division councils in BIS was also presented to enable the participants to delve on the opportunities in standardization. At the international level, the stages in which academia can play a significant role in the formulation of ISO/IEC standards, proposing subjects, and participation in the Expert Working Groups were also explained apart from the need to harmonize Indian Standards only with due study of the provisions in the international standards.

Earlier, the participants were briefed on the 09 significant points of the MoU where areas of cooperation between both institutes can complement each other's efforts thereby fostering not only harmonious standards but also in achieving speed and scale in the standardization front.

After detailed discussions during the query session, not only instant feedback but also appreciation from faculty members of IITM for the BIS' efforts was received. Faculty members of Mechanical, Chemical, Electrical & Electronics Engg shared their experiences as partners of BIS in its standards writing and they emphasized to their fellow faculty members (and doctoral students) the role of continued participation in discussions and effective contribution through research and other studies in establishing at Indian Standards.

## SOME GLIMPSES





A COLLAGE OF THE PICTURES OF THE EVENT IS AVAILABLE ONLINE AS A 2 MINUTE VIDEO IN ONE DRIVE AT - <https://1drv.ms/v/s!AmelqoRUaXIDoQ-d68o8d22ehVJP>

## **MEETINGS / VISITS IN IIT MADRAS POST THE SENSITIZATION PROGRAMME**

### **A) MEETING WITH PROF V. KAMAKOTI, DIRECTOR IIT MADRAS**



(A copy each of the **17** Reference Materials prepared by BIS were handed over to the Director, IITM)

In the brief meeting with the Director, Prof Kamakoti suggested BIS to intervene regarding:

- a) Standard Essential Patents – arbitration efforts to receive revenue automatically (instead of through legal means) to those who invented technologies.

- b) Standardization relating to 5G technology and thereafter be taken up and IITM will be supporting the same.
- c) Promoting patents that can then be included in standards. Relating to the Initiative on Critical and Emerging Technologies (iCET) a framework agreed upon by India and the U.S. for cooperation on critical and emerging technologies in areas such as wireless telecommunication, semiconductors and quantum computing, a Working Group including BIS' presence was mentioned by Prof Kamakoti.
- d) Standardization on artificial intelligence (AI) to address the National Testing Service-India's directives on supply chain testing; and also address the looming issue of personal data protection regulations.

Thus, a **1 or 2-day conference** was suggested to be **jointly organized** in about 6 months from now addressing the above.

Various contribution by India and achievements in the field of IT including AI and cybersecurity by LITDC, BIS were shared and an early visit of the BIS delegation from ETD and LITD team was assured.

**B) DEPARTMENT OF STRUCTURAL ENGINEERING'S FIRE LABORATORY  
LEAD BY ASST PROF P.S. LAKSHMI PRIYA**



( The rudimentary LPG-based set-up is proposed to be engineered further and scaled to connect with the regular structural engineering testing machines to carry out a combination of regular loads and fire on real-scale elements to evaluate their performance. )

**C) MEETING WITH PROF S NALLAYARASU, HEAD - OCEAN ENGINEERING DEPARTMENT AT IITM**

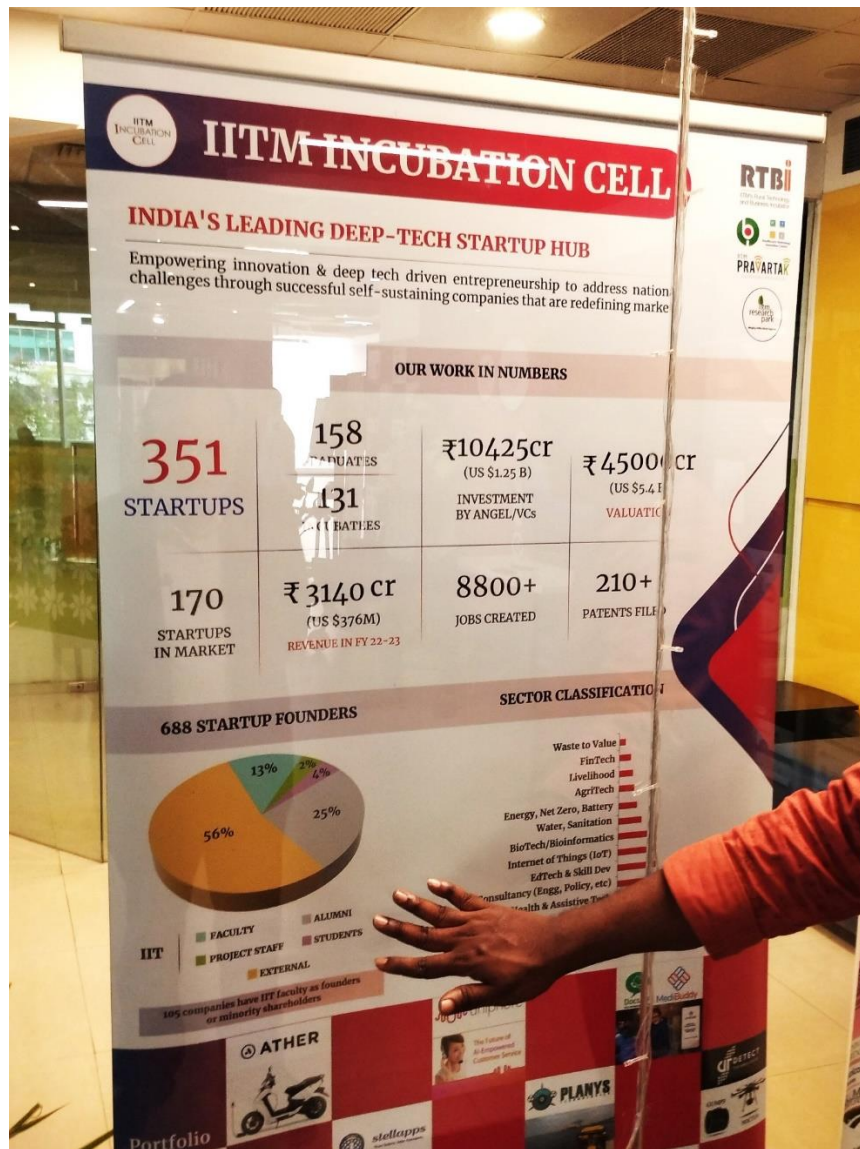


( IITM's Ocean Engg has been instrumental in the works of the Ports, Harbour and Offshore Structures Committee, CED 47 of BIS. Prof S Nallayarasu reassured the commitment of their department including sending revised nominations on CED 47 )



## D) VISIT TO IITM RESEARCH PARK (adjacent to IIT Madras' campus)

A short visit to the **Madras Research Park of IIT** was also made. The not-for-profit company is India's first university-based research park promoted by IIT Madras and was established and mentored by Prof Ashok Jhunjhunwala since 2010.



( A standee depicting the Incubation Cell in the IIT MRP. Over 350 start-ups have been groomed till date having an 82% success rate. Technical, Legal, Financial and HR support to the start-ups are being provided through the Cell. )



( Apart from industry leaders visiting and mentoring the start-ups, the young minds during their grooming by the incubation cell, can also pursue PG studies in the IITM. Senior faculty of IITM are also supporting the live projects that translate into businesses.)



( A product of **M/s AAVRTTI TECHNOLOGIES PRIVATE LIMITED** – A robotic rover-like tool that can sense/detect metallic and non-metallic items like reinforcement bars, conduits, pipes, etc in concrete. The product has also performed in cleaning glass facades in an airport maintained by the GMR Group.

Another product Radar for Utility Detection and Inspection (RUDI) (in the poster in the background) is used to identify, locate and examine the buried utilities below the ground like OFCs, power/sewage lines, etc. Website: <https://aavrtti.com/> )

Visits to other start-ups and Centre of Excellence at MRP-IIT include:

- 1) **M/s Modulus Housing** – A decentralized prefabricated building construction technique, that make G+1 storied structures that can even be transported pre-finished on trucks and assembled on construction site.  
Website: <https://www.modulushousing.com/>
- 2) **M/s Agnikul Cosmos Pvt Ltd** – India’s first private rocket launching service provider having MoU with ISRO. They make 3D printed cryogenic engines for rockets of small sizes to float in space satellites of any interested thus making space accessible for all.  
Website <https://agnikul.in/#/>
- 3) **Centre for Battery Engineering and Electric Vehicles (CBEEV)** – one of the 12 centres of excellence in MRP IIT (Others centres can be located online at: <https://respark.iitm.ac.in/innovation-ecosystem/centres-of-excellence/> )

The Centre explores batteries as an alternative to polluting fuels. They collaborate with OEMs to understand challenges battery offers as a source of fuel and create solutions for them. Electric vehicles and studying the impact of partial charge-discharge cycles on battery life are some of the focus areas of CBEEV.

The representative of CBEEV is already a part of the Electrotechnology in Mobility Sectional Committee, ETD 51 of BIS.

Website: <https://cbeev.in/>

Earlier, Ms Reema Saha, Head of Sales and Marketing at IITM Research Park and IITM Incubation Cell gave a brief overview of the Research Park at IIT Madras. She showed interest particularly in the activities of NITS of BIS and agreed to have a session organized to the start-ups in their centre taking help from NITS.

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## SOME PRESS CLIPPINGS OF THE FACULTY SENSITIZATION EVENT

PRESS INFORMATION BUREAU – In English Language:  
<https://pib.gov.in/PressReleaseDetail.aspx?PRID=1996567>

PRESS INFORMATION BUREAU – In Tamil Language:  
<https://pib.gov.in/PressReleasePage.aspx?PRID=1996623>

THE HINDU (English): <https://www.thehindu.com/news/cities/chennai/bureau-of-indian-standards-organises-faculty-sensitisation-programme-at-iit-madras/article67745050.ece>

### DINAMANI TAMIL (of NEW INDIAN EXPRESS GROUP)



A news of the above event was also telecast in DD Podhigai (Tamil) on 16 January 2024

More photographs of the event are at:  
[https://drive.google.com/drive/folders/1iSzRpJxDyEUwx\\_UyZEjaoCsyeXHcirki](https://drive.google.com/drive/folders/1iSzRpJxDyEUwx_UyZEjaoCsyeXHcirki)

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