

MedTech Week'25

**Department of Medical Electronics Engineering Department,
BMSCE**

EVENTS REPORT

11TH August – 16TH August, 2025

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About MedTech Week'25

MedTech Week 2025 was organized by the Department of Medical Electronics Engineering, BMS College of Engineering (BMSCE). This week-long event was designed to bridge the gap between academia and industry, providing students with exposure to emerging technologies, industry practices, and higher education pathways. Each day featured a focused session, combining expert talks, demonstrations, and hands-on activities to enrich the learning experience for participants.

The event took place from 12th to 17th August 2025 and featured a series of five diverse sessions spanning topics from electronic device workflows and 3D printing to advanced VLSI design, rapid prototype development, and graduate study preparation.

Day 1 – Powering Medical Innovation

Date: 11th August 2025

Venue: PJ Block, Seminar Hall

Resource Persons: Kumar Sudarareshan, Vice President – Technical & Business Development, TMI Systems, Bangalore



The opening session of MedTech Week '25 titled 'Powering Medical Innovation: Insights to TMI Systems' Tech Workflow for Next-Gen Electronic Devices' was conducted in collaboration with experts from TMI Systems. The session provided participants with a behind-the-scenes perspective on the design and development processes that drive modern medical devices.

Key highlights included:

- Overview of the complete lifecycle of medical device development — from

ideation to deployment.

- Challenges in designing reliable, safe, and compliant electronics for healthcare.
- TMI Systems' innovative workflows for accelerating product development while meeting regulatory standards.

Participants actively engaged in discussions and gained valuable insights into industry practices, bridging academic knowledge with real-world applications.

Day 2 – An Introduction to 3D Printing and Its Scope in Healthcare

Date: 12th August 2025

Venue: [3D Printing Lab, PJ Block]

Resource Person: Arpitha K V, Associate Professor, Department of Aerospace Engineering, BMSCE



The second day featured a hands-on workshop focused on the use of 3D printing in healthcare applications. Participants were introduced to different printing technologies, suitable materials, and workflows for creating anatomical models and prototypes.

The session included:

- Fundamentals of 3D printing technologies (FDM, SLA, SLS).
- Preparing models from DICOM data and slicing for printing.
- Practical demonstrations of model prototyping.

Participants were also given a guided tour of the 3D Printing Lab, located on the 6th floor of the PG Block **and** managed by the Aerospace Engineering Department. During the visit, they had the opportunity to explore the lab's facilities, gain insights into the different printing processes, and examine various materials used for creating high-precision engineering models. This workshop helped participants understand how 3D printing can be applied in healthtech scenarios.

Day 3 – AI in Healthcare Workshop

Date: 14th August 2025

Venue: AIML Dept Lab, 2nd Floor, PJ Block

Resource Person: Ms. Monica Shityalkar



The primary objective of the workshop was to equip participants with practical knowledge of Artificial Intelligence and its transformative role in the healthcare sector.

The session commenced with an introduction to the expanding role of AI in contemporary healthcare, with particular emphasis on enhancing diagnostic accuracy, strengthening patient monitoring systems, and enabling personalized treatment solutions. The resource person, Ms. Monica Shityalkar, shared her extensive professional expertise in the biomedical field, providing participants with valuable insights into industry practices and emerging advancements.

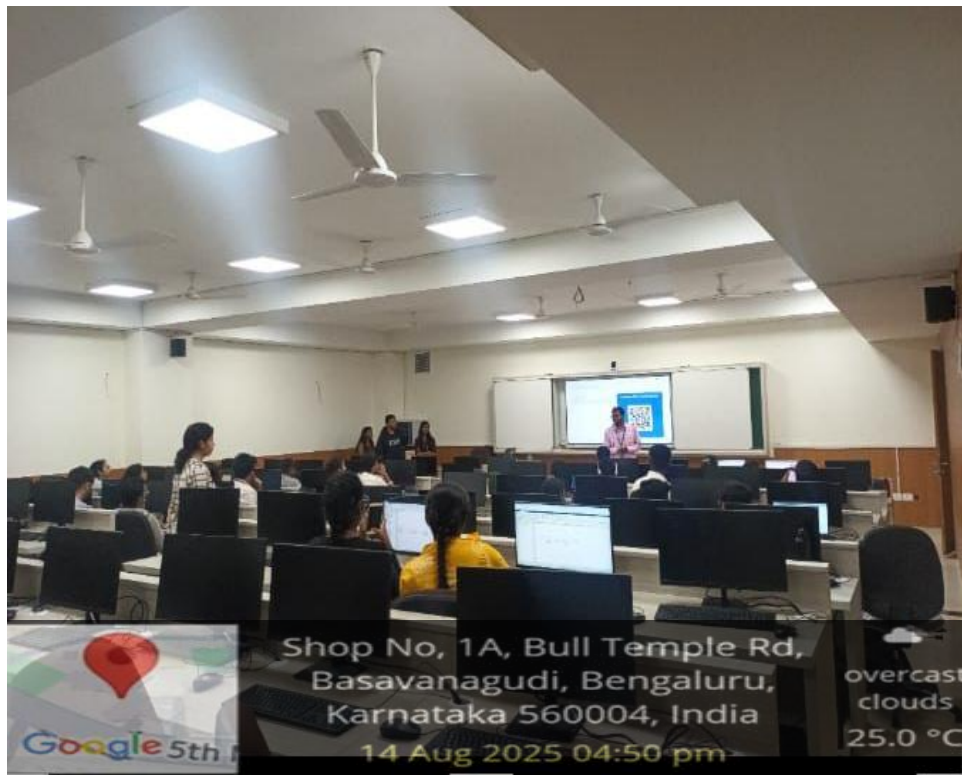
The workshop then progressed to a series of practical demonstrations, where participants explored AI-driven applications such as medical image interpretation and predictive healthcare modeling. These activities enabled attendees to effectively connect theoretical concepts with real-world implementations.

Day 4 – MATLAB-Driven VLSI: Designing Next-Gen Bioelectronics

Date: 13th August 2025

Venue: ISE Dept Lab 504, 5th Floor, PJ Block

Resource Person: Anand Mukhopadhyay, Senior Engineer - Education Team |
Soumya Chaturvedi Education Team, MathWorks



The third day of MedTech Week '25 focused on VLSI design workflows using MATLAB/Simulink. Participants explored the process of modeling, simulation, and hardware description generation for bioelectronic circuits. Hands-on exercises provided practical experience and highlighted trade-offs in designing low-power implantable devices.

Key topics included:

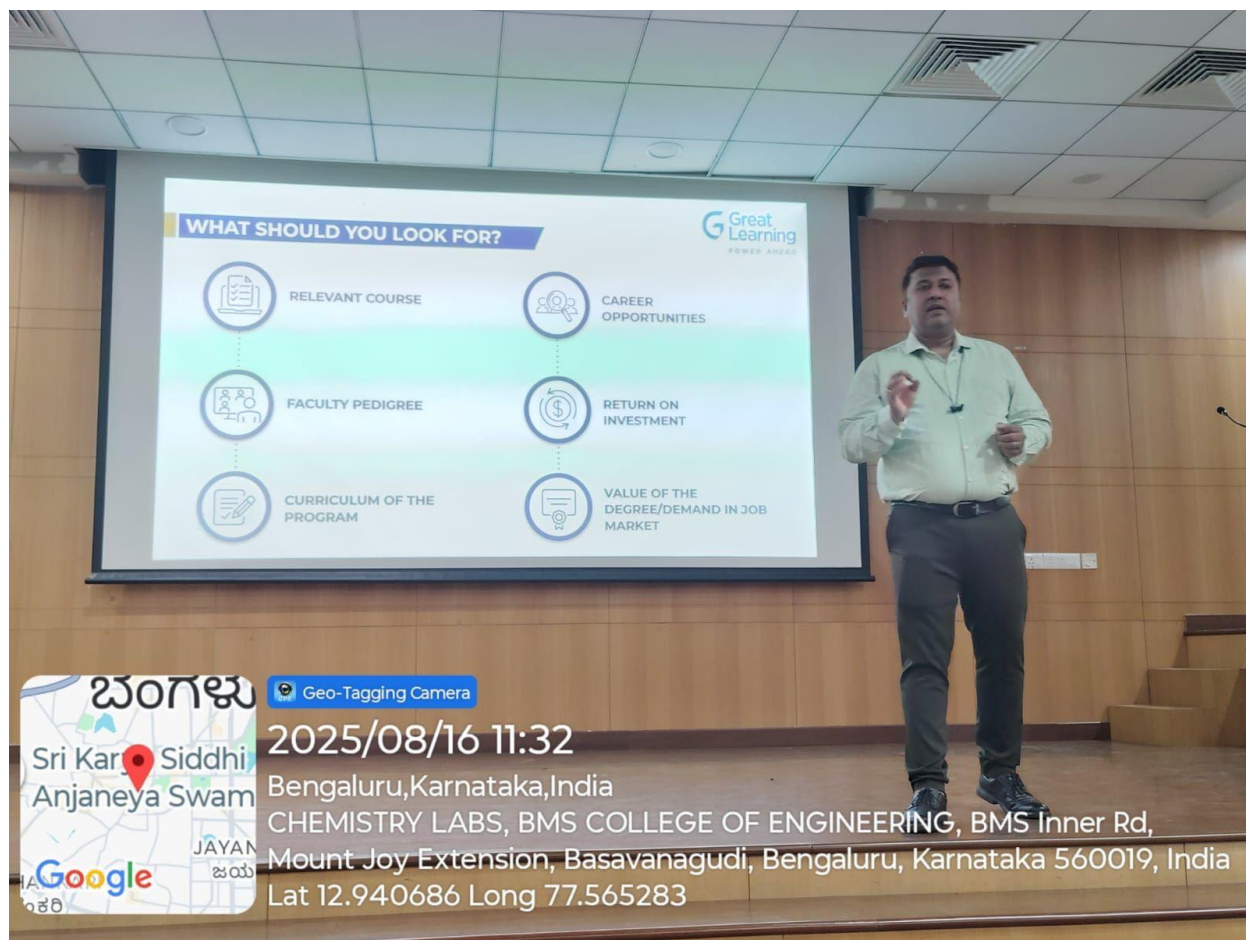
- Basics of VLSI architecture for biomedical devices.
- Modeling amplifiers and filters in MATLAB.
- Generating HDL code for FPGA prototyping.

Day 5 – Academic Ascend: Charting Your Path to Advanced Degrees

Date: 16th August 2025

Venue: PJ Block, Seminar Hall

Resource Person: Nagaraju G, Manager-Offline Marketing, Great Learning Education Services PVT LTD.



The final day of MedTech Week '25 concluded with a session on preparing for graduate studies abroad. The speaker provided a comprehensive roadmap for students aspiring to pursue advanced degrees.

Session topics included:

- Selecting programs and universities aligned with career goals.

- Application process, SOPs, LORs, and standardized tests (GRE, TOEFL/IELTS).
- Funding options such as scholarships and assistantships.
- Building a strong academic and extracurricular profile.

An interactive Q&A session addressed individual student queries and clarified common doubts about study abroad.

Medical and Dental Health Camp

Date: 12th August 2025

Venue: Dining Hall, Ground Floor, PJ Block

In collaboration with NSS, BMSCE



As part of MedTech Week '25, a Medical and Dental Health Camp was organized in collaboration with the NSS Unit of BMSCE. The camp primarily focused on dental health awareness, offering free check-ups and consultations to students, faculty, and staff. It served as a valuable platform to educate participants on preventive care, oral hygiene practices, and the importance of early detection of dental issues.

The initiative witnessed an impressive turnout, with many participants actively engaging with the healthcare professionals present. The camp not only raised awareness but also encouraged individuals to take proactive steps toward their overall well-being, making it a meaningful and impactful addition to MedTech Week '25.

Summary & Acknowledgments

MedTech Week '25 successfully brought together students, faculty, and industry professionals over five days of immersive learning. Covering topics from electronic device development to study abroad preparation, the sessions provided a balanced mix of technical knowledge, hands-on practice, and career guidance.

The Department of Medical Electronics Engineering extends heartfelt gratitude to all resource persons, faculty coordinators, and student volunteers whose efforts made this event a success.

Through the Lens: MedTech Week'25

DAY 1 | Powering Medical Innovation



DAY 2 | An Introduction to 3D Printing and Its Scope in Healthcare

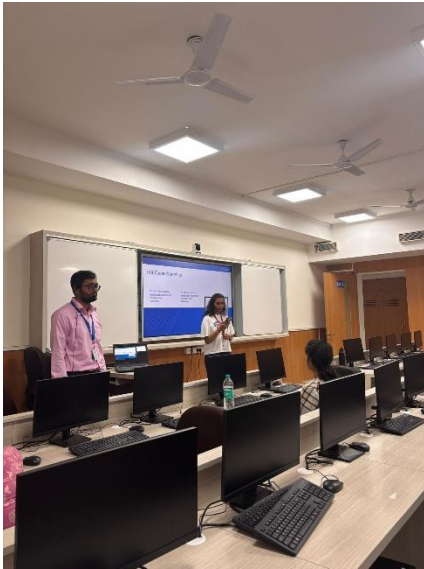


DAY 3 | AI in Healthcare Worskhsop



DAY 4 | MATLAB-Driven VLSI: Designing Next-Gen Bioelectronics





DAY 5 | Academic Ascend: Charting Your Path to Advanced Degrees

