

A Report on
Empowering Industries: IoT in Engineering, Pharmacy, and Agriculture
(SBL)

Date of Event: Saturday, January 25, 2025

Organized by: Computer Society of India Student Chapter MPSTME Shirpur Campus

Conducted by: Dr. Nilesh N. Maltare, Assistant Professor, Government Engineering College
Modasa

Conducted for: Students of MPSTME, SPTM and SAST Shirpur Campus

Venue: Online (through MS Teams)

The session commenced with a warm welcome to distinguished dignitaries from MPSTME, SPTM, SAST, and MPTP Shirpur campuses. Dr. Nilesh Maltare, an expert in Computer Engineering, delivered an insightful talk on the Internet of Things (IoT), focusing on its architecture—devices, communication, software, analytics, and security. He explained key IoT protocols like MQTT and CoAP, and technologies such as LoRa, Zigbee, and low-cost microcontrollers that are making IoT increasingly accessible.

Dr. Maltare illustrated IoT's transformative impact on sectors like healthcare, agriculture, and manufacturing with examples including smart pills, intelligent farming systems, and smart homes. He also introduced emerging trends like Industry 4.0, AI integration, and predictive analytics, emphasizing their role in building context-aware and efficient systems.

During the interactive Q&A session, Dr. Maltare addressed pressing challenges including data privacy, legal compliance, and device interoperability, highlighting the importance of interdisciplinary skills in IoT development. Participants appreciated the practical insights, and the speaker expressed interest in future collaborations.

The webinar effectively demonstrated how IoT can solve real-world problems in engineering, pharmacy, and agriculture, aligning with program outcomes such as ethical understanding and problem-solving. Overall, the event successfully deepened participants' understanding of IoT technologies and their real-world applications.