

**ONLINE  
VALUE ADDED COURSE  
ON  
Introduction to IoT and Its  
Applications**

**26<sup>th</sup> Oct- 4<sup>th</sup> Nov 2023**

Basic knowledge on Internet of Things, Sensors, Arduino, PLC are the need of time especially for engineers to apply their knowledge further in emerging areas like machine learning, digital twin, robotics and automation etc. Following value aided course aims at boosting confidence in mechanical students/engineers by providing overview along with hands on experience starting from mounting sensors to mechanical devices, collecting sensors data through micro controller, sending and receiving data over internet by IoT gateway including data analysing and visualizing.

**COURSE OUTCOME**

- I. Students will be able to use sensors for mechanical and other applications.
- II. Students will be able to design circuit and utilize microcontroller board for data collection.
- III. Students will be able to send, receive, analyze and visualize data over internet.

**SESSIONS SCHEDULE**

Session 1: **Introduction to IoT and its Applications in Mechanical Engineering** by experts from **C-DAC, Kolkata.**

Date & Time\*: 26-10-2023; 10:00 AM – 4:00 PM

Session 2: **Hardware and Software in IoT** by experts from **Ensino Research and Development Private Limited, Dehradun**

Date & Time\*: 27-10-2023; 10:00 AM – 4:00 PM

Session 3: **AI Foundation with IoT and Case Studies AI, ML, IoT, Robotics** by **Dr. Sathish G.P., VIT-Vellore**

Date & Time\*: 28-10-2023; 10:00 AM – 4:00 PM

Session 4: **Arduino Programming and Data Acquisition from Sensors** by experts from **Ensino Research and Development Private Limited, Dehradun**

Date & Time\*: 29-10-2023; 10:00 AM – 4:00 PM

Session 5: **Node MCU/ESP8266 in IoT Platforms** by **Mr. Pratik Roy, Texas Instruments, Bengaluru**

Date & Time\*: 30-10-2023; 10:00 AM – 4:00 PM

Session 6: **Application of MQTT using Node** by **Mr. Pratik Roy, Texas Instruments, Bengaluru; IoT Privacy and Security** by **Dr. Sathish G.P., VIT Vellore**

Date & Time\*: 31-10-2023; 10:00 AM – 4:00 PM

Session 7: **BLE Technology and LoRa Architecture with Applications** by experts from **C-DAC, Kolkata.**

Date & Time\*: 01-10-2023; 10:00 AM – 4:00 PM

Session 8: **Industrial IoT and Industry 4.0** by **Dr. Ramakrishnan R, VIT-Vellore**

Date & Time\*: 02-10-2023; 10:00 AM – 4:00 PM

Session 9: **IoT with MATLAB and R-Pi and Industrial IoT with Digital Twin Applications using MATLAB** by **Dr. Souvick Chatterjee, Dr. Pradnya Gaonkar, Dr. Mohith from MATWORKS, Bengaluru**

Date & Time\*: 03-10-2023; 10:00 AM – 4:00 PM

Session 10: **Final Assessment Test and Feedback**

Date & Time\*: 04-10-2023; 10:00 AM – 12:00 Noon

**\*Lunch Break: 1:00 PM – 2:00 PM**

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**ORGANIZED BY**

**VELLORE INSTITUTE OF  
TECHNOLOGY, VELLORE  
School of Mechanical Engineering**



**VIT**  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

Registration Fees

**Rs. 1000**

(Inclusive of GST)

**Registration Link: <https://events.vit.ac.in/>**

## ABOUT VELLORE INSTITUTE OF TECHNOLOGY

Vellore Institute of Technology, was founded in 1984 as Vellore Engineering College by the Founder and Chancellor Dr. G. Viswanathan. University status was conferred in 2001 by MHRD Government of India by recognising of its excellence in academics, research and extra curriculum initiatives. Internationally, VIT was ranked 1001–1200 in the QS World University Rankings of 2023 and 173 in Asia. It was ranked 801–1000 in the world by the Times Higher Education World University Rankings of 2023, 251–300 in Asia in 2022 and 301–350 among emerging economies. It was ranked 601–700 in the Academic Ranking of World Universities of 2022. The National Institutional Ranking Framework (NIRF) by the MoE ranked VIT 17 overall in India in 2023, 8 among universities and 11 among Engineering institutes. The Government of India has recognized VIT as one of the Institutions of Eminence (IoE).



## ABOUT SCHOOL OF MECHANICAL ENGINEERING

The School of Mechanical Engineering is one of the oldest and most prestigious schools of VIT. This school started functioning right from 1984, the year in which our institution began. The School of Mechanical Engineering offers 3 undergraduate and 6 post-graduate programs. The school has a team of highly qualified faculty members, many holding PhDs from elite institutes across the globe, to teach and train this country's best minds. The pride of the school lies in the significant research funding received from several National and International agencies such as DST, DRDO, MNRE, CSIT, CVRDE, CPDO, IE, AR&DB, BRNS, ISRO, UGC, NRB, Royal Academy of Engineering etc. The Department of Science and Technology, Govt. of India has recognized the school for its research activities and supported it in 2003, 2010 and 2022 under the FIST scheme. The school has modern facilities, enabling cutting-edge research in a wide spectrum of niche technological areas. Mechanical and Manufacturing Engineering is ranked within the top 10 in India and top 251-300 in the world as per QS World University Rankings by Subject 2023.



**Prominent speakers from Academics and Industries having intense knowledge in their subject areas will deliver talks.**

**Students only with 75% class attendance will be eligible for Final Assessment Test and Certificate.**

**CHIEF PATRON**  
Dr. G. Viswanathan  
Chancellor, VIT

**PATRONS**  
Mr. Sankar Viswanathan  
Vice President, VIT

Dr. Sekar Viswanathan  
Vice President, VIT

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**HEAD OF DEPARTMENT, DDA**  
Dr. Benedict Thomas

**CORDINATOR(S)**  
Dr. Bikash Routh,  
Assistant Professor (Sr.), SMEC  
Dr. Sathish G. P.,  
Assistant Professor (Sr.), SMEC  
Dr. Rashmi Ranjan Das,  
Associate Professor, SELECT

**CONTACT DETAILS:**  
Dr. Bikash Routh,  
Assistant Professor (Sr.),  
VIT-Vellore, SMEC  
Vellore-632014 Tamil Nadu, India  
Mob: +91 9432174391  
Email: bikashrouth@vit.ac.in

**Important Dates:**  
Last Date for Registration: 20.10.2023  
Confirmation of Registration: 21.10.2023