



# ONLINE WORKSHOP ON BUILDING SENSOR NODES (BSN-2023)

#### ORGANIZED BY

Department of Computer Science & Engineering Indian Institute of Technology (ISM), Dhanbad

### REGISTRATION FEES

RESEARCH SCHOLARS: RS. 500/-

STUDENTS: RS. 500/-

GENERAL: RS. 1,000/-

21 OCTOBER 2023

#### Topics to be Covered

- · Real-time applications of WSN and IoT.
- · Sensor node and its general architecture.
- Application parameters are to be considered before building a sensor node.
- · Way to choose an optimal sensor as per application.
- Discussion over the available Hardware platforms and their advantages and disadvantages.
- Choosing the right hardware platform, based on various parameters, for building a Sensor node.
- · Programming sensor node.
- · Selection of specific RTOS (e.g., Contiki, Free RTOS, and SYS/Bios) for implementing algorithms
- · Way of self-charging the node.
- Future Prospects: An Ecosystem Integrating AI, WSN, and IoT.

## Registration Deadline

**05 October 2023** 

# **Register Now**



### About the Department:

The Department of Computer Science and Engineering was established in 1997, following the resounding success of IIT (ISM) Alumni in Computer Science and Information Technology. The department provides an outstanding research environment complemented by superior teaching for its students to flourish. The department conducts academic programs leading to the award of B.Tech. & M.Tech. & Ph.D. in Computer Science & Engineering. The admission to the B. Tech. is through prestigious IIT-JEE (Advanced) and M.Tech. Students are through GATE. The selection of Ph. D candidates is based on GATE and interviews conducted by the department. The department boasts of highly qualified faculty who are active members of reputed national and international societies. They are instrumental in research publications and reviewing papers in many leading journals. The major research areas include Parallel and Distributed Algorithms, Interconnection Networks, Cryptography & Network Security, Wireless Networks, Image & Video Processing, Soft Computing Applications, and Information Retrieval. In addition to regular academics, the department undertakes R&D and consultancy projects. Major R&D projects funded by various organizations (including the Ministry of Information & Technology, UGS, and CSIR) are ongoing/completed in the areas of Network & Information Security, Parallel & Distributed Computing, Ad Hoc Networks, and Data Mining. We attract some brightest students and faculty members and invite promising people to join our team. Please visit the following link to know more about the department: https://cse.iitism.ac.in/

# About the Workshop:

Workshops on building sensor nodes serve as crucial educational and skill-building platforms, enabling participants to explore sensor technology's vast potential and foster innovation for a wide range of applications. This plays a significant role in the advancement of technology and the development of various applications. Many participants might have theoretical knowledge of sensor technology but lack practical exposure. This workshop will bridge this gap by providing a clear understanding of building sensor nodes and enabling them to apply their theoretical knowledge to real-world projects. The workshop will also provide participants with parameters to be considered in building and making sensor nodes, which are fundamental components of various sensing systems. Participants can learn about different types of sensors, their working principles, and their applications in diverse fields such as environmental monitoring, healthcare, agriculture, and industrial automation. Participants may develop novel ideas for sensor configurations, data processing techniques, and integration with other technologies, leading to advancements in the sensor domain and beyond.

**Resource Person:** Experts from reputed institutions/organizations.

# Registration

Registration fees for the workshop is:

Research Scholars/Students: Rs. 500/
General: Rs. 1,000/-

The bank details for the same is:

Account No: 0986101024892
IFS Code: CBRB0000986
MICR Code: 826015003
Bank Name: Canara Bank

Branch Name: Saraidhela Branch, Dhanbad

Interested participants are requested to pay the registration fees and then submit the <u>Application Form</u>.

The last date for form submission is 05 October 2023.



# bsn2023@iitism.ac.in



**Prof. Chiranjeev Kumar** Coordinator (BSN-2023)



Ph: +919431125793



**Prof. Sachin Tripathi**Co-Coordinator (BSN-2023)



Ph: +919471191359