Course Highlights

Microelectromechanical systems (MEMS) have a significant impact on healthcare due to their ability to miniaturize and integrate various functionalities into small devices. This 2 day workshop shall overview MEMS technologies for culmination into different scalable healthcare technologies . The design and simulation aspect shall be covered using Comsol Multiphysics software.

Organizing Committee

Patron
Prof. Indranil Manna
Vice Chancellor, BIT Mesra

Chairperson
Dr. Sanjay Kumar
Head, ECE Dept., BIT Mesra

Convenor & Co-ordinator
Dr. Richa Mishra, Asst. Prof. & Project PI,
ECE Dept., BIT Mesra

Organizing Committee (ECE Department)
Prof. S. S. Solanki , Professor, BIT Mesra
Dr. N. Chattoraj, Asso. Prof., BIT Mesra
Dr. S.S.Sahu, Asso. Prof., BIT Mesra
Dr. Kartik Mahto, Asst. Prof., BIT Mesra
Dr. S.S. Tripathy, Asst. Prof., BIT Mesra
Dr. Priyank Saxena, Asst. Prof., BIT Mesra

Registration Link

https://forms.gle/8vr9WmqcEXjW29Se7

Target Attendees

The workshop is open to Faculty / Research Scholars / UG / PG / industry persons.

General information

- The workshop will be conducted in the physical mode.
- Lectures shall be offline as well as online.
- Number of seats available - 25 .
- Selection shall be on first come first basis with preference to participants whose research interests align with the theme of the workshop.
- Participants shall be informed through email.
- Applicants must submit the registration form in the link provided.
- There is no registration fees.
- Lunch is included for participants.
- Accommodation and breakfast / dinner shall be available on additional payment basis as per institute rule.

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&
Birla Institute of Technology, Mesra, Ranchi, Jharkhand
Organized by: Department of Electronics & Communication Engineering, Birla Institute of Technology, Mesra (Jharkhand)

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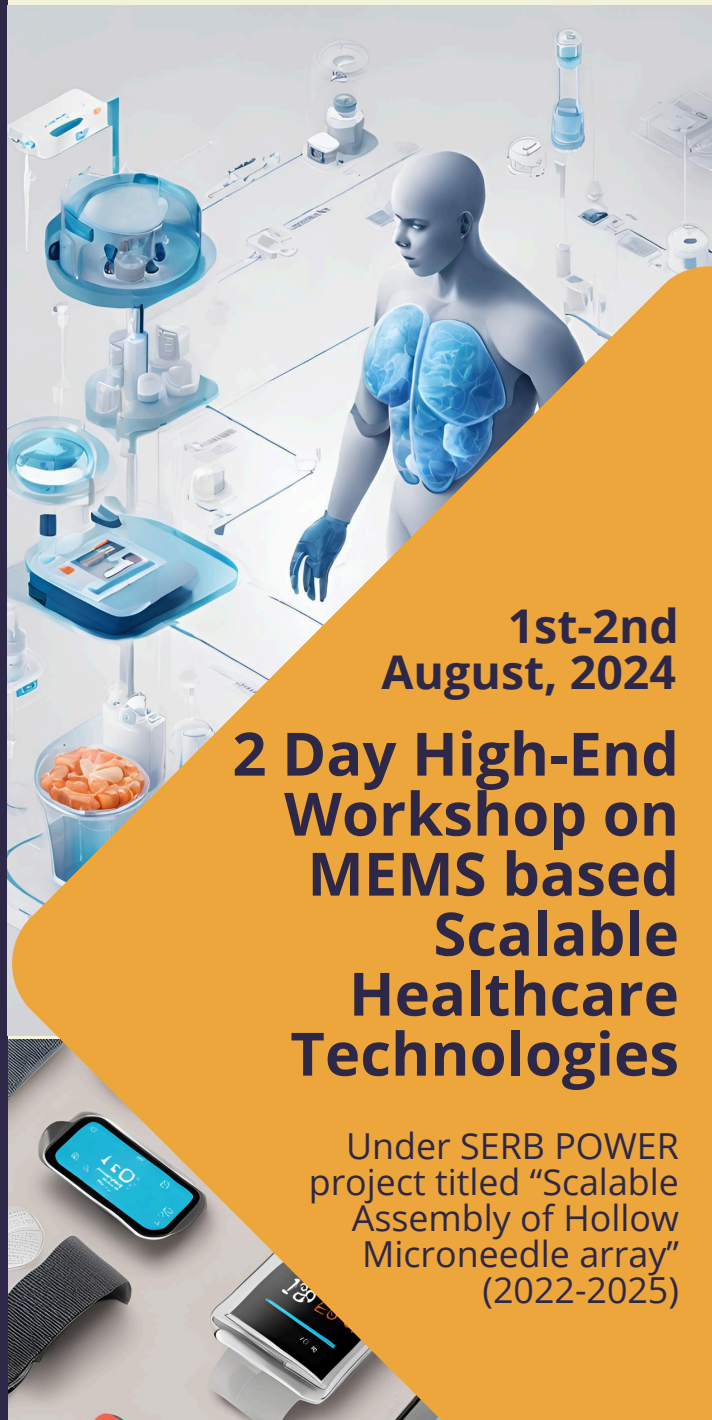

1st-2nd August, 2024

2 Day High-End Workshop on MEMS based Scalable Healthcare Technologies

Under SERB POWER project titled “Scalable Assembly of Hollow Microneedle array” (2022-2025)

About ECE Department

DST FIST supported ECE department's main objective is to impart high quality education and research. Since its inception, the department has undergone remarkable growth in various aspects, including student and faculty numbers, infrastructure development, and learning resources. The major research areas of the department include Communication Engineering, Instrumentation, Wireless Communication, Microwave Engineering, Signal Processing, and VLSI Design. The ECE department is handling several research projects sponsored by external funding agencies

About BIT Mesra

Birla Institute of Technology (BIT) Mesra, located in Ranchi, Jharkhand, India, stands as a prominent institution in the field of higher education and technical research. Established in 1955 by the visionary industrialist B.M. Birla, the institute has consistently maintained its reputation for academic excellence and innovation. BIT Mesra offers a diverse range of undergraduate, postgraduate, and doctoral programs across various disciplines, including engineering, management, pharmacy, and applied sciences.

Course Objectives

Participants will be able to

- *to assess MEMS technology to be developed depending upon clinical need*
- *design (geometry, material selection, definition of process flow) of MEMS devices for healthcare*
- *Knowledge of feasible scalable technique for product development.*

Course Outcomes

Participants will be able to understand fundamentals and contemporary research on microneedles, microsensors, actuators, and motors, valves, pumps, and fluidics used in Microsystems used for healthcare applications.

Speakers

Prof. T. K. Bhattacharyya,
Professor, IIT Kharagpur

Prof. Ashok Kumar Pandey,
Professor, IIT Hyderabad

Dr. Bidhan Pramanick,
Asst. Prof., IIT Goa

Dr. Ravindra Kumar Jha,
Asst. Prof., IIT Guwahati

Dr. Debanjan Das,
Asst. Prof., IIT Kharagpur

Dr. Dilip Kumar Singh,
Asst. Prof., BIT Mesra

Dr. Vinod Belwanshi,
Scientist, CSIR-NML Jamshedpur

Dr, Debashis Maji,
Assistant Prof., VIT, Vellore

Dr. Vimal K. S. Yadav,
Asst. Prof., MNNIT Allahabad

Dr. Ashutosh Anand, Asst Prof. ,
Presidency University, Bengaluru

Dr. Pooja Lahiri,
IIT Kharagpur

Dr. Neela Chattoraj,
Asso. Prof., BIT Mesra

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