WORKSHOP ON **INTELLIGENT COMPUTING AND SYSTEMS AT THE EDGE (ICE): January 7, 2024**

Objective and Description:

The tremendous progress in Artificial Intelligence (AI) and Internet of Things (IoT) technologies has opened up fresh possibilities for innovation and enhanced system-level efficiency across diverse vertical spaces in the technologies involved. The confluence of intelligence, pervasiveness, and energy efficiency, fuelled by artificial intelligence of things (AIoT), is paving the way for a new era of intelligent systems capable of real-time sensing, processing, energy-efficient secure communication and actuation, eventually resulting in improved system-level decision-making and resource optimization at the Edge. This workshop on Intelligent Computing and Systems at the Edge seeks to unite researchers, practitioners, and industry experts to exchange their most recent discoveries, experiences, and insights in the exciting domain of AIoT and System Development at the Edge.

Topics of Interest:

The topics of interest for the workshop include, but are not limited to:

- Emerging Sensing Technologies for Edge IoT
- Computing Architectures and Technologies at the Edge
- Tiny Machine Learning for the Edge
- Generative AI for Edge IoT
- AI and IoT for the Metaverse
- Energy-efficient and Secure Communication Techniques for AIoT Systems
- Emerging AI algorithms and architectures for IoT systems
- Machine learning and deep learning for IoT systems
- AI-driven IoT security and privacy concerns and solutions
- AI-based Industrial IoT data analytics/visualization
- IoT-enabled AI applications, involving smart cities, smart homes, smart cars etc.
- Natural language processing and conversational AI for the Edge
- AIoT applications in robotics and industrial automation
- Scalability, performance, and energy efficiency in AIoT systems at the Edge
- Intelligent Battery and Power Management for AIoT systems
- Ethical considerations and need for Standards in AIoT Systems

Call for Student Presentation for the ICEBreaker event:

We seek participation from the Students in preparing a Short Presentation on their ongoing AI/IoT Research, which will be a part of the ICEBreaker Event (3:30-5:00 pm) during the Workshop, to encourage interactions with other students as well as with members from Industry and Academia.
EasyChair Submission Link: https://easychair.org/conferences/?conf=ice2024
Register Now (Workshop registration is considered as a Tutorial Registration for VLSID): https://vlsid.org/
Workshop Program along with Student Activities and Events will be released soon.
There would be awards for the Best Student Presentation. The top contributors will also be invited for a peer-reviewed separate 5-page paper submission in IEEE D&T (https://ieee-ceda.org/publication/ieee-designtest)

For any questions on the Student Events and Participation, please contact:

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Workshop Program: January 7, 2024 (all times are in IST)

8:30 am – 9:15 am	Welcome/Registration to VLSID 2024
9:30 am – 9:55 am	**Keynote:** Dr. Pradip Bose, IBM TJ Watson
9:55 am – 10:20 am	**Keynote:** Dr. Priyadarshini Panda, Yale University
10:25 am – 10:45 am	**Vision Talk:** Dr. Udayan Ganguly, IIT Bombay
10:45 am – 11:00 am	Break
11:00 am – 12:30 pm	**Panel Discussion:** **AIoT for the Future and the Role that India will Play** **Panelists:** Dr. Kaushik Roy (Purdue University), Dr. Saibal Mukhopadhyay (Georgia Tech), Ms. Sumedha Limaye (Intel, India), Dr. Riddhi Nandi (Global Foundries, India)
12: 30 pm – 1:30 pm	Lunch
1:30 pm – 1:55 pm	**Keynote:** Dr. Saibal Mukhopadhyay, Georgia Tech
1:55 pm – 2:20 pm	**Keynote:** Dr. Sandip Ray, University of Florida
2:25 pm – 2:45 pm	**Vision Talk:** Dr. Soumyajit Mandal, Brookhaven National Labs
2:45 pm – 3:05 pm	**Vision Talk:** Dr. Manan Suri, IIT Delhi
3:05 pm – 3:25 pm	**Vision Talk:** Dr. Kanad Basu, University of Texas at Dallas
3:30 pm – 5:00 pm	**ICEBreaker: Big Ideas on Intelligent Computing at the Edge** (Student Interaction Event with Members from Academia and Industry)

Details of the Speakers: https://ice2024.iiita.ac.in/pages/speakers.html

Details of the Program: https://ice2024.iiita.ac.in/pages/programs.html

(For Students) ICEBreaker Event - Submission Guideline for Short Presentations:

Students are requested to submit the following information by December 28, 2023 at: https://easychair.org/conferences/?conf=ice2024. You can submit everything as a single pdf file where it says "Upload your paper (PDF)".

(a) A 300-word (or less) Abstract describing their ongoing/any past AI/IoT Research. This should contain the motivation, approach and primary findings of the work.

(b) A 200-word (or less) Significance Statement describing the importance/benefits of the research, with current results and quantitative comparison with the State-of-the-Art.

If the abstract is selected for presentation (notifications will be sent by December 30, 2023), Students will be requested to present a 5-slide summary of their work during the ICEBreaker Event. The Chairs will directly reach out to the students for this.

For any questions on the Program, please contact:

Baibhab Chatterjee (chatterjee.b@ufl.edu)
Akhilesh Jaiswal (akhilesh.jaiswal@wisc.edu)