



Two Days Workshop on Embedded Machine Learning on System-on-Chip (SoC) in Association with IIT Guwahati, IIT Mandi, and CoreEL Technologies, Bangalore.



Jointly Organized by
Department of Electronics and Communication Engineering & Department of Computer Science and Engineering
Tezpur University, Assam
20th and 21th December 2022

About The University:

Tezpur University was established by an Act of Parliament in 1994. The objects of this Central University as envisaged in the statutes are that it shall strive to offer employment oriented and interdisciplinary courses to meet the local and regional aspirations and the development needs of the state of Assam and also offer courses and promote research in areas which are of special and direct relevance to the region and in emerging areas in Science and Technology...

Department of Electronics and Communication Engineering:

The Electronics and Communication Engineering (ECE) Department was established in the year 1997. The department offers M.Tech. in two specializations (Electronics Design and Technology, Bioelectronics) and B.Tech. in Electronics and Communication Engineering. The department offers Ph.D. in major areas to acquire knowledge and tools they need to succeed in the Electronics and Communication Engineering. Research in the department focuses on high-impact various disciplines: Communication systems, Wireless networks, Signal and Image Processing, RF MEMS and MIC, Microwave antennas, Optical communication and Photonics, VLSI technologies.

Department of Computer Science and Engineering :

The Department of Computer Science and Engineering came into being in 2006 as a result of renaming of the Department of Computer Science and Information Technology.

The Department of Computer Science was started in July, 1994 under the school of Science and Technology. The programs started under this department were Master of Computer Application (MCA), Master of Science (by Research) in Computer Science and PhD in Computer Science.

The Department of Information Technology was started in July, 1997 under the school of Science and Technology.. The programs started under this department were Master of Technology (M Tech) in Information Technology, and PhD in Information Technology.

About the Program:

Machine learning has emerged to be a key approach to solving complex cognition and learning problems across a variety of applications, including bio informatics, data analytics, data mining, network security, computer vision, speech recognition, natural language processing, etc. While machine learning algorithms deliver impressive accuracy on many deployment scenarios, the complexity of the algorithms also poses a unique computational challenge to state-of-the-art hardware design. To this end, this workshop is designed to help students come up to speed on various aspects of hardware for machine learning, including basics of FPGA board implementation.

Focus Areas:

- Signal/Image Processing and Computer Vision on FPGA.
- Machine Learning on FPGA.
- Basics of High Level Synthesis(HLS) using C/C++/Python.
- Hardware and Software Design Flows.
- HLS and RTL in Xilinx Vivado/Vitis Design Suites.

Program Schedule :

20/12/2022

Time (9:30-10:00 AM) : Inaugural session.

Time (10:00-1:30 PM) : Theory sessions by the resource person from IIT Guwahati and IIT Mandi.

Time (1:30-2:30 PM) : Lunch Break

Time (2:30-5:30 PM) : Hands-on sessions by the resource person from CoreEL Technologies, Bangalore.

21/12/2022

Time (9:30-1:30 PM) : Practical sessions by the resource person from CoreEL Technologies, Bangalore.

Venue: ECE and CSE Dept, Tezpur University

There is no Registration Fee*

* There are only limited seats, and your confirmation will be based on first come first serve basis.

Organizing Committee

Patron

Prof. Dhurba Kumar Bhattacharyya, Vice Chancellor, Tezpur University

Advisors

Prof. Partha Pratim Sahu , Dean, SOE

Prof. Shantanu Sharma, Head, ECE

Prof. Sarat Saharia, Head, CSE

Workshop Co-Ordinator

Prof. Bhabesh Deka, Dept. of ECE, TU

Dr. Jyotismita Talukdar, Assistant Professor, Dept. of CSE



How to apply:

1. The applicant should fill the online form to apply using the link or scan the QR code:
https://docs.google.com/forms/d/e/1FAIpQLSeexEF3mwrYAd81z6l7VFrEcZtxjHXanDmmBUq5cNtGYY86JA/viewform?usp=sf_link
2. The last date to apply is 10 December, 2022.

Target Audience: Faculty, Research scholars, PG and UG(3rd & 4th Year) Students.