About The Institute

National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 undergraduate and 23 postgraduate programs in disciplines spanning engineering, science, architecture, and management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. NIT Tiruchirappalli retained its No. 1 position among all NITs, 5th year in a row in the "India Rankings 2020" released by NIRF. The Institute has signed MoUs with various Industries and Institutions both in India as well as in abroad to promote collaborative research and consultancy.

Department of Electronics and Communication Engineering (ECE)

The Electronics and Communication Engineering (ECE) Department was established in the year 1968. The department offers Undergraduate (UG), Postgraduate (PG), M.S. (By Research) and Ph.D. degree programs that provide students with the 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 Applications (CA)

The Department of Computer Applications is one of the pioneering departments of the institution that offers Information Technology courses including MCA, M.Sc. Computer Science, and M. Tech. Data Analytics. It is dedicated to the mission of inculcating value-based, socially committed professionalism to the cause of overall development of students and society.
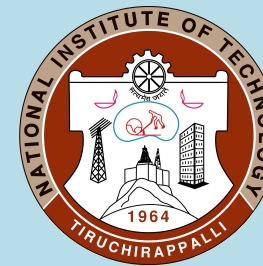
Coordinators:

Dr. Varun P. Gopi, **Dr. G. R. Gangadharan** **Dr. G. Lakshminarayanan**
Asst. Professor Grade-I **Associate Professor** **Professor**
Department of ECE **Department of CA** **Department of ECE**
NIT Tiruchirappalli **NIT Tiruchirappalli** **NIT Tiruchirappalli**

5-Days Online Workshop on

FPGA Based SoC Design Targeted for

Implementing AI/ML Algorithms

27 – 31 December 2021

Jointly Organized by

Centre for System On-Chip (SoC) Design and Fabrication

Department of Electronics and Communication Engineering

&

Department of Computer Applications

National Institute of Technology Tiruchirappalli, Tamil Nadu, India

About the Programme

Field-programmable gate array (FPGA) chips enable you to reprogram logic gates. You can use FPGA technology to overwrite chip configurations and create custom circuits. FPGA chips are especially useful for machine learning and deep learning. For example, using FPGA for deep learning enables you to optimize throughput and adapt processors to meet the specific needs of different deep learning architectures.

Focus Areas

- Introduction to Machine Learning & Deep Learning
- Convolutional Neural Network
- Computing Convolutionals
- Reducing Complexity
- DL Acceleration Landscape
- Hardware Design Flow
- Software Design Flow using Vitis
- Platform Project Creation using Vitis
- Application Project Creation using Vitis
- Debugging using Vitis
- QEMU: Hardware Emulator
- Network on Chip
- Demo: Realization of simple NoC on FPGA
- Demo: Realization of basic image processing algorithms on FPGA

Target Audience

- Academicians, Research scholars, PG Students & Industry personnel.

Resource Persons

- The course faculty includes resource persons from NITs and other reputed industries like Xilinx, Coreel.

Important Dates

Last Date of Online Registration: **21st December 2021**

Registration Fee: Rs. 1000/- (Including 18% GST)

The number of participants is restricted to 75.

Timing: 10AM-12PM & 2PM-4PM

How to Apply

Apply Online Through the Following Link

https://forms.gle/ETm293uVeb7HoyWn9

Payment of Registration Fee

Go to the SBI-collect using the following link

https://www.onlinesbi.com/sbicollect/icollecthome.htm

Select the state as 'Tamil Nadu', and category as 'Educational Institutions'.

Select "Conference and Workshop NIT Trichy".

Select payment category as "FPGA ECE 2021".

Make payment through UPI/ Net Banking/ Credit card/ NEFT.

Once the fee is paid, send the payment receipt to cfsocnitt@gmail.com

Address for Communication

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Mob: +919995114547, Email: varun@nitt.edu,

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