



**ONLINE INTERNSHIP TRAINING  
PROGRAM  
On  
Hardware for Computational Neuroscience**



Date: 26<sup>th</sup> May-2021

**Course Description:**

This is an online, instructor – led course which provides a thorough knowledge about the Hardware for computational neuroscience. Two Weeks online training with Remote FPGA Lab Access for the candidates. Well Experienced Faculties from Vellore Institute of Technology – (VIT Vellore) and National Institute of Electronics and Information Technology- (NIELIT Calicut) will be handling the sessions for all the 10 Days.

**Program Objectives**

To learn, Practice- FPGA Design Flow and Hardware for computational neuroscience. To get exposure in industry standard methodologies .

**Who can attend?**

Students of Engineering (UG & PG) & MSc (Electronics), PhD scholars, faculty members and professionals from Industry.

### Duration

- Proposed length of the training: 10 Days. 20 Hours lecture 30 Hours practicals.

Course Fee	
INR 4,000/- For Students	<a href="#">REGISTER NOW</a>
INR 5,000/- For Faculty	
INR 8,000/- For Industry/Corporate	
Last date for payment and confirmation: 23 <sup>rd</sup> May 2021	

### Payment Guidelines: -

Online fund transfer can be made via your Internet Banking, Google Pay to the following account and proof of the same has to be uploaded during the registration.

### Account details:

Name of the Institute: National Institute of Electronics and Information Technology, Calicut.

Account Holder: Director NIELIT Calicut

Account No: 10401158037 Bank Name: SBI, NIT Chathamangalam

IFSC No: SBIN0002207 MICR Code: 673002012

For any queries WhatsApp to 9447769756, Please don't call, we will reply to you at the earliest.

**Delivery Mode:** Online. Live classes followed by online assignments over LMS. Students should have Laptop/PC with high speed internet connectivity.

### Tentative Schedule

Duration	:	2 weeks	
Tentative Timings	:	10 am to 12.00 noon (Theory) Lab/Assignments can be submitted online on Learning management Systems (Any Time)	
Tentative dates	:	26 <sup>th</sup> May 2021	
<b>Syllabus</b>			
		Theory	LAB
			Faculty (Indicative)
Day 1		Verilog HDL	Mentor Graphics or Xilinx Vivado Simulation
Day 2		FPGA Design Flow-1	Xilinx Vivado
Day 3		FPGA Design Flow-2	Xilinx Vivado
Day 4		FPGA Design Flow- IP Cores	Xilinx Vivado
Day 5		FPGA Design Flow- Advanced	Xilinx Vivado
Day 6		Neurons and Spiking Neural Networks, Brain as a potential Technology	Xilinx Vivado
Day 7		Artificial Neural Networks in Hardware	Xilinx Vivado/ LT spice(Open source)
Day 8		Hardware implementation of Spiking Neural Networks	Xilinx Vivado/ LT spice(Open source)
Day 9		Programmable and configurable Analog Neuromorphic IC	Xilinx Vivado/LT spice(Open source)
Day 10		Understanding Neuromorphic System and Building Neuromorphic System	Xilinx Vivado
			VIT Vellore

**Certificate:** e-Certificate will be mailed to the registered email address after completion of the course.

### Course Materials

Lectures Notes will be given to each participant via email/WhatsApp

**Coordinators**

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