









# HIGH-END WORKSHOP ON IMAGE PROCESSING AND ITS APPLICATIONS USING VLSI ARCHITECTURES

(Under the KARYASHALA Scheme – A SERB initiative)

3rd - 8th July 2023

Website: https://karyashala-workshop2.daiict.ac.in/



Funded by: Science and Engineering Research Board (SERB), DST, Govt. of India, under the Accelerate Vigyan Scheme Organized by: Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat, India

## About the Workshop

'KARYASHALA' is an effort to improve research productivity of promising PG and PhD students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research skills. Following are the objectives of the current high end workshop:

- a. Introduction to Image Processing
- b. Introduction to VLSI systems
- c. RTL design concets using HDL
- d. Verilog Hardware Description Language Introduction, Operators, Combinational and sequential circuit design, implementation of hardware security assessment models
- e. Role of VLSI in image processing circuit and architecture design for matric multiplication and other operators in image processing
- f. Image sensors and memory
- g. Hardware implementation techniques for signal processing MCU, RISC, DSP, FPGA, ASIC
- h. Image Processing applications Image Enhancement, Image Restoration, Image Segmentation, object detection for remote sensing, satellite imaging and weather forecasting
- i. VLSI architecture for image processing and applications

#### **Tentative Resource Persons**

The course faculty includes recourse persons from IITs, NITs, IIITs, reputed institutes and industries.

#### Important Dates

Registration Opens : 5<sup>th</sup> June 2023

Last date for Application : 20<sup>th</sup> June 2023

Display of shortlisted candidates : 23<sup>rd</sup> June 2023

Workshop Dates : 3<sup>rd</sup> - 8<sup>th</sup> July 2023

## About DA-IICT Gandhinagar

DA-IICT is a university devoted to the field of Information and Communication Technology (ICT). The institute is spread over 50 acres of land in Gandhinagar, capital city of Gujarat and has lush green campus. Established in 2001 by the Reliance Group, DA-IICT is consistently ranked as one of the top technological institutes in the country. DA-IICT has been accredited with 'A' grade by NAAC and 'Centre of Excellence' by Government of Gujarat.

The institute has established several research collaborations with different universities, government organizations, research labs, industries both in India and abroad. The students along with the faculties publish their research articles in several national/international Book Chapters, Journals and Conferences of repute. The institute has state-of-the-art research labs and supercomputing facilities. The students organize and participate in several technical, cultural and sports events throughout the year. The institute possesses vast well established alumni group.

For more details, please visit https://www.daiict.ac.in/

How to Apply: https://forms.gle/Zd6sm2k9JQ6qob7X8

### Who can attend

The workshop is open to postgraduate students/research scholars from all Institutes and Universities. Preference will be given to the students having interest towards VLSI, Embedded Systems, Image Processing and its applications, HDL – Verilog, FPGA implementation.

Total number of seats is limited to 25. The participants will be selected based on their academic/research credentials and first-come-first-serve basis. The selected applicants will be provided food & accommodation at DA-IICT. Also, the traveling expenses (3AC) will be reimbursed. There is no registration fees.

## Coordinators:

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