

FACULTY DEVELOPMENT PROGRAM

on

"Digital Image Processing using MATLAB"

Under the aegis of

Electronics & ICT Academy
IIT Roorkee



18 Feb - 22 Feb 2019

Experts from Academia/Industry

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Supported by

Ministry of Electronics & Information Technology
Government of India



E&ICT Smart Classroom
ECE department
IIT Roorkee

Why DIP using MATLAB ?

Importance and necessity of digital image processing stems from two principal application areas: the first being the Improvement of pictorial information for human interpretation and the second being the Processing of a scene data for an autonomous machine perception. The human visual system does not perceive the world in the same manner as digital detectors, with display devices imposing additional noise and bandwidth restrictions. Salient differences between the human and digital detectors will be shown, along with some basic processing steps for achieving translation. Image processing must be approached in a manner consistent with the scientific method so that others may reproduce, and validate, one's results.

Focus Areas

- Introduction to Computer Vision.
- Digital Images.
- Multiview Geometry.
- Image Segmentation.
- Frequency Domain Image Enhancements
- Applications of Wavelets in image Processing.
- Color Image Processing.
- Morphological image processing.
- Practicals using MATLAB.

Benefits and Outcomes of the Course

- To understand the difficulties that the vision problem involves and various edge detectors.
- To design a simple vision system.
- To implement several image filtering algorithms.
- Hands-on experience in working with different software will be provided in Digital Image Processing.

Objective of the Course

- To introduce the participants the basics of Image Processing through MATLAB. In particular, the course will start from simple problems in perspective transformations, edge detection, image enhancement, image filtering, image segmentation, feature tracking and wavelet analysis.
- To familiarize the participants with basic learning algorithms, techniques & their applications, as well as general questions.
- Focus on Digital Image Processing and its applications.
- Training with the recent developments in Digital Image Processing.

Program Features

- The program is split into lectures and labs sessions.
- Hands-on experience on basic & advanced-level topics.
- Certificates to the participants by E&ICT Academy IITR.



Coordinators

- Dr. Sanjeev Manhas PI, E&ICT Academy, ECE Dept, IIT Roorkee
- Dr. Balasubramanian, Local Coordinator, E&ICT Academy, CSE Dept, IIT Roorkee
- Dr. Partha Pratim Roy, Local Coordinator, E&ICT Academy, CSE Dept, IIT Roorkee

Who Can Attend ?

Program is open to faculty members/research scholars/PG students from colleges/universities, and industry personnel working in the concerned/allied discipline.

Registration Fee

Faculty members: ₹1,000/-

Research scholars: ₹1,000/-

Persons from Industry: Rs. 1,500/-

Payment Details

Offline: DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee
"OR"

Online: (<https://www.onlinesbi.com/prelogin/icollecthome.htm?corpID=365641>)

Read the instruction for payment before filling the online registration form

How to Apply

Step 1: Make Payment

Step 2: Participants may fill registration form through Academy website (<http://eict.iitr.ac.in>).
OR

Step 2: Send a duly filled-in registration form along with Demand Draft to Academy address.

Mr. Prateek Sharma, EICT Academy, ECE Department, IIT Roorkee-247667

Important Dates

Last Date For Online
Registration :
08 Feb 2019

EICT Academy IITR

Electronics and ICT Academy (E&ICT) at IIT Roorkee (funded by Ministry of Electronics and Information Technology) aims to enrich and upgrade teaching and research competences of engineering faculties of institutes/colleges by conducting courses and workshops in fundamentals as well as emerging areas of E&ICT and enabled areas. The programs are conducted by well-known industry partners, resource persons from leading academia and experts from renowned R&D organizations.



Activities of the Academy

- Specialized training on basic and advanced level topics with hands-on experience in the emerging areas of Electronics & ICT.
- Setup the activity centers to conduct FDPs locally at institutes/colleges.
- Curriculum development for the industry.
- Continuing Education Programme for students/working professionals.
- Design, develop and delivery of specialized modules for specific research areas in industry.

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REGISTRATION FORM



Applicant Name _____

Gender: _____

Category (GEN/OBC/SC/ST): _____

Designation: _____

Name and Address of the
Organizatio/Institute: _____

City/Town: _____

Email: _____

Phone Number: _____

Do you need Accommodation?
(Yes/No): _____

DD Number: _____

Date: _____

Issuing Bank: _____

Payable at: _____

Signature of the Applicant

Contact Us

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