



#### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

is Organizing

A One Week Online Faculty Development Program

on

# RESEARCH OPPORTUNITIES IN IMAGE PROCESSING AND MACHINE LEARNING

29th June – 03rd July, 2020

Faculty of Electronics and Communication Engineering can Participate

#### **Resource Persons**

Prof. R. Krishnan, Former Director ADRIN, ISRO& Former Dean IIST, Trivandrum Prof. K. Nagi Reddy, NBKRIST, Vidyanagar, Nellore Prof. S. Nagaraja Rao, Head, ECE Dept., GPREC, Kurnool Dr. Laxmi Shaw, Asst. Professor, CBIT Prof. Siba. Kumar Udgata, HCU, Hyderabad Prof. S. L. Sabat, HCU, Hyderabad Prof. T. V. Rajanikant, SNIST, Hyderabad Prof. P. Narahari Sastry, CBIT

#### So Registration Fee

Use the Link to Register https://forms.gle/np45hE1qKj5N5s5s6
Use the Link to Join https://sites.google.com/a/cbit.ac.in/ece-technicalprogramme/

### **Objectives of the Course**

- ➢ To create awareness on Image Processing and Machine Learning concepts.
- To introduce various Image Processing Tools and Algorithms for Image Transmission and prevention of undesired images.
- > To explore applications of Image Processing in the domain of Medical Images and Character Recognition.
- > To nurture Adaptive Signal Processing Algorithms for Machine Learning.
- > To acquaint Research opportunities in Image Processing.

# **Expected Course Outcomes**

After successful completion of the Program, the Student should be able to

- ➤ Understand the concepts of Image Processing and Machine Learning.
- > Apply various tools/algorithms for secured Image transmission.
- ➤ Use the Mathematical models for Machine Learning Algorithms.
- Implement Machine Learning algorithms in Medical Image Processing.
- Formulate research problems in the Signal Processing and Machine Learning.

### **FDP Guidelines**

- 1. Timings of the sessions will be from 10:30 AM to 12:00 PM and 03:30 PM to 05:00 PM.
- 2. Weblink for the sessions will be updated on FDP website and FDP WhatsApp group.
- 3. Participants need to mark their attendance in the google form that will be circulated during the Morning Session from 11:00 AM to 12:00 Noon and during the Evening Session 03:30 PM to 04:30 PM on FDP Website.
- 4. Each session will be followed by 15 minutes of interaction.
- 5. At the end of each day, an Online Quiz will be conducted which needs to be completed within 30 minutes. The Online Quiz will be available between 07:00 PM 08:00 PM on FDP Website.
- 6. E-Certificate will be awarded to the enrolled participants, only if they meet the following:
  - i. Attendance should be minimum of 80%. ii. Total Marks in all quizzes should be more than 50%.

#### DAY WISE SCHEDULE

| Date/Time                    | 29 June, 2020<br>Monday   | 30 June, 2020<br>Tuesday  | 01 July, 2020<br>Wednesday  | 02 July, 2020<br>Thursday   | 03 July, 2020<br>Friday  |
|------------------------------|---|---|---|---|--|
|                              | Day 1   | Day 2   | Day 3   | Day 4   | Day 5  |
| 10:30 AM<br>to<br>12:00 Noon | <b>Dr. Siba Kumar</b><br><b>Udgata</b><br>Machine Learning:<br>Applications and<br>Cautions | <b>Dr. Siba Kumar</b><br><b>Udgata</b><br>GAN Algorithm for<br>Image Processing | <b>Dr. R. Krishnan</b><br>Image understanding<br>strategies                   | Steganography for   | <b>Dr. T.V. Rajanikant</b><br>Advanced ML<br>Algorithms in Medical<br>Image Processing |
|                              |   | LUNC  | CH BREAK  |   |  |
| 3:30 PM<br>to<br>5:00 PM     | <b>Dr. Laxmi Shaw</b><br>Deep Learning<br>Applications in Image<br>Processing               | <b>Dr. K. Nagi</b><br><b>Reddy</b><br>Mathematical<br>Models for Machine        | <b>Dr. P. Narahari</b><br><b>Sastry</b><br>Palm Leaf Character<br>Recognition | <b>Dr. S. Nagaraja</b><br><b>Rao</b><br>Adaptive signal<br>processing and its | <b>Dr. S. L. Sabat</b><br>Research<br>opportunities in Signal<br>Processing            |
|                              |   | Learning  |   | applications  |  |

| CHIEF P   | AIRON  |  |  |  |
|---|--|--|--|--|
| Kavi Kireeti Dr. V. Malakonda Reddy, President, CBIT<br>PATRONS   |  |  |  |  |
|   |  |  |  |  |
| ADVI  | SORS   |  |  |  |
| <b>Prof. P.Ravinder Reddy,</b><br>Principal, CBIT   | <b>Prof. A. D. Sarma</b><br>Director, R&D, CBIT  |  |  |  |
| CONVI   | ENORS  |  |  |  |
|   | dy, Head, Department of ECE<br>Sastry, Department of ECE   |  |  |  |
| Coordi  | inators  |  |  |  |
| Mr. Mohd. Ziauddin Jahangir, Asst. Pr   | essor, Dept. of ECE, Contact No: 9966088798<br>rofessor, Dept. of ECE, Contact No: 9885717845<br>r, Dept. of ECE, Contact No: 8985151787 |  |  |  |
| Co-Coor   | dinators   |  |  |  |
| Ms. K.S.R.S. Jyothsna, Asst. Professor,<br>Mr. Mohd. Sikander, Asst. Professor,<br>Ms. D. Sony, Asst. Professor, De |  |  |  |  |