



CMR TECHNICAL CAMPUS



3rd One Week Faculty Development Program

on

Computer Vision & Image Processing [CVIP-2018]

11th - 15th June 2018

under

Centre for Signal & Image Processing

in association with

IEEE CMRTC Student Branch (STB-20122)

T.Sai Kumar
Convener

Prof. G.Srikanth
HOD, ECE

Dr.A.Raji Reddy
Director



3rd One week Faculty Development Program

On

“COMPUTER VISION & IMAGE PROCESSING– Research Focus”(CVIP)

Organised by CMR TECHNICAL CAMPUS, Hyderabad

In association with IEEE CMRTC Student Branch STB: 20122 & Centre for Signal & Image Processing (CSIP)

11th June – 15th June 2018



SCOPE:

This FDP aims at providing strong theoretical background along with practical experience in the field of CV&IP and how the visualization and analysis of the images could be efficiently done with the help of image processing tools. In the growing and emerging era of “Digital India” initiative, the use of digital image processing becomes pertinent in the Image Processing area since several applications of the images determine and contribute towards socio-economic status of the regions and the country as whole. The image processing tools would be delivered by eminent resource persons of image processing experts. With basic research contribution in the field of image processing and image de-noising in particular inspired to take up task of improved analysis of agriculture, forest and other lands using remotely sensed data.

Major Topics:

1. Introduction to Image Processing and Computer Vision
2. Image Enhancement in Spatial Domain & Frequency Domain.
3. Image Segmentation
4. Image Transforms and Compression
5. Image Description and Interpretation
6. Pattern Recognition Approaches
7. Biometrics
8. Computer Vision and Applications
9. Object Tracking and Recognition
10. Overview and Technologies of Video Data Processing
11. Hands-on-Session using MATLAB and FIJI (An open Source Software).

Faculty conducting this programme:

The programme will be conducted by the faculty members of CMRTC Hyderabad; Academicians in the concerned field from IITs/NITs/IITs/Deemed University are invited to deliver lectures in the programme. Speakers from Industries are also expected to deliver as part of the course.

Faculty Members/Academician	1500/-
Faculty members with IEEE/ISTE/CSI/IETE Membership	1200/-
Research Scholar	1000/-
Industries	2000/-
UG / PG Students	750/-

The entire registration fee is to be collected in the form of DDs/online transfer using the following details

DD Details	Online Transfer
All payments should be made by a crossed Demand	Bank Name: HDFC Bank Branch : Medchal

Draft (DD) in favour of “The Director, CMR Technical Campus.” payable at Medchal.	Account Name: CMR Technical Campus Account No.: 16402320000013 IFSC Code: HDFC0001640
---	--

Accommodation: Free accommodation will be provided for the outstation participants by the host Institute on prior request.

How to apply:

A filled in form of application in the prescribed format duly signed and sponsored by appropriate authorities (along with demand draft) should reach the coordinator by speed-post. It is also mandatory to send scanned application form and demand draft through e-mail to fdpcvip@gmail.com as selection will be intimated only through mail.

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). Additionally 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. Candidates will be issued satisfactory certificates on successful completion of the course.

Important Dates:

Last date (Application &DD):	05 th June 2018
Selection List by E-mail:	08 th June 2018
Duration	11 th –15 th June 2018

About College:

CMR Technical Campus has been structured to take a quantum leap on the changing trends of technology. The Campus is accredited by NBA in the year 2014. The need of setting up the college emerged when no other college could fulfil the aspirations of a student in his/her endeavour to acquire wholesome education. The very strength of CMR Technical Campus lies in its principles of providing the right learning environment for the student who does not have to compromise throughout the learning process of becoming global citizen. Over the years since it has been established, there has been dynamic progress at CMRTC in all academic and research activities, and a spectacular improvement in facilities and infrastructure, to keep it on par with the best institutions in India.

ABOUT THE DEPARTMENT

The Department of Electronics & Communication Engineering (ECE) established in year 2010 with an intake of 60 students, present intake of 180. Right from its inception it is continuously striving to impart quality education and promoting competitive spirit among the student for academic excellence. Department started M.Tech in Embedded Systems from Academic year 2012-13 with intake of 24. Different centres of the department, periodically Organizing Seminar, Guest Lecture, Workshop by IIT Professor and Industry Expert, FDP and conferences.

Chief Patron:

Shri Ch. Gopal Reddy, Chairman, CMRTC.
Smt. C. Vasantha Latha. Secretary, CMRTC

Patron:

Dr. A. Raji Reddy. Director, CMRTC

Organizing Secretary:

Prof. G.Srikanth. HoD ECE

Convenor:

Sri. T.Saikumar, Associate Professor, ECE & Lead
CSIP, IEEE CMRTC SB Counsellor.

Faculty Co-ordinator:

Dr.S.Sumalatha, Professor, ECE & IETE Student
Coordinator

Faculty Co-coordinator:

Mrs. K.Mohana Lakshmi, Associate Professor, ECE

Advisory Board Members of CSIP:

Dr. A. Govardhan, Professor, CSED & Rector,
JNTUH
Dr. G.V.V.Sharma, Associate Professor, EED,IITH
Dr. K.Anil Kumar, Assistant Professor, Speech
Processing Lab, IITH.
Dr. K.Ashoka Reddy, Professor, ECED,KITSW(A)
Dr. S.Aruna Masatani, Assistant Professor, ECED,
JNTUA

Resource Persons:

Dr. Sumohana, Associate Professor, ECE, IITH
Dr.Vineet Gandhi, Assistant Professor, IITH
Dr.Ganesan P, Professor, ECE,VJIT,
Dr. M.Suresh, Associate Dean (R&D),
CMRCET(A), Ph.D from IITR
Dr. M.Nagaraju Naik, Associate Professor,
ECE,CMRCET(A), Ph D from AU
Dr. P.VenkataKrishnan, Professor, ECE, CMRTC,
Ph.D from Anna University.
Many more from industry & Academia.....

Organizing Committee:

Dr. G.R.Sinha,Professor, ECE
Dr. P.Venkata Krishnan,Professor,ECE
Dr. S.Sumalatha, Professor, ECE
Dr.Suraya Mubeen,Associate Professor, ECE
Mr. Md. Ameen Uddin ,Associate Professor, ECE
Mr.Md. Abdul Naqi,Assistant Professor, ECE
Mr.S.Mallesh, Assistant Professor, ECE
Mr. S.Venkatesh,Assistant Professor, ECE
Mr.A.Vamshidhar Reddy, Assistant Professor, ECE

Contact Person:

T.Saikumar, Convenor, CVIP

+919849702404,

fdpevip@gmail.com

K.Mohana Lakshmi, Faculty Co-ordinator, CVIP

+919394666891.



REGISTRATION FORM



**One week Faculty Development program on “Computer
Vision & Image Processing – Research Focus” (CVIP)**

11th June – 15th June 2018

1. Name:

2. Teaching Experience:

3. A) Designation:

b) Department:

c) Institution:

d) Affiliating University:

4. Address for Communication:

.....
.....
.....
.....
.....
.....
.....

5. Phones No’s:

(O).....(R).....

Alternative Number:.....

6. E - Mail ID:

.....
.....

7. Registration Fee

Amount

DD No.

Name of Bank

Date:

Signature

Name:

RESEARCH CENTRE FOR SIGNAL AND IMAGE PROCESSING (RCSIP)

A role of Mathematics in Engineering for Analysis and understanding of any real life research problem with proper understand of basics of 1D, 2D and MD(Multi Dimensional)which are Signals , Image and Video Processing. A role of Signal Transform which leads to multi layers such as Communications (Analog /Digital) ,Signal Processing (Analog/Digital) in the modern era. The centre Provides a board area of research problems to work for Under Grad , Post Grad , faculty members to gain potential in that specific domain and also provide assist for the Research work and Research articles to publish in reputed Journal likes Scopus ,SCI, Springer, Elsevier, IEEE etc.,

The Centre has a potential Faculty Members in the area of Signal Processing, Communications, Image & Video Processing, Antennas too.

Vision:

Transforming the research ideas in to reality which satisfies the needs of Society enhancement.

Mission:

1. To create the research work environment for both student and Faculty Communities.
2. To create learning based research work from Beginning of the course.
3. To inculcate the concept of Interdisciplinary research work among students with all departments.
4. To support the R&D activity from the consultancy for projects.
5. Training the Grad Students for solving Real time research works with the help of team CSIP to achieve great heights.

Objectives:

1. To enhances the knowledge of Students with the help of ICT tools and Short Term Training Programs in fields of Signal Image Video and Antenna (SIVA).
2. To organize Various Faculty Development Programme for Faculty and PG Students.
3. The Centre also provide Internship programme for Under Grad and Post Grad with association with IEEE CMRTC Student Branch.
4. The centre also provides support for Project Proposals under SERB, FIST, TARA etc., with the help of team CSIP.
5. The Centre provides Industries tie-Up for knowledge and Technological updates enhancement for UG Grads, PG Grad.

Summary of Faculty Development Program on

Computer Vision and Image Processing (CVIP)

Under Research Centre for Signal and Image Processing (RCSIP) in association with IEEE CMRTC Student Branch STB: 20122

The FDP on CVIP was hosted under the umbrella of IEEE CMR Technical Campus Student Branch and Research Centre for Signal and Image Processing in Department of Electronics and Communication Engineering with support of RCSIP team members and IEEE CMRTC Student Branch Members. The Event was started on 11th June 2018 with participates of 40 members from various parts of India (Karnataka, Kerala, Tamil Nadu, Maharashtra, A.P and Telangana States).

The guest and Resource persons for the functions were

1. Dr. Sumohana S Channappayya, Associate Professor, EE Dept ,IIT Hyderabad.
2. Sri. B. Gopala Krishna, Deputy Director, Director, Data Processing, Products, Archival & Web Applications Area (DPPA&WA)
3. Dr. C. Krishna Mohan , Associate Professor, CS&E Depart, IIT Hyderabad.
4. Dr. Vineeth Gandhi, Assistant Professor, CVIP Group, IIIT Hyderabad.
5. Dr. Suresh M, Associate Dean R&D, CMR College of Engineering & Technology (Autonomous).
6. Dr. M.Nagaraju Naik, Professor, Department of E&CE, CMR College of Engineering & Technology (Autonomous).
7. Dr. P.Venkata Krishna, Professor, Department of E&CE, CMR Technical Campus, Hyderabad.
8. Ms. P.Jyothi , Associate Professor &HOD ECE, MRCEW Hyderabad.
9. Sri.T.Saikumar, Associate Professor, E&CE, and IEEE CMRTC Student Branch Counsellor, RCSIP Lead , CMR Technical Campus, Hyderabad.

CMR Technical Campus, Hyderabad
3rd One Week FDP on Computer Vision & Image Processing Under IEEE CMRTC Student Branch
SCHEDULE OF TRAINING PROGRAMME – ONE WEEK FDP CVIP

11th -15th June 2018

Day	I Session 10.00am to 11:00am	11.00a m to 11.15a m	II Session 11.15am to 12.30pm	12.30pm to 1.30pm	III Session 1.30pm to 3.00pm	IV Session 3.00pm to 4.00pm
Mon (11-06- 2018)	Inauguration of FDP CVIP- 2018	T E A C H E R S B R E A K	An Optical Flow Framework for Video Quality Assessment Dr.Sumohana S. Channappayya Assoc Professor, EE,IITH	L U N C H B R E A K	Recent Trends and Challenges in Image and Video Processing and Hands on Session –FIJI and CVIP Tools Sri. T. Sai Kumar Associate Professor, ECE IEEE CMRTC Student Branch Counselor.	
Tue (12-06- 2018)	Surveillance video analytics Dr.C. Krishna Mohan Assoc Professor, CSE,IITH		Surveillance video analytics Dr.C.Krishna Mohan Assoc Professor, CSE,IITH		Principal Components Analysis (PCA) Dr. P.Venkata Krishnan Professor, ECE CMRTC	
Wed (13-06- 2018)	Singular Value Decomposition (SVD) Dr. M.Nagaraj Naik Professor, ECE CMRCET		Singular Value Decomposition (SVD) Dr. M.Nagaraj Naik Professor, ECE CMRCET		Image Enhancement Ms.P.Jyothi, Assoc Professor, HoD ECE MRCEW	
Thru (14-06- 2018)	Satellite Image Processing Sri. B. Gopala Krishna Deputy Director, NRSC, Hyderabad		Satellite Image Processing Sri. B. Gopala Krishna Deputy Director, NRSC, Hyderabad		Remote Sensing Applications In Image Processing Dr. Suresh. M Associate Dean (R&D), CMRCET	
Fri (15-06- 2018)	Intelligent Content Adaptation For Applications In Image Processing And Computer Vision Dr. Vineeth Gandhi Asst Professor, CVIT, IIITH		Intelligent Content Adaptation For Applications In Image Processing And Computer Vision Dr. Vineeth Gandhi Asst Professor, CVIT, IIITH		TEST / VALEDICTORY FUNCTION	
Sat(16- 06- 2018)	<i>Happy Ramzan To all the participates</i>					

RCSIP Lead

HOD

DIRECTOR

Advisory Board Members of Research Centre for Signal and Image Processing (RCSIP)



Dr. A. Govardhan ,

Professor, CS&ED and Rector JNTUH



Dr. K. Ashoka Reddy

Professor, E&CED, KITSW(A)



Dr. G.V.V. Sharma
Associate Professor, EED, IITH



Dr. K. Anil Kumar,
Speech Processing Lab, Assistant Professor, IITH



అధ్యాపకులు బోధనా నైపుణ్యాన్ని పెంచుకోవాలి

మేడ్చల్ రూరల్: అధ్యాపకులు వృత్తి కార్యక్రమాల ద్వారా బోధనా నైపుణ్యాన్ని పెంపొందించుకోవాలని సీఎంఆర్ విద్యా సంస్థల చైర్మన్ గోపాల్ రెడ్డి సూచించారు. 'కంప్యూటర్ విజన్ ఇమేజ్ ప్రాసెసింగ్' అనే అంశంపై నిర్వహిస్తున్న ఐదు రోజుల అధ్యాపకుల నైపుణ్యాభివృద్ధి కార్యక్రమాన్ని బుధవారం ప్రారంభించారు. కార్యక్రమాన్ని ప్రారంభించిన సందర్భంగా ఆయన మాట్లాడుతూ ఏదైనా వృత్తిలో రాణించాలంటే అందుకు సంబంధించి అంశాల్లో వస్తున్న సమకాలీన మార్పులపై అవగాహన పెంపొందించుకోవాలన్నారు. అధ్యాపకులు ఇలాంటి కార్యక్రమాలను వినియోగించుకొని, విద్యార్థుల వికాసానికి కృషి చేయాలని ఆయన సూచించారు. డాక్టర్ సుమోహన, డాక్టర్ వినీత్, డాక్టర్ కృష్ణమోహన్, డాక్టర్ సురేశ్ వక్తలుగా వ్యవహరించి, అధ్యాపకులకు శిక్షణనిచ్చారు. కార్యక్రమంలో డైరెక్టర్ రాజి రెడ్డి, డీన్ శ్రీకాంత్, హెచ్ఎడీలు, డీన్లు పాల్గొన్నారు.



వక్తగా విచ్చేసిన ప్రొఫెసర్ను సన్మానిస్తున్న నిర్వాహకులు



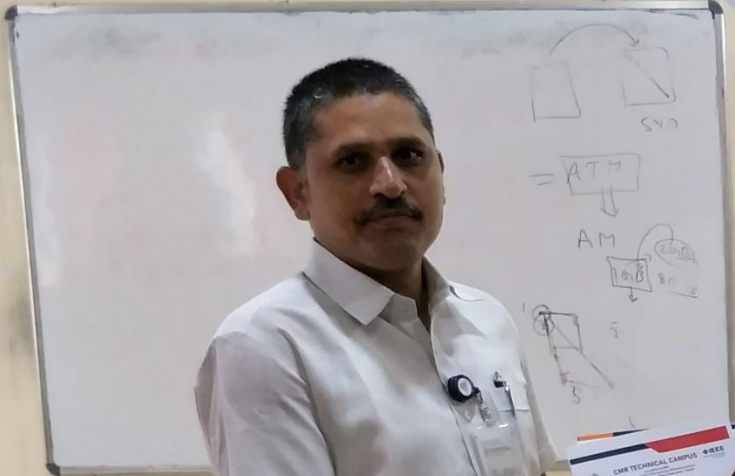
Conclusions:

- Leverages strength of optical flow and existing I3A algorithms
- Simple yet effective framework
- State-of-the-art performance



Future work:

- Improve computational efficiency for real-time implementation
- Develop the notion of task-specific quality assessment
- Explore deep learning tools





File Explorer - Windows Picture and Fax Viewer

 **CMR TECHNICAL CAMPUS** 

3rd One Week Faculty Development Program

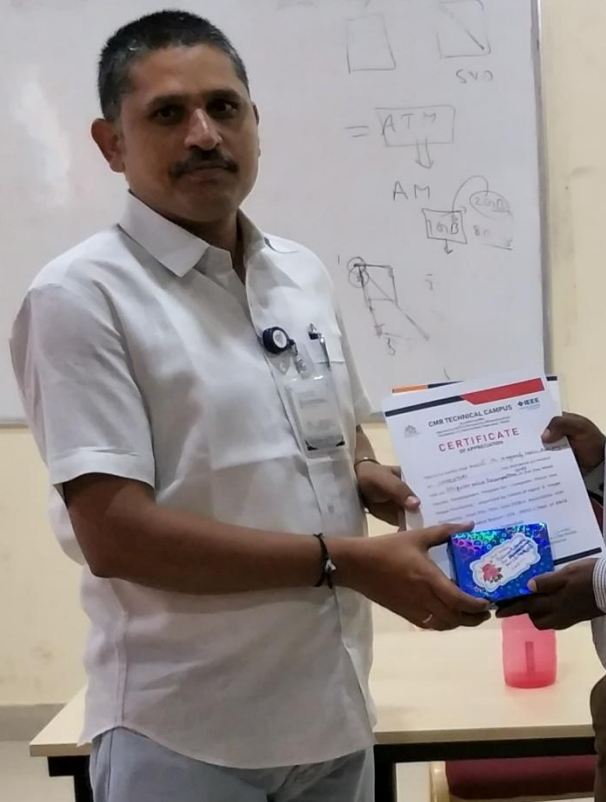
ON

Computer Vision & Image Processing [CVIP-2018]

11th - 18th August 2018

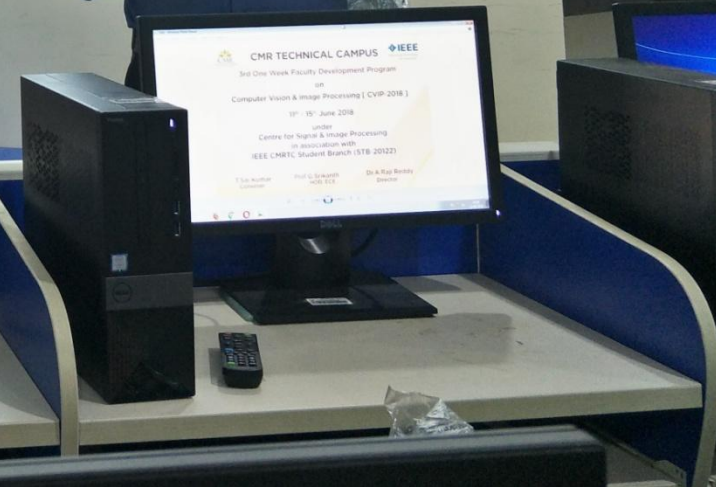
Centre for Signal and Image Processing
in association with
IEEE CMRTC SPS (STB-20122)

Raji Reddy
Director



Research @ VIGIL

C. Krishna Mohan
Visual Learning and Intelligence Group (VIGIL)
Dept. of Computer Science & Engineering
Indian Institute of Technology Hyderabad







BLOCK - B







