

TEOIP – II: Center of Excellence in Signal and Image Processing Sponsored
Two Week Short Term Training Program
On
“Computer Vision and Pattern recognition”
13th July to 23th July 2016

Shri Guru Gobind Singhji Institute of Engineering and Technology Nanded had organized a two week short term interdisciplinary training program on “Computer Vision and Pattern Recognition” during 13th July to 23th July 2016. It was sponsored by Center of Excellence in Signal & Image Processing (TEQIP-II).

These two week STTP included talks on various aspects of computer vision and pattern recognition and study of the recent trends in research areas of this field by the interaction with numerous experts from different parts of country. The training programme was very comprehensive and began with very basics of computer vision and pattern recognition and took participants at advanced level to bring them in a position to use these techniques in their area of research.

The STTP was entirely planned and coordinated by Dr. S. N. Tabar and Dr. A. B. Gonde. Eminent speakers and experts from IIT’s and renowned institutes glorified the STTP.

The inaugural function of the STTP was held at 10.00AM on July 13th, 2016. The inauguration accomplished in the presence of Chief guest Dr. Balasubramanian R, Dr. Partha Pratim Roy as Guests of honor, Dr. L. M. Waghmare Director of the Institute, Dr. M. B. Kokare, CoE coordinator, and Dr. S. N. Talbar & Dr. A. B. Gonde Course coordinator. The inauguration was anchored by Mr. Suhas Sapate.

The daily plan of the STTP (one and half hour each) four sessions including hands on practical sessions in a day was scheduled in prior, and was executed accordingly.

Facilitator:

- Dr. BalaSubramanian Raman, Professor, IIT Roorkee.
- Dr. Abhishek Mahajan, Dept. of Radiodiagnosis, Tata Memorial Hospital, Mumbai.
- Dr. Partha Pratim Roy, Professor, IIT Roorkee.
- Dr. PS. Sastry, Professor, Dept. of Electrical Engg., IISc. Bangalore.
- Dr. Sumantra DuttaRoy, Professor, Dept. of Electrical Engg., IIT, Delhi.
- Dr. Sanjeev Malik, Professor, IIT, Roorkee.
- Dr. Vineeth, Asstt. Prof. IIIT, Hyderabad.
- Dr. Ghosh, TCS Innovation Center, Bangalore.
- Mr. Santosh Kute, Nashik.
- Mr. Amit Dhanwade, Pune.
- Dr. SN Talbar, Professor, Dept. of ENTC, SGGS IE&T Nanded
- Dr. U. V. Kulkarni, Professor, Dept. of Computer Engg., SGGS IE&T Nanded.
- Dr. A. V. Nandedkar, Associate Prof. Dept. of ENTC, SGGS IE&T Nanded.

Participants:-

86 Participants in total, 4 from different academic institutes and 82 from our institute including Faculty members, Research Scholars and M.Tech students actively attended the STTP. Following is the list of participants in particular.

Schedule:-

Time	09:00 to 10:00	10.00-11.30	11:30 to 11.45	11:45 to 1:15	1.15 to 02.00	02:00 to 03:30	03:30 to 3:45	03:45 to 5:15	5.30-6.30
13 th July	Breakfast/ registration	Inauguration Dr. B. Raman/ PPRoy (1045-1130AM)	Tea Break	Introduction to DIP, Camera calibration Dr. B. Raman	Lunch	Document Analysis and Recognition Dr. Partha	Tea Break	Multimedia Security Dr. B. Raman	-
14 th July	Breakfast	OCR Segmentation Dr Partho Roy	Tea Break	MRA and WT for Security Dr. B. Raman	Lunch	OCR: Learning Algorithms Dr. Partha Roy	Tea Break	Machine Learning and its Application in Computer vision Dr B Raman	Discussion with PhD students Dr. B. Raman
15 th July	Breakfast	Tandem HMMs Using Deep Belief Networks Dr. Partha	Tea Break	Wavelets in CV Dr MB Kokare	Lunch	OCR Dr. P. P. Roy	Tea Break	Wavelet App in CV Dr MB Kokare	Discussion Dr. P. P. Roy
16 th July	Breakfast	Optical flow Estimation Dr R Raman	Tea Break	Challenges in Medical Imaging- Dr. Abhishek Mahajan	Lunch	Challenges in Medical Imaging- (Dr. Abhishek Mahajan)	Tea Break	Unsupervised Learning with Eigen Analysis (Dr. Sumantra DuttaRoy)	-
17 th July	Breakfast	Unsupervised Learning with K-means & EM (Dr. Sumantra DuttaRoy) (900-10.30)	Tea Break	Linear Regression and Classification (Dr. Sumantra DuttaRoy) (1100-12.30)	Lunch	Challenges in Medical Imaging (Dr. Abhishek Mahajan) (1.00-4.00) (3hrs)	Tea Break	Introduction to Python for M.Tech Amit Dhanwad (2.30-4.30pm) (2hrs)	-
18 th July	Breakfast	Introduction to Pattern Classification Dr. P S Sastry	Tea Break	Baysian Decision Theory (Dr. Sastry)	Lunch	Parametric Estimation of Densities (Dr. Sastry)	Tea Break	DIP with Python Amit Dhanwade (2.30-5.30pm) (3hrs)	-
19 th July	Breakfast	Support Vector Machine Dr. P S Sastry	Tea Break	Support Vector Machine, (Dr. Sastry)	Lunch	ML Estimation/ Kernel based Classification Methods Dr. P S Sastry	Tea Break	Python with DIP Amit Dhanwade (2.30-4.30pm) (2hrs)	-
20 th July	Breakfast	Cognitive Computer Vision Dr. Ghosh, TCS	Tea Break	Cognitive Computer Vision Dr. Ghosh, TCS	Lunch	Image Processing with Python (Mr. Tushar Kute)	Tea Break	Image Processing with Python (Mr. Tushar Kute)	-
21 st July	Breakfast	Introduction to ANN Dr. Nandedkar	Tea Break	Learning Algorithms Dr AV Nandedkar	Lunch	Hands on implementation on ANN	Tea Break	Hands on implementation on ANN	-
22 nd July	Breakfast	Backpropagation Learning Dr. Nandedkar	Tea Break	Fuzzy Neural Network (Dr. UV Kulkarni)	Lunch	Fuzzy Neural Network Dr. UV Kulkarni	Tea Break	Hands on Implementation of ANN	-
23 rd July	Breakfast	Classification with Gradient descent Algorithm Dr. Sanjeev Malik,IITR	Tea Break	Regularized Least Square and classification with App. Dr.Sanjeev Malik,IITR.	Lunch	Convolutional Neural Networks (Dr. Vinnet)	Tea Break	Convolutional Neural Networks (Dr. Vinesth)	Valedictory Function

Photo Album:



STTP Inauguration in presence of chief guests



Inauguration speech by Dr. L. M. Waghmare



Inauguration speech by workshop coordinator Dr. S. N. Talbar



STP inauguration attended by participants and Faculty members



Expert Talk by Dr. Abhishek Mahajan, TMH, Mumbai.



Felicitation of Dr. A. V. Nandedkar



Felicitation of Dr. Sumantra DuttaRoy, IIT, Delhi.



Dr. PS. Sastry, IISc. Bangalore.



Felicitation of Dr. Sanjeev Malik, Professor, IIT, Roorkee.



Felicitation of Dr. Vineeth, IIIT, Hyderabad.

List of Participants:-

Sr. No	Full Name	Name of Affiliated Institute / Industry
1	Ahire Nisha Ramesh	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
2	Akshay Ashok Dudhane	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
3	Amruta Deshmukh	Centre for development of advance computing, Mohali
4	Anuradha Bhalarav Pawar	Gangamai College of Engineering, Nagaon
5	Arati Manjaramkar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
6	Archana Sable	School of Computational Science, S.R.T.M.University, Nanded
7	Avinash N. Chaure	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
8	Badgujar Hemprasad Yashwant	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
9	Bhavana Bansilal Nerkar	NIELIT, AURNGABAD
10	Chetan Anandrao Sultane	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
11	Dinesh Shivajirao Kadam	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
12	Galshetwar Gajanan Madhavrao	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
13	Ganesh S Singadkar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
14	Jaishri Waghmare	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
15	Jonnalagedda Megha V.	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
16	Kunal Balkrushna Rakhonde	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
17	Ladekar Mahesh Yeshwantrao	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
18	Manisha Mahindrakar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
19	Manisha Rameshwar Patil	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
20	Manjiri Arunrao Ranjanikar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
21	Mayuri Kailash Sadafale	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
22	Mukund B Nagare	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
23	Nandedkar Amit Vijay	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
24	Nilima Balaji Mohite	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
25	Nishigandha Gopalrao Kurale	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
26	Pachade Samiksha Pradeeprao	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
27	Pankaj Channekar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
28	Payal Dattatray Chambalwar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
29	Phutke Shruti Shantling	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
30	Prakash Shivajirao Nalwade	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
31	Pranjala G. Kolapwar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
32	Prashant Wagambar Patil	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
33	Pratap S. Vikhe	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
34	Puyed Sonali Vijaykumar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
35	R.K. Chavan	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
36	Rachana Sandeep Potpelwar	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
37	Ravi Mukundrao Kamble	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
38	Roopali Biyani	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
39	Shubham Sharad Wankhade	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
40	Sneha Ramesh Mote	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
41	Suhas Gajanan Sapate	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
42	Sujata Bhimrao Wankhade	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
43	Sushma Dipakrao Pilawan	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
44	Sushma Kejgir	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
45	Tambe Sagar Bhimraj	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
46	Ujjwal Raghunandan Baid	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
47	A. M. Bainwad	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
48	Shubham Sanjay Talbar	Indian Institute of Technology, Jodhpur
49	Balasaheb. M. Patre	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
50	Uday. V. Kulkarni	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
51	Usha. R. Kamble	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
52	Atul Pagare	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
53	Vijaya. R. Thool	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
54	Shital Patil	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
55	S. T. Hamde	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
56	Mohd. Juned uz zama Khan	MGM's College of Engineering, Nanded
57	Sweta Sakle	Indira Institute of technology, Nanded

Information Brochure:-

ABOUT THE INSTITUTE

Named after the tenth Sikh Guru, Shri Guru Gobind Singhji (SGGS) Institute of Engineering and Technology, Vishnupuri, Nanded is established in 1981 has grown to the level of being recognized as a leader in the area of technical education and research. Today SGGS IE&T is ranked 89th at national level among all the engineering institutes selected by NIRF, MHRD, Govt. of India. Started with just two undergraduate programs, SGGS IE&T now offers 10 undergraduate and 10 postgraduate programs. As a recognised research center of Swami Ramanand Teerth Marathwada University, the institute offers PhD programs under Quality Improvement Program (QIP) of Ministry of HRD, Visvesvaraya Ph.D. Scheme from DeitY, Govt. of India as well as TEQIP. One of the unique feature of the institute is its faculty strength. It is one of the premier institutes having more than 50% faculty with Ph.D. qualifications. Four of the institute's departments have FIST sponsored laboratories. Faculty research abilities have led to the establishment of a "Center of Excellence in Signal and Image Processing" which is first among three such centers by NPIU in India. The research culture of the institute has a proven track of thousands of publications with citations in peer reviewed prestigious national / international journals and reputed international conferences. The institute has collaborations with a number of premier institutes, including foreign universities and industries, through which opportunities like internships, credit transfers, industry relevant projects, etc. are made available for students.

SCOPE

The Domain of Computer Vision and Pattern Recognition (CVPR) is quiet mature now with the state of the art theories, techniques and algorithms developed for a wide range of applications in the real world. The real potential of this wonderful domain can be further explored to address yet many real important problems. New approaches are being motivated by variety of issues and applications as well as advanced computer architecture aspects. In a nutshell, CVPR is playing a key role in computer assisted advanced automation in every corner of human civilization of 21st century. Hence it has become important for the educators, practicing engineers and the students to continuously update their knowledge and skills in CVPR and its applications.

The purpose of this workshop is to provide a comprehensive forum on important theories, techniques and algorithms in CVPR that will encourage in depth discussion of technical and application issues. It will also insist on specialized topics with timely updates of the most recent developments in this domain. This workshop will explore new directions on CVPR which will address both *tutorial flavor and practically hands on experience* to participants who are not necessarily CVPR experts. The participants inclined towards research will be introduced with active research being conducted at various R&D laboratories and academic institutions in India and abroad. As a result, we expect the research work to be later moulded in a more polished form. We will bring together the domain experts from IISc Bangalore, and IITs for an interdisciplinary exchange of research and problems in new areas CVPR. It will help participants to update their knowledge and widen their horizon.

HOW TO APPLY

1. Draw a Demand Draft of any nationalized bank in favour of "Director, SGGSIE&T, Nanded" payable at Nanded.
2. Fill online application form which is available at Events Section of www.sggs.ac.in.
3. To confirm participation please send scanned copy of Demand Draft to coesstptcvpr@sggs.ac.in.
4. Write down your Name and Contact No. on the back side of Demand Draft and send it to Course Coordinator at the address given below.

Patron
Dr. L. M. Waghmare,
Director, SGGS IE&T.



Center of Excellence (S&IP)
Shri Guru Gobind Singhji Institute of
Engineering and Technology,
Vishnupuri, Nanded (M.S.)-431606.

Phone: (02462) 269220 * Fax (02462) 229236
WEBSITE: <http://www.coc.sggs.ac.in>

Any Queries?

Mr. Subas G. Sapate, Research Scholar
Mobile No.: (+91) 9158153311
Email Id.: sapatesubas@sggs.ac.in

COURSE PARTICIPANTS

Faculty, students from engineering colleges (preferably for the benefit of the new entrants in this field) and Practicing Engineers from Industries.

IMPORTANT DATES

Duration of STTP: 13th July to 23rd July 2016.

Last date of registration: 10th July, 2016.

Participants will be informed about their selection on 11th July 2016.

(Limited Seats are available. Selection will be done on First come First Served basis.)

REGISTRATION FEES

Faculty from Engineering Colleges: Rs. 2000.

Faculty from SGGS: Rs. 1000.

Research Students: Rs. 1000.

Industrial participants: Rs. 5000.

(Amount in Rupees/participant.)

Includes registration kit, tea, breakfast, lunch.

No TA/DA will be admissible to any participant.

ACCOMODATION

Shared AC accommodation can be provided in guest house on request by payment of nominal charges of Rs. 500/- per day.

HOW TO REACH NANDED

By Train: As Nanded is divisional headquarters of southern central railway, travellers can easily get direct trains from cities like Patna, Pune, Mumbai, Aurangabad, Nagpur, Amritsar, Srinagar, Howrah, Hyderabad to Nanded.

By Road: There are plenty of state transport/private deluxe buses travel regularly to and from Nanded to all major cities in the state.

A

Two Week

Short Term Training Program on

“Computer Vision and Pattern Recognition”

July 13 – 23, 2016

Organised by

Center of Excellence
in
Signal and Image Processing
Under
Technical Education Quality
Improvement Programme
(TEQIP II),

Coordinator

Dr. Sanjay N. Talbar,
Dr. Anil B. Gonde



Shri Guru Gobind Singhji Institute of
Engineering and Technology,
Vishnupuri, Nanded, 431606 (MS)

COURSE FACULTY

Dr. Balasubramanian Raman, IIT Roorkee, Dr. Abhishek Mahajan, Tata Memorial Hospital, Mumbai, Dr. P. S. Sastri, IISc Bangalore, Dr. Partha Roy, IIT Roorkee, Dr. Sumantra Dutta Roy, IIT Delhi, Dr. Vineeth Balasubramanian, IIT Hyderabad, Dr. Sanjeev Malik, IIT Roorkee, Dr. Ghosh, TCS Bangalore and specialized faculty members from host institute and industries renowned in this area will deliver special lectures.

STTP CONTENTS

- Fundamentals of CVPR
- Pattern Recognition and Machine Learning
- Document Image Analysis
- Unsupervised Learning & Eigen Analysis
- Unsupervised Learning, K-means & EM
- Linear Regression and classification
- Computer Vision in clinical applications for Detection and Diagnosis of diseases
- Bayesian Decision Theory
- Deep Learning and Novel Representations
- Association Rule based Classification
- Parametric estimation of densities
- Artificial Neural Networks
- Deep Vision: Deep Learning in Computer Vision
- Convolutional Neural Networks
- Particle Swarm Optimization
- Fuzzy Neural Networks
- Application of CVPR in Bio-Medical Image Analysis
- Support Vector Machine
- Hands-on-sessions on Python and Image Processing Toolboxes in Python

For more information please visit:
<http://www.sggs.ac.in/CVPR>