Department of Electronics and Telecommunication Engineering

Report on ISTE Approved One Week Short Term Training Program on
"Recent Trends in Image, Video and Speech Processing"
Organized by Electronics and Telecommunication Department

Digital image, video and speech processing emerging in thousands of applications like astronomical, bio-medical, consumer, industrial, and artistic which continues to enable the multimedia technology revolution we are experiencing today. This STTP throws light on the promising research areas such as Imaging, video processing and speech processing, booming trends and its diverse applications.

The objective of the STTP is to provide conceptual knowledge and research opportunities in the areas of Image, Video and Speech processing. The STTP aims at equipping teachers with skills and knowledge in order to create a better society by guiding, training and motivating the students to take up research projects.

Topics Covered in STTP on "Recent Trends in Image, Video and Speech Processing"

- Fundamentals of Image Processing
- Biometric and Biomedical Image processing
- Image fusion
- Fundamentals of Video Processing
- Image protection using cryptography
- Recent industry applications in image and video processing
- Speech signal processing
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At the end of STTP participants are able to

- ✓ Apply quantitative models of image and video processing for various engineering applications
- ✓ Develop innovative design for practical applications in various fields
- ✓ Enhance the basic knowledge of Speech Processing and Analyze application of speech processing in various areas

The University of Mumbai introduced revised curriculum which includes, Image and Video Processing as compulsory subject for the final year students in SEM VII as well as Speech Processing as an elective subject in SEM VIII

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As new algorithms, developments are introducing in multimedia industry day by day , it was felt necessary that the teaching faculty also become competent in the said technology. With keeping this as an intension the ISTE approved STTP was conducted from 25th Apr to 29th APR, 2016 in VIVA Institute of Technology, Electronica and Telecommunication Engineering Department.

The inauguration was attended by Principal Dr. Arun Kumar sir, H.O. D. of EXTC department Mrs. Archana Ingle and Dr, Amey Naik, Professor of K.J. Somaiya college of Engineering, Vidyavihar along with the faculties of the college and participants.

Details of the speakers is as under

SN.	Name of the Guest Speaker	Details of the Speaker	Topics Addressed	Date
1.	Dr. Amey Naik	Assistant Professor, KJSCE, Vidyavihar, Mumbai.	1. Fundamentals of Image Processing, Image enhancement, Segmentation and object recognition, Binary Image Processing, Wavelet based Image Processing, Colour Image Processing, Applications of Image Processing with respect to biometric and biomedical applications.	25/4/2016
	Prof. Ashish Vanmali	Assistant Professor, VCET, Vasai.(Pursuing Ph.D. from IIT Bombay)	Video Processing: From Fundamentals To Coding Image Fusion: Preliminaries & Applications	26/04/2016
	Dr. M. Mani Roja	Associate Professor, TSEC, Mumbai.	Public Key Cryptography for Image Protection Practical session in Lab	27/04/2016

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SN.	Name of the Guest Speaker	Details of the Speaker	Topics Addressed	Date
	Mr. Shashikant Kamate, Mr. Jaideep Mehendale	Project Manager, Wavelet Group of Technology Pune.	2D Image processing and its industrial applications, case studies with past projects by Wavelet Technologies Real time video processing applications on BlackFin DSP based Hardware (DSPPORT V.1) 3D Image processing and its industrial applications, case studies with past projects by Wavelet Technologies.	28/04/2016
	Dr. K. Samudravijay	Scientific Officer, TIFR,1,Homo Bhabha Road,Colaba, Mumbai.	Speech Recognition via Template Matching Statistical Models for Speech Recognition and Other Applications	29/04/2016

Participants were the teaching faculty of Engg. College. Total of 15 faculty members participated in the One week Short Term Training Program conducted.

In valedictory function institute had received the feedbacks from the participants that they have learned and enhanced their knowledge in this STTP and they would always want to attend this kind of STTP in this institute once again. The overall feedback of the Training Program was encouraging and was highly rated by the participants