# IEEE – MVSR STUDENT BRANCH
Student Branch Code: 12161 , School Code: 41329276

## A Workshop on 'ADVANCES IN DIGITAL IMAGE PROCESSING'

The Department of Information Technology (DoIT), MVSR Engineering College, conducted a two-day workshop on **'Advances in Digital Image Processing'** in collaboration with IEEE-MVSREC Student Branch in order to make students aware in identifying the key research areas in the field of Image Processing.

*Student Branch Mentor*:
**Dr. Atul Negi,**
**Professor, School of CIS,**
**University of Hyderabad.**

*Student Branch Advisor*:
**Mr. V. Ashwini Kumar,**
**Assoc. Professor, IT Dept.,**
**MVSR Engineering College.**

*WIE Student Branch Advisor*:
**Mrs. Dr. G. Kanaka Durga,**
**Head, IT Department,**
**MVSR Engineering College.**

*Student Branch Counselor:*
**Mrs.A.V.Vahini**
**Asst. Professor, IT Dept.,**
**MVSR Engineering College.**

*Student Branch Executive Committee:*
**E.Sanjana– Chairman**
**K.V.Sirisha - Vice Chair**
**G.K.Anirudh– Secretary**
**T.Anirudh- Joint Secretary**
**G.Vinay– Treasurer**

*WIE Affinity Group:*
**V.B.Mounika- Chairman**
**D.Sreeya Reddy– Vice-chair**
**Rahul Bhalla - Secretary**
**Makharand – Joint Secretary**
**P.Harshita- Treasurer**

**Workshop details:**

**Date: 26th Aug 2015-27th Aug 2015**
**Venue: CSE/IT Block, MVSR Engineering College.**
**Number of attendees: 75.**

The Workshop witnessed key delegation from reputed institutions like The Institute for Development and Research in Banking Technology (IDRBT), International Institute of Information Technology, JNTU College of Engineering (JNTUH), National Remote Sensing Centre (NRSC) and Hyderabad Central University (HCU).

The event had begun with lightening of lamp by the chief guest, B L Deekshatulu, Director, IDRBT, M B S Purushotham, Member of MVSREC, P.A.Sastry, Prinicpal, MVSREC, Prof G.Kanaka Durga,Head of the DoIT, V. Ashwini Kumar, Advisor, IEEE Student Branch, were among key persons who attended the event



**Picture captured while the Cheif guest B.L.Deekshatulu lightening the lamp**



**From left to right:Dr.V.Krishna Prasad, Convenor ,Mr.M.B.S Purushotham,Member of MVSREC,Dr.B.L.Deekshatulu ,Mr.V.Ashiwini Kumar,Branch Advisor,Mrs.G.Kanaka Durga,Advisor WIE AG**

First Day Of the Workshop:

B L Deekshatulu, Director, IDRBT, who was a chief guest and also a keynote speaker, shared vast experiences of his core research in the field of Digital Image Processing with the students and professionals.
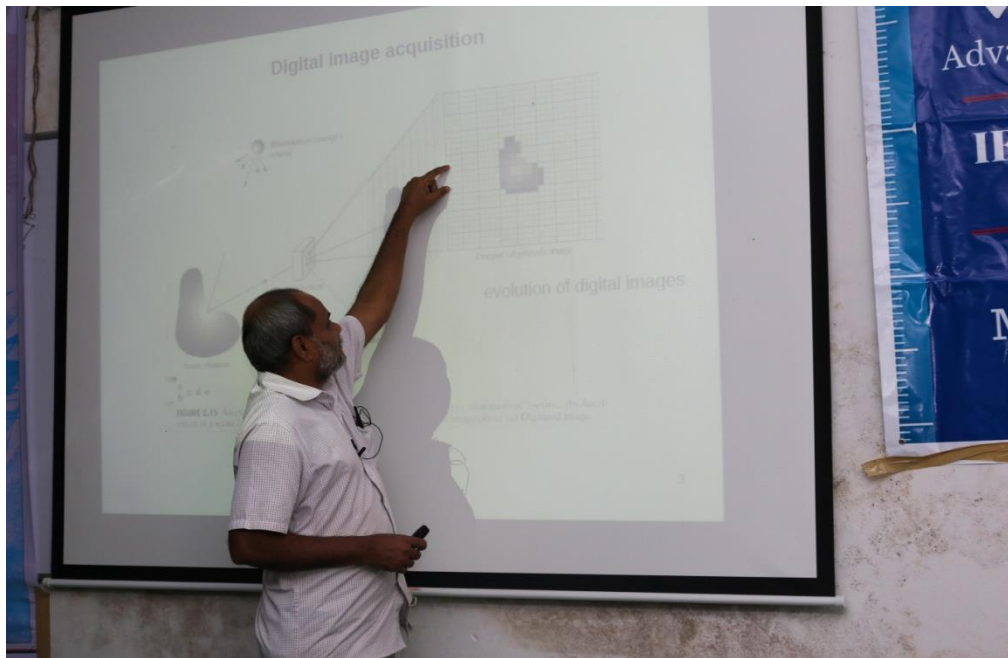


**In picture: B L Deekshatulu, Director, IDRBT, giving a keynote**



**Attendees of the Workshop**

Dr Suryakanth V Gangashetty, Asst Proffesor, LTRC, IIIT Hyderabad, presented a lecture on 'Recent Trends in Image Signal Processing'.



**Dr Suryakanth V Gangashetty, Asst Proffesor, LTRC, IIIT Hyderabad giving a lecture**

Dr Supreethi K P, Dept. Of CSE, JNTH, presented a lecture on Medical Imaging, where she shared key notes on 'Implementation of Data Mining Techniques in Image Processing'.



**Dr Supreethi K P, Dept. Of CSE, JNTH, presenting a lecture**

Second Day of the Workshop:

Dr Atul Negi, Chairman, Branch Mentor and Senior Member, IEEE, presented a lecture on 'Image Processing Applications to Optical Character Recognition (OCR) Systems for Indian Scripts', where he stressed upon the need for transformation of Indian languages using OCR systems. His exclusive research involves digitization of Telugu script.



**In picture : Mrs.K.Kavitha Lakshmi,Asst.Prof,IT Dept ,Mrs.G.Kanaka Durga,Advisor WIE AG giving a momento to Dr.Atul Negi ,Branch Mentor.**

Dr Ch Venkateswara Rao, Group Head, NRSC, while pitching on key developments made through satellite communication systems, also pointed out and urged on the need to overcome key challenges like 'broadcasting of information in a time-bound manner', in the Satellite Image Processing Systems.



**Dr Ch Venkateswara Rao, Group Head, NRSC giving a lecture**

Dr B Sandhya, Associate Professor, Dept. of CSE, MVSREC, in her address, gave a detailed overview on implementation methods involved in executing research projects through 'Global and Local Feature Detectiona/Extraction' techniques.



**Dr B Sandhya, Associate Professor, Dept. of CSE, MVSREC addressing the workshop**

Dr Rajarshi Pal, Assistant Professor, IDRBT, delivered lecture on 'Applications of Visual Attention in Image Processing and Computer Vision', giving key inputs on methods of 'reducing the computational burden', 'suppresses irrelevant information' and 'discriminative treatment to scene components'.



**Dr Rajarshi Pal, Assistant Professor, IDRBT giving lecture.**

About Digital Image Processing:

Digital image processing is the use of computer algorithms to perform image processing on digital images. As a subcategory or field of digital signal processing, digital image processing has many advantages over analog image processing. It allows a much wider range of algorithms to be applied to the input data and can avoid problems such as the build-up of noise and signal distortion during processing. Since images are defined over two dimensions (perhaps more) digital image processing may be modeled in the form of multidimensional systems.

Many of the techniques of digital image processing, or digital picture processing as it often was called, were developed in the 1960s at the Jet Propulsion Laboratory, Massachusetts Institute of Technology, Bell Laboratories, University of Maryland, and a few other research facilities, with application to satellite imagery,wire-photo standards conversion, medical imaging, videophone, character recognition, and photograph enhancement.[1] The cost of processing was fairly high, however, with the computing equipment of that era. That changed in the 1970s, when digital image processing proliferated as cheaper computers and dedicated hardware became available. Images then could be processed in real time, for some dedicated problems such as television standards conversion. As general- purpose computers became faster, they started to take over the role of dedicated hardware for all but the most specialized and computer-intensive operations.With the fast computers and signal processors available in the 2000s, digital image processing has become the most common form of image processing and generally, is used because it is not only the most versatile method, but also the cheapest.Digital image processing technology for medical applications was inducted into the Space Foundation Space Technology Hall of Fame in 1994. In 2002 Raanan Fattal introduced Gradient domain image processing, a new way to process images in which the differences between pixels are manipulated rather than the pixel values themselves.

**Tasks:**

In particular, digital image processing is the only practical technology for:

- Classification
- Feature extraction
- Pattern recognition
- Projection
- Multi-scale signal analysis

Few Snap shots of the event.