

## 2<sup>nd</sup> National Workshop on “Techniques in Hyperspectral Data Analysis and Processing” 27<sup>th</sup> - 31<sup>st</sup> January, 2020

2<sup>nd</sup> National workshop on "Techniques in Hyperspectral Data Analysis and Processing" has been organized by the Institute of Environment and Sustainable Development, Banaras Hindu University in collaboration with the Department of Physics, IIT-BHU. The workshop was duly convened by **Prof. R. K. Mall, DST-Mahamana Centre of Excellence in Climate Change Research, IESD, BHU**. The inauguration took place in Senate Hall, Swatantrata Bhawan by the Chief Guest of the program, Prof. V. K. Gaur, Honorary Emeritus Scientist, CSIR-4PI, Bangalore. Prof. Gaur has emphasized the importance of Hyperspectral Technologies in the medical diagnostics, precision agriculture as well as in keeping the cultural heritage. The Guest of Honour Prof. P. K. Nag, Ex-DG, General Surveyor of India and Ex-VC, MGKVP has provided an overview of the benefits on hyperspectral data over multispectral data. Dr. Prashant K. Srivastava, Organizing Secretary has provided the outline of the workshop and vote of the thanks was proposed by Prof. Rajendra Prasad, IIT-BHU.

The workshop has received participation from renowned universities and Institutes across India. The workshop started with a lecture on “**Basics of Remote Sensing**” by **Prof. K N P Raju, Geography, BHU** followed by a session by **Dr. Lokesh Kumar Sinha, Director, DTRL-DRDO**. On “**Hyperspectral Remote Sensing**”. “**The Potential and Scope of Hyperspectral Remote Sensing Applications with Special Reference to Agriculture**” was delivered by **Dr. Bimal K Bhattacharya, Sr. Scientist, SAC ISRO**. The lecture was followed by a lecture on “**an Introduction to Software for Hyperspectral Data Analysis and Processing**”. This session was taken by Dr. P K. Srivastava, IESD, BHU.

The second day was started by Prof M. L. Khan, an eminent name in the Forest Ecology who delivered his talk on “**Forest across Climates and Biomes: an Indian Perspectives**”. The next lecture was on “**Tools and Techniques used in Ecological Analysis of Forest**” which was taken by Dr. Purabi Saikia, CUJ, Ranchi. The third lecture of the day was taken by **Prof. Mukund Behera, IIT Kharagpur** on “**Multispectral Remote Sensing in Forest Monitoring**”. The next lecture was taken by Dr. Amit Kumar, CUJ, Ranchi on “**Hyperspectral Remote Sensing for Forest Monitoring**”. The “**Hands-on Training in Hyperspectral Data Analysis for Vegetation Properties**” was taken by Dr. P. C. Pandey, SNU and Dr. Ramandeep K Malhi, IESD, BHU.

The third day started with a discussion on “**Disruptive Innovations in Precision Agriculture**” by **Prof. J Adinarayana, Head, CSRE-IITB**. A lecture on “**Hyperspectral Remote Sensing Application in Agriculture**” was taken by **Prof. R N Sahoo, Principal Scientist, IARI, New Delhi**). A “**Hands-on Training on Hyperspectral spectroradiometer**” was taken by (Mr. **A. Purshottaman, Manager, Electrotek, Chennai**). The last lecture of the third day was taken by **Prof. Chalapathi Rao, Geology, BHU** on “**Introduction to Mineralogy**”.

The fourth day started with an excursion to cultural tour to the celebration procession on the occasion of foundation day of University and Basant Panchami. The tour was followed by a demonstration of an Imaging spectrometer by **Mr. A. Purshottaman**. The most awaited lecture of the workshop was started in the afternoon session by **Prof. Ramkrishnan Desikan, Earth Sciences, IIT Bombay**. His lecture topic was “**Imaging Spectroscopy of Minerals**”.

The final day started with a “**Hands-on Training on PRISM for Mineral Identification**” by Dr. P. K. Srivastava in **High Performance Computing Lab, DST-Mahamana Centre of Excellence in Climate Change Research, IESD, BHU**. The last lecture of the workshop was taken by **Dr. Manika Gupta, University of Delhi** on “**Introduction to R language and its use in Image Processing**”. The Organizing Secretaries Dr. Prashant K. Srivastava and Prof. Rajendra Prasad, IIT-BHU has welcomed the Dignitaries and Participants of the workshop.

**Dr. P. K. Srivastava**  
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**IESD, BHU**

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