

NATIONAL CONFERENCE ON SIGNAL PROCESSING, SUSTAINABLE ENERGY MATERIALS AND ASTRONOMY AND ASTROPHYSICS

It is a matter of great privilege that School of Studies in Electronics & Photonics and School of Studies in Physics and Astrophysics and Luminescence Society of India organized 3-days National Conference on Signal Processing, Sustainable Energy Materials and Astronomy and Astrophysics (NSSEMA).

On the first day i.e. on 28th of March 2017, conference was inaugurated by chief guest Prof. R. K. Pandey, Vice-Chancellor of IMS-UNISON University, Dehradun, Guest of Honor Prof. K.V. R. Murthy, President of Luminescence Society of India (LSI), and Honorable Vice-Chancellor Prof. S. K. Pandey.

The inaugural session was started with the welcome speech by Prof. Kavita Thakur, Convener and Head Electronics followed by the releasing of souvenir. Chief Guest Prof. R.K Pandey has explored the opportunities in the area of Science and Technology. The informative speech was delivered by our Vice Chancellor, Prof. S.K. Pandey. Prof. K.V.R. Murthy briefly described the activities of LSI. In felicitation ceremony, Prof. D. K. Chakraborty, Prof. R. C. Agrawal and Prof. R. N. Baghel were honored for their extraordinary contribution in teaching and research. Vote of thanks was delivered by the secretary of the conference Prof. D. P. Bisen.



The technical session was started with invited talk by **Prof. Omar Farooq** of Aligarh Muslim University, Aligarh. He gave presentation on the topic “**MIND READING: EEG BASED DECODING OF IMAGINED WORDS**” in which he discussed about the human brain signal processing. The second invited talk was delivered by **Prof. Sanjiv Tokkekar** of Devi Ahilya University, Indore in the topic “**APPLICATION BASED VERTICAL HANDOFF DECISION IN UMTS-WLAN INTEGRATED NETWORK**”. He discussed about the UNIVERSAL MOBILE TELECOMM SYSTEM(UMTS) and hands-off scheme for mobile networking. **Prof. Shirshu Varma** of IIIT Allahabad also delivered invited talk in the topic “**CONFIGURING WIRELESS SENSOR NETWORK FOR 10 T APPLICATIONS**”. He discussed about the mechanism of sensor nodes for various 10T applications. 9 orals and 10 posters were presented by delegates from various institutes and colleges of Chhattisgarh and outside state.



On the second day of the conference i.e on 29 th March 2017, technical session on the topic Sustainable Energy Materials was organized. The session was started with invited talk-by **Prof. R. K. Pandey** in the topic “ **MATERIALS AND TECHNOLOGY FOR A SUSTAINABLE ENERGY FUTURE**” in which photovoltaic materials are discussed and focused in the issue that how to increase the efficiency of the solar cell. Followed by another invited talk by **Prof.K.V.R. Murthy** in the topic “ **NEW TRENDS IN LIGHT EMITTING DIODES(LED) AND PHOSPHORS**” in which he introduced about the Luminescent Materials , their applications and the fabrication of blue and white LEDs. A very interesting and conceptual invited talk was delivered by **Prof. B. S. Panigrahi**, Indira Gandhi Atomic Research Center, Kalapakkam on “**LUMINESCENCE STUDIES OF LANTHANIDES/URANIUM IN ALKALINE EARTH BOROPHOSPHATES**”. He discussed about the Luminestic property of Lanthanide Materials and its applications. **Prof. S. A. Hashmi** of Delhi University in his invited talk focused on **QUASI SOLID STATE SUPERCAPACITORS**, their fabrication and applications. He also discussed about the performance characteristics of the solid state EDLCs and Gel Polymer Electrolytes. 10 orals and 25 posters were presented by delegates from various institutes and colleges of Chhattisgarh and outside state.



In the award ceremony of LSI, life time achievement award was given to Prof. R. N. Baghel for his extraordinary contributions in the field of Luminescence.



A colorful event was organized in the second day evening in the campus auditorium by Swati Group of Management for the refreshment of the delegates.



On the third day of the conference i.e on 30 th March 2017, technical session on the topic Astronomy and Astrophysics was organized. The session was started with the technical talk by **Prof. Sunetra Giridhar**, IIA Bengaluru on the topic “**AN ECHALLE SPECTROGRAPH FOR TO 2m HCH SYSTEM**”. She has delivered a very interesting talk in very simple words about the development of system description for ECHELLE spectrograph and also focused on early science results, science drivers, the choice of optical design and HESP specification. **Prof. S. K. Pandey** delivered an extensive talk on the topic **ISOPHOTE SHAPES, DUST AND COMPLEX ISM IN NEARBY EARLY-TYPE GALAXIES (ETGS)**. He introduced what are the galaxies, early type of galaxies, galaxies morphology, and different shapes of galaxies. Next invited talk was delivered by **Prof. H.P Singh** of Delhi University on **ASTRONOMY IS LOOKING UP –INDIA’S PARTICIPATION IN THE MEGA PROJECTS**. He informed about the stars, how to measure brightness and temperature of stars, various instruments related with this measurements. He also introduced about the factors that are responsible for the selection of various types of telescopes. **Prof. M. K. Patil** of SRTM University, Nanded delivered talk in the **ACCRETION TRIGGERED AGN FEEDBACK IN THE CORES OF GALAXY CLUSTERS**. He also focused on the feedback processes that are involved in the cores of the galaxy clusters with an emphasis on the AGN feedback and its observable signatures.

Followed by two technical talks-

First one was delivered by **Dr. Parijat Thakur** of GGU, Bilaspur, an excellent talk on **TRANSIT TIMING VARIATIONS ANALYSIS OF EXTRA-SOLAR PLANET QATAR- 1B** using 38 curves. His research group had taken observations by 2m Himalayan Chandra telescope at the Indian Astronomical Observatory, HANLE, and India. Second one was delivered by **Lakshmikant Choure** on the topic **HUNTING FOR LOW SURFACE BRIGHTNESS GALAXIES THROUGH ASTRONOMICAL IMAGE PROCESSING**.

A very interesting an exhaustive invited talk on **ASTRONOMICAL IMAGE AND REMOTE SENSING IMAGE PROCESSING** was delivered by **Dr. G.R. Sinha**, CMR College Hyderabad. **Prof. Meera Ramkakyani** of Rani Durgawati University, Jabalpur delivered talk on **NANOSTRUCTURES AS SUSTAINABLE ENERGY MATERIALS IN PEC SOLAR CELLS**. She emphasized how to harvest energy from Die Synthesized and Multilayered Photochemical Solar Cell using various Nano Structures. 04 posters were presented in this session.



At the end, the vote of thanks has been given by Director of NSSEMA 2017, Dr. R. N. Baghel and best wishes were conveyed to all the delegates, participants, students and research scholars by the conveners Prof. Namita Brahme and Prof. Kavita Thakur.

