

61st DAE-BRNS Solid State Physics Symposium 2016

The annual DAE - Solid State Physics Symposium (DAE SSPS 2016) was held at the KIIT University, Bhubaneswar, Odisha, during December 26-30, 2016. This symposium is fully sponsored by Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE) and is held annually at different venues with a broad aim to bring together researchers working in various aspects of Condensed Matter Physics. About 1000 scientists, mostly from India and a few from abroad, participated in the symposium last year which was 61st in the series. Prof. S. Basu, Head, Solid State Physics Division, BARC, and Convener, DAE-SSPS 2016, welcomed the delegates of the symposium and gave an introduction to the symposium, in the inaugural session. Prof. P. P. Mathur, Vice chancellor KIIT University, Bhubaneswar welcomed the delegates of the symposium to KIIT University. The symposium was inaugurated by Prof. N. K. Sahoo, Assoc. Director, Physics Group, BARC. Prof. Srikumar Banerjee, Chancellor, HBNI & Ex-Chairman, AEC, in his address as chief guest of the symposium highlighted the importance of solid state physics research. Dr. S. K. Sahoo, Convener, Local Organising Committee addressed the delegates and highlighted the condensed matter research activity at KIIT University, Bhubaneswar. Dr. Shovit Bhattacharya and Dr. Surendra Singh, Scientific Secretary, 61st DAE-SSPS 2016, proposed the vote of thanks in the inaugural and in the concluding sessions of the symposium, respectively.

The technical session of this symposium was divided into invited talks, contributory papers in the form of oral and poster presentations, presentations by Ph.D. thesis candidates and Young Achiever Award (YAA) nominees. Last year, there had been very enthusiastic responses in terms of the number of papers submitted. We had received 1283 contributory papers from which 836 papers were chosen for presentation after a due review process by experts. In this symposium, 2 plenary talks, 50 invited talks, 24 oral presentations, and 800 posters were presented. The topics covered in the symposium were (a) Phase transitions (b) Soft Condensed Matter

including Biological Systems (c) Nano-materials (d) Experimental Techniques and Devices (e) Glasses and Amorphous Systems (f) Surfaces, Interfaces and Thin Films (g) Electronic Structures and Phonons (h) Single Crystals (I) Transport Properties (J) Semiconductor Physics (K) Superconductivity, Magnetism and Spintronics (l) Novel Materials. There were 8 thematic seminars on (i) Energy Materials (ii) Soft Condensed Matter (iii) Theoretical Condensed Matter (iv) Science using Neutron and Synchrotron facilities (v) Single crystal studies and application (vi) Physics of Low dimensional systems (vii) Functional materials (viii) In-situ studies with synchrotron radiation.

Two outstanding plenary talks were delivered: One entitled "Advance Functional Materials and Clean Energy" by Satish Ogale, IISER, Pune and another entitled "Active Matter: Bacterial Heat Engine, Flocking and Sorting" by Prof. A.K. Sood, IISc., Bangalore. The evening talks were delivered by Prof. S. Banerjee, Chancellor, HBNI & Ex-Chairman, AEC, on Order and Chaos in assemblies of Atoms and in Human Societies and by Prof. A.K. Samanta, KIIT & KISS, Bhubaneswar.

A panel of judges selected 3 Young achiever awards out of 10 participants. Another Panel of judges selected 3 best Ph.D. thesis awards out of 35 participants. Another panel of judges selected 24 best poster awards out of 800 posters. In the concluding session, YAA awards, Ph. D. thesis award and best poster awards were given away by Prof. Sasmita Samanta (Registrar, KIIT University Bhubaneswar), Prof. Saibal Basu (Convener, DAE SSPS 2016) and Prof. Amitabh Das (Co-Convener, DAE SSPS 2016), respectively. The first best thesis award presented by Mr. S. Gupta titled "Co-based nanocatalysts for efficient hydrogen production by electrolysis of water and hydrolysis of chemical hydrides" was sponsored by the Indian Physics Association (IPA) as IPA's Anil K. and Bharati Bhatnagar Best Ph.D. Thesis Award in Solid State Physics.