

## Summary of the National Conference on Nuclear Physics 2013

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The National Conference on Nuclear Physics (NCNP) was held at the School of Physics, Sambalpur University, Jyoti Vihar, Burla during March 1–3, 2013. This conference provided a platform for scientific discussions for three generations of Nuclear Physicists at a national level in the field of research on nuclear physics and related areas. There were 50 outstation participants from all over the country including 15 research scholars.

The NCNP consisted of 30 invited plenary talks including one key note address and 12 extremely high-quality contributed papers. This special issue of *Pramana – Journal of Physics* comprises original research papers presented in this conference. The invited talks (30±05 min duration) are authored by nationally reputed scientists and the contributory presentations have been (10±2 min duration) selected by a group of well-known physicists of the country. The talks of the NCNP were divided into two basic categories: nuclear experiments and nuclear theory, which covered a wide area of research, from fundamental theories to recent experiments.

Experimental results from low to high energy limits including a very good overview of Indian experimental set-up were presented by Dr S Kailas, Dr A K Jain, Dr R Palit, Dr S Ghugre and Dr S Mukhopadhyaya. The indoctrination talks in various fields of research such as nuclear structure, low energy reactions, nuclear-astrophysics were delivered by Dr C R Praharaj, Dr J N De, Dr C S Shastri, Dr V K B Kota, Dr S Pal, Dr R Sahu, Dr D N Basu, Dr S K Patra, Dr B Mohanty, Dr P K Sahu and Dr B K Agarwal. Very useful contributory talks were presented by research scholars and post-doctoral scholars from all over India. These talks reflected the present scenario of world-wide nuclear physics research.

Basically, all the talks at this conference encompassed active discussions starting from light mass to heavy and superheavy regions of nuclear chart including nuclear structure to nuclear reactions. Further, the decay properties such as  $\alpha$ -,  $\beta$ -,  $\gamma$ - and cluster-decay from the exotic nuclei including superheavy were discussed. We also learnt many new

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techniques, crucial phenomena and very useful formulae from the NCNP. Talks on very dilute matter to very dense matter like neutron star and supernovae were also included in the three days of the national conference. Finally, the felicitations to Dr S Kailas, Dr A K Jain, Dr J N De, Dr C S Shastry and Dr C R Praharaj will always be remembered as a unique and happy part of this memorable conference.