

N.1: Graduation Function of 10th Batch of BARC Training School, RRCAT



Graduating TSOs of the 10th batch of RTS posing for a photograph with the chief guest and other dignitaries

Twenty three Trainee Scientific Officers (TSOs) of the 10th batch of BARC Training School RRCAT successfully completed the one year orientation course (2009-2010). Dr. Srikumar Banerjee, Chairman Atomic Energy Commission (AEC) and Secretary Department of Atomic Energy (DAE), was the chief guest for the graduation function that held in the Central Complex auditorium of RRCAT on 28th August 2010. Dr. P. K. Gupta, Chairman Training School Committee RRCAT, welcomed the chief guest and other dignitaries with the welcome speech. The chief guest gave away the graduation certificates to all the TSOs. Shri Deepak Daiya bagged the prestigious Homi Bhabha medal and a cash prize of Rs. 5000, as the topper of the batch.

In his address as the chief guest, Dr. Srikumar Banerjee congratulated all the young officers for successfully completing the orientation course and choosing research and development in the field of science and technology as their career. He informed that the goal of DAE is to increase nuclear power generation to 35,000 MW by the year 2020 from its present capacity of 4,500 MW delivered by 19 functional nuclear reactors and five costal projects, each of 10,000 MW capacity, had already been approved for that. He deliberated on the plan of increasing use of indigenous thorium reactor technology for fulfilling this energy requirement. He also discussed about the challenges of radioactive waste management and the combined role of fast reactor and accelerator technology to solve this problem. Among other things Dr. Banerjee talked about the importance of nuclear liability Bill and also emphasized the necessity of promoting departmental research in healthcare and agriculture.

The function was presided over by Dr. P.D. Gupta, Director RRCAT. In his address, he told that India could rise through innovations in science & technology by skilled

human resource. He further informed that the University Grants Commission had identified Homi Bhabha National Institute (HBNI), as a unique university and ten students had enrolled for PhD programme of HBNI this year. Dr. S.B. Roy, Dean (Academic) HBNI at RRCAT was also present on the Dias. Shri S.C. Bapna, Head BARC Training School at RRCAT proposed a vote of thanks concluding the function.

*Reported by:
S.C.Bapna (bapna@rrcat.gov.in)*

N.2: National Laser Symposium (NLS-19) at RRCAT

The National Laser Symposium is an established annual event, with Raja Ramanna Centre for Advanced Technology (RRCAT), hosting the 19th in this series from the 1st to the 4th December 2010. There was a special session celebrating "50 years of the invention of laser". This symposium was sponsored by the Board of Research in Nuclear Sciences (BRNS) of Department of Atomic Energy.

The inaugural function was held at the Central Complex Auditorium at RRCAT on 1st December morning, which was presided over by Dr. P. D. Gupta, Director RRCAT. The chief guest of the function was Dr. R. Chidambaram, Principal Scientific Advisor to the Government of India. The other dignitaries present at the dais were: Prof. A. K. Sood, (Professor, IISc Bangalore), Dr. P K Gupta (President, Indian Laser Association), Dr. P A Naik, (Convener, NLS-19) and Dr. Arup Banerjee (Secretary, NLS-19).

In his inaugural address, Dr. P. D. Gupta welcomed the Chief Guest Dr. R. Chidambaram and all the participants of the symposium coming from the various parts of the country. This was followed by an address by Dr. R. Chidambaram titled: "Laser, Photonics, Development and Society". In his presentation, Dr. Chidambaram highlighted the various milestones achieved by some of the premier institutes of the country in the sphere of laser developments and their applications. The key note speaker, Prof. A. K. Sood, in his talk titled: "Laser as a lifeline for a condensed matter physicist", highlighted the significant role that laser plays in the carrying out various spectroscopies, including Raman spectroscopy. The inaugural session concluded with a short review of the Indian Laser Association (ILA) activities by Dr. P. K. Gupta and a vote of thanks by Dr. P. A. Naik, convener of the symposium. This was followed by inauguration of Laser Exhibition (organized by ILA) by Dr. R. Chidambaram.

To mark the completion of 50 years of the invention of laser, a special session was organized on the first day afternoon. In this session, five posters depicting the development of lasers and their applications to various aspects of human life were unveiled. A booklet detailing the works of nearly 40 pioneers of lasers was released. In

addition, a special first day cover issued by the Department of Posts was released. Prof. A. K. Sood, Dr. D. D. Bhawalkar (former director, RRCAT), Prof. K. C. Rustagi (IIT, Mumbai), Dr. P. D. Gupta, and Shri. V. C Rai, (Director, Postal Services, GPO Indore), were present on this occasion. The postal department also organized a sale of the first day cover on this occasion. This was followed by a special technical session with the first talk by Dr. D. D. Bhawalkar, who traced the history of laser development and some of their recent applications in his talk titled: "50 glorious years of laser". Prof. K. C. Rustagi gave the next talk titled: "Lasers at 50, their impact on basic sciences", where he highlighted some of the significant work on non-linear optics, laser atom cooling etc. which were only possible due to the development of lasers.

Besides the above, there were seven technical sessions with a total of eighteen presentations by several luminaries in

the sphere of lasers and laser applications from all over India and three scientists from abroad. These sessions covered the following topics: Societal Applications of Lasers, Novel Lasers and Applications, Fibre & Adaptive Optics, Laser Spectroscopy, Non-linear Optics, Material Processing with Lasers, and Nano-science with Lasers. There were three poster sessions, where students and young researchers presented their research works. There were two sessions for these presentations also, where seven Ph.D. theses on topics related to lasers and their applications were presented. The total number of posters presented in this symposium was 312, and the number of participants was 550. Both these numbers are the highest ever for any of the National Laser Symposiums held so far. The Ph.D. students' participation was also all time high at 150. The NLS-19 website used for information exchange among the organizers and participants in an on-line fashion was highly appreciated by the participants.

ILA plays a key role in the organization of this symposium. Like other years, this year too, ILA organized an exhibition of lasers and other related products, where several industries and business establishments participated. The ILA Annual General Body Meeting was also held on the first day (evening) of the symposium. ILA also organized the assessment of all theses and posters. Two best thesis awards consisting of cash prize of Rs 5,000 each and six best poster awards consisting of cash prize of Rs. 1,500 each, were given by ILA. The best thesis presentation awards were given by Dr. P. D. Gupta and the best poster awards were presented by Dr. P. K. Gupta in the concluding session.

At the end of this session, Dr. P. A. Naik thanked all the participants of the symposium and the members of various committees for the successful organization of the symposium. Finally, Dr P. D. Gupta made his observations on the conference, and thanked all persons for their support in making the symposium a grand success, and declared the symposium closed.

*Reported by:
Dr. Tapas Ganguli (tapas@rrcat.gov.in),
Dr. Arup Banerjee and Dr. P.A.Naik*



N.3: I-IIFC Interaction Meeting at RRCAT

Under the aegis of Internal Committee for Indian Institutions' Fermilab Collaboration (I-IIFC), a Three day Interaction Meeting between Fermilab and Indian scientists was organized at RRCAT during October 26-28, 2010 to further enhance the collaboration in the areas of superconducting radiofrequency (SCRf) technology, accelerator physics design and related infrastructure. A group of 12 senior scientists from Fermilab, USA, were at RRCAT to attend the meeting which included Dr. Stephen Dockler Holmes, Dr. Robert Kephart, Dr. Stuart Douglas Henderson