

N.1: Graduation Function of 11th Batch of BARC Training School, RRCAT

The Graduation Function Ceremony of the 11th batch of BARC Training School, Raja Ramanna Centre for Advanced Technology (RRCAT), Indore was held on Friday, 26th August, 2011 at RRCAT, Indore. In this batch eleven Trainee Scientific Officers (TSOs) successfully completed the orientation programme. Dr. Ratan Kumar Sinha, Director, Bhabha Atomic Research Centre and Member, Atomic Energy Commission was the Chief Guest and gave away the Course certificates to all the TSOs and presented the prestigious Homi Bhabha Medal and Prize to Shri Mohit Bansal, the topper of the Batch.



Graduating TSOs of the 11th batch of BARC Training School RRCAT posing for a photograph with the chief guest and other dignitaries

In his chief guest address, Dr. Sinha recognized the significant efforts of RRCAT scientists, engineers and other staff members in setting up of INDUS-2 and making the machine operational continuously 24 hours and said, "It does tell a lot about the efforts that have been made to make sure that this machine, which is painstakingly built, constructed and operated, serves the purpose of becoming a research tool for the community within DAE as well as outside in the service of science". He further appreciated the addition of new beam lines for accelerating the research in the area and said, "New beam lines have come since my last visit, number of beam lines has increased from 3 to 6. The maximum duration for which the beam is available continuously is doubled. It is matter of great satisfaction to see that we have not only achieved it, but also understood the science of all the structures and components that is required for an accelerator through meeting the challenges not only at the design, erection and

commissioning stages but also in operational stage." Pondering the appreciation on the indigenous development of import substitute Klystron by Solid state amplifiers, he said, "When the klystrons, which have been imported so far, are failing and will not serve a lifetime to come into future, the community over here took it upon itself a challenge to develop solid state amplifiers that serve as equally good substitute and we are proud that the technology has been brought to the perfection". Describing the position of Indian nuclear programme in the global scenario, he said, "We stand proud and tall in presence of any community in the world having mastered all aspects of Nuclear science and technology." He added, "The advancement in lasers and their applications at RRCAT is being used for cutting and welding at several nuclear reactors. New laser rapid manufacturing technology has immense potential for various nuclear applications including the transition joints of Zircaloy-Stainless Steel." Further, describing the excellence of RRCAT in accelerator technology, he said, "We have mastered the synchrotron radiation source facility in all aspects: design, manufacturing, commissioning, operation and trouble shooting, this is a great achievement and I congratulate all of you in RRCAT for having demonstrated your excellent accentuation, dedication for achieving the singular milestone. I see nothing can prevent you to reach higher and greater heights, because our ambition goes beyond." He asked RRCAT scientists/engineers to take up the challenge of delivering accelerator technology to serve in the third and later stages of Nuclear Power Programme for dealing with thorium on a large scale and to deal with long lived radio nuclides. He further asserted that the deployment of accelerators would contribute a lot in terms of production of power generation using new materials.



Dr. P D Gupta, Director RRCAT presenting memento to Dr. R K Sinha, Director BARC during the graduation function.



Addressing to TSOs, Dr. Sinha congratulated the new-comers to DAE family and said, "I can say that you will stand proud and tall when you are working for the DAE at any capacity, because you are second to none in science and technology. Another thing I would like you to remain focused particularly, on delivery. Examine first, for what are we in the DAE? Should we be doing something that can be done in any other scientific institution, like- IITs or other university? We should not be. Should we be doing something for which a supply is readily available and it is not under embargo? I do not think we should be doing that. In my view, we should be working in three types of deliveries. Number one, we do work for providing deliveries to our own Atomic Power Programme. We must be self-reliant in all the technologies, all the hardware, all the materials that are necessary for a sustainable Nuclear Power Programme in our country. Number two, deliverable should be for the society at large. It may not be high technology but no commercial entities will really try to venture into those areas, for example enhancement of rural employment, providing clean drinking water. You provide drinking water to those areas where there is no clean source of water available but then we have some other sources brackish water or sea water. We at BARC have developed our own membrane technology which is available very cheaply in the country and can be converted them into small RO plants. And number three, something which is of world class cutting edge that makes us stands apart in the areas of basic and applied research. I wish you all a very successful professional career."

Dr. P. D. Gupta, Director, RRCAT presided over the function and delivered president's address. Welcome address was delivered by Dr. P. K. Gupta, Chairman, Training School Committee. Shri S. C. Bapna, Head, Training School proposed a vote of thanks.

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N.2: CAT-I and CAT-II Stipendiary Training Programme

Subsequent to the creation of posts of Scientific Assistants and Technicians during XI five year plan period; an intensive stipendiary training programme (STP) for four disciplines (Electronics & Instrumentation engineering, Electrical engineering, Mechanical engineering and Physics) is designed and is running successfully to cater the specific requirements of on-going research and development projects at RRCAT. The training programme includes one module of 4 month's half day class room teaching with lab

visits in another half, two modules of two months lab training and one module of advanced lab training of four months for CAT-I, while one module of 4 month's half day class room teaching with lab visits in another half, two modules of four months lab training and two modules of advanced lab training of six months for CAT-II. A total 40 (CAT-I: 20 and CAT-II: 20) joined this training programme. In STP, 20 CAT-I trainees have successfully completed the training programme and the training of CAT-II trainees is under progress. More than 50 lecturers were involved in the class room teaching. New batch of STP CAT-I and CAT-II is started on February 13, 2012 to start in the middle of February 2012.

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N.3: IPv6 Technical Meet

'IPv6 Technical Meet' was organized at RRCAT during Aug. 17-19, 2011. Dr. P. D. Gupta, Director, RRCAT, presided over the inaugural function held on 17th Aug. 2011. The keynote talk was delivered by Shri A G Apte, Head, Computer Division, BARC, Mumbai. Dr. Anil Rawat, Head, Computer Division, RRCAT welcomed the participants and informed the details of three days technical meet of Computer Network Experts of DAE. Shri S.S. Tomar proposed the vote of thanks.

In the inaugural speech, Dr. P. D. Gupta, Director, RRCAT briefed the audience about major activities of RRCAT in the field of Lasers and Particle Accelerators. He mentioned that IT facilities like Email, Internet play an important role in research and development activities. In a very lucid manner he compared the days of inception of Email facility at RRCAT and what is prevailing today. He expressed that migration from IPv4 to IPv6 is an important task and needs to be addressed in time.

In his keynote address, Shri A. G. Apte emphasized the importance, need and challenges of IPv6 migration in the field of Computer Networking. He elaborated the evolution process from IPv4 to Ipv6 and also on the security issues associated with Ipv6 implementation. He discussed the role of IPv6 in upcoming areas like Mobile Devices, Adhoc Networks etc.

Around 40 participants from various units of DAE attended the meet. There were invited talks by Network Experts of DAE units on varied topics related to IPv6 Technologies, Migration plans and Implementation details.

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