

N.5: First Orientation Course on Accelerators, Lasers and related Science and Technologies (OCAL) - 2015 at RRCAT

As a part of Public Outreach Programme, RRCAT has initiated a certificate course titled "Orientation Course on Accelerators, Lasers and related Science and Technologies (OCAL)". The first orientation course, OCAL-2015, was organized from May 25 to July 17, 2015. The course is structured to impart a basic understanding of particle accelerators, lasers, their applications and various technologies associated in making these. This way it is intended to motivate the students to take up their career in science and technology in general and accelerators and lasers in particular. The students were taught the fundamental aspects of the subjects, its relevance to the existing programs of accelerators and lasers with more emphasis on the experimental aspects. Forty post-graduate students who had completed the penultimate year of M.Sc. (physics) and M.Tech./M.E. in mechanical, electrical, electronics and computer engineering, were selected from all over India.

OCAL-2015 was inaugurated by Dr. Srikumar Banerjee, Homi Bhabha Chair Professor, and former Chairman, AEC & former Secretary, DAE, on May 25, 2015. Dr. Banerjee delivered a talk on "Role of Accelerators in Evolving Nuclear Fuel Cycle".



Dr. S. Banerjee releasing the OCAL-2015 Course Book during inauguration function.

RRCAT scientists and engineers conducted over 80 hours of theory classes, covering basics, applications and technologies, introduction to computational tools, guidelines for scientific writing, research and carrier opportunities in DAE/RRCAT. Training on basic experimental techniques/skills through a variety of hands-on experiments is an important and unique aspect of OCAL-2015. In all, twenty hands-on experiments were set-up for the participating students, including the experiments on Indus-2 beamlines and a transport line of the machine itself. Visits to 18 laboratories of RRCAT were organized to introduce the students to the state-of-the-art R & D being carried out in various areas. Ten invited talks by eminent scientists and technocrats, where

intense and curiosity-driven interaction of students with the invited lecturers took the course to greater heights. Every student was provided with a topic for self-study and was asked to present a 15-minute seminar in order to nurture his communication and presentation skills. Towards the end of the course, the students were examined for the grasp of course content.

Padma Vibhushan, Dr. M. R. Srinivasan, Member, AEC and former Chairman, AEC & former Secretary, DAE was the Chief Guest of the Concluding Function of OCAL-2015, which was held on July 15, 2015. Dr. Srinivasan delivered a talk on "Indian Nuclear Power Programme" and awarded the Certificates to all forty participating students of the course.



Dr. M. R. Srinivasan distributing certificates to the participating students during the concluding function.

The students organized and participated in a Cultural Evening performing drama, dance and songs. A one day education tour to a nearby historical place, Mandu, and associated museums was also organized. The students were provided with free lodging and boarding at RRCAT Guest House and were given an additional stipend at the rate of Rs. 1500 per month. To and fro II class (sleeper) train fare by the shortest route, from the place of their present institute of study or residence, to Indore, was reimbursed. The students were also provided with a study kit.



Participating students of OCAL-2015 with members of the Public Outreach Committee.

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