

N.8: Fifth Orientation Course, OCAL-2019

The eight-week long fifth Orientation Course on Accelerators, Lasers and related Science and Technologies (OCAL-2019) was organized at RRCAT from 20th May to 12th July 2019. In all, 39 post-graduate students from 12 states of India, who had completed the penultimate year of M. Sc. (Physics) and M. Tech. / M. E. in various engineering disciplines, participated in OCAL-2019. The course was inaugurated by Dr. A. K. Sinha, Director, UGC-DAE Consortium for Scientific Research, Indore. Dr. Sinha released a OCAL-2019 Course Book and Hands-on Experiments (HoE) booklet. He also delivered a talk on *Fusing Heavy Nuclei through Barrier Tunnelling*.



Dr. A. K. Sinha releasing OCAL-2019 course material during the inaugural function.

OCAL is intended to make the students aware of high quality research opportunities in the country and extend the benefits of the available scientific expertise and advanced facilities. The aim is also to encourage them to take up their career in science and technology, in general, and, accelerators and lasers, in particular.

The OCAL-2019 course was a combination of theoretical as well as experimental training on various topics of accelerators and lasers. The lectures, categorised into basic fundamentals, technologies and applications of accelerators and lasers, were delivered by RRCAT engineers and scientists. Six invited talks from senior scientists and technocrats from BARC, IUAC, University of Hyderabad and RRCAT were also organized. Further, twenty hands-on experiments, including the experiments on Indus-2 beamlines and transport lines, visits to various laboratories in RRCAT, 39 student's seminars based on the topics of self-study, discipline-wise lab

interactions and visit to ARPF were arranged. About 15 participating students are expected to carry out M. Tech/ M.Sc. project work at RRCAT towards partial fulfilment of their degree.



Cultural evening "Srijan" by OCAL-2019 students.

The students were provided with free lodging and boarding at RRCAT Guest House & Hostels Complex, an additional stipend of ₹ 1500 per month, a study material kit and to-and-fro II class (sleeper) train fare by the shortest route. A cultural evening "Srijan" was also organised by the OCAL students.



Dr. R. K. Sinha awarding OCAL-2019 certificate to one of the participating students.

The concluding function of OCAL-2019 was organized on July 12, 2019. Dr. R. K. Sinha, former Chairman, AEC and former Secretary, DAE was the Chief Guest of the function. All 39 participating students successfully completed the course. Dr. Sinha awarded certificates to the students. He also delivered a stimulating talk overviewing the past and present scenario of nuclear energy, and the path that led to India's self-reliance in this field.

*Reported by:
Purushottam Shrivastava (purushri@rrcat.gov.in)*



OCAL-2019 students with Dr. R. K. Sinha and other dignitaries during the concluding function.