CONFERENCES / WORKSHOPS / SEMINARS

Indus-2 users' meeting

A one day meeting to discuss the design of various beam lines for Indus-2 was organised by Inter University Consortium (IUC) at CAT on Aug 7, 1992. The DAE scientists involved in the development of Indus-2 and the potential users from the various academic institutions participated in the meeting. The meeting was inaugurated by Dr. D D Bhawalkar, Director, CAT and Prof R Srinivasan, Director, IUC welcomed the participants. In the pre-lunch session, technical details of Indus-2, infrastructural facilities planned at site and details of the beam lines to be developed and installed at Indus-2 were presented by CAT scientists. In the post-lunch session, the various experiments proposed to be carried out at Indus-2 were discussed. The meeting provided an opportunity for detailed discussion between machine designers and users so that necessary design changes, if any, can be incorporated.

Workshop on physics of lasers

The Inter-University Consortium (IUC) for DAE facilities in collaboration with CAT organised a two week course on the physics of lasers from Sept. 14 - 25, 1992 at CAT, Indore. The participants of the course were drawn from universities and institutes all over India and numbered 41 including 15 from CAT. The teaching faculty comprised of 17 lecturers drawn from various institutions; CAT Indore, IIT Madras, BARC Bombay, TIFR Bombay, IISc. Bangalore and IIT Delhi. The course had 52 hours of lectures and 27 hours of laboratory work. The topics covered included introductory quantum optics, basic laser physics, representative lasers, optical resonators, nonlinear optics and topics of current research interest. The course was co-ordinated by Prof. B M Sivaram, IIT Madras and Dr. P K Gupta, CAT. Dr. D D Bhawalkar, Director, CAT inaugurated the course and briefed the participants about the laser and accelerator programmes at CAT. Prof. R Srinivasan, Director, IUC welcomed the participants and informed them about the facilities available at IUC and exhorted them to make use of these.

Winter workshop on coherent radiation sources

A workshop on coherent radiation sources was held at CAT from Dec. 21-26, 1992. This workshop, a follow up of the second SERC summer school on coherent radiation sources held at IIT Delhi in May 1992, was organised by Prof. K P Maheshwari of DAVV and sponsored by the Institute for Plasma Research (IPR), Gandhinagar. The topics discussed at the workshop included physics and technology of free electron lasers, generation, transportation and diagnostics of relativistic electron beams, optical resonators, undulators, microtrons and pulsed power systems. Besides these, design and feasibility of making a 10.6 μm free electron laser using the 20 MeV microtron at CAT was discussed in detail. The workshop was attended by 30 participants from all over the country and the lectures were delivered by scientists from various organizations such as BARC, CAT, CEERI, DAVV, IIT Delhi, IPR and Poona University. Dr. D D Bhawalkar, Director, CAT inaugurated the workshop and Prof. U S Chaudhary, Vice Chancellor, DAVV presided over the inaugural function.

PUBLICATIONS

In Journals

1. "Imaging characteristics of torroidal and ellipsoidal mirrors for synchrotron radiation source Indus-1", K J S Sawhney and R V Nandedkar, Pramana-J Phys., 39, 177-180, 1992.
2. "Theoretical study of the feasibility of dual-band multiline operation of a TEA CO_2 laser with intracavity Fabry-Perot etalons", B Jain and P K Gupta, Appl.Phys.,B 54, 534-537, 1992.
3. "Magnetic field dependence of the harmonic generation in sintered pellets of YBaCuO : The history effects", S B Roy, S Kumar, P Chaddah, R Prasad and N C Soni, Physica C, 198, 383, 1992.
4. "Competing interactions and spin-glass like features in UCu_2Ge_2 system", A Chakravarti, R Ranganathan and S B Roy, Phys.Rev.,B 46, 6236, 1992.
5. "Minor hysteresis loop and harmonic generation calculation in a generalised critical-state model", P Chaddah, S B Roy, S Kumar and K V Bhagwat, Phys.Rev.,B 46, 11737, 1992.
6. "Comment on magnetic-flux profiles of high-T_C superconducting granules : Three-dimensional critical-state-model approximation, P Chaddah and K V Bhagwat, Phys.Rev.,B 46, 14926, 1992.