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34. "Indus-1 beam lines", R V Nandedkar, invited talk, *ibid*.
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OTHER ACTIVITIES / NEWS

DAE-CERN collaboration agreement for LHC.

A protocol agreement for Indian participation in the world's largest particle accelerator "The Large Hadron Collider" (LHC) was signed by Chairman, AEC & DG, CERN on March 29, 1996.

CERN, an European organization for nuclear research, has launched construction of LHC (27 Km circumference). This will accelerate & collide protons at 14 TeV and heavy lead ions at 1150 TeV energy. This is expected to create a quark-gluon plasma, similar to that which existed at the time of the Big Bang. The LHC will have Super conducting magnets operating at 1.9 K (super fluid liquid Helium) with a magnetic field of about 9T. It is scheduled to be commissioned by year 2004. European member states of CERN felt that it would be difficult to complete the LHC project (estimated cost US\$ 2500 millions) in a reasonable time frame on their own due to inadequate funding and non-availability of highly skilled manpower in required numbers. In addition to this, operating such a large machine would be quite expensive. Therefore, CERN decided to ask the potential user countries for their contributions in construction of the LHC as well.

The agreement with India envisages contributions to the tune of US\$ 25 Million by India to LHC in kind i.e. by way of supply of goods like super conducting magnets, UHV components, cryogenic vessels etc. and services like magnetic measurements, software development etc., during a period of about 8 years of construction of LHC.

Indo Japan agreement on SPring-8

The SPring - 8 project is to construct a large scale, advanced synchrotron radiation facility and to promote

fundamental science in the field of synchrotron radiation research. The facility, currently under construction in Harima Science Garden City, Hyogo Prefecture, near Osaka, is to be commissioned in 1997. The facility basically comprises of three accelerators; a 1 GeV preinjector linac, an 8 GeV booster synchrotron and a 8 GeV storage ring. The storage ring has a circumference of 1436 m. It will generate X-ray and also VUV radiation with various kinds of undulators.

An academic exchange agreement between the Institute of Physical and Chemical research, Japan (RIKEN) and the Centre for Advanced Technology (CAT) on behalf of national institutes and university was signed by Prof H Kamitsubo, Director RIKEN and Dr D D Bhawalkar, Director CAT. The agreement signed for five years envisaged cooperation developed through joint research



Dr R Chidambaram, Chairman, Atomic Energy Commission & Secretary, DAE (left), Prof CH Llewellyn Smith, Director general, CERN (centre) and Dr D D Bhawalkar, Director CAT at the time of signing the DAE-CERN collaboration agreement for LHC.

एक-दिवसीय वैज्ञानिक संगोष्ठी

राजभाषा कार्यान्वयन समिति द्वारा २५ मार्च, १९९६ को "केट में विज्ञान और प्रौद्योगिकी" विषयक एक एक दिवसीय वैज्ञानिक संगोष्ठी का आयोजन किया गया। इसके उद्घाटन सत्र में मुख्य अतिथि के रूप में न्यायमूर्ति श्री गोवर्धन लाल ओझा ने अपने विचार व्यक्त करते हुए कहा कि यदि विज्ञान के क्षेत्र में अंग्रेजी प्रयोग में सरलता और साध्यता की बात मान भी ली जाए लेकिन अन्य विषयों में विशेषकर जैसे कानून में यदि हम देखें तो अंग्रेजी भाषा के व्यवहार में बहुत से स्थानों पर दोहरे अर्थों की संभावना से इंकार नहीं किया जा सकता है। इसकी तुलना में, हिन्दी भाषा सुस्पष्ट एवं सुविचारित वैज्ञानिक सिद्धांतों पर आधारित है। इसमें जो कहा जाता है, वही आशय होता है अतः हिन्दी का प्रयोग बढ़ाना देश के व्यापक हित में होगा।

विज्ञान के विषय और वैज्ञानिक गतिविधियों सदैव ही प्रबुद्ध-जनों के लिए रुचि और जिज्ञासा का विषय रही हैं। प्रगत प्रौद्योगिकी केन्द्र, इन्दौर, इन्दौर इन मानवीय उत्सुकताओं को ध्यान में रखते हुए और आम



केट में विज्ञान और प्रौद्योगिकी संगोष्ठी के अवसर का दृश्य। बाएँ से श्री आर.के. सैनी, डॉ. के.सी. रस्तोगी, न्यायमूर्ति श्री गोवर्धन लाल ओझा, श्री सी.वी. गोपालकृष्णन और श्री सुनील सरवाही।

लोगों के केन्द्र के कार्य-कलापों और अनुसंधान कार्यों से परिचित कराने के उद्देश्य से, पिछले कई वर्षों में हिन्दी भाषा में संगोष्ठियों का आयोजन करता आ रहा है। इस क्रम में यह छठी गोष्ठी थी।

programmes and access to each other's synchrotron facilities by exchange of visits, lectures, joint symposia, joint seminars and similar events; exchange of research materials and other form of scientific and technological information.

Under this agreement, a joint Indo-Japanese meeting was organised at BARC on July 22, 1996 to explore the possibility to build an Indian beam line on SPring-8. About 50 scientists from different universities and national laboratories in India and seven scientists from SPring-8 attended the meeting. The meeting discussed that an Indian beam line be built on SPring-8 with two experimental stations in tandem for surface and bulk studies. This facility will be available to all Indian users from universities and national labs.

Snippets

- Paper entitled "Development of magnetic devices for Accelerators", authored by Shri R S Shinde was adjudged the best paper in Seminar and meeting of "Magnetic Society of India", held at Pune during May 14-15, 1996. He has also been elected as executive council member of MSI, Hyderabad for the year 1996-97.
- Ms Sunita Agnihotri a research scholar from Holker Science college, Indore was awarded MP Young Scientist Award 1996 for presentation of her work on "Effect of lasers on skin" at 11th MP Young Scientist congress held at Rani Durgawati University, Jabalpur. Ms Sunita Agnihotri did this work as a part of collaborative programme between CAT and Holker Science college, funded under National Laser programme.

CAT NEWSLETTER is a publication of :

Centre for Advanced Technology,
P.O. CAT,
Indore (MP) 452 013,
India.

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