

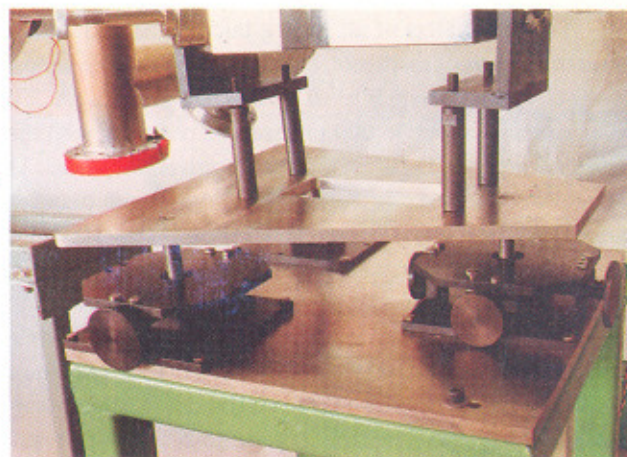
For the first commissioning trials the Atomic Energy Regulatory Board (AERB) gave clearance for operation of microtron only up to an energy of 8 MeV and 20 mA current, from radiation safety considerations. After getting the clearance from AERB the microtron will be commissioned to its designed parameters.

#### Specifications of Microtron

Electron beam energy	8/12 MeV
Energy spread	0.35% max
Pulse current	50 / 30 mA
Pulse duration	2.5 $\mu$ sec max
Pulse repetition rate	upto 250 Hz

#### Kinematic Mount System

Different ultra high vacuum chambers of synchrotron radiation beam line need good optical alignment. To align the mechanical axes of these chambers to the optical axis of the beam line, a system with independent translation and rotational movement of chamber is required. For this purpose, a kinematic mount system has been developed. It consists of



Kinematic Mount System for Synchrotron Radiation beam line.

three precision studs, assembled with plane spherical angular contact thrust bushing. These three precision studs are arranged in a triangle, in such a way that one of the studs is placed on the mechanical axis of the beam line and held in a movable cross slide. The system has been designed to take a load of 50 kg.

The above kinematic mount system has been fabricated and one of the ultra high vacuum chambers of the beam line viz. laser alignment box has been aligned using it.

## INFRASTRUCTURAL DEVELOPMENT

#### Computer facility

Access to the global computer network 'Internet' is now available at CAT. A high speed (128 KBPS) link using VSAT has been setup between CAT and STP, Bangalore. A router provides gateway services between CAT computer network CATNET and the Internet. The Internet access at CAT provides services like electronic mail, file transfer (ftp), remote login to other computers (telnet) and host of information browsing services like Archie, Gopher, World Wide Web etc. Information on the books and journals in CAT library has also been made available on Internet. A transit node of ERNET has been setup at CAT providing the Internet and E-mail services to central India. One POWER PC based on PC-601 processor has been connected to CATNET. All Internet browsing tools like Netscape, video and audio players etc. have been installed on this machine.

One high speed graphics work station DEC Alpha AXP 3000 has been installed at Computer Centre. This is the fastest

computer system (LINPACK rating 80 MFLOP) available at CAT for scientific computing. The Configuration of computer system is Alpha 21604 at 175 MHz, 64 MB RAM, 2 GB HDD, 32 Bit plane graphics, 21" Colour monitor, OSF-1 and F77. Various information management systems in CAT have been moved to a new and more standard platform i.e. INGRESS RDMBS on Intel based UNIX servers. Library has also been shifted to LIBSYS on a new UNIX server.