6MeV Medical Linear Accelerator

Introduction

The Medical Linear Accelerator (LINAC) is a high energy x-ray machine used for radiation therapy treatment of deep seated cancers. It was a multiagency project involving SAMEER-Mumbai (nodal lab), CSIO-Chandigarh, PMT-Bangalore and TSG Integration-New Delhi in the development of this machine under the sponsorship of DIT (now MeitY), New Delhi.

Features

- The 6MeV LINAC program is an Integrated Oncology System with computerized controls.
- Main Sub-systems of the machine are, 6MeV LINAC tube and beam control system, LINAC handling & collimation system, Patient alignment system, Field and Range optics and 3-D treatment planning system & virtual simulator.
- CSIO developed LINAC beam handling (gantry system), patient alignment system and Field & Range optics in the project.
- Radiation accuracy
- Precise positioning

Users

- Radiotherapy department of hospitals

Status

- Six such machines were developed and deployed at govt. hospitals at different locations in the country for patient treatment.