

RESOURCE PERSONS

Resource persons of the course are faculty members from IISc / IIT / IIST and experts from Industry.

REGISTRATION

Course fee : Rs.5000/- (Inclusive of boarding and lodging expenses.)
Participants will be provided lodging facilities at IIST campus on request.
Scientists / Engineers of various units of ISRO who wish to attend the course should submit their application on-line at the following link before 31st October 2015.

www.iist.ac.in/pess

The selected candidates will be intimated through email on or before 5th November 2015. The selected candidates then will have to take a print of the submitted application and forward it through proper channel along with a demand draft of Rs.5000/- drawn in favour of REGISTRAR, INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY, payable at Thiruvananthapuram so as to reach the address given below on or before 15th November 2015.

- * TA / DA will not be paid to the participants.
- * Registration will be done on a first come first serve basis.
- * Maximum number of participants is limited to 30.

ADDRESS FOR CORRESPONDENCE

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Indian Institute of Space Science and Technology

Short Term Course on **POWER ELECTRONICS FOR SPACE SYSTEMS** December 07-11, 2015

Department of Avionics
Indian Institute of Space Science and Technology
Dept. of Space, Govt. of India,
Thiruvananthapuram - 695547



ABOUT THE INSTITUTE

Indian Institute of Space Science & Technology (IIST) is Asia's first Space Institute and the first in the world to offer complete range of undergraduate, post graduate and doctoral programmes with specific focus to space science and technology. The Institute has the unique mandate of encouraging and equipping brilliant youngsters from all parts of the country to take up career as Scientist/Engineer in Indian Space Research Organization. IIST functions as an autonomous body under the Department of Space, Government of India.

ORGANIZING DEPARTMENT

The Avionics Department offers a four year B.Tech Programme in Avionics Engineering which gives technical excellence in all areas of Avionics engineering such as Digital System Design, Digital communication, VLSI Design, Navigation, Guidance and Control, Digital System Design, Computer Technology and Power Electronics. In addition, the department offers M.Tech in RF and Microwave Communication, Digital Signal Processing, Control systems and VLSI & Microsystems. The Department also offers Ph.D program in various disciplines of Avionics like Electronics, Electrical Engineering and Computer Science.

TARGET AUDIENCE

Scientists / Engineers from Indian Space Research Organisation.
Minimum educational qualification : B.Tech / BE in Avionics / Electrical & Electronics Engg./ Electronics and Communication Engg. / Applied Electronics.

COURSE OBJECTIVES

The main objective of the course is to impart necessary knowledge and skill for developing Power Electronic Systems for Space applications. The course topics include:

- ☆ ELECTRIC POWER SUPPLY SYSTEM OF A SPACECRAFT.
- ☆ SWITCHED MODE POWER CONVERSION.
- ☆ DC – DC CONVERTERS FOR SPACE SYSTEMS.
- ☆ MODELLING AND CONTROL OF POWER ELECTRONIC CONVERTERS.
- ☆ DIGITAL CONTROLLERS FOR POWER ELECTRONIC SYSTEMS.
- ☆ EXTRACTION OF POWER FROM SOLAR PANELS.
- ☆ ELECTRIC DRIVES FOR SPACE SYSTEMS.
- ☆ EMI / EMC ISSUES IN POWER ELECTRONIC CIRCUITS.

There will be theoretical sessions as well as laboratory sessions for hands-on training.