

REGISTRATION

Online registrations must be done at <https://bit.ly/2YSzX09> against which a registration number will be allotted. Then a signed printout of the application must be sent to the corresponding address along with the Demand Draft for requisite amount drawn in favour of "The Registrar, IIST" payable at Trivandrum, towards applicable registration fees. Upon receipt of D.D and filled in registration form, the course registration will be confirmed. Participants will be provided boarding and lodging facilities, on nominal charges upon request. TA/DA will not be provided for the participants. Registrations will be done on a first come first serve basis. The number of participants is restricted to 45.

* Course is subject to cancellation if sufficient enrollment is not met and in that case, the same will be intimated to the participants and registration fees will be refunded.

DATES TO REMEMBER

Last date for online registration: **October 10, 2019**
Intimation about selection (by e-mail): **October 15, 2019**

ADDRESS FOR CORRESPONDENCE

Dr. Rajesh Joseph Abraham

Associate Professor

Department of Avionics

Indian Institute of Space Science & Technology,
Valiamala, P.O, Thiruvananthapuram - 695 547, Kerala

Email: iistfdp@gmail.com

Mobile: 09497613880

Fax: 0471 2568406

<https://iist.ac.in/wcse2019>



Indian Institute of Space Science and Technology

Declared as Deemed to be University under Section 3 of the UGC Act, 1956

An Autonomous Institute under Department of Space, Govt. of India

Valiamala, Thiruvananthapuram 695 547, Kerala

Workshop on **Control Systems Engineering with MATLAB/SIMULINK**

16-20, December 2019

Organized by
Department of Avionics

Coordinator

Dr. Rajesh Joseph Abraham



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 Electronics and Communication 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, Power Electronics and VLSI & Microsystems. The Department also offers Ph.D program in various disciplines of Avionics like Electronics, Electrical Engineering and Computer Science.

TARGET AUDIENCE

The course is open to interested students, teachers from Engineering Colleges / Technical Universities / Deemed Universities, Research Scholars, Scientists, Engineers and other interested participants from Industries. A basic exposure to MATLAB/SIMULINK and Dynamic Systems is preferable.



COURSE OBJECTIVES

Control Systems and its design is an indispensable part of any engineering system and is common to different disciplines of engineering like Electrical, Mechanical, Electronics, Instrumentation, Chemical Engineering etc. The objective of this course is to educate the participants about the basics of Automatic Control Systems and its applications using MATLAB/SIMULINK. There will be hands-on lab sessions involving MATLAB/SIMULINK programming and remaining hours will be devoted for invited lectures by experts from IIST, VSSC and other ISRO labs. *A visit to ISRO Space Museum and an opportunity to witness Sounding Rocket Launch has also been arranged as part of this programme.*

TENTATIVE COURSE TOPICS

Fundamentals of Control Systems Engineering with MATLAB/SIMULINK
(Time domain analysis, Frequency domain analysis, Root Locus, Compensator design etc.)
Launch Vehicle Control Systems
Optimal control and Space applications
Industrial Sensors and Analog/Digital-Interfacing Techniques
Modern control and safety systems in modern civil aircraft
Introduction to Missile Control System Design

RESOURCE PERSONS (Tentative)

Prof. M V Dekhane, Former Director, IISU, ISRO
Dr. Ramanan R V, Adjunct Professor, Aerospace Engineering, IIST, ISRO
Dr. Harshasimha M S, Faculty, Avionics, IIST, ISRO
Mr. Murali Mohan Gade, Scientist F, DRDL, DRDO
Dr. Anoop C S, Faculty, Avionics, IIST, ISRO
Mr. Kapil Kumar Sharma, Scientist/Engineer- SE Control Design Division, VSSC, ISRO
Mr. Paul Russell, Sr. Engineer, Maintenance Training Organisation, Air India
Dr. Rajesh Joseph Abraham, Faculty, Avionics, IIST, ISRO

COURSE FEE

Rs. 6000 for Faculty members, Research Scholars and Students.
Rs. 8000 for Scientists, Engineers from ISRO and other Industrial participants.