About the Institute

Muthoot Institute of Technology and Science (MITS) is a self financing Engineering College situated in the Industrial suburb of KOCHI close to the Smart City. This "Temple of Learning" will provide to the students state-of-the-art infrastructure, highly qualified and highly proficient teachers from various fields of engineering and allied streams, embedded in a conducive environment where focus will be on their harmonious development.

About Department of EEE

The department of Electrical and Electronics Engineering is one of the premier departments in MITS. The department is offering one B.Tech program in Electrical and Electronics Engineering, which is accredited by the National Board of Accreditation (NBA) till June 2022. The dept is fully equipped with state-of-the-art laboratories ,committed and qualified teaching professionals. The department organises international and national conferences, faculty development programs and invited talks to enhance the competency of students and faculty.

@eeemitsofficial

Department of Electrical & Electronics Engineering,

Muthoot Institute of Technology and Science

Course Objectives

- To introduce diverse control methodologies and its practical applications.
- To update faculty, PG students and research scholars with recent advances in the field of control systems engineering.
- To provide direction for research in various fields of control systems engineering.

Resource Persons

- Dr. Harish. K. Pillai, Professor, Department of Electrical Engineering, Indian Institute of Technology Bombay
- Dr. Ravi. N. Banavar, Professor, Systems and Control Engineering, Indian Institute of Technology Bombay
- Dr. Jeevamma Jacob, Professor, Department of Electrical Engineering, National Institute of Technology Calicut
- Dr. Arun Neelimegham K.M, Asst. Professor, Department of Electrical Engineering, National Institute of Technology Calicut
- Mr.Ramana Anchuri,Engineer,Education Team,MathWorks India Pvt Ltd
- Mr.Naga Chakrapani Pemmaraju, Senior Application Engineer, MathWorks India Pvt Ltd

Muthoot Institute of Technology & Science

Online Faculty Development Program

On

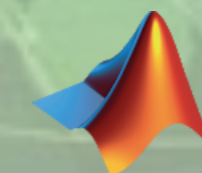# Research Initiatives in Advanced Control Systems

On

22ⁿᵈ–26ᵗʰ February, 2021

Organized by

Department of Electrical & Electronics Engineering

Muthoot Institute of Technology and Science Ernakulam, Kerala, India

In association with

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2019-22

NBA

NATIONAL BOARD OF ACCREDITATION

Vision of the Department

To create globally competent engineers with an attitude for research and service to the society.

Mission of the Department

- Empower students to solve engineering problems by providing state of the art learning environment
- Prepare students to be valuable professionals through research initiatives and industry interactions.
- Develop students into responsible citizens through ethical conduct, empathy towards the less privileged and value based community initiatives.
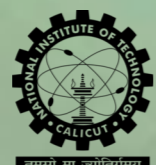
Course Contents

- Avenues of research in control systems
- Optimal Control
- Nonlinear Control
- Fuzzy logic Control
- Robotic Control

Experts from

IIT BOMBAY

NIT CALICUT

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Program Schedule

Date: 22/02/2021(10.30 a.m –12.00 p.m)

Dr. Jeevamma Jacob (NITC)

Nonlinear Systems and Control: An introduction

- Basic Nonlinear Phenomena
- Methods of Nonlinear System Analysis
- Passivity based Analysis and Design
- Feedback Linearisation
- Backstepping Control

Date: 23/02/2021(10.30 a.m –12.30 p.m)

Mr Ramana Anchuri and Mr. Naga Chakrapani Pemmaraju (MathWorks India)

Controller Design using MATLAB

- PID Tuning of Non-Linear Plants and multi-loop controllers
- Basics and building of Fuzzy Systems

(1.30 p.m –3.30 p.m)

- Introduction to Model Predictive Control
- Explicit MPC example
- Introduction to ANFIS or Sliding Mode Control
- Summary of various control techniques

Date: 24/02/2021(10.30 a.m –12.00 p.m)

Prof Ravi N .Banavar (IITB)

Discrete Constrained Optimal Control of Wheeled Mobile Robots

Date: 25/02/2021(10.30 a.m –12.00 p.m)

Dr. Arun Neelimegham KM (NITC)

Non Linear Fuzzy PID Controllers

- Mathematical modelling, computational and performance analysis
- Computational aspects of the developed
- controller models
- Experimental and simulation studies using the obtained models

Date: 26/02/2021(10.30 a.m –12.00 p.m)

Prof. Harish. K. Pillai (IITB)

Passivity from a behavioural perspective

Participant Registration

Payment Details:

Industrialists	Rs. 300/-
Faculty/Scientists	Rs. 200/-
PG/UG students & research scholars	Rs. 150/-

The fee to be paid in Google pay to :
Phone No: 8928081438
Dr. Jani Das (Head of the Department-EEE) with remark as "MITS FDP"
Fill out google form with transaction details
https://forms.gle/aP6razjQHQeEyJ6NA

Last date of registration	20th February, 2021

E- Certificates will be given to all the registered participants who submit feedback

Coordinators:

Ms. Sindhura Rose Thomas
Assistant Professor
9846265511, sindhurarose@mgits.ac.in

Ms. Meera Sivadas
Assistant Professor
7907992743, meerasivadas@mgits.ac.in

Ms. Ambili Mohan
Assistant Professor
9633143121, ambilimohan@mgits.ac.in

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