

# NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT

## DEPARTMENT OF ELECTRICAL ENGINEERING

### LIST OF PhD SCHOLARS - INSTRUMENTATION AND CONTROL SYSTEMS

#### PhD scholars who were awarded degrees from 2021 to 2024

Sl. No	Reg. No.	Name of the scholar	Thesis Title	Laboratory/ Equipment used	Year of Award of Degree
1	P190008EE	Dil kumar	PID-Sliding Mode Hybrid Control Schemes for a Class of Underactuated Nonlinear Systems: Synthesis to Real-Time Testing	ACS Lab / Ball balancer system	2024
2	P180098EE	Sanila P	Unscented Kalman Filter based Robust Delay tolerant Formation Acquisition and Target Interception Control of Multi Robotic Vehicles via Rigid Graph theory	Advanced Control Systems Lab/ MATLAB	2024
3	P170056EE	Surya D	Analysis of functional brain dynamics in Mild Cognitive Impaired Alzheimer's Disease (MCI-AD) using brain connectivity patterns	Bio-signal Processing lab/MATLAB	2023
4	P130005EE	Rajashree Raghavan	Model Predictive Controller designs for Multivariable systems	Control Systems Lab, TRMS	2022
5	P150090EE	Nidya M V	Design & Implementation of Robust relatively optimal control schemes for nonlinear affine systems	Advanced Control Systems Lab, MATLAB	2022
6	P190039EE	Resmi R	Discrete Laguerre Function based Distributed Model Predictive Dynamic Output-Consensus in Linear Multi-agent systems with efficient triggering methods	Instrumentation Lab, MATLAB	2022
7	P160071EE	Pravika M	Automation of Ambulatory Duodopa Pump for the Treatment of Parkinson's Disease	Instrumentation Lab	2022
8	P120016EE	Priya N	New approach of model ordered reduction and controller design for interval system	Simulation Lab	2022
9	P160085EE	Priyalakshmi S	Analysis of Visual Evoked Potentials in Autism Spectrum	Bio-signal Processing lab/MATLAB	2022
10	P160086EE	Biswajit Debnath	Enhanced BELBIC for MIMO System	Instrumentation Lab	2021

11	P160019EE	Femi Thomas	Design of Robust Control Schemes for Small-Scale Unmanned Helicopter during Hover/Near-Hover Flight	Instrumentation Lab	2021
12	P150056EE	Subhash K M	Investigation into the nature of subtle features of EMG Signals in healthy and disease conditions	Bio-signal Processing lab/MATLAB	2021

### PhD scholars who are currently pursuing their degrees

Sl. No	Roll Number	Name of the scholar	Area of Research	Laboratory/ Equipment used
1	P220197EE	Geethu I	Trajectory tracking control for non linear system	Control System Lab/ MATLAB
2	P190061EE	Muhamed Jishad T K	Biomedical signal processing	Bio-medical lab / MATLAB
3	P220048EE	Sera Mathew	Multi-agent system	Control systems lab / MATLAB
4	P230192EE	Simi Raj	AI-based Control of Multi-agent Systems	Control Systems Lab/ MATLAB
5	P210056EE	Dileep K	Image-based Visual Servoing for Cooperative Tasks with Dual Robotic Manipulators	Instrumentation Lab/ Two VIPERX 300 Robot Manipulator, Intel RealSense 455d camera
6	P230544EE	Breeza Paulose	Multi agent system	Simulation lab/MATLAB
7	P200064EE	Anju M	Stability and performance analysis of DFIG-based wind power systems	Advanced control systems lab/ MATLAB/ Simulink, Dspace
8	P200060EE	Deepak V Dev	Time delay systems	Advanced control systems lab / TRMS/ MATLAB
9	P220027EE	Anuja K	Model predictive control	Control Systems Lab / MATLAB
10	P220024EE	Himangkana Borkotoky	Control system	Advanced Control Systems lab / Maglev experimental setup
11	P230053EE	Binitha Sara Mathew	Bionic Vision	Bio-medical lab / Python
12	P210059EE	Ansil nazar	Epileptogenic zone localization using HFO analysis and brain connectivity measure	Bio-medical signal processing lab / MATLAB
13	P230060EE	Deepak C	Sliding Mode Control	Advanced Control Systems Lab / Double Inverted Pendulum
14	P230070EE	Fathima M Kasim	Biomedical signal processing	Biomedical Lab / MATLAB

15	P210124EE	Jyothis Sebastian	Intelligent Adaptive Control of Nonlinear Systems	Advanced Control Systems Lab / MATLAB, Flexible link rotary servo system
16	P230190EE	ShyamChand G	Hyperspectral imaging for food security	Control Systems Lab / Anaconda Spyder, Google Colab.
17	P230625EE	Rafeek T P	State Estimation using machine learning	Instrumentation Lab / MATLAB, Python
18	P220054EE	Tiza Varghese	Image based Visual Servoing for Cooperative Tasks with Dual Robotic Manipulators	Control Systems Lab / MATLAB, Python
19	P220230EE	Midhun Varghese	Condition Monitoring of Transformers	Instrumentation Lab / LabVIEW, NI ELVIS DAQ card
20	P220009EE	Anssa T H	Power system protection	Simulation lab/MATLAB, PSCADS
21	P240116EE	Madhuri Sankar Chavan	Control system	Control system lab/MATLAB
22	P240130EE	Namitha K	Wheeled Dual Arm Robotic Manipulator	Advanced Control System Lab/MATLAB, Python
23	P220240EE	Nikhil V T	Sliding mode control of power electronic converter	Control system lab/MATLAB
24	P230577EE	Jancy Varghese	Robotics and control	Control system lab/MATLAB
25	P230651EE	Sooraj K P	Multi-Agent Systems	Control system lab/MATLAB, Python
26	P240152EE	Priya C Kurian	Disturbance Rejection	Advanced Control System Lab/MATLAB
27	P240252EE	Sunny K P	Control of nonlinear systems	Control system lab/MATLAB
28	P230054EE	Binu Kuryachan	Optimal Power Procurement and ToU Tariff Design	Simulation Lab/Python
29	P220175EE	Aswathy B Raj	Machine Learning	Simulation Lab/Python
30	P220013EE	Dennis Thomas	Biomedical Signal Processing	Biomedical lab/Matlab,Python
31	P230212EE	Sunitha M	Machine Learning	Simulation Lab/Python
32	P220120EE	Vishal V P	Biomedical ( Cardiac)Signal Processing	Biomedical lab/Matlab,Python
33	P210125EE	Ashima C R	Adaptive Control of Drones	Control Systems Lab/MATLAB
34	P240141EE	Niveth L	Robotics and Control	Control Systems Lab/MATLAB
35	P230551EE	Deepak Srivastava	Battery management system	Control Systems Lab/MATLAB