

## **Ph.D**

### **Awarded**

1. Ameya Anil Kesarkar – Investigating Limit Cycle Performance and Asymptotic Bode Behavior of Fractional Order Controllers (May 2015)
2. M.Vanidevi – Weighted Nuclear Norm Minimization Method for Massive MIMO Low Rank Channel Estimation Problem (March 2018)
3. Sathishkumar P – Fractional Order Controllers for Complex Valued Systems and System with Multiple Nonlinearities (November 2019)
4. Asha P Nair – Lyapunov Based Stable and Robust Adaptive Control Design for a Class of Space Transportation Systems (January 2023)
5. Resmi V L – Fractional Order Cardiovascular System Model with Baroreflex Control – An Optimization Approach (January 2024)
6. R.S.Mohankumar – Robust Fractional Order LQI Controller Design for Quadruple Tank Process and its Feasibility Study in Bond Graph Domain – An Optimization Approach (Jan 2025)

### **Ongoing (Regular)**

1. Anjana K – Modeling of Physiological System (Aug 2022) – IIST Fellowship

### **Ongoing (Sponsored/External Fellowship)**

1. Meera K – Development of Fractional Chaotic Observer For Secure Communication (Sep 2021) – IIT Palakkad Technology IHub Foundation Fellowship
2. Asir Nesa Dass N – Data Driven Model Prediction of Vibration Loads on Launch Vehicle Elements (July 2023) – ISRO Sponsored
3. Tanuja Abhijit Patki – Modeling Body Parameters for Bio-Instrumentation Needed in Human Space Missions (July 2024) – ISRO Sponsored

## **M.Tech**

### **At Indian Institute of Space Science and Technology**

1. Prashant Raj Patro – Model Based Disease Diagnosis (2022)
2. Anupam Mishra – Model-Based Robust Estimation, Sensor Fault Detection & Diagnosis of Quadrotor (2021)
3. Krishna Kumar Madheshiya – Modeling and Control of 1-D Magnetic Needle (2021)
4. Munagala Sireesha – Control System Design for Reusable Launch Vehicle using Non-Linear Dynamic Inversion Method (2021)
5. Gulivindala Kishore – Optimal Controller Design for System with Hard Nonlinearities – Signal Processing Approach (2020)
6. Varre Premkiran – Health Monitoring , Diagnosis and Prognostics in Space (2020)
7. T N Ramdeep –Limit Cycle Prediction and its Suppression Using Higher Order Harmonics For System With Nonlinearity (2019)
8. Fasil Mohamed – Lyapunov Based Model Reference Adaptive Control for Satellite Launch Vehicle (2019)
9. Varsha Jena – Design and Analysis of Brushless DC Motor for Aerospace Applications (2019)
10. Rejitha Raveendran – Advanced Control Algorithms for Satellite Attitude Control (2017)
11. Deepa S Pai – Studies on an Adaptive Control Scheme for Plant with Separable Nonlinearity (2016)

12. Resmi V.L – Control for Magnetic Levitation System using Model Reference Adaptive Control (2016)
13. Kanapala Sujith – Linear Parameter Varying Integral State Feedback Controller for Nonlinear Systems (2015)
14. Geetu Maria– Dynamic Analysis and Active Vibration Control For A Two Storeyed Flexible Structure Building (2015)
15. Vineetha A – Application of Sequential Adaptive Fuzzy Inference System Algorithm For Real Time Systems (2013)
16. V.Santhosh – Blind Estimation of MIMO Channels Using Heuristic Technique (2012)

#### **At Pondicherry Engineering College**

1. G.Divya Charline – Controller Design and Implementation of High Performance Coupled–Inductor DC–DC Converter using AI Techniques. (2007)
2. R. Saraswathy Ramya – Modeling, Control and Fault Diagnosis of PMSG using AI Techniques. (2007)
3. S.Sandosh Kumar – Design and Implementation of Dahlin's Control for Active Power Filters. (2007)
4. D.Raja – Fault Identification and Control of Switched Reluctance Motor using Artificial Intelligence Techniques. (2006)

#### **At Madras Institute of Technology**

1. B.Raja Gopal Reddy – Active Identification and Control for a Class of Non–Linear Discrete Time Systems. (2002)
2. B.Makesh Kumar – Fuzzy Logic Control for Robotic Two Link Manipulator. (2002)

#### **B.Tech**

##### **At Indian Institute of Space Science and Technology**

1. Kondepudi Subhash – Fractional Order Filter Design for EMG Signal processing (2023)
2. Bhyrapuram Sai Vinay Prasad Naik – Mathematical modeling of Lung (2023)
3. Sanghpriy Gautam – Modeling and Control of 1–D Magnetic Needle (2022)
4. Pathlavath Ganesh – Cardio Vascular System and Left Carotid Model (2022)
5. R Sai Aryan – Modelling and Control of Respiratory Systems (2022)
6. R.G.Sriya – Baroreflex Control for Cardiovascular System (2021)
7. M.Rohith Bala – Control system design for a class of problem–Frequency Domain (2021)
8. Chaitanya– Controller System Design for a Class of Problem–Time Domain (2021)
9. K Shailesha – Reinforcement Learning based Adaptive Sensing for an ECG signal used in Heart Disease Diagnosis (2020)
10. Palaparthi Alekhya – Heart Abnormalities and Correction Strategy using pacemaker–cardioverter–defibrillator Mode (2020)
11. Krishna Kant – Diagnosis of Various Cardiovascular Diseases (2020)
12. Debajyoti Chakrabarti – Advanced Control Algorithms For Satellite Attitude Maneuver (2019)
13. Greeshma battula – Modeling and control of Micro actuator system (2019)
14. Kunthuru Naveen Kumar – Model Order Reduction for Discrete Time Interval Systems Using Gradient Flow Method (2019)
15. Hitesh Kumar Naik – Robust Modelling and Analysis using Bond Graph Theory (2019)
16. Daksh Dhiman – Controller Design For Magnetic Levitation System (2017)

17. Karthik D V – Modified Sequential Adaptive Fuzzy Inference System for Nonlinear System Identification (2017)
18. Sai Teja Ayyalasomayajula – Improved Sequential Adaptive Fuzzy Inference System Based Model Identification for Non-linear Systems (2015)
19. Shikha Kapoor – Eigenvalue and Eigenvector Based Flexible Structure Analysis (2014)
20. Abhijit Roy – Hardware Realization of synchronized blinking using Nature-inspired Firefly Algorithm (2014)
21. Tanisha Bhatia – Fractional Order Controller and PID Controller for Buck Converter on FPGA (2013)
22. Gopikrishnan S –  $P^{\frac{1}{\alpha}}D^{\frac{\beta}{\alpha}}$  Controller Design for Cart Inverted Pendulum (2012)
23. Burle Venkata Satya Shravan and Vaddavalli Dilip Kumar – Fractional Order Synthesis Using Artificial Bee Colony Algorithm and Other Heuristic Techniques (2012)
24. Pratik Barve and Harshit Gole – Optimized Fractional PID for Maglev System (2012)
25. S.Habib Mohamed, Mr.M.Venkata Subramanian, Mr.G.S. Sree Sabarish and Mr.G. Esakki Rajan – Pipeline Crawling leakage/Block detection LEGO Robots using Labview (2012)

#### **At Pondicherry Engineering College**

1. N. ArunKumar and KG. Sandeep Kumar – CHESSBOT – A Chess Playing Robot (2007)
2. Noorjahan.M, Prasanna.S, Sathish Kumar.V and Vijay Kumar Perla – Fuzzy Modeling and Control of Permanent Magnet Synchronous Motor (2006)

#### **At Madras Institute of Technology**

1. R.Sathiyamoorthy, A.Viswanath and K.Yasodha – PC based Parallel Robot Arm Control with Feedback Approach. (2004)
2. S.Ramesh and R.V. Ranjan – Optimal Tuning of PID Parameters using Genetic Algorithm.(2002)
3. PC based pH Measurement Systems. (2003)
4. R.Prabhu Jude, B.Seshadri and R.G.S.Aparna – PC based Parallel Control of Robot Arms. (2003)

#### **Internship (S–Summer; W–Winter)**

##### **At Indian Institute of Space Science and Technology**

1. Shantanu Saha – Biological Modelling of Heart using Equivalent Electrical System (S–2020)
2. Kakumanu Sai Ram – System Modelling and Analysis Using Bond Graph Method (S–2018)
3. S.Ganesh and Sarath Sankar.S – Design, analysis and optimisation of a BLDC Machine (S and W – 2016)
4. Sai Teja Ayyalasomayajula – Design and Analysis of a Permanent Magnet Synchronous Motor Based on Finite Element Analysis (S–2014)
5. Tanisha Bhatia – Complimentary Root Locus of Fractional Systems (S–2012)
6. Tushar Jaiswal – Fractional Order Controller and Stability Analysis (S–2012)
7. Rajnish Kumar Yadav– Controller Design of Inverted Pendulum using Root Locus and Frequency Response Methods (W–2010)
8. Pavan Kumar M, Shailender Kumar SP and Vishwa Teja G – Chaotic based Cryptography using Impulsive Synchronization For Secure Communication System (S–2010)
9. Gagan Agrawal and K. Kiran Sagar – Model Reduction of Interval Systems using Chebyshev Polynomials (S–2009)
10. Gaurav Bholotia, Rajeev Ranjan and Sunil Kumar – Fuzzy Modeling for Twin Rotor MIMO Systems (TRMS) (W–2009)

**At Pondicherry Engineering College**

1. Arunkumar N and Dennis Thomas – Model Reduction for Uncertain Systems (S–2006)

**At Madras Institute of Technology**

1. Barath. S – PC based Parallel Control of Robotic Manipulators (S–2003)
2. K.Chandra Priya and R.Divyaa – Direct Truncation of Routh Table based Model Reduction for Uncertain Systems (W–2002)
3. V.Gnana Priya and S.Kalaivani – Neural Network based Fault Diagnosis for Steam Turbine Regenerative Systems (S–2002)
4. S.Ramesh Kumar and J.Zamer E Alam –Simple Overshoot Suppressed PID Controller (S–2002)
5. G.L.Narayanan and K.Balaji – Temperature Compensation for Reference Electrode in pH Measurement (S–2002)