

DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING

NATIONAL INSTITUTE OF TECHNOLOGY – TRICHY – 15

M.Tech Project Work PHASE – I (2013-15)

| S.No | Roll No   | Name                   | Title   | Guide   |
|------|-----------|------------------------|---|---|
| 1    | 202213001 | Nishant Koshy Abraham  | Development of Control Scheme for Prevention of Thermal Runaway in the Production of Dimethoxy Thiophosphoric Acid (DMTA) in a Semi-Batch Process | <b>Dr. P. Kalaichelvi</b><br>Associate Professor<br>Department of Chemical Engineering                |
| 2    | 202213002 | Sathish Kumar Kudamala | Real Time Modeling and Control of Three Tank Hybrid System  | <b>Dr.T.K.Radhakrishnan</b><br>Professor<br>Department of Chemical Engineering                        |
| 3    | 202213003 | Parthiban M            | Dynamics of Gas-Solid System in Downer Reactor  | <b>Dr. J. Sarat Chandra Babu,</b><br>Head, Associate Professor,<br>Department of Chemical engineering |
| 4    | 202213004 | Jerrin Joseph          | Modelling and Identification of Nonlinear Aero Thermal Turbofan Gas Turbine Engine  | <b>Dr. M. Umapathy</b><br>Professor,<br>Department of ICE   |
| 5    | 202213006 | Karthic R              | Design and Development of Wireless Communication Model for Process Control Application  | <b>Dr. K. SRINIVASAN</b><br>Assistant Professor,<br>Department of ICE                                 |
| 6    | 202213007 | Raj Kumar K. K.        | Application of Self-Sensing Methods to SMA Actuated System  | <b>Dr. K. Dhanalakshmi</b><br>Associate Professor,<br>Department of ICE                               |

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|----|-----------|-----------------------------|---|---|
| 7  | 202213008 | R.Bhargava                  | A Case Study on Continuous Up-Flow Stacked Thin Film Bed for Adsorption of Endosulfan: Kinetic Predictions and Break Through Curves for Devising A Sensor | <b>Dr. J. Sarath Chandra Babu</b><br>Professor and Head<br>Dept. of Chemical Engineering    |
| 8  | 202213010 | Ronish Simon                | Optimization of Vibration Energy Harvesting Structure With Cavity to Improve the Output Power   | <b>Dr.D.Ezhilarasi</b><br>Assistant Professor<br>Department of ICE                          |
| 9  | 202213011 | Laji C A                    | Design of Passivity Based Controller For Longitudinal Train Dynamics  | <b>Dr.D.Ezhilarasi</b><br>Assistant Professor<br>Department of ICE                          |
| 10 | 202213012 | Indhu B                     | Gimballed Camera Control for On-Point Target Tracking   | <b>Dr.N. Sivakumaran.</b><br>Assoc.Professor, Dept of I&C<br>NIT, Tiruchirappalli           |
| 11 | 202213013 | Munubarthi<br>Kranthi Kumar | Control Schemes in Cement Manufacturing Process   | <b>Dr. T. K. Radhakrishnan</b><br>Professor & Head<br>Department of Chemical<br>Engineering |
|    | 202213015 | Hituraj Sahu                | Design of Controller Using Type-Ii Fuzzy Logic  | <b>Dr. A. Ramakalyan</b><br>Associate Professor,<br>Department of ICE                       |
| 13 | 202213017 | Rahul Wagde                 | Artificial Neural Network and Response Surface Methodology for Modling and Optimization of Distillery Waste Water Using Electrocoagulation Process        | <b>Dr.M.Arivazhagan</b><br>Associate Professor<br>Department of Chemical<br>Engineering     |
| 14 | 202213018 | Vivek A                     | Capacitance Based Rotor Blade Tip Clearance Measurement for Gas Turbines  | <b>Dr G. Uma</b><br>Associate Professor,<br>Department of ICE                               |

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|----|-----------|----------------------|--|--|
| 15 | 202213019 | Vinod Sharma         | Nonlinear Modeling of SMA Using RNN With Higher Order Gradient Descent Techniques and its Position Control | <b>Dr. M. Umopathy,</b><br>Professor, Dept of I&C<br>NIT, Tiruchirappalli                |
| 16 | 202213020 | M Narendra Reddy     | Realization of Mems Based Seismometer for Lunar Applications   | <b>Dr G. Uma</b><br>Associate Professor,<br>Department of ICE                            |
| 17 | 202213022 | Anurag Kumar Shukla  | Fuzzy Aggregated Multilinear LQR Controller Design for Nonlinear CSTR                                      | <b>Dr. T. K. Radhakrishnan</b><br>Professor & Head<br>Department of Chemical Engineering |
| 18 | 202213023 | Hemanta Kumar Brahma | Control of Magnetic Levitation   | <b>Dr.N. Sivakumaran.</b><br>Assoc.Professor, Dept of I&C<br>NIT, Tiruchirappalli        |
| 19 | 202213026 | Subhash Krishna S    | Modelling And Control of Sulphate Ion Removal in Cross Flow Module   | <b>Dr.N.ANANTHARAMAN</b><br>Professor, Department of<br>chemical engineering             |

#### DPEC Members

1. **Dr. M. Umopathy,** Professor, Dept of I&C – Chairman
2. **Dr. T. K. Radhakrishnan** Professor & Head, Department of Chemical Engineering – Member
3. **Dr.D.Ezhilarasi** Assistant Professor, Department of ICE - Member

**DEPARTMENT OF INSTRUMENTATION AND CONTROL ENGINEERING**

**NATIONAL INSTITUTE OF TECHNOLOGY – TRICHY – 15**

**M.Tech Project Work PHASE – II (2013-2015)**

| <b>S.NO</b> | <b>ROLL NO</b> | <b>NAME</b>            | <b>TITLE</b>  | <b>GUIDE</b>  |
|-------------|----------------|------------------------|---|---|
| 1           | 202213001      | Nishant Koshy Abraham  | Development of Control Scheme for Prevention of Thermal Runaway in the Production of Dimethoxy Thiophosphoric Acid (DMTA) in a Semi-Batch Process | <b>Dr. P. Kalaichelvi</b><br>Associate Professor<br>Department of Chemical Engineering                |
| 2           | 202213002      | Sathish Kumar Kudamala | Real Time Modeling and Control of Three Tank Hybrid System  | <b>Dr.T.K.Radhakrishnan</b><br>Professor<br>Department of Chemical Engineering                        |
| 3           | 202213003      | Parthiban M            | Design of a Downer Ractor System for Studying Gas-Solid Reactions   | <b>Dr. J. Sarat Chandra Babu,</b><br>Head, Associate Professor,<br>Department of Chemical engineering |
| 4           | 202213004      | Jerrin Joseph          | Gain Scheduled LQI Controller for Aero Thermal Turbofan Engine Model  | <b>Dr. M. Umapathy</b><br>Professor,<br>Department of ICE   |
| 5           | 202213006      | Karthic R              | Modeling of Non-Linear Processes Using Multi-Model Approach   | <b>Dr. K. SRINIVASAN</b><br>Assistant Professor,<br>Department of ICE                                 |
| 6           |                | Raj Kumar K. K.        | Design and Control Of Modified Compliant  | <b>Dr. K. Dhanalakshmi</b><br>Associate Professor,  |

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|----|-----------|-----------------------------|--|---|
|    | 202213007 |                             | Differential SMA Actuator  | Department of ICE   |
| 7  | 202213008 | R.Bhargava                  | Modeling Rejection Behavior Of Nickel Ions from Synthetic Waste Water Containing Salts by Nanofiltration of a Membrane                             | <b>Dr. J. Sarath Chandra Babu</b><br>Professor and Head<br>Dept. of Chemical Engineering    |
| 8  | 202213010 | Ronish Simon                | Temperature Measurement and Autocalibration of The High-Density Winding Coils of Electromagnets  | <b>Dr.D.Ezhilarasi</b><br>Assistant Professor<br>Department of ICE                          |
| 9  | 202213011 | Laji C A                    | Detection of Longitudinal Cracks in Beam Structures Using Electromechanical Impedance And Frequency Analysis                                       | <b>Dr.D.Ezhilarasi</b><br>Assistant Professor<br>Department of ICE                          |
| 10 | 202213012 | Indhu B                     | Real Time Implentation of Gimballed Camera Control for On-Point Target Tracking  | <b>Dr.N. Sivakumaran.</b><br>Assoc.Professor, Dept of I&C<br>NIT, Tiruchirappalli           |
| 11 | 202213013 | Munubarthi<br>Kranthi Kumar | Control of Temperature in Pre-Calciner of Cement Manufacturing Process Using CBA Based Least Squares SVM Modeling                                  | <b>Dr. T. k. Radhakrishnan</b><br>Professor & Head<br>Department of Chemical<br>Engineering |
| 12 | 202213015 | Hituraj Sahu                | A Study on the Design of Controllers for Nonlinear Processes Using Type-Ii Fuzzy Logic   | <b>Dr. A. Ramakalyan</b><br>Associate Professor,<br>Department of ICE                       |
| 13 | 202213017 | Rahul Wagde                 | Artificial Neural Network and Response Surface Methodology for Modling and Optimization of Distillery Waste Water Using Electrocoagulation Process | <b>Dr.M.Arivazhagan</b>   |
| 14 | 202213018 | Vivek A                     | Development of Tip Clearance Measurement System for Gas Turbines   | <b>Dr G. Uma</b><br>Associate Professor,<br>Department of ICE                               |

|    |           |                      |   |   |
|----|-----------|----------------------|---|---|
| 15 | 202213019 | Vinod Sharma         | Precision Position Control of Shape Memory Alloy Using Inverse Neural Control and Super Twisting Sliding Mode Control | <b>Dr. M. Umapathy,</b><br>Professor, Dept of I&C<br>NIT, Tiruchirappalli                   |
| 16 | 202213020 | M Narendra Reddy     | Realization of Mems Based Seismometer for Lunar Applications  | <b>Dr G. Uma</b><br>Associate Professor,<br>Department of ICE                               |
| 17 | 202213022 | Anurag Kumar Shukla  | Fuzzy Aggregated Multilinear LQR Controller Design for Nonlinear Continous Stirred Tank Reactor                       | <b>Dr. T. K. Radhakrishnan</b><br>Professor & Head<br>Department of Chemical<br>Engineering |
| 18 | 202213023 | Hemanta Kumar Brahma | Intelligent Control of Secondary Super heater   | <b>Dr.N. Sivakumaran.</b><br>Assoc.Professor, Dept of I&C<br>NIT, Tiruchirappalli           |
| 19 | 202213026 | Subhash Krishna S    | Modelling And Control of Sulphate Ion Removal in Cross Flow Module  | <b>Dr.N.ANANTHARAMAN</b><br>Professor,<br>Department of chemical<br>engineering             |

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