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#### EMBEDDED SYSTEMS

### DOMAIN: 89C51, PIC, ARM

E10M01	AC Motor Speed Controlling System
E10M02	Auto answering with Security Dial-up
E10M03	Automatic College Bell with Announcements System
E10M04	AC Motor Speed Controlling System Using PWM Techniques
E10M05	AC Voltage and Current Monitor
E10M06	Access Control System.
E10M07	Accident Identification System with Auto Dialer.
E10M08	Accident Identification System
E10M09	Advertising Display Using LED and LCD
E10M10	Agricultural Plant Watering Systems
E10M11	Antenna Tracking System
E10M12	Apartment Security System
E10M13	Application of PIC Microcontroller in Locker Security System.
E10M14	Attendance Recorder
E10M15	Automated Attendance Cum Visitor Management System
E10M16	Automated Electricity Billing System
E10M17	Automatic Breaking, Jogging, Plugging On/Off Forward and Reverse
E10M18	Automatic Digital Time Switch
E10M19	Automatic Door Opening System
E10M20	Automatic Electronic Bus Fare System
E10M21	Automatic Frequency Counter
E10M22	Automatic Humidity Controller for Refrigerator
E10M23	Automatic Irrigation System with Wireless Transmission
E10M24	Automatic Load Controller
E10M25	Automatic Load Sharer
E10M26	Automatic Railway Gate Control System

E10M27	Automatic Shutter Control with Intelligent Security System
E10M28	Automatic Solar Tracking System
E10M29	Automatic Street Light Controller with RTC.
E10M30	Automatic Street-Light ON/OFF Controller
E10M31	Automatic Traffic and Street Light Controller
E10M32	Automatic Traffic Light Control System
E10M33	Automation of Prepaid Energy Meter Billing
E10M34	Auto Scheduler For Multiple Machines
E10M35	Automatic Room light Controller with Visitor Counter
E10M36	Auto Control of Three Phase Induction Motor
E10M37	Automatic College Bell
E10M38	Automatic Timer for Cooking
E10M39	Automated Water Filler for industries
E10M40	Automatic Television muting system
E10M41	AC Motor Speed Control Using Triac
E10M42	Automatic Room Illumination Control (Microcontroller Board + sensors)
E10M43	Automatic Temperature Measurement and Control (Microcontroller Board + Sensors + LCD)
E10M44	Automatic Rotor Resistance Controller using Microcontroller
E10M45	Advanced vehicle tracking and automatic crash notification using GPS and GSM technology with Location Name as SMS.
E10M46	Bank Token Display System
E10M47	Boost Converter
E10M48	Buck Converter
E10M49	Biomedical Monitoring System
E10M50	Cell phone Based Motor Speed Control System
E10M51	Code Locking System
E10M52	Coin Based Cell Phone Charger
E10M53	Coin Based Electronic Bus Conductor
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E10M54	Coin Based Toll Gate System
E10M55	Car or Bus Reverse Operation Navigation System by Using IR Rays
E10M56	Card Locking System
E10M57	Computerized Emergency Ambulance Caller
E10M58	Controlling of Transformers from Sub Station
E10M59	Current Loop Modem Communication from MC to MC
E10M60	Current Loop Modem Communication from MC to PC
E10M61	Contact less Motor speed monitoring on Graphical display
E10M62	DC Motor Control Using H-Bridge
E10M63	DC Motor Speed Control Using Remote
E10M64	Density Based Traffic Controller
E10M65	Depth Measurement Using LVDT
E10M66	Digital Counter Using Proximity Sensor
E10M67	D.C Motor Speed Controlling System Using IGBT Control
E10M68	Digital Speed Control of D.C. Motor
E10M69	Data Acquisition System
E10M70	Digital Energy with Voltage, Current and Power Factor Monitoring
E10M71	Digital Tachometer
E10M72	Digital IC Tester for 74 Series
E10M73	DC Motors speed synchronization for rolling mills
E10M74	DC Motor Speed and direction control over GSM Mobile/Modem.
E10M75	DTMF mobile phone controlled dam water gates controlling system
E10M76	with High-level protection. DC Motor Speed and direction control using RF/IR/Zigbee
<b>D101/70</b>	technologies
E10M78	Digital vehicle speedometer with password enabled speed limit setting
E10M79	Digital Vehicle Dash Board
E10M80	DS1307 and Microcontroller based TV remote controlled Digital Clock
E10M81	Energy Saver for Class Rooms

E10M82	Electricity Theft Identification
E10M83	Electronic Voting Machine
E10M84	Energy Saver for Street Lights
E10M85	Embedded PIC Micro Controller based PH Controller for Industrial purpose.
E10M86	Electronic Identification and Personal Information card using 8951 Microcontroller.
E10M87	Electrical Data (voltage, current, frequency etc) Logger
E10M88	Energy meter per-day average, Max and Min Load display on Graphical LCD.
E10M89	Fire Monitoring Using Microcontroller
E10M90	Furnace Controller
E10M91	Fingerprint Based Security System
E10M92	Frequency Locked Loop (FLL) DC Motor Speed Control
E10M93	Frequency Locked Loop DC Motor speed monitoring and control system.
E10M94	GPS Based Aid For Blind People
E10M95	GSM Based Speed Control or Single Phase Induction Motor
E10M96	GSM Cell Phone Blocker (Jammer)
E10M98	GPS based border alert system for fishermen
E10M99	GPS based station name announcement and display system for Trains/buses.
E10M100	GSM Based Automatic Energy Meter Reading System
E10M101	GPS & GSM Based Car Security System
E10M102	GPS based travel assistant for blind people
E10M103	GSM based digital Notice board with display on Monitor or LCD display.
E10M104	GSM+GPS based school kids tracking system
E10M105	GSM based Highway vehicle traffic monitoring system
E10M106	GPS & GSM based Human Health Monitoring and Alert System with patient's location on earth.
E10M107	Home Automation System
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E10M108	Home Automation System Through Wireless Telephone Lines.
E10M109	Hardware Lock
E10M110	Highway Monitoring System
E10M111	Heavy Electrical Device Protector
E10M112	Hazardous chemical valve control system with stepper motor and line of site remote control
E10M113	High power LED based intelligent streetlight controlling system with automatic brightness control with vehicle presence sensor
E10M114	I <sup>2</sup> C Based High Security Data Transmission
E10M115	I <sup>2</sup> C Based Multi Zone Thermal Monitoring
E10M116	I <sup>2</sup> C Based Running Message Display
E10M117	I <sup>2</sup> C Based Security Code Lock
E10M118	I <sup>2</sup> C Based Temperature Recording System
E10M119	Intelligent highway Accident Preventer
E10M120	Industrial on Line Messaging System
E10M121	IR heart Beet Detector and Monitor
E10M122	Input Water Sensing and Over Head Tank Filling System
E10M123	Intelligent Train Engines
E10M124	IR (Infrared) Remote based Stepper Motor Speed and Direction Controller
E10M125	Lab Automation with Real Time Clock Interface
E10M126	Lux Meter.
E10M127	LCR Meter.
E10M128	L/C Meter
E10M129	Lamp Brightness Control Using TRIAC
E10M130	Maximum Demand Control
E10M131	Metal Detector
E10M132	Modern Lift System.
E10M133	Mobile Over Speed Sensing and Controlling System
E10M134	Micro Controller Based Railway System for Changing the Track And Traffic.

E10M135	Mobile technology (GSM) based remote monitoring and control of Digital Energy meter.
E10M136	Microcontroller based Substation Monitoring and control
E10M137	Microcontroller based Generator/Alternator Control and Monitoring System.
E10M138	Microcontroller based Single phasing Preventer
E10M139	Motor Speed Monitoring over GSM Mobile
E10M140	Microcontroller based refrigeration control system
E10M141	Mobile phone controlled Street Light monitoring and control system
E10M142	Multi Channel Frequency Measurement with LCD Display
E10M143	Multi Channel Voltage Measurement with LCD Display
E10M144	Multi Channel Voltage Measurement with PC Display
E10M145	Multi Channel Frequency Measurement with PC Display.
E10M146	Microcontroller based Temperature Measurement and Relay Control with PC Interface.
E10M147	Microcontroller to Microcontroller Infrared based communication
E10M148	Microcontroller based Hardware(USB or Serial) key implementation for any software based applications
E10M149	Microcontroller based Automatic Railway Gate Control System.
E10M150	Microcontroller and Triac based real time temperature monitoring and control.
E10M151	Object Counter
E10M152	Oil tank Level Indicator
E10M153	Paper Counting Machine
E10M154	Programmable ON-OFF Timer for Industries
E10M155	PIC16F877 Mc Based 555ic Tester
E10M156	PIC16F877/89C51 Based 5-Way Traffic Light Controller IR Sensor
E10M157	PIC16F877/89c51based Voting Machine with Sweep Card
E10M158	Password enabled pre-paid liquid/milk dispensing system
E10M159	Password protected IR based Device Control
E10M160	Password protected GSM based Device control

E10M161	Remote Control Of Industrial Machines Based On GSM Technology
E10M162	Remote Operated Belt Conveyor
E10M163	Remote Controlled Electronic Code Locking System
E10M164	Remote Data Acquisition Using Nokia 3310
E10M165	Railway Door Monitoring System
E10M166	Radio Frequency (RF) based Wireless Control Of DC/Stepper Motor Speed Control
E10M167	RF transceiver based energy meter monitoring system. (Energy Meter reading on PC over wireless comm.)
E10M168	RFID/Mifare/Smart Card based security access control systems
E10M169	RC5 IR Based Remote Device Switching (IR Remote Microcontroller + Device Relays)
E10M170	RF Control of Induction/DC/Stepper Motor & Other Industrial loads
E10M171	Remote Control of PC/Computer using GSM Modem or Cell Phone
E10M172	RFID and GSM based intelligent courier/letter collection box
E10M173	Sending Email through Microcontroller
E10M174	SMS Based On/Off Control
E10M175	SMS Controlled Home Appliance
E10M176	Speed Control for DC Shunt Motor
E10M177	Speed Control of Motor through SMS
E10M178	Stepper Motor Direction and Speed Controller
E10M179	Student Mark Announcement through Mobile Phone
E10M180	Switching Electrical Devices Using Computer Key Board
E10M181	Signal Indicator for Vehicles in Single Hairpin Bend and Vehicle Counter.
E10M182	SMS Based Electricity Bill
E10M183	SMS Controlled Industrial Controller
E10M184	Single-Phase To Three –Phase Converter
E10M185	Substation Fuse blown Indicator
E10M186	Speaking microcontroller for deaf and dumb

E10M187	Temperature Monitoring and Recording Device
E10M188	Traffic Rules Monitor
E10M189	Thyristor Based DC Motor (1Hp) Controller.
E10M190	Triac and optically isolated diac based electrical oven temperature monitoring and controlling system with zero-crossing detector.
E10M191	Timer based automatic power cutoff for industrial sealing/packaging Machines.
E10M192	Timer based Electrical Oven temperature monitoring and control for Metal Industries
E10M193	Transformer oil temperature monitoring with automatic Circuit Breaker operation.
E10M194	Travel assistant for blind with dynamic user input for location based alerts.
E10M195	Timer based Electrical Oven temperature monitoring and control for Metal Industries.
E10M196	Timer based automatic power cutoff for industrial sealing/packaging machines.
E10M197	Temperature Measurement over GSM Mobile.
E10M198	Temperature Analyzers with computerized graphical image
E10M199	Vehicle speed, temperature, total distance traveled and fair monitoring system
E10M200	Visitor Counter
E10M201	Voice Operated Home Appliance Control System
E10M202	Voice Interactive System for College Automation
E10M203	Variable Speed DC Motor Speed Control Thyristor Full Bridge Based with Digital RPM Indicator
E10M204	Vehicle Monitoring and Security System
E10M205	Voltage/Current/Frequency Reading with IR Remote
E10M206	Voice enabled devices switching for visually impaired
E10M207	Weather Monitoring
E10M208	Wireless Voting Machine
E10M209	Wireless Code Locking
E10M210	Wireless Toll Collection
E10M211	Wireless Speed Control of D.C.Motor

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E10M212	Wireless Speed Control of Single Phase A.C Motor
E10M213	Wireless power theft monitoring system and indication at local substations.
E10M214	Wireless Energy Meter monitoring system with automatic tariff calculation.
E10M215	Wireless PC based multi-patient health monitoring system for Corporate Hospitals.

### **DOMAIN: PC**

E10P01	PC Based IC tester.
E10P02	PC Based DC Motor speed controller using PWM Techniques.
E10P03	PC Based Energy Saving System.
E10P04	PC Motor Speed Control for Mine Application.
E10P05	PC Based IC Tester.
E10P06	PC Based Home Security System.
E10P07	PC Based Online Fault Identification.
E10P08	PC Based Announcement System.
E10P09	PC Based Stepper Motor Direction & Speed Control.
E10P10	PC Based Temperature Controller.
E10P11	PC Based Data Logger.
E10P12	PC Based Speed Control Of DC Shunt Motor.
E10P13	PC Interfacing with Nokia 3310 Cell Phone.
E10P14	Remote Control for PC.
E10P15	PC Based 4-Axis Stepper Motor Control.
E10P16	PC – Based Dice Game.
E10P17	Frequency Measurements Using PC.
E10P18	PC-Based 7-Segment Rolling Display.
E10P19	Electrical Equipment Control Using PC.
E10P20	PC-TO-PC communication Using Infrared / Laser Beam.

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### **POWER SYSTEM**

### **DOMAIN: FACTS**

PS10F1	Reinforcement Learning Based Active Power Control with TCSC.
PS10F2	Simulation and Performance of UPFC System in Power Flow Using PSPICE.
PS10F3	Power Flow Control with UPFC Using MATLAB/SIMULINK.
PS10F4	Simulation of STATCOM and SSSC for Suppression of Oscillations.
PS10F5	Ride through Solutions for Doubly-Fed Induction Generation Using D-STATCOM.
PS10F6	Implementation of STATCOM in Voltage Control Mode and Reactive Power.

#### **DOMAIN: HVDC**

PS10H1	Influence of Cu <sub>2</sub> S in Paper-Oil Insulation on Partial Discharges.
PS10H2	Dynamics of Metallic Particles in a Single Phase Coated Gas Insulated Bus duct with Lightning Impulse Voltage.
PS10H3	Estimation of Transient Electro Dynamic Forces on End Windings.
PS10H4	Dynamic Voltage Restorer with Sliding Mode Control Strategy for Voltage Restoration of Distribution System Under Fault Conditions
PS10H5	Identification of Overloading Line Using Linear and Reactive ATC Methods with PTDF.
PS10H6	Computation of Electric Field and Potential Distribution Around a Polluted Composite Insulator by Finite-Element Method.

## **POWER ELECTRONICS & DRIVES**

## **DOMAIN: MACHINES AND DRIVES**

PED10H1	Laboratory Verification of Modeling for a DSP Controlled 8/6 Switched Reluctance Motor Drives.
PED10H2	Steady State Analysis of Six-phase Self-excited Induction Generator Using Fmincon Technique.
PED10H3	Detection and Analysis of Winding Movements in Power Transformer Using Frequency Response Analysis Method.

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PED10H4	18-Sector Switching Strategy of Torque Ripple Reduction of Direct Torque Controlled Induction Motor Drive.
PED10H5	Simulink Based Modeling Simulation and Implementation of High Performance Induction Motor Drive.
PED10H6	On-line Condition Monitoring of Squirrel Cage Induction Motor.

### DOMAIN: INVENTER & CONVERTER

PED10P1	Comparison of Three Phase Shunt Active Power Filter Algorithms.
PED10P2	Analysis of Power Quality Parameters Using Fourier Transform Theory in Single Phase converter.
PED10P3	Novel Algorithms for the control of a Three Level Voltage Source Inverter Based Shunt Active Power Filter.
PED10P4	Power Quality Disturbances Classification Using Support Vector Machines with Optimized Time-Frequency Kernels.
PED10P5	A new Control Strategy for Active Power Quality Improvement in a wind Energy System.

### **DOMAIN: ENERGY SYSTEM**

PED10E1	Application of Matrix Converter for wind Turbine Generators.
PED10E2	Modeling and Sensor Less Control of an Induction Drive Used in Hybrid Electric Vehicle.
PED10E3	Standalone Wind Energy System Using LC LC DC to DC Converter
PED10E4	Modeling Simulation and Implementation of Hybrid Wind Micro Turbine System
PED10E5	Wind Velocity and Rotor Position Sensor less Control for Permanent Magnet Synchronous Generator of Wind Generation System
PED10E6	Automatic Peak Power Tracker for Solar PV Modules

## FUZZY LOGIC

FL1	Application of Fuzzy Logic and Particle Swarm Optimization for Reactive Power Compensation of Radial Distribution Systems.
FL2	Space Vector Pulse Width Modulation Based Speed Control of Induction Motor Using Fuzzy Pi Controller.

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FL3	Design of Fuzzy Controller for Performance Optimization of Switched Reluctance Motor.
FL4	Speed Controller for PM Brushless DC Motor Drive Based on Fuzzy Logic.
FL5	A Rule Based Fuzzy Logic Controller for Cascaded Multilevel Inverter in Utility Applications.
FL6	Fuzzy Based Online Tuning of PI Controller for Pressure Regulation.

### **NEURAL NETWORK**

NN1	Comparison Between BPN, RBF and Wavelet Neural Network for Nonlinear System Modeling.
NN2	Implementation of a Voice Command Secured System Using Neural Network for Embedded Application.
NN3	Three-Phase Unified Power Quality Conditioner by Artificial Neural Networks.
NN4	Neural Network Controlled Energy Saver for Induction Motor DRI.
NN5	A Novel Technique for Direct Torque Control of Induction Motor Drives.

## **GENETIC ALGORITHM**

GA1	Genetic Algorithm Based Reactive Power Dispatch for Voltage Stability Improvement.
GA2	Genetically Optimized Support Vector Regression for Transient Stability Assessment.
GA3	Implementation of Genetic Algorithm for Optimal Feeder Reconfiguration for Load Balancing.
GA4	GA Based Optimization and Critical Evaluation SHE Methods for Three-Level Inverter.
GA5	Genetic Algorithm for Design Optimization of Transformer.