

List of Current Projects with Tools and Overviews
2015-16

Group No.	Title	Required Knowledge	Required tools	Roll No.	Name of Student	Project Guide	Over View
1	Solar Powered Led Street Light with Auto Intensity Control	power electronics	Embedded System	1202921024	ANKIT MISHRA	Prof. Ankit Singhal	The project is designed for LED based street lights with auto intensity control using solar power from photovoltaic cells. As awareness for solar energy is increasing, more and more individuals and institutions are opting for solar energy.
				1202921044	BRIJESH KUMAR YADAV		
				1202921304	PANKAJ MISHRA		
2	Cata-Anaerobic Biogas Plant	Bio-Chemicals	HARDWARE	1202921035	ATITOSH KUMAR SINGH	Prof. Ameer Faisal	The project is related to the production of inflammable gases using human waste which can be used for the production of energy.
				1202921042	BAL KRISHN SHUKLA		
				1202921058	GOURAV TYAGI		
3	PWM based single phase inverter	Knowledge of Power electronics devices and switching	MATLAB	1202921059	HARSH BANSAL	Prof. S. K. Tripathi	In this project the development of single phase PWM based inverter is proposed to be carried out.
				1202921066	IZHAR DAD KHAN		
				1202921022	ANKIT CHAUHAN		
				1202921038	AVINASH KUMAR		
4	Automated Solar Tracking System Using PLC	Knowledge of MPPT techniques and PLC.	MATLAB and PLC	1202921069	KOPAL JAISWAL	Prof. S. K. Tripathi	Automated solar tracking system is developed using PLC to ensure maximum electric energy generation.
				1202921160	SUYASH JOSHI		
				1202921166	UTKARSH CHAHAL		
				1202921149	SOMYA SRIVASTAVA		
5	Study and Analysis for smooth starting of Single phase induction motor	Knowledge of Electro mechanical energy conversion	HARDWARE	1202921009	ABHISHEK KUMAR JAISWAL	Prof. Brajesh Kumar Tiwari	Analyze the performance of Single phase induction motor with smooth starting.
				1202921010	ABHISHEK NIGAM		
				1202921032	ARPITA RASTOGI		
				1202921045	CHINMAY SINGH		

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6	Digitalised Vehicle Challan Handling System (DVCS)	Knowledge of communication and RFID system	Simulation in Proteous software and may be implemented in hardware.	1202921001	AAKASH KUMAR	Prof. Brajesh Kumar Tiwari	It is a automatic Vehicle Challan System
				1202921004	AAAYUSH RASTOGI		
				1202921086	NABIL AHMED		
				1202932048	SHASHIKANT SINGH		
7	Development of Power electronics converter for wind power generation	Knowledge of used power electronic components	MATLAB	1302921915	SAKSHI MAHESHWARI	Prof. Ravi Gupta	In this project the output of Permanent Magnet Synchronous Generator is first rectified and then it is stepped down to charge the battery. The project involves the simulation and fabrication of buck converter. MATLAB Simulink shall be used as the simulation tool.
				1202921119	SAUMYA GUPTA		
				1302921913	RAJANI DUBEY		
8	Automatic Baby Walker	power electronics,Dc motor	Embedded System	1202921154	SUJATA SINGH	Prof. Ankit Singhal	A baby walker is a device that can be used by infants who cannot walk on their own to move from one place to another. Modern baby walkers have a base made of hard plastic sitting on top of wheels and a suspended fabric seat with two leg holes
				1202921150	SONALI ANAND		
				1202921305	AYESHI GAMBHIR		
				1202921161	SWATI SINGH		
9	Electricity from speed breaker on road	Knowledge of piezoelectric material and electric circuits involved in the project work.	MATLAB, Piezoelectric material	1302921906	GAURAV SHUKLA	Prof. S. K. Tripathi	In this project the electricity will be generated from the speed breakers.
				1302921918	SIDDHARTHA TYAGI		
				1202921184	YATENDER SINGH KUSHWAHA		
				1202921303	ANUBHAV GUPTA		

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10	Wireless energy source and supply for electronic devices	es of wireless commu	Embedded System	1202921074	MANISH KUMAR SINGH	Prof. Ashish D. Thombre	THEORY and formulation will be done in this project.
				1202921098	PRASHANT		
				1202921108	RAJANISH KUMAR MADDHESHIYA		
				1202921141	SHUBHAM SINGH		
11	Protection of three-phase induction motor	Electrical Machines	Micro-controller	1202921049	DEEPSHIKHA GUPTA	Prof. Masood Rizvi	The basic idea for the development of this project is to provide safety to the industrial motor, if any of the phases, out of the 3 phases is missing
				1202921031	ARCHANA SINGH		
				1202921036	ATUL CHAUDHARY		
12	Speed Control of Stepper Motor using 8051 PIC	Electrical Machines	Micro-controller	1202921012	AFASAR ALI ANSARI	Prof. Jyoti Srivastava	A Stepper Motor is a brushless, synchronous DC electric motor, which divides the full rotation into a number of equal steps. It finds great application in field of microcontrollers such as robotics. In this project we are controlling its speed using 8051.
				1202921039	AVINASH SHRIVASTAV		
				1202921014	AKASH SHIV TIWARI		
				1202921067	JAY RISHI VISHWAKARMA		
13	Speed Control of DC Motor According to Temperature Variation	Electrical Machines	Micro-controller	1202921072	MANMOHAN SINGH	Prof. Jyoti Srivastava	The purpose of the project is to reduce the heat at high temperature zones in the industries. The project is based on the variation of temperature sensor the speed of DC Motor will be controlled.
				1202921037	ATUL KUMAR		
				1202921179	VISHAL KUMAR		
14	Speed Control of DC Motor using PWM Technique	Electrical Machines	Micro-controller	1202921070	KRISHNA MURARI SINGH	Prof. Jyoti Srivastava	The control of DC motor speed will be achieved using DC chopper. For control of chopper, DC signal proportional to speed will be compared with triangular carrier to generate PWM signal.
				1202921071	KSHITIZ VERMA		
				1202921176	VINOD KUMAR VERMA		
				1202921081	MOHIT KUMAR		

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15	TEC Module based Solar AC	Thermo-electric effect	HARDWARE	1202921164	TUSHAR BHARDWAJ	Prof. Ameer Faisal	The project is based on the thermo-electric effect to produce electrical energy
				1202921151	SONALI MANKOTI		
				1202921162	SWEETY KUMARI		
16	Highway Lighting System with auto turn off in Day time	Basics of electrical & electronics engineering	Embedded System (Hardware)	1202921134	SHOEB ANSARI	Prof. Suneel Kumar	The project is basically intended for the efficient use of electrical energy.
				1202921135	SHRIKAR CHANDRAYAN		
				1202921008	ABHISHEK CHOUDHARY		
				1202921048	DEEP TYAGI		
17	RFID Based Attendance Monitoring System	RFID and mbedded systems	Micro-controller	1202921015	AKRITI VERMA	Prof. Ashish D. Thombre	Prototype for AMS is planned to be developed
				1202921050	DIKSHA CHANDRA		
				1202921017	ALPANA KUMARI		
				1202921043	BHAVESH GAJWANI		
18	Over voltage-under protection system	Power Systems	Embedded Sysytem	1202921104	PRIYANSHI SRIVASTAVA	Prof. Masood Rizvi	For the satisfactory working of all electrical and electronic devices, it is recommended to allow voltage at prescribed limits.
				1202921105	PUNITA SINGH		
				1202921076	MANSI SHARMA		
19	Design and fabrication of all-in-one protective relay for distribution	Power System Protection	LAB, microcontroller,s	1202921033	ARVIND KUMAR GUPTA	Prof. Ashish D. Thombre	Prototype of the protective relayis planned to be developed
				1202921068	KAMAL SINGH		
				1202921051	DIKSHA SINGH		
				1202921120	SAURABH KUMAR		
20	Design and analysis of Stand Alone PV System for academic	Solar Energy and PV Cell	MATLAB	1202921016	AKSHIT KHANNA	Prof. Pradeep Katariya	software based for installation of PV system
				1202921047	DARPIT BANSAL		
				1202921167	VAIBHAV SINGH		

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21	Live human detecting robot for earthquake rescue operation	control system	matlab,PLC	1202921129	SHIVAM GUPTA	Prof. Ankit Singhal	During the emergency situations and especially in urban disasters, this project will be a great requirement. The disasters can be sensed in a quicker time and the rescue operation will be there for the stake to help the victims
				1202921136	SHUBHAM AGARWAL		
				1202921090	NIHARIKA RUPAINWAR		
				1202921146	SMAHI VERMA		
22	Metro Train Prototype using embedded system	Embedded System	Microcontroller emulator	1202921034	ATHARVI	Prof. D. B. Miracle	A complete prototype of metro train system with advanced feature such as emergency braking system. Many more added non-existent features.
				1202921097	PRANAV TAYAL		
				1202921142	SHUBHAM SINGHANIA		
				1202921122	SAURABH SHARMA		
23	Automatic best phase selector	Power Systems	Embedded Systems	1202921088	NEHA SINGH	Prof. Masood Rizvi	In three-phase applications, if low voltage is available in any one or two phases, and you want your equipment to work on normal voltage, this circuit will solve your problem.
				1202921083	MRINALINI SINGH		
				1202921082	MONICA		
24	MPPT Based Solar Charging System	Renewable energy resources	Embedded Systems	1202921041	AYUSH VARSHNEY	Prof. Suneel Kumar	The basic idea of this project is to maximize the efficiency of solar panel with MPPT concept.
				1202921040	AYUSH GOEL		
				1202921006	ABHAY SHARMA		
25	Advance Load Management System	Knowledge of load analysis.	MATLAB	1202921064	HIMANSHU PANT	Prof. S. K. Tripathi	Advanced load management system is developed.
				1202921140	SHUBHAM SETH		
				1202921128	SHIVAM GUPTA		
				1202921139	SHUBHAM GUPTA		

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26	Talking Energy Meter	Knowledge of Energy Equipment & Interfacing	Embedded System	1202921103	PRAVIN GUPTA	Prof. Arun Kumar	Energy Meter will tell every thing with voice feature instead of Digital Reading
				1202921127	SHASHANK YADAV		
				1202921148	SOMYA GOYAL		
				1202921131	SHIVANGI TIWARI		
27	Reconfiguration of solar photovoltaic array under partial shading condition	Solar photovoltaic	MATLAB	1202921093	PANKAJ KUMAR	Prof. Mohd. Faisal Jalil	In this project comparative analysis is done for different array configuration on solar photovoltaic array.
				1202921075	MANOJ KUMAR		
				1202921099	PRASHANT KUMAR ARYA		
				1202921092	NOMAN ALI		
28	GSM Based Pulse-Oxymeter	Knowledge of GSM & human pulse.	Hardware	1202921110	RANA ADITYA VIKRAM SINGH	Dr. Neeraj Kumar Gupta (Guide) Prof. Brajesh Kumar Tiwari (Co-	This project help in treatment of rural area patients.
				1202921095	PIYUSH JAIN		
				1202921061	HARSHIT TYAGI		
29	Speed Control of stepper motor through IR Radiation	Control system	HARDWARE	1202921053	ESHA CHAUHAN	Guide: Prof. Ameer Faisal Co-Guide: Prof. S. K. Tripathi	This project is to use Infrared frequency signal to control the stepper motor through IR REMOTE. All the above processes are controlled by the 8 bit Microcontroller AT89S52.
				1202921055	GAURAV TIWARI		
				1202921056	GOPAL KRISHNA TRIPATHI		
				1202921073	MANASVEE TIWARI		

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30	Satellite Energy Transfer Through Wireless System Integrated with SPV System	Knowledge of Electrical System	Hardware	1202921003	AAYUSH KUMAR	Prof. Swati Singla	Space-based solar power (SBSP) is the concept of collecting solar power in space (using an "SPS", that is, a "solar-power satellite" or a "satellite power system") for use on Earth.
				1202921152	SOURAV KUMAR		
				1202921173	VINAY KUMAR PRAJAPATI		
				1202921174	VINEET KUMAR SINGH		
31	Solar Agricultural Vehicle	Embedded System	Microcontroller Emulator	1214321138	SHIVAM GUPTA (FROM IMS)	Prof. D. B. Miracle	Seeding, watering, humidity measurement of soil etc., to be done by the solar powered vehicle.
				1214321007	AJAD KUMAR (FROM IMS)		
				1214321167	TUSHAR CHAUDHARY (FROM IMS)		
				1214321083	MOHD. ARBAZ UDDIN (FROM IMS)		
32	Orthogonal Frequency division multiplexing technique for wireless communication	Knowledge of wireless communication.	Software based project	1302921902	ANKIT KUMAR RAI	Prof. Brajesh Kumar Tiwari	Orthogonal Frequency division multiplexing is multiplexing technique for fourth generation communication
				1202921178	VISHAL DHAR DUBEY		
				1302921904	ASHUTOSH CHAURASIYA		
				1302921910	MARTAND KUMAR SISODIA		
33	Automatic Home Cleaner	Automation	Automation & Embedded System	1202921124	SHALINI CHAUDHRY	Prof. Arun Kumar	Automatically Clean everything in home.
				1202921111	RASHMI SINGH		

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34	Four Quardant Operation of DC Motor with speed control	Knowledge of Electrical Machines	Embedded System	1202921011	ABHISHEK PANDEY	Guide: Prof. Suneel Kumar Co-Guide: Prof. S. K. Tripathi	The project will smoothly control the speed of DC motor.
				1202921013	AKASH AGARWAL		
				1202921025	ANKIT SINGH RAJPUT		
				1202921005	ABHAY PATHAK		
35	GSM based mobile controlled home appliances using AVR Programing	Microcontroller Programming	AVR Programmer	1202921052	DURGA PRASAD VISHWAKARMA	Guide:Prof. D. B. Miracle Co-Guide: Ruchika	A complete solution to home automation such as fans, tube lights, air-conditioner, water heater etc
				1202921002	AASHU KUMAR		
				1202921026	ANKUSH KESHARWANI		
36	Energy Saving street Light System	Microcontroller Programming	Embedded System	1202921158	SUNNY KUMAR	Prof. Rahat Ullah Khan	Automatically controlling the intensity of street light according to the peak traffic hours in the night time and completely switching off at the day time is auto intensity control.
				1202921155	SUKHVINDER SINGH		
				1302921909	MANVENDRA PRATAP SINGH		
				1302921901	ABHISHEK KAUSHAL		
37	Automated Electricity Billing System	Microcontroller Programming	Embedded System	1202921133	SHIWANI GARG	Prof. Arvind Kumar Sharma	Automatically take the energy meter reading and send to main server for monthly billing. control.
				1202921168	VANSHAJ AGARWAL		
				1202921021	ANCHAL MISHRA		
				1202921153	SUDESH UPADHYAY		
38	GSM Based Home Automation	Embedded System	Microcontroller Program	1202921157	SUNAKSHEE SINGH	Prof. Ruchika Singh	A complete solution to home automation using Dual Tone Multiple Frequency to control appliances such as fans, tube lights, air-conditioner, water heater etc
				1102921086	Rohan Saxena		
				1302921920	YOGENDER KUMAR		
				1214321141	SHIVAM SHARMA (FROM IMS)		

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39	Sign Language Translator	Embedded System	microcontroller Program	1214321075	MAYUKH BARANWAL	Prof. D. B. Miracle	Sign language is a language through which communication is possible without the means of acoustic sounds. Instead, sign language relies on sign patterns, i.e., body language, orientation and movements of the arm to facilitate understanding between people. It exploits unique features of the visual medium through spatial grammar.
				1214321105	PRIYANSH SINGH		
				1214321068	LAKHAN GUPTA		
				1214321081	MOHAN MISHRA		
40	Analysis and Hardware Implementation of Green Wind Energy	Electrical Equipment & SCADA	Automation & Embedded System	1202921101	PRATICHI AGRAWAL	Prof. Arun Kumar	A Hardware model will be assembled for Electricity generation using Wind and Solar Energy
				1202921089	NEMISHA SINGH		
41	The Food Spoilage Detector	sensor and Instrumentation	MATLAB,	1202921060	HARSHIT SINGHAL	Prof. Ameer Faisal	When the volatile components are in contact with the biomarkers, their refractive index changes. This is sensed by the infrared (IR) light directed towards the sensor, and this causes a wavelength shift of the IR light reflected by the sensor. Based on the shift one can determine the volatile components and their concentration inside the container using the reference mathematical model.
				1202921063	HIMANSHU		

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42	Speed Control of Induction Motor Using static kramer drive	Knowledge of Electrical Machines	Micro-controller	1202921144	SIDDHARTH SAINI	Prof. Jyoti Srivastava	This is one of the slip power convey scheme to control the speed of induction motor. In this scheme the slip power available at the rotor brushes is rectified and then applied to the DC motor armature winding. This DC motor is coupled to the induction motor to control its speed
				1202921094	PAWAN VERMA		
				1202921143	SHUBHAM YADAV		
				1202921116	RUCHIN DWIVEDI		
43	Home automation using cellphone	Knowledge of Embedded system	Microcontroller Burner	1302921912	RAJAN UPADHYAY	Prof. Swati	Home Automation system employes the integration of wireless communication and power-line communication for remote controlling of various home Appliances.
				1302921919	SURYA PRATAP SINGH		
				1302921905	DURGESH SINGH		
				1302921911	PANKAJ PAL		
44	Electronic Soft Start of 3 Phase Induction Motor	Power electronics, Sensors	HARDWARE	1202921169	VASUDEV TRIPATHI	Prof. Abhas Kanungo	The project provides a soft steady start to induction motor based on SCR firing trigger through introducing a quite brief delay.
				1202921062	HIMAL SRIVASTAVA		
				1202921030	ANUPAM MISHRA		
				1202921301	ABHISHEK SINGH		
45	Microcontroller Based four switch three phase inverter fed induction motor drive	Microcontroller Program	Embedded Systems	1202921107	RAHVINDRA SINGH	Prof. Arvind Kumar Sharma	Four switches are used in place of six and are controlled through microcontroller.
				1202921125	SHASHANK		
				1202921109	RAJAT SETH		
				1202921085	MUKESH YADAV		
				1202921126	SHASHANK CHAUDHARY		
46	Fire alarm with siren sound	Power electronics, Sensors	HARDWARE	1202921130	SHIVAM SHUKLA	Prof. Nitish Verma	This circuit alerts us when there is a fire accident at home by ringing a siren sound
				1202921057	GOURAV KUMAR		

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47	Footstep Power generation	Power electronics, Non conventional sources	HARDWARE	1202921138	SHUBHAM GUPTA	Prof. Nitish Verma	Foot step power generation system for rural energy application to run AC and DC loads
				1202921123	SAWAN KUMAR VARSHNEY		
				1202921121	SAURABH KUMAR SRIVASTAVA		
				1202921137	SHUBHAM BHARTI		
48	Power system analysis using power factory's	Power Systems	Software	1202921165	UTKARSH BAJPAI	Prof. Pradeep Katariya	Analysis of power system using DigSilent
				1202921163	SYED UMAR AHMED		
49	Gravity Light	Knowledge of gravity light	MATLAB	1202932014	ASHISH AGRAWAL	Prof. S. K. Tripathi	In this project gravity light model is developed.
				1202921102	PRAVEEN KUMAR		
				1202932041	ROBIN SINGH		
				1202913110	SUMIT KUMAR VERMA		
50	Automatic Unmanned Railway Crossing & Braking	Automation	Automation & Embedded System	1202921106	RAHUL YADAV	Prof. Arun Kumar	a model will be assembled for automatic unmanned crossing with some unique features
				1202921117	SAPNA RANI		
				1202921087	NEHA DHONDIYAL		
				1202921114	RITESH KUMAR		
51	Wireless energy transmission by Testla Coil	Basics of electrical & electronics engineering	HARDWARE	1202932011	ANKUR SRIVASTAVA	Prof. Swati Singla	this project wilol transmit the electricity wirelessly through the use of tesla coil.
				1302921903	ASHOK KUMAR		
				1202921180	VIVEK KUMAR		
				1202921181	VIVEK MAURYA		
52	Speed Control of D.C. Motor Using Embedded System	Knowledge of Electrical Machines	Embedded Systems	1302921907	GUDDU YADAV	Prof. Suneel Kumar	This project is designed for the speed control of DC motor, which is required for various industrial and home applications.
				1302921908	MANEESH KUMAR SARSWAT		
				1302921914	SACHIN VERMA		
				1302921916	YADRAM SARASWAT		

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53	Stepper Motor Control Using RF Link	Knowledge of Electrical Machines	Hardware	1202921132	SHIVOM PRATAP SINGH	Prof. Suneel Kumar	Stepper motor will be controlled using RF link technology. This concept is beneficial for remote controlling of stepper motor.
				1202921084	MUDIT TANEJA		
				1202921019	AMAN PURWAR		
				1202921172	VIKAS KUMAR MAURYA		
54	DTMF Based DC Motor Control	DTMF decoder IC 8870 with demultiplexer	hardware	1202921018	AMAN PRAKASH	Prof. Sheetal Singh	Speed control of DC motor using DTMF generator. In this project, DTMF generator (mobile phone) and the receiver circuit is used.
				1202921020	AMIT KUMAR		
				1202921023	ANKIT KUMAR		
55	Temperature sensing automatic speed controller for fan	Electrical Machines	Microcontroller	1202921054	GAJENDRA SINGH	Prof. Jyoti Srivastava	Speed control of fan using temperature. This automation is done using thermistor.
56	Power Quality Improvement By Dynamic Voltage Restorer (DVR)	Power Systems	MATLAB Simulink	1202921171	VIJENDRA SINGH	Prof. Suneel Kumar	DVR is used for the power quality improvement in power system. It maintains the constant voltage at load side under non linear conditions.
				1202921159	SURYAKANT TYAGI		
				1202921177	VIPUL SAINI		
				1202921112	RAVI KUMAR		
57	Cell Phone Detector	Microcontroller Programming	HARDWARE	1202921170	VIBHAV DUTT DIXIT	Prof. Swati Singla	Cell phone detector, can sense the presence of an activated mobile cellphone from a distance of one and-a-half metres. So it can be used to prevent use of mobile phones in examination halls, confidential rooms, etc. It is also useful for detecting the use of mobile phone for spying and unauthorised video transmission.
				1202921175	VINEET UPADHYAY		
				1202921113	RAVI ROSHAN SINGH		

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58	Direction Control of DC Motor	Power electronics, DC machines	MATLAB	1202921115	ROHITENDRA PRATAP SINGH	Prof. Nitish Verma	By using a chopper circuit, controlling can be done
				1202921145	SINDHU PRATAP		
				1202921079	MOHIT DIXIT		
				1202921029	ANSHUMAN DWIVEDI		
59	Image encryption and decryption using MATLAB	IMAGE PROCESSING	MATLAB	1202921007	ABHINAV VERMA	Prof. Priyank Bharadwaj	Using MATLAB an efficient algorithm is implemented for image encryption and decryption
				1202921046	CHIRAG TYAGI		