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S.No.	Model No.	Product	Download Abstract	Category								
				Embedded	Electrical	Android	General Electronics	Power Electronics	Communication	Sensor based	Robotics	Solar
LATEST PROJECTS												
1	311	**Density based traffic signal with remote override in emmergency**: *Remote override control of density based traffic signal by emmergency vehicles like ambulance,fire brigade etc for getting priority in the desired direction*	(Abstract)	MC 8051					IR, RF			
2	343	**Wireless Power Transfer In 3d Space:** *Wireless power transfer up to 10 watts in 3 D space using high frequency from 38 KHz to 40 KHz through tuned circuits*	(Abstract)		Y		Y					
3	309	**Propller display of message by virtual LEDs:** *Microcontroller interfaced LEDs mounted on a single coloumn of 10 LEDs only displays programed text message virtually while rotating at high speed based upon the principle of persitence of vision of eye.*	(Abstract)	MC 8051			Y					
4	339	**Density Based Auto Traffic Signal Control With Android Based Remote Override:** *Remote override control of density based traffic signal by emmergency vehicles like ambulance,fire brigade etc for getting priority in the desired direction through remotely operated commands to a microcontroller by touch screen based user friendly GUI on any smart phone with Android applications*	(Abstract)	MC 8051		Y			Blue Tooth			

5	329	**Remote Induction Motor Control By Android Application With 7 Segment Display**: *Speed control of an induction motor such as fans by a triac interfaced microcontroller through remotely operated commands to it in steps by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth			
6	312	**XBEE based remote monitoring of 3 parameters on transformer / generator health:** *3 parameters such as voltage, current, temperature of a transformer or any other live equipemnt is monitored remotely over XBEE communication to remote terminal with relay control board at the receiver end in the event of abnormal parameters encountered.*	(Abstract)	MC 8051	Y				XBEE			
7	341	**Remotely Controlled Android Based Electronic Notice Board:** *The microcontroller receives the message for LCD display through remotely operated commands to it by touch screen based user friendly GUI from any smart phone with Android applications truly making it a wireless notice board*	(Abstract)	MC 8051		Y			Blue Tooth			
8	328	**Home Automation By Android Application Based Remote Control:** *The project is designed to operate electrical loads using triacs interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications for loads home or office automation for optimum use of energy*	(Abstract)	MC 8051		Y			Blue Tooth			
9	342	**Remote Operated Domestic Appliances Control By Android Application:** *The project is designed to operate electrical loads using relays interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth			

10	325	**Remote Ac Power Control By Android Application With Lcd Display:** *Based on the principle of firing angle control of two thyristors connected in anti parallel is fed for the output from an embedded microcontroller circuit having LCD display . The firing angle is remotely controlled to get reduced load power in steps by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y		Y	Blue Tooth			
11	340	**Remote Password Operated Security Control By Android Applications:** *The microcontroller based lock indication is an access control system that allows authorized persons knowing the password only. Password is stored in another dedicated EEPROM that can be changed at any time unlike a fixed one burnt permanently on to the microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications*	(Abstract)	MC 8051		Y			Blue Tooth			
12	336	**Four Quadrant Operation Of Dc Motor Remotely Controlled By Android Applications**: *The project has been designed to develop a speed control system for DC motor in all the four-quadrant. Using four-quadrant chopper it is possible to demonstrate forward, instant forward brake, reverse, instant reverse brake control of a DC motor using a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth			
13	331	**Password Based Remote Controlled Door Opening By Android Application:** *The project is designed to operate a motor operated door interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth			
14	327	**Remote Speed Control Of Dc Motor By Android Applications:** *Speed control of DC motor by varying the duty cycle of the pulse applied to it (popularly known as PWM control) through remotely operated commands to the microcontroller in steps by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth			

15	337	**Railway Level Crossing Gate Operation Remotely By Android:** *Railway level crossing gate motor ,controlled by the the engine driver from a smart phone to a microcontroller through remotely operated commands to its by touch screen based user friendly GUI with Android applications for deriving an output to dive a relay for the gate motor operation.*	(Abstract)	MC 8051		Y			Blue Tooth			
16	326	**Android Application Controlled Remote Robot Operation:** *The project is designed to control a robotic vehicle using motors interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth		Y	
17	338	**Android Based Remotely Programmable Sequential Load Operation**: *The project is designed to operate electrical loads using relays interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications .The touch screen switches operated remotely are used to program the system in set mode, auto mode or manual mode. Loads are driven sequentially or individually in programmable time intervals from the output of the microcontroller based on the mode selected remotely.*	(Abstract)	MC 8051		Y			Blue Tooth			
18	330	**Remote Alignment Of 3d Dish Positioning By Android Application**: *The main application of using a dish antenna to position it to the exact angle by remotely operated commands to it by touch screen based user friendly GUI from any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth			
19	332	**Metal Detector Robotic Vehicle Operated By Android Application:** *The project is designed to control a robotic vehicle using motors interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications. It also consists of a metal detector circuit interfaced to the control unit that alarms the user behind it about a suspected land mine ahead.*	(Abstract)	MC 8051		Y			Blue Tooth		Y	

20	322	**Xbee Based Remote Monitoring Of 3 Parameters On Transformer / Generator Health With Voice Announcement And Wireless Pc Interface:** *3 parameters such as voltage, current, temperature of a transformer or any other live equipment is monitored remotely over XBEE communication to remote terminal with relay control board at the receiver end in the event of abnormal parameters encountered with recorded voice announcement and with wireless computer interface for display.*	(Abstract)	MC 8051			Y		Xbee			
21	310	**Vehicle tracking by GPS - GSM:** *Location tracking of any vehicle with latitude and longitude details communicated to the owner over SMS at periodical intervals by a tracking microcontroller duly interfaced to a GPS module and a GSM modem installed in the vehicle.*	(Abstract)	MC 8051					GSM, GPS			
22	333	**Pick N Place Robotic Arm And Movement Controlled By Android Wirelessly:** *The project is designed to develop a pick n place robotic vehicle with a soft catching gripper. For example, it can safely handle a bomb very carefully to avoid explosion while catching. The robotic vehicle 4 motors are interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications.*	(Abstract)	MC 8051		Y			Blue Tooth		Y	
23	334	**Fire Fighting Robot Remotely Operated By Android Applications:** *The project is designed to develop a fire fighting robotic vehicle using motors those are interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications. The robotic vehicle is loaded with water tanker and a pump which is also controlled remotely too pump the water on the fire.*	(Abstract)	MC 8051		Y			Blue Tooth		Y	

24	335	**War Field Spying Robot With Night Vision Wireless Camera By Android Applications:** *The project is designed to develop a robotic vehicle using motors those are interfaced to a microcontroller through remotely operated commands to it by touch screen based user friendly GUI on any smart phone with Android applications and with wireless camera for monitoring purpose. The robot along with camera can wirelessly transmit real time video with night vision capabilities. This is kind of robot can be used for spying purpose in war fields.*	(Abstract)	MC 8051		Y			Blue Tooth		Y	
25	324	**Voice Controlled Robotic Vehicle With Long Distance Speech Recognition:** *A robotic vehicle that responds to voice commands with RF mode communication for long distance speech recognition features for movement in any direction with manual override by switches at the transmitter end.*	(Abstract)	MC 8051					Voice Module,RF		Y	
26	317	**GSM Based Remote Monitoring of 8 Parameters of Transformer:** GSM based remote monitoring of 8 parameters of transformer / generator health- 8 parameters such as 3 P voltage, 3p current, temperature, oil chamber moisture / oil level /vibration(any one of three) etc of distribution transformer / generator / other	(Abstract)	MC 8051					XBEE			
27	344	**AC PWM Control for Induction Motor**: AC PWM based Induction motor speed control having negligible harmonic distortion compared to simple phase angle delayed mode of control.	(Abstract)	MC 8051	Y			Y				
28	363	**Over Voltage- Under Voltage Protection: Two comparators of a quad OPAMP IC is used to form a window comparator for sensing low / high input voltage while their 'OR' logic wired output drives a relay to cut-off the load beyond a specified range for safety reasons with an audio alarm by a buzzer driven from another comparator**	(Abstract)		Y			Y				
29	346	**Wireless SCADA: Supervisor sitting on the PC terminal to control plant parameters wirelessly while monitoring the data acquired through several sensors. The project uses a front end for the control and a backend with microcontroller interfaced to an ADC from temperature sensors for data collection and control**	(Abstract)	MC 8051					USB 2.4GHz	Temperature		

30	347	**Wirelees rash driving detection: The time difference between 2 consecutive spots on a highway is sensed & fed to a programmed microcontroller to convert the same to the speed of a vehicle with display & warning upon exceeding specified speed limit and transmitting the same wirelessly to the control room.**	(Abstract)	MC 8051					RF	IR		
31	348	**Arduino based Auto intensity control of street lights: White Light Emitting Diodes (LED) replacing HID lamps in street lighting system with light dimming feature is interfaced to an Arduino board used to develop pulse width modulated signals that drives a MOSFET to switch a number of LEDs for controling the intensity.**	(Abstract)	MC ATMEGA			Y					
32	350	**Arduino based Solar street light: LED based street lights with auto intensity control using solar power from photovoltaic cells duly interfaced to an Arduino board. The project stores solar energy in a battery during day time and automatically operates street light in evening with varying intensity control to minimize waste of energy.**	(Abstract)	MC ATMEGA			Y					Y
33	351	**Arduino Based underground cable fault detection: A fixed set of resistors are used representing the distance of the underground cable in kilometers. A DC voltage is fed over the line in mutiplexing mode in combination with the built-in ADC of an Arduino board to detect the fault current and show the distance on a LCD display based on varying voltage drop principle.**	(Abstract)	MC ATMEGA			Y					
34	352	**Aurdino Based Home Automation: Using Bluetooth module interfaced an Arduino board is designed for controlling several loads in home or office for optimum use of energy.**	(Abstract)	MC ATMEGA		Y	Y		Blueto oth			
35	353	**Atmega based garrage door openning: An Anroid OS based cell phone is used to remotely control a garage door motor through Bluetooth system connected to a programed Atmega microcontroller so that the data received with accepted password is used to operate the relay driving the motor.Wrong password entry develops a buzzer alarm.**	(Abstract)	MC ATMEGA		Y			Bluet ooth			

36	354	**ARM cortex (STM32) based Auto intensity control: White Light Emitting Diodes (LED) replacing HID lamps in street lighting system with light dimming feature is interfaced to an ARM cortex (STM32) board used to develop pulse width modulated signals that drives a MOSFET to switch a number of LEDs for controling the intensity.**	(Abstract)	STM32								
37	355	**ARM cortex (STM32) based Motor speed control: The speed of a DC motor is directly proportional to the voltage applied across its terminals. This project uses the above principle to control the speed of the motor by varying the duty cycle of the pulse applied to it (popularly known as PWM control). An ARM cortex (STM32) board is used to deliver the PWM pulses to the motor.**	(Abstract)	STM32								
38	356	**ARM cortex (STM32) based Solar street light: LED based street lights with auto intensity control using solar power from photovoltaic cells duly interfaced to an ARM cortex (STM32) board. The project stores solar energy in a battery during day time and automatically operates street light in evening with varying intensity control to minimize waste of energy.**	(Abstract)	STM32								Y
39	357	**RaspberryPI based Auto intensity control: White Light Emitting Diodes (LED) replacing HID lamps in street lighting system with light dimming feature is interfaced to aRaspberry Pi board used to develop pulse width modulated signals that drives a MOSFET to switch a number of LEDs for controling the intensity.**	(Abstract)	Processor Based								
40	358	**RaspberryPI based Motor speed control: The speed of a DC motor is directly proportional to the voltage applied across its terminals. This project uses the above principle to control the speed of the motor by varying the duty cycle of the pulse applied to it (popularly known as PWM control). A Raspberry Pi board is used to deliver the PWM pulses to the motor.**	(Abstract)	Processor Based								

41	359	**RaspberryPI based programmable sequential switching: The project is based on RaspberryPI board for programmable logic control of industrial loads by the user. A keyboard is interfaced to the Raspberry PI module which can be used to program the system in set mode, auto mode or manual mode. Loads are driven sequentially or individually in programmable time intervals from the output of the Raspberry PI module based on the mode selected.**	(Abstract)	Processor Based								
42	360	**RaspberryPI based Solar street light: LED based street lights with auto intensity control using solar power from photovoltaic cells duly interfaced to a Raspberry Pi board. The project stores solar energy in a battery during day time and automatically operates street light in evening with varying intensity control to minimize waste of energy.**	(Abstract)	Processor Based								Y
43	361	**Softstart of Induction Motor by AC-PWM: Soft start of induction motor with negligible harmonics by ac chopper using a full bridge in series with the load which is controlled by an IGBT . Soft Start by such method is very highly reliable compared to thyristor based firing angle control that is rich in THD and damages the motor. A lamp is provided as load for demonstration purpose**	(Abstract)	MC 8051								
44	362	**Vehicle Theft Location Intimation by GPS/GSM to the Owner: Location tracking of any stolen vehicle with latitude and longitude details communicated to the owner over SMS at periodical intervals by a tracking microcontroller duly interfaced to a GPS module and a GSM modem installed in the vehicle.**	(Abstract)	MC 8051					Y			
45	364	**Bi directional rotation of single phase induction motor without run capacitor: Developing 2 phase ac by 90 degrees phase difference to each other by converting ac to dc and again dc to ac by high frequency switching with help of MOSFETs driven from a microcontroller for any single phase induction motor to run in either direction without use of run capacitor.**	(Abstract)	MC 8051				Y				

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				Embedded	Electrical	Android	General Electronics	Power Electronics	Communication	Sensor based	Robotics	Solar
PRICE RANGE FOR PROJECT KIT: LESS THAN Rs.3000/- (all inclusive)												
46	214	**WIRE LOOP BREAKING ALARM SIGNAL:** *The project is designed to generate an alarm signal in the event of breaking of a wire in loop. The project uses a buzzer to alert the user.*	(Abstract)				Y					
47	193	**REMOTE JAMMING DEVICE:** *The project is designed to develop IR rays of 38KHz usually emitted by a standard TV remote. The rays developed are powerful enough to overshadow the IR receiver in TV. Thus the remote used would lose its function as long as the IR rays generated by the project are falling on the receiver.*	(Abstract)				Y			IR		
48	205	**MAINS OPERATED LED LIGHT:** *A string of LED's are made to operate at 230V AC by using a series capacitor drop and current limit resistor. This concept of using leds can be adopted to home lighting system in a most cost effective way.*	(Abstract)		Y		Y					
49	208	**STEP UP 6 VOLT DC TO 10 VOLT DC USING 555 TIMER:** *A 555 timer is used in astable mode to deliver the output approximately twice the input voltage. The output from the 555 timer is given to a voltage doubler circuit to get the desired output.*	(Abstract)		Y		Y					
50	227	**WIRELESS AUDIO TRANSMITTER FOR TV:** *The audio output of the TV is fed to an FM transmitter that transmits the audio to be received by any FM receiver (or a cell phone having FM radio).It can be used to listen to TV sound without disturbing any one else.*	(Abstract)				Y					
51	203	**AUTOMATIC DUSK TO DAWN (EVENING ON TO MORNING OFF):** *Varying light intensity falling on an LDR is used as input to a comparator. It is compared with a fixed value to turn ON the appliances through relay at the falling light intensity in the evening to switch OFF in the morning light.*	Abstract)				Y					

52	300	**SELF SWITCHING POWER SUPPLY:** *This power supply unit gives a variable regulated DC for microcontroller circuits and switches off automatically in no load condition.*	Abstract)				Y					
53	215	**VIDEO ACTIVATED RELAY TO CONTROL THE LOAD:** *The project is designed to actuate a relay whenever an input video signal is fed to it. For example, It can be used for switching OFF a TV automatically once the video signals are not available.*	Abstract)				Y					
54	188	**HIDDEN ACTIVE CELL PHONE DETECTOR:** *A 555 timer in mono-stable mode along with a high gain op amp is used to detect Giga Hertz induced signals so produced by an active cell phone with in closer proximity to sound a buzzer alarm.*	Abstract)				Y					
55	189	**LONG RANGE FM TRANSMITTER WITH AUDIO MODULATION:** *A microphone is used to feed audio signals to modulate a carrier signal at a frequency of around 106 MHz. This signal is further amplified with an RF power amplifier that is connected to a tuned antenna to cover a line of sight distance of about 2 km (if we use Yagi antenna) or 20-30 Mtrs by GP/stick antenna.*	Abstract)				Y					
56	206	**THERMISTOR BASED TEMPERATURE CONTROL :** *The project is designed to develop a temperature control system using a thermistor. An op-amp is used to sense the falling resistance of increasing temperature by the property of NTC (negative co-efficient thermistor). Then the op-amp used as a comparator actuates a relay.*	Abstract)				Y			Tempe rature		
57	216	**TOUCH CONTROLLED LOAD SWITCH:** *The project is designed to develop a touch sensitive switch to control any load. A 555 timer is used in monostable mode to drive a relay to switch ON a load for a fixed time duration.*	Abstract)		Y		Y					
58	254	**PHASE SEQUENCE CHECKER FOR THREE PHASE SUPPLY:** *3-phase supply of 440V AC 50Hz is fed to a logic circuit comprising of NAND gates and OR gates to detect the sequence of R Y B by triggering a timer for a LED to indicate output phase out of sequence. The output can also be tested by using a sequence meter (not supplied with the kit).*	(Abstract)		Y		Y					

59	209	**OVER VOLTAGE OR UNDER VOLTAGE TRIPPING MECHANISM:** *Two 555 timers are used as window comparator. This delivers an error output if the input voltage to them crosses the range beyond the voltage window.A relay is then operated to cutff the load for saftey reasons.*	(Abstract)		Y		Y				
60	218	**TIME DELAY BASED RELAY OPERATED LOAD:** *The project is designed to develop a time delay based switch to control any load. A 555 timer is used in monostable mode to drive a relay to switch ON/OFF a load for a fixed time duration.*	(Abstract)		Y		Y				
61	297	**LED BASED AUTOMATIC EMERGENCY LIGHT:** *This emergency light takes 230V AC and it converts it in 12V DC to charge a set of rechargeable batteries which is used to lit up a pair of LEDs automatically in the event of mains failure.*	(Abstract)				Y				
62	204	**RHYTHM FOLLOWING FLASHING LIGHTS:** *Sound signals sensed by condenser microphone are amplified to fed to a decade counter that drives a string of LEDs to blink rhythmatically as per the sound level.*	(Abstract)				Y				
63	212	**INCOMING PHONE RING LIGHT FLASHER:** *A phone line is connected through an opto isolator to drive a relay whenever telephone ring is detected by the circuit. It switches a 230v lamp to flash as per the telephone ring to draw attention in higly noisy environment.*	(Abstract)				Y				
64	222	**FASTEST FINGER PRESS QUIZ BUZZER:** *A set of 8 switches are interfaced to D-type flip flop working as priority encoder. While number of switches are pressed at same time, it takes the first swtich pressed into consideration and generates a buzzer sound along with the indication of the switch pressed.*	Abstract)				Y				
65	229	**INTELLIGENT OVERHEAD TANK WATER LEVEL INDICATOR:** *The project is designed to give a display of water level in a tank. The reading given is in the sale of 0 to 9. A priority encoder is interfaced to a decoder to get the display of water level on 7 segment display.*	(Abstract)				Y				

66	221	**ELECTRONIC EYE CONTROLLED SECURITY SYSTEM:** *The project is designed as a security system based on photo sensing arrangement. It uses a 14- stage ripple carry binary counter to sense the light intensity through LDR. The outup drives a buzzer and a relay for necessary action.*	(Abstract)				Y					
67	7	**LAMP LIFE EXTENDER BY ZVS (Zero Voltage Switching):** *Incandescent lamps exhibit very low resistance in cold condition due to which it draws high current while switched on, resulting in fast failure . Engaging a triac whose switching on time can be precisely controlled by firing it after detecting the zero cross point of the waveform.*	(Abstract)	MC 8051				Y				
PRICE RANGE FOR PROJECT KIT: LESS THAN Rs.5000/- (all inclusive)												
68	167	**SMOOTH START OF A SINGLE PHASE INDUCTION MOTOR:** *The project uses two anti-parallel SCRs in series with the motor to the supply. SCRs are triggered gradually from heavily delayed firing angle to zero delay resulting in gradual increase of supply voltage to the motor. This leads to a smooth start of the motor. A lamp is provided as load for demonstration purpose.*	(Abstract)					Y				
69	24	**DENSITY BASED TRAFFIC SIGNAL SYSTEM:** *The project is designed to develop a density based dynamic traffic signal system. The signal timing changes automatically on sensing the traffic density at the junction. IR sensors are used to monitor the density of the vehicles at the junction. The signals from the IR receivers are fed to the microcontroller to follow different time for different level of traffic.*	(Abstract)	MC 8051						IR		
70	174	**WIRELESS POWER TRANSFER:** *The project is to develop a device to transfer power wirelessly to any gadget. This project can also be used for charging batteries those are physically not possible to be connected electrically.*	(Abstract)		Y		Y					
71	237	**HIGH VOLTAGE DC BY MARX GENERATOR PRINCIPLES:** *A number of capacitors are charged in parallel by pulsed voltage to a specific voltage (V), with 50% or less duty cycle from a DC source. The capacitors are automatically placed in series such that all the (V) gets added to deliver higher voltage based on the number of capacitors used.*	(Abstract)					Y				

72	1A	**BEACON FLASHER USING MICROCONTROLLER:** *An incandescent lamp is made to operate in flashing mode from a microcontroller of 8051 family. For example, this flashing is helpful in giving alert signals mounted on high masts /ambulance/aviation towers/sea shores etc.*	(Abstract)	MC 8051								
73	298	**RFID BASED PAID CAR PARKING:** *It uses a microcontroller along with sensing circuits monitoring entry and exit of cars with help of owner accessed RFID card swipe with a display indication besides indicating the available number of parking.*	(Abstract)	MC 8051					RFID			
74	6	**THYRISTOR CONTROLLED POWER FOR INDUCTION MOTOR:** *The project is designed to control AC power based on the principle of firing angle control. Two thyristors connected in anti parallel are used in series with the load for power control. Efficiency of such power control is very high compared to any other method. A lamp is provided as load for demonstration purpose.*	(Abstract)	MC 8051				Y				
75	14	**BIDIRECTIONAL ROTATION OF AN INDUCTION MOTOR WITH A REMOTE CONTROL DEVICE:** *The microcontroller receives the infrared signal from the IR remote, the code of which is identified by the receiver to operate a set of relays. The relays switches ON/OFF the appropriate relay to power a split phase induction motor to achieve desired direction by interchanging leading supply phase from the main winding to the auxiliary winding. Please note that a single phase induction motor can be procured at an extra cost over the kit cost.*	(Abstract)	MC 8051	Y					IR		
76	202	**IR OBSTACLE DETECTION TO ACTUATE LOAD:** *The project is designed to actuate a load when IR rays are interrupted. This is helpful in industries for sensing movement of material in a conveyor belt for any action to be taken. The project uses 38 KHz IR signal generated feeding an IR diode which is received by tuned IR receiver. When this signal is interrupted and iutput is generated by the microcontroller.*	(Abstract)	MC 8051						IR		

77	36	**STREET LIGHT THAT GLOWS ON DETECTING VEHICLE MOVEMENT:** *The project is designed for LED based street lights. A number of LED street lights glow for a specific distance ahead, on sensing an approaching vehicle and then switches OFF once the vehicle passes by. Thus a lot of energy is saved in this process. Optionally, dimming feature can be used in this sytem while no vehicles are passing on the road.*	(Abstract)	MC 8051						IR		
78	178	**LIFE CYCLE TESTING OF ELECTRICAL LOADS BY DOWN COUNTER:** *The project is designed to be used in industries for testing of electrical loads (lamps, motors etc) using a down counter. A desired number is entered through a keypad interfaced to a microcontroller of 8051 family. Upon activation, the system counts down one in each second till the set number reaches zero. A relay switches the load ON & OFF for every count thus testing the life cycle of the product.*	(Abstract)	MC 8051								
79	PIC108	**DENSITY BASED TRAFFIC SIGNAL SYSTEM USING PIC MICROCONTROLLER**: The project is designed to develop a density based dynamic traffic signal system. The signal timing changes automatically on sensing the traffic density at the junction. IR sensors are used to monitor the density of the vehicles at the junction. The signals from the IR receivers are fed to the microcontroller to follow different time for different level of traffic.	(Abstract)	MC PIC						IR		
80	1	**AUTO INTENSITY CONTROL OF STREET LIGHTS:** *White Light Emitting Diodes (LED) replaces HID lamps in street lighting system to include dimming feature. A microcontroller of 8051 family is used to control the intensity by developing pulse width modulated signals that drives a MOSFET to switch the LEDs according to achieve desired operation.*	(Abstract)	MC 8051			Y					
81	144	**USING TV REMOTE AS A CORDLESS MOUSE FOR THE COMPUTER:** *TV remote is used in this project to act as a cordless mouse for the computer. This is achieved by reading the coded data sent from the TV remote by a sensor. The sensor is interfaced to a microcontroller which responds to the coded signals and sends appropriates instructions through serial communication to the PC.*	(Abstract)	MC 8051					PC	IR		

82	166	**DISPLAY OF DIALED TELEPHONE NUMBERS ON SEVEN SEGMENT DISPLAYS:** *Dialed telephone numbers are picked up by a DTMF decoder to feed to a microcontroller. This data is trasnmitted ten no's seven segment LED displays for better visibility*	(Abstract)	MC 8051					DTMF			
83	192	**SUN TRACKING SOLAR PANEL:** *The project uses a solar panel coupled to a stepper motor to track the Sun so that maximum sun light is incident upon the panel at any given time of the day. The microcntroller used is programmed to rotate the stepper motor in regular time intervals so that it tracks the sun.This is better compared to light sensing method that may not be accurate always. The project uses a dummy solar panel for demonstration purpose.*	(Abstract)	MC 8051								Y
84	211	**OBJECT COUNTER WITH 7 SEGMENT DISPLAY:** *The project is designed to monitor the counting operations in industries. For example, products moving on a conveyor belt are counted by IR interruption concept and displayed on a seven segment display.*	(Abstract)	MC 8051						IR		
85	228	**FOUR QUADRANT DC MOTOR SPEED CONTROL WITH MICROCONTROLLER:** *The project has been designed to develop a speed control system for DC motor in all the four-quadrant. Using four-quadrant chopper it is possible to demonstrate forward, instant forward brake, reverse, instant reverse brake control of a DC motor It uses an 8051 family microcontroller along with a motor driver IC to drive the motor.*	(Abstract)	MC 8051	Y							
86	1C	**DISCOTHEQUE LIGHT STROBOSCOPIC FLASHER:** *Cluster of high power LEDs are used to act like stroboscopic light flasher. They are driven by a microcontroller of 8051 family through a MOSFET.*	(Abstract)	MC 8051								
87	48	**PORTABLE PROGRAMMABLE MEDICATION REMINDER:** *The project acts as a reminder for people to take medicines in time. Keypad is used to enter the time at which the medicine is required to be taken. The real time clock (RTC) used keeps tracking the time to remind the person by a buzzer sound together with the name of the medicine on the LCD display.*	(Abstract)	MC 8051								

88	161	**CELL PHONE BASED DTMF CONTROLLED GARAGE DOOR OPENING SYSTEM:** *A mobile phone is connected to the control unit so that the data received by the phone is used to open/ close the door. This can be achieved using DTMF technology. The main feature of this project is that the user can control the garage door from any part of the world using his mobile phone.*	(Abstract)	MC 8051					DTMF			
89	8	**THREE PHASE SOLID STATE RELAY WITH ZVS:** *A three phase solid state relay uses three single phase units with each phase controlled individually by a power triac. A snubber network across the triacs are used for dV/dT protection for inductive loads. The zero crossing feature of the opto-isolator used ensures the load to be switched ON at start of the waveform.*	(Abstract)	MC 8051				Y				
90	10	**INDUSTRIAL BATTERY CHARGER BY THYRISTOR FIRING ANGLE CONTROL:** *DC power for a battery charger is derived from a thyristor controlled rectifier system. AC power is applied to the bridge rectifier comprising of diodes and triacs to get the control from a microcontroller interface through push button switches used for increasing or decreasiong the DC power.*	(Abstract)	MC 8051				Y				
91	29	**LINE FOLLOWING ROBOTIC VEHICLE :** *The project is designed to develop a robotic vehicle that follows a specific path. This project doesn't require a microcontroller for its operation. A pair of photo sensors comprising IR transmitter and photo diode are used to detect the specified path for its movement.*	(Abstract)				Y			IR	Y	
92	33	**PROGRAMMABLE LOAD SHEDDING TIME MANAGEMENT FOR UTILITY DEPARTMENT:** *Multiple time operated electrical load control system is a reliable circuit that takes over the manual task of switch on/off the as per programed time. It has an inbuilt real time clock (RTC) to keep tracking the time and switch ON/OFF the load accordingly.*	(Abstract)	MC 8051								

93	225	**SPEED CHECKER TO DETECT RASH DRIVING ON HIGHWAYS:** *The time difference between 2 spots on a highway, one in advance to the other in the direction of the traffic flow, is sensed & fed to a control board to convert the same to the speed of a vehicle and generate a warning upon exceeding specified speed limit.*	(Abstract)				Y			IR		
94	289	**Programmable AC power:** *Based on the principle of firing angle control of thyristors, their triggering is automatically adjusted to maintain the desired power to the load duly interfaced from a microcontroller with keypad entry programming features. The project uses a lamp such that the entered power matches the required one verified by its intensity. The above operation is carried out by using a TRIAC in series with the AC load.*	(Abstract)	MC 8051				Y				
95	4	**THYRISTOR POWER CONTROL BY IR REMOTE:** *Project uses a standard TV remote for speed control of an induction motor such as fans. An IR receiver is interfaced to a microcontroller to read the coded data from the remote to activate the corresponding output with a digital display. A lamp is provided as load for demonstration purpose*	(Abstract)	MC 8051				Y		IR		
96	19	**OPTIMUM ENERGY MANAGEMENT SYSTEM:** *The project is designed to monitor the number of persons entering as well as exiting a room. Electrical loads are switched ON as the first person enters and switches OFF when the last person leaves. IR sensors used in combination with microcontroller to monitor all the operations. This helps in saving lot of energy.*	(Abstract)	MC 8051	Y					IR		
97	109	**PARALLEL TELEPHONE LINES WITH SECURITY SYSTEM:** *This project can be used in houses and offices where more than one telephone is connected in parallel from a single telephone line. The project is used to connect four telephones in parallel to one line. When any phone is lifted, all the other phones are disconnected from the telephone line automatically with a display of the phone in use.*	(Abstract)	MC 2051								

98	234	**PC CONTROLLED SCROLLING MESSAGE DISPLAY FOR NOTICE BOARD:** *Message sent from the PC is transmitted to the notice board over cable. It goes on scrolling on a LCD display of 2 lines until the next message is entered.*	(Abstract)	MC 8051					PC			
99	241	**FOUR QUADRANT DC MOTOR CONTROL WITHOUT MICROCONTROLLER:** *The project has been designed to develop a system using timers for DC motor control in all the four-quadrants. Using four-quadrant chopper it is possible to demonstrate forward, instant forward brake, reverse, instant reverse brake control of a DC motor.*	(Abstract)		Y		Y					
100	242	**SPEED CHECKER TO DETECT RASH DRIVING ON HIGHWAYS:** *The time difference between 2 spots on a highway, one in advance to the other in the direction of the traffic flow, is sensed & fed to a programmed microcontroller to convert the same to the speed of a vehicle and generate a warning upon exceeding specified speed limit.*	(Abstract)	MC 8051						IR		
101	9	**INDUSTRIAL POWER CONTROL BY INTEGRAL CYCLE SWITCHING WITHOUT GENERATING HARMONICS:** *Integral cycle control is a method to remove portions of full cycles/one cycle of an AC signal for controlling AC power across linear loads interfaced to a programmed microcontroller of 8051 series. This process of power control generates 1% THD as against 61% of firing angle control. A lamp is provided as load for demonstration*	(Abstract)	MC 8051				Y				
102	22	**PC BASED ELECTRICAL LOAD CONTROL:** *Electrical appliances can be controlled through a PC interfaced to a microcontroller. This interface is done through a level shifter IC. The loads are then controlled through the relays duly interfaced to the relay driver which in turn is connected to the microcontroller.*	(Abstract)	MC 8051	Y				PC			
103	181	**BLDC MOTOR SPEED CONTROL WITH RPM DISPLAY:** *The project is used for controlling the speed of BLDC motor and display the same using an IR method of speed sensing mechanism being driven by PWM controlled MOSFET. This project uses an 8051 family microcontroller.*	(Abstract)	MC 8051	Y					IR		

104	185	**STAMP VALUE CALCULATOR FOR POSTAGE NEEDS:** *Calculating the weight of the postal documents by an arrangement that is used to control a potentiometer. The output of the same is fed to an ADC duly interfaced to a microcontroller that generates the desired display.*	(Abstract)	MC 8051								
105	3	**Auto power supply control from 4 different sources: Solar, Mains, Generator & Inverter to ensure no break power:** *The main scope of the project is to consume the power from supply mains, generator, inverter and solar optimally by using appropriate program through microcontroller in most cost effective way.*	(Abstract)	MC 8051	Y							
106	156	**AUTOMATIC SURVELLIANCE CAMERA PANNING SYSTEM FROM PC:** *The project uses a PC with RS 232 interface to a microcontroller for enabling speed the speed control of motor from the PC by a motor driver IC controlled from the microcontroller.*	(Abstract)	MC 8051					PC			
107	182	**PREDEFINED SPEED CONTROL OF BLDC MOTOR:** *The project uses a 8051 family microcontroller interfaced to EEPROM to store the speed information for operation of the motor which is driven by a PWM fed MOSFET. The speed of the motor is sensed through IR sensing mechanism. The input speed is given by a set of switches. A LCD display is interfaced to the microcontroller to display the speed of the motor.*	(Abstract)	MC 8051	Y					IR		
108	148	**DTMF BASED LOAD CONTROL SYSTEM:** *The project works on the principle of DTMF tone command so received from any phone to remotely switch any electrical load such as agricultural pump, domestic and industrial loads etc. This device uses a microcontroller of 8051 family interfaced to DTMF decoder for receiving tone commands to actuate loads from the output of the microcontroller as per the program.*	(Abstract)	MC 8051	Y				DTMF			
109	150	**SYNCHRONIZED TRAFFIC SIGNALS :** *(Get green signal all through successive street junctions).All the traffic junctions in a main road are synchronized for signal lighting such that the vehicle gets green signal at all the junctions while moving at a normal speed.*	(Abstract)	MC 8051								

110	171	**LINE FOLLOWING ROBOTIC VEHICLE USING MICROCONTROLLER :** *The project is designed to develop a robotic vehicle that follows a specific path. This project uses a microcontroller of 8051 family for its operation. A pair of photo sensors comprising IR transmitter and photo diode are interfaced to the controller to detect the specified path for its movement.*	(Abstract)	MC 8051						IR	Y	
111	220	**PRECISE ILLUMINATION CONTROL OF LAMP:** A p*recise illumination in terms of percentage of the full illumination is entered through a numeric keypad. A microcontroller of 8051 family is used to maintain the illumination of a lamp. The firing angle is automatically adjusted to maintain the load power to the lamp such that the entered intensity matches the required one.*	(Abstract)	MC 8051				Y				
112	PIC107	**STREET LIGHT THAT GLOWS ON DETECTING VEHICLE MOVEMENT:** *The project is designed for LED based street lights using PIC microcontroller. A number of LED street lights glow for a specific distance ahead, on sensing an approaching vehicle and then switches OFF once the vehicle passes by. Thus a lot of energy is saved in this process. Optionally, dimming feature can be used in this sytem while no vehicles are passing on the road.*	(Abstract)	MC PIC						IR		
113	PIC117	**USING TV REMOTE AS A CORDLESS MOUSE FOR THE COMPUTER USING PIC MICROCONTROLLER:** *TV remote is used in this project to act as a cordless mouse for the computer. This is achieved by reading the coded data sent from the TV remote by a sensor. The sensor is interfaced to a microcontroller which responds to the coded signals and sends appropriates instructions through serial communication to the PC.*	(Abstract)	MC PIC					PC	IR		

114	11	**ULTRA FAST ACTING ELECTRONIC CIRCUIT BREAKER:** *The project is to shut down the power supply when it is overloaded. Conventional circuit breaker like MCB based is on thermal bimetal lever trip mechanism. It is very slow and the trip time is dependent upon the percentage of overload. This project senses the current passing through a series element and the corresponding voltage drop is compared against the preset voltage proportional to the current by a level comparator to generate an output for the load to trip.*	(Abstract)	MC 8051	Y							
115	53	**SECURITY SYSTEM WITH USER CHANGEABLE PASSWORD:** *The microcontroller based lock indication is an access control system that allows only authorized persons knowing the password only. Password is stored in another dedicated EEPROM that can be changed at any time unlike a fixed one burnt permanently on to the microcontroller.*	(Abstract)	MC 8051								
116	64	**DETECTING POWER GRID SYNCHRONISATION FAILURE ON SENSING FREQUENCY OR VOLTAGE BEYOND ACCEPTABLE RANGE:** *Synchronization failure of an alternate supply source connected to the grid is detected by this system. The failure can be either under/over voltage or under/over frequency. The project uses a 8051 family microcontroller to perform this operation. This mechanism is popularly known as islanding of grid connected source.*	(Abstract)	MC 8051	Y							
117	33A	**AUTOMATIC BELL SYSTEM FOR INSTITUTIONS:** *The project is designed to develop an automatic bell system for academic institutions. Multiple time operated electrical load control circuit is used to develop this system. It has an inbuilt real time clock (RTC) to keep tracking the time and switch ON/OFF the bell accordingly.*	(Abstract)	MC 8051								
118	30	**TV REMOTE OPERATED DOMESTIC APPLIANCES CONTROL:** *The project is designed to operate electrical loads using a TV remote. The remote transmits coded infrared data which is then received by a sensor interfaced to the control unit. The system operates electrical loads depending on the data transmitted from the TV remote.*	(Abstract)	MC 2051						IR		

119	169	**NON CONTACT TECHOMETER:** *The project uses the IR transmitting and receiving technique by reflection of IR rays from any rotating object such as a motor shaft. This will help measuring the speed without any physical contact often required in industrial environment.*	(Abstract)	MC 8051						IR		
120	2	**SPEED CONTROL UNIT DESIGNED FOR A DC MOTOR:** *The speed of a DC motor is directly proportional to the voltage applied across its terminals. This project uses the above principle to control the speed of the motor by varying the duty cycle of the pulse applied to it (popularly known as PWM control). A microcontroller is used to deliver the PWM pulses to the motor.*	(Abstract)	MC 8051	Y							
121	12	**AUTOMATIC IRRIGATION SYSTEM ON SENSING SOIL MOISTURE CONTENT:** *The project is designed to operate a pump for automatic irrigation. It comprises of moisture sensing arrangement interfaced to an op-amp configured as a comparator. So whenver moisture in the soil reduces, it turns the water pump ON. This results in increase of the moisture content which in tunr switches OFF the motor. The above operations are monitored by a 8051 family microcontroller.*	(Abstract)	MC 8051								
122	15	**PROGRAMMABLE SWITCHING CONTROL FOR INDUSTRIAL AUTOMATION IN REPETITIVE NATURE OF WORK:** *The project is based on a microcontroller (8051 series MC) for programmable logic control of industrial loads by the user. Few switches are duly interfaced to the microcontroller which can be used to program the system in set mode, auto mode or manual mode. Loads are driven sequentially or individually in programmable time intervals from the output of the microcontroller based on the mode selected.*	(Abstract)	MC 8051	Y							
123	155	**CLOSED LOOP CONTROL FOR A BRUSHLESS DC MOTOR TO RUN AT THE EXACTLY ENTERED SPEED:** *A keypad is interfaced to a 8051 series microcontroller to enter the desired speed for a BLDC motor. Speed sensing arrangement is made on IR reflection principle which is interfaced to the microcontroller as an input for the program to deliver serired PWM pulses to maintain the speed.*	(Abstract)	MC 8051						IR		

124	PIC115	**Portable Programmable Medication Reminder using PIC Microcontroller:** *The project acts as a reminder for people to take medicines in time. Keypad is used to enter the time at which the medicine is required to be taken. The real time clock (RTC) used keeps tracking the time to remind the person by a buzzer sound together with the name of the medicine on the LCD display.*	(Abstract)	MC PIC								
125	49	**PROGRAMABLE ENERGY METER FOR ELECTRICAL LOAD SURVEY:** *A The project is designed to automatically calculate energy details within a minute using programmble microcntroller of 8051 family. It indicates on an LCD display, the load consumption in units and cost in rupees for any load required to be used for a specific number of hours.*	(Abstract)	MC 8051	Y							
126	164	**UNDERGROUND CABLE FAULT DISTANCE LOCATOR:** A fixed set of resistors are used *representing the distance of the cable in kilometers. A DC voltage is fed over the line in mutiplexing mode in combination with a ADC to detect the fault current and show the distance on a LCD display based on voltage drop principle.*	(Abstract)	MC 8051	Y							
127	213	**SOLAR POWER CHARGE CONTROLLER:** *The solar energy is converted to electrical energy by photo-voltaic cells. This energy is stored in batteries during day time for utilizing the same during night time. This project deals with a controlled charging mechanism which over charge, deep discharge and under voltage of the battery.*	(Abstract)		Y		Y					Y
128	282	**Industrial Temperature Controller:** *This practical temperature controller controls the temperature of any heating device according to its requirement for any industrial application. Using IC DS1621 Digital temperature sensor user-defined maximum and minimum temperature settings are stored in a nonvolatile memory EEPROM through 8051 series microcontroller to switch on and off the heater load to maintain the temperature with in the limits.*	(Abstract)	MC 8051	Y					Temp		

129	145	**MOVEMENT SENSED AUTOMATIC DOOR OPENING SYSTEM:** *Automatic door opening system is achieved by sensing any approaching body by PIR sensor interfaced to programmed microcontroller of 8051 family. Upon sensing the movement, microcontroller drives a motor through motor driver IC with locked rotor protection system for door operation.*	(Abstract)	MC 8051						PIR		
130	172	**AUTOMATIC DIALING TO ANY TELEPHONE USING I2C PROTOCOL ON DETECTING BURGLARY:** *Automatic dialing of stored number (in EEPROM) by a microcontroller is achieved in the event of any burgalary attempt. A keypad is used to load the number onto the EEPROM. An encoder is used to dial the number through the landline connected to the device. The system is protected by a password.*	(Abstract)	MC 8051					DTMF			
131	35A	**CELL PHONE CONTROLLED ROBOTIC VEHICLE:** *The project is designed to develop a robotic vehicle that is controlled by a cell phone. DTMF commands from a phone is sent to another cell phone which is mounted on the robot. These commands are fed to a microcontroller of 8051 family to operate the vehicle movement through motor interface.*	(Abstract)	MC 8051					DTMF		Y	
132	186	**DISH POSITIONING CONTROL BY IR REMOTE:** *Pthe project is designed to enable 3D movement of a dish by using two DC geared motors. One motor rotates in horizontal plane while the other in vertical plane. The project is controlled by a IR remote for distant operation of the dish positioning.*	(Abstract)	MC 8051	Y					IR		
133	28A	**IR CONTROLLED ROBOTIC VEHICLE:** *The project is designed to control a robotic vehicle using a standard TV remote. IR sensor is interfaced to the control unit on the robot for sensing the IR signals transmitted by the remote. This data is conveyed to the control unit which moves the robot as desired. An 8051 series microcontroller is used in this project as control device.*	(Abstract)	MC 8051						IR	Y	

134	290	**Dual Converter:** *This single phase dual converter consists of a pair of thyristor controlled bridge (4 SCRs X 2) that enables a DC motor to get reversed polarity for either direction rotation and speed control also by thyristor triggering from Microcontroller to each bridge SCR bank of duly interfaced through opto-isolators.*	(Abstract)	MC 8051				Y				
135	32	**PASSWORD BASED CIRCUIT BREAKER:** *The project is designed to control a circuit breaker with help of a password only. A keypad is interfaced to a microcontroller to enter the password. Fatal electrical accidents to the line man can thus be avoided which often happens due to lack of communication and co-ordination between the maintenance staff and the electric substation staff.*	(Abstract)	MC 8051	Y							
136	42	**CYCLO CONVERTER USING THYRISTORS:** *It is difficult to vary speed of an induction motor which is one of the main disadvantage. This is overcome by using a thyristor controlled cycloconverter that enables the speed to be lowered in three steps. A microcontroller of 8051 family is used to trigger a SCR bank of 8nos, isolated by opto isolators to achieve F,F/2 & F/3 by an appropriate program. F stands for frequency. Please note that a single phase induction motor can be procured at an extra cost over the kit cost.*	(Abstract)	MC 8051				Y				
137	61	**NETWORKING OF MULTIPLE MICROCONTROLLERS:** *The project uses three microcontrollers in network to establish communication between them. One MC is connected to the input while the other to a display unit and the thrid one to an output device. Being interconnected, serial communication between them results in desired action to take place as per the logic of the program.*	(Abstract)	MC 8051								
PRICE RANGE FOR PROJECT KIT: LESS THAN Rs.7000/- (all inclusive)												

138	18	**PRECISE DIGITAL TEMPERATURE CONTROL :** *The project uses a digital temperature sensor for precise control of temperature in medical applications or industries. This system is better than analog/thermostat system, which has poor accuracy. A microcontroller of 8051 family is interfaced with set of swithces, sensor and 7 segment displays for setting the desired temperature. A load such as heater or lamp is thus accuated to maintain the desired temperature.*	(Abstract)	MC 8051						Tempe rature		
139	PIC111	**SOLAR ENERGY MEASUREMENT SYSTEM:** *Solar photo-voltaic data such as voltage, current, temperature, light intensity for calculating solar insolation etc are monitored by a PIC microcontroller having built in multi channel ADC and displayed on a LCD screen.*	(Abstract)	MC PIC						Tempe rature		Y
140	47	**DISTANCE MEASUREMENT BY ULTRASONIC SENSOR:** *The project is designed to measure the distance of any object by using an ultrasonic transducer. The transmitted ultrasonic waves are reflected back from the object and received by the transducer again. The total time taken from sending the waves to receiving it is calculated by taking into consideration the velocity of sound by a program running on the microcontroller. The distance is then displayed on an LCD interfaced to the microcontroller of 8051 family.*	(Abstract)	MC 8051						Ultras onic		
141	76	**SCADA (SUPERVISORY CONTROL & DATA ACQUISITION) FOR REMOTE INDUSTRIAL PLANT:** *Supervisor sitting on the PC terminal is able to control plant parameters remotely over RS232 network while monitoring the data acquired through several sensors. The project uses a front end for the control and a backend with microcontroller interfaced to an ADC from temperature sensors for data collection and control.*	(Abstract)	MC 8051					PC	Tempe rature		
142	292	**Contactless Liquid level controller:** *Unlike traditional contact based level controller this most reliable controller uses ultrasonic reflection for sensing liquid level in a tank to start the filling pump at certain low level and stop that at highest level automatically.*	(Abstract)	MC 8051						Ultra sonic		

143	59	**MINIMISING PENALITY IN INDUSTRIAL POWER CONSUMPTION BY ENGAGING APFC UNIT:** *Automatic Power Factor Compensation (APFC) is achieved by engaging number of shunt capacitor in parallel to inductive loads. The time lag between zero voltage and zero current is fed to the microcontroller (8051 family) that drives relays from its output for bringing shunt capacitors across the load till the power factor reaches 0.9.*	(Abstract)	MC 8051	Y							
144	251	**POWER SAVER FOR INDUSTRIES & COMMERCIAL ESTABLISHMENTS:** *The project is designed for lagging current compensation by engaging shunt capacitors automatically as per the requirement against the inductive loads largely used in industries. This saves lot of power and thus reduces electric bill in domestic and commercial establishments.*	(Abstract)	MC 8051	Y							
145	PIC112	**Synchronized traffic signals at various junctions using PIC microcontroller :** *(Get green signal all through successive street junctions).All the traffic junctions in a main road are synchronized for signal lighting such that the vehicle gets green signal at all the junctions while moving at a normal speed.*	(Abstract)	MC PIC								
146	160	**INDUCTION MOTOR PROTECTION SYSTEM:** *The project is designed to protect an induction motor from single phasing and over temperature. It uses sensors interfaced to comparators for disconnecting the motor through a realy. The project is supplied with lamps in place of 3 phase motor for demonstration purpose.*	(Abstract)		Y		Y					
147	168	**HIGH VOLTAGE DC UPTO 2KV FROM AC BY USING DIODE AND CAPACITORS IN VOLTAGE MULTIPLIER CIRCUIT:** *1000 PIV diodes in combination with 100uF electrolytic capacitors forming a ladder network multiplies the input AC to develop DC output 7 times the input read on a multimeter approximately.*	(Abstract)		Y							

148	244	**FACTS (FLEXIBLE AC TRANSMISSION) BY TSR:** *The project is used to achieve static voltage compensation under FACTS using thyristor switched reactor (TSR) in shunt. This helps in lowering the voltage at the load end that may draw leading current either during charging the transmission line or during low loads.*	(Abstract)	MC 8051				Y				
149	243	**FACTS BY SVC (FLEXIBLE AC TRANSMISSION):** *Static VAR Compensation under FACTS is achieved using TSC, thyristor switched capacitors based on shunt compensation. These are duly controlled from a programmed microcontroller of 8051 family.*	(Abstract)	MC 8051				Y				
150	13	**AUTOMATIC STAR DELTA STARTER USING RELAYS AND ADJUSTABLE ELECTRONIC TIMER FOR INDUCTION MOTOR:** *The project is designed to start a 3 phase motor at 440 volt AC mains supply 50 Hz with a set of 12 volt DC relays in star mode and then to delta mode by an electronically adjustable timer. A set of relays are used to shift the motor connections from star to delta with a time delay. The project is supplied with six lamps instead of a 3 phase motor i.e., two lamps representing each pahse winding of the motor.*	(Abstract)		Y							
151	232	**PRE STAMPEDE MONITORING AND ALARM SYSTEM:** *A large number of pressure actuated switches interfaced to a microcontroller is used to achieve pre-stampede alarm system. A buzzer sound is generated once the large crowd concentrates at place exceeding the safe number.*	(Abstract)	MC 8051								
152	226	**HOME AUTOMATION USING DIGITAL CONTROL:** *A circuit interfaced to a land line telephone is used to control home appliances remotely using DTMF technology but without using any microcontroller or any program.*	(Abstract)				Y		DTMF			

153	163A	**ELECTRONIC SOFT START FOR 3 PHASE INDUCTION MOTOR:** *6nos. of SCRs i.e., two in anti parallel in each phase are phase controlled in a similar manner to a light dimmer. They are gradually turned ON for a part of each cycle to control the voltage by varying the conduction angle of the SCRs. By variation of the conduction angle, the output voltage is reduced during start and then smoothly increased to full value within few cycles. Please note that lamps are provided in this project for demonstration purpose.*	(Abstract)					Y				
154	66	**SOLAR POWERERD LED STREET LIGHT WITH AUTO INTENSITY CONTROL:** *The project is designed for LED based street lights with auto intensity control using solar power from photovoltaic cells. Intensity control is achieved through a microcontroller of 8051 family. The project stores energy in a battery during day time and automatically operates street light in evening with varying intensity control to minimize waste of energy.*	(Abstract)	MC 8051	Y							Y
155	247	**WIRELESS MESSAGE COMMUNICATION BETWEEN TWO COMPUTERS:***A pair of 2.4Ghz transreceiver units are used for bidirectional communication from one PC to another wirelessly using hyper terminal.*	(Abstract)						PC, XBEE			
156	249	**OBSTACLE AVOIDANCE ROBOTIC VEHICLE:** *Ultrasonic sensor based robotic vehicle that avoids any obstacle and changes its direction as required. A microcontroller of 8051 family is used for achieving the desired function.*	(Abstract)	MC 8051						Ultras onic	Y	
157	170	**RFID BASED ATTENDANCE SYSTEM:** *RFID tag with details of the employee keep tracking of their attendance while swiped on the RFID reader interfaced to a microcontroller with LCD display for indication.*	(Abstract)	MC 8051					RFID			
158	170A	**RFID BASED PASSPORT DETAILS:** *Identifying the passport holder through data stored in RFID tag by retrieving the same through a reader duly interfaced to the microcontroller by a LCD display.*	(Abstract)	MC 8051					RFID			

159	246	**RF BASED HOME AUTOMATION SYSTEM:** *Using RF technology several loads in home or office to be controlled for optimum use of energy.*	(Abstract)	MC 8051				Y	RF			
160	PIC116	**PRE STAMPEDE MONITORING AND ALARM SYSTEM USING PIC MICROCONTROLLER:** *A large number of pressure actuated switches interfaced to a microcontroller is used to achieve pre-stampede alarm system. A buzzer sound is generated once the large crowd concentrates at place exceeding the safe number.*	(Abstract)	MC PIC								
161	23	**SECRET CODE ENABLED SECURE COMMUNICATION USING RF TECHNOLOGY:** *The project helps sending secured message transmitted through RF communication by using microcontroller and received by another microcontroller where the message is retrieved against a secret code used by the transmitter. LCD display units at trasnmitter and receiver is userd to display the message.*	(Abstract)	MC 8051					RF			
162	165	**THREE PHASE FAULT ANALYSIS WITH AUTO RESET ON TEMPORARY FAULT AND PERMANENT TRIP OTHERWISE:** *Six numbers of step down transformers are used for forming star and delta secondaries at low voltage output. Fault condition is created with a set of switches to input LL, LG, 3L fault to the circuit. This triggers a 555 timer in monostable to reset after fault clearance in a short duration temporary fault or permanentaly trip the output incase of prolonged fault.*	(Abstract)		Y		Y					
PRICE RANGE FOR PROJECT KIT: LESS THAN Rs.9000/- (all inclusive)												
163	158	**RFID SECURITY ACCESS CONTROL SYSTEM:** *RFID system is used to authorise the tag holder to enter a secure area. The RFID reader reads the data present on the RFID tag. This data is compared in microcontroller to match the built in data for status display and authorizing the entry which is indicated with a lamp coupled with an LCD display.*	(Abstract)	MC 8051					RFID			

164	149A	**METAL DETECTOR ROBOTIC VEHICLE:** *The project is designed to develop a robotic vehicle that can sense land mines ahead of it. The robot is controlled by a remote using RF technology. It consists of a metal detector circuit interfaced to the control unit that alarms the user behind it about a suspected land mine ahead. An 8051 series of microcontroller is used for the desired operation.*	(Abstract)	MC 8051					RF		Y	
165	34	**OBJECT DETECTION BY ULTRASONIC MEANS:** *This ultrasonic proximity detector is particularly useful for detecting objects ahead within a certain distance such as surveillance security areas, wild life photography. The detector is interfaced to a microcontroller of 8051 family. The controller takes appropriate action after receiving the signal from the transducer. In this project we are using a magnetic gun as an output from the microcontroller.*	(Abstract)	MC 8051						Ultrasonic		
166	PIC104	**RFID BASED DEVICE CONTROL AND AUTHENTICATION(using PIC Microcontroller):** *RFID system is used to authorise the tag holder to enter a secure area. The RFID reader reads the data present on the RFID tag. This data is compared in microcontroller to match the built in data for status display and authorizing the entry which is indicated with a lamp coupled with an LCD display.*	(Abstract)	MC PIC					GSM			
167	245	**UPFCRELATED DISPLAY OF LAG AND LEAD POWER FACTOR:** *Microcontroller based LCD display of lagging current , leading current & linear current together with reading of power factor & the leading / lagging time of the current vs voltage. It has provision of choosing the increasing inductive load , switching to linear load and also has an arrangement of auto increment of the capacitive load programmatically*	(Abstract)	MC 8051				Y				
168	27	**RF CONTROLLED ROBOTIC VEHICLE WITH LASER BEAM ARRANGEMENT:** *The project is designed to control a robotic vehicle by using a RF technology for remote operation. A low power laser light is interfaced for demonstrating the possibilities of destroying a distant object by its beam. An 8051 series of microcontroller is used for the desired operation.*	(Abstract)	MC 8051					RF		Y	

169	173	**AUTO SELECTION OF ANY AVAILABLE PHASE, IN 3 PHASE SUPPLY SYSTEM:** *The project is designed to provide uninterrupted AC mains supply i.e., 230 volt to the single phase load. This is achieved by automatic change over of the load from the missigng phase to the next available phase in a 3 phase system.*	(Abstract)		Y						
170	21	**SECURITY SYSTEM USING SMART CARD TECHNOLOGY:** *The project is a security system developed to avoid unauthorised acess to any connected device. The system uses smart card technology to identify the authorized personnel, possessing a valid card with him/her, to acess any secure area or deivce.*	(Abstract)	MC 8051					Smart card			
171	40	**Tampered energy meter monitoring conveyed to control room by GSM WITH USER PROGRAMABLE NUMBER FEATURES :** ***The main scope of this project is to send message from any tampered energy meter to be received by the control room by means of GSM modem by user programable number upon a mis-call . A message is sent to the same number stored in microcontroller to alert the tampering of the meter.***	(Abstract)	MC 8051					GSM	IR		
172	157	**Flash Flood intimation over GSM WITH USER PROGRAMABLE NUMBER FEATURES to the station master:** ***High water level detector interfaced to micro controller that outputs a signal to a GSM modem for sending an SMS to the station master through GSM by user programable number upon a mis-call to direct the train driver to stop the train.***	(Abstract)	MC 8051					GSM			
173	190	**RAILWAY TRACK SECURITY BY GSM WITH USER PROGRAMABLE NUMBER FEATURES:** ***The system detects for breakage /crack in railway tracks using line loop current break to sense the same to send interrupt to the controller to send an SMS to the station master through GSM by user programable number upon a mis-call.***	(Abstract)	MC 8051					GSM			

174	201	**WIRELESS ELECTRONIC NOTICE BOARD BY GSM WITH USER PROGRAMABLE NUMBER FEATURES :** ***The microcontroller receives the message from transmitter through GSM by user programable number upon a mis-call interface, to be displayed on the LCD at user end interfaced to the microcontroller.***	(Abstract)	MC 8051					GSM			
PRICE RANGE FOR PROJECT KIT: Rs.9000/- and above (all inclusive)												
175	17	**AUTOMATIC WIRELESS HEALTH MONITORING SYSTEM IN HOSPITALS FOR PATIENTS:** *Monitoring patient health remotely in hospitals over wireless from the patient bed to the doctor's chamber by RF with LCD display at both ends and optionally an alarm on critical situation.*	(Abstract)	MC 8051					RF	Tempe rature		
176	154	**Theft intimation of the vehicle over GSM BY SMS WITH USER PROGRAMABLE NUMBER FEATURES to owner who can stop the engine remotely:** ***Theft intimation of the vehicle over sms using GSM modem by user programable number upon a mis-call , to the owner while unauthorized door entry is made. Owner can send command through his mobile to stop the engine by activating the relay interfaced to a microcontroller along with the GSM modem used for the purpose.***	(Abstract)	MC 8051					GSM	Tempe rature		
177	224	**SINE PULSE WIDTH MODULATION (SPWM):** *Aadaptive sine-weighted pulse width modulated output is generated by a programed microcontroller of 8051 family for developing a 50Hz sine wave three phase AC from single phase AC. Please note that a three phase induction motor can be procured at an extra cost over the kit cost.*	(Abstract)	MC 8051				Y				
178	240	**SVPWM SPACE VECTOR PULSE WIDTH MODULATION:** *Project is designed to generate 3 phase supply from single phase supply using 6 no's MOSFETs. It comprises of a 3 phase bridge inverter driven from a programable microcontroller (8051 family) through bridge drivers and opto-isolators. Single phase source is converted to DC which is used for the inverter. Please note that a three phase induction motor can be procured at an extra cost over the kit cost.*	(Abstract)	MC 8051				Y				

179	PIC113	**SPEED SYNCHRONISATION OF MULTIPLE MOTORS IN INDUSTRIES USING PIC MICROCONTROLLER:** *Multiple motors used in industries like textile mill, steel plant, papaer mill etc using conveyor belts needs the motors used to be synchronized. This is achieved by independent microcontrollers interfaced to each motor with speed sensing arrangement and keypad to enter speed. The project uses 3 motors for demonstration purpose.*	(Abstract)	MC PIC					RF	IR		
180	PIC106	**Vehicle theft intimation to the owner on his cell phone by GSM WITH USER PROGRAMABLE NUMBER FEATURES (Using PIC Microcontroller):** ***Theft intimation of the vehicle over SMS using GSM modem by user programable number upon a mis-call to the owner while unauthorized door entry is made. Owner can send command through mobile to stop the engine whose ignition is disabled through a relay fed from the microcontroller which gets command from the GSM modem.***	(Abstract)	MC PIC					GSM			
181	233	**UNIQUE OFFICE COMMUNICATION SYSTEM USING RF:** *Extremely useful PC based RF communication system in an office from the boss to the subordinates having small LCD display terminals. This is interfaced to independent microcontrollers which receives message on selective or common to all basis with a receive tone alert.*	(Abstract)	MC 8051					RF,PC			
182	147	**GSM based monthly Electricity energy meter billing with SMS UPON GSM WITH USER PROGRAMABLE NUMBER FEATURES TOGATHER WITH ONSITE display to the user:** ***Domestic electricity consumed is displayed in rupee terms on daily and monthly basics to the user and billing details sent over GSM by user programable number upon a mis-call form the user to the department for generating the printed bill.***	(Abstract)	MC 8051	Y				GSM			
183	146	**Railway level crossing gate control through GSM by SMS WITH USER PROGRAMABLE NUMBER FEATURES by the station master or the driver:** ***Railway level crossing gate motor ,controlled by the station master or the engine driver through GSM modem by user programable number upon a mis-call interfaced to microcontroller for deriving an output to dive a relay for the gate motor operation.***	(Abstract)	MC 8051					GSM			

184	159	**Integrated energy management system based on GSM WITH USER PROGRAMABLE NUMBER FEATURES and acknowledgement features:** ***An SMS sent through the cell phone to a distant location GSM modem by user programable number upon a mis-call for any load interfaced from a micro controller through relay and relay driver to switch ON and switch OFF the same with acknowledgement sent back to the sender on SMS upon the action taken and the status of the load.***	(Abstract)	MC 8051	Y				GSM			
185	223	**PRE-PROGRAMMED DIGITAL SCROLLING MESSAGE SYSTEM:** *The project is uses alphanumeric LED displays for scrolling message over it. This project can be used for advertisement purposes.*	(Abstract)				Y					
186	235	**TOUCH SCREEN BASED INDUSTRIAL LOAD SWITCHING***: Touch screen panel managed industrial switching system(or home) for industrial load control in corrosive / inflammable environment that prohibits use of conventional switches.*	(Abstract)	MC 8051						Touch screen		
187	180	**ENERGY METER BILLING WITH LOAD CONTROL over GSM WITH USER PROGRAMABLE NUMBER FEATURES:** ***The project is to develop a wireless energy meter reading and load control. The reading of the energy meter is also sent by to any cell phone by a message through GSM modem by user programable number upon a mis-call which also receives commands from the cell phone to control the electrical loads.***	(Abstract)	MC 8051	Y				GSM			
188	231	**SPEED SYNCHRONISATION OF MULTIPLE MOTORS IN INDUSTRIES:** *Multiple motors used in industries like textile mill, steel plant, papaer mill etc using conveyor belts needs the motors used to be synchronized. This is achieved by independent microcontrollers interfaced to each motor with speed sensing arrangement and keypad to enter speed. The project uses 3 motors for demonstration purpose.*	(Abstract)	MC 8051					RF	IR		

189	253	**AUTO METRO TRAIN TO SHUTTLE BETWEEN STATIONS:** *A robotic vehicle considered as train is connected with sensors for shuttling between two stations automatically. It has provision for limiting the number of passengers entering the train by auto door management system. Auto start and stop feature from origin to the destination and back is also available.*	(Abstract)	MC 8051						IR	Y	
190	PIC114	**ENERGY METER BILLING WITH LOAD CONTROL over GSM WITH USER PROGRAMABLE NUMBER FEATURES (by PIC Microcontroller):** ***The project is to develop a wireless energy meter reading and load control. The reading of the energy meter is also sent by to any cell phone by a message through GSM modem by user programable number upon a mis-call which also receives commands from the cell phone to control the electrical loads.***	(Abstract)	MC PIC	Y				GSM			
191	250	**SOLAR POWERED AUTO IRRIGATION SYSTEM:** *The project uses a solar powered pump operated automatically for irrigation purpose,on sensing the soil condition.By using solar power system, dependence on erratic commercial power is not required. A microcontroller of 8051 family is used to control the whole system. A motor is provided as load for demonstration purpose.*	(Abstract)	MC 8051	Y							Y
192	238	**TOUCH SCREEN BASED HOME AUTOMATION SYSTEM:** *A touch screen based transmitting unit is used to operate home appliances with zero voltage switching, remotely using RF communication to avoid complicated wiring in existing system and to improve life of the appliance under use.*	(Abstract)	MC 8051					RF	Touch screen		
193	152	**FIRE FIGHTING ROBOTIC VEHICLE:** *The project is designed to develop a fire fighting robot using RF technology for remote operation. The robotic vehicle is loaded with water tanker and a pump which is controlled over wireless communication to throw water. An 8051 series of microcontroller is used for the desired operation.*	(Abstract)	MC 8051					RF		Y	

194	153	**WAR FIELD SPYING ROBOT WITH NIGHT VISION WIRELESS CAMERA:** *The project is designed to develop a robotic vehicle using RF technology for remote operation attached with wireless camera for monitoring purpose. The robot along with camera can wirelessly transmit real time video with night vision capabilities. This is kind of robot can be used for spying purpose in war fields. An 8051 series of microcontroller is used for the desired operation.*	(Abstract)	MC 8051					RF		Y	
195	151	**PICK N PLACE WITH SOFT CATCHING GRIPPER:** *The project is designed to develop a pick n place robotic vehicle with a soft catching gripper. For example, it can safely handle a bomb very carefully to avoid explosion while catching. The robotic vehicle is RF controlled for remote operation. An 8051 series of microcontroller is used for the desired operation.*	(Abstract)	MC 8051					RF		Y	
196	255	**Touch screen based remote controlled robotic vehicle for stores management:** *The project is designed to control a robotic vehicle with a touch screen display unit for remote operation. The touch screen remote control is used at the transmitting side to transmit RF control signals. At the receiving end, a pick n place robotic vehicle is used to respond to those signals and perform the task. An 8051 series of microcontroller is used for the desired operation.*	(Abstract)	MC 8051						Touch screen	Y	