



**info@edgefxkits.in**  
**Toll Free No : - 1800 108 7475**

**EIProCus** has requested **Edgefx Kits & Solutions** to help you, our dear reader with your Final year Projects, Knowledge building and Practical skill development. Please read further for a better understanding.

**Edgefx Kits & Solutions** provides project solutions with '100% output guaranteed' for engineering students in the form of Do It Yourself project kits in the areas of Electronics, Electrical, Embedded, Solar, Communication, Android, Arduino, Raspberry Pi etc., with complete training material in the form of self-explanatory extensive audio-visuals, hardware, documentation and more.

Since 1997, Edgefx has trained thousands of engineering students in the areas of Electrical, Electronics, and Communication. In November 2011 we decided to start an online store to provide project solutions for engineering students and thus [www.edgefxkits.com](http://www.edgefxkits.com) was born!

**For personal counseling regarding project selection or guidance or any technical help please e-mail us at [info@edgefxkits.in](mailto:info@edgefxkits.in) or call on +91 9959178000.**

S.No.	Model No.	Product	Download Abstract	Price			Category									
				Project Kit (Rs.)	Readymade (Rs.)	DIY (Rs.)	Embedded	Electrical	Android	General Electronics	Power Electronics	Communication	Sensor based	Robotics	Solar	
1	311	<b>DENSITY BASED TRAFFIC SIGNAL WITH REMOTE OVERRIDE IN EMERGENCY:</b> Remote override control of density based traffic signal by emergency vehicles like ambulance, fire brigade etc for getting priority in the desired direction	<a href="#">(Abstract)</a>	3899	4899	6899	MC 8051						IR, RF			
2	343	<b>WIRELESS POWER TRANSFER IN 3D SPACE:</b> Wireless power transfer up to 10 watts in 3 D space using high frequency from 38 KHz to 40 KHz through tuned circuits	<a href="#">(Abstract)</a>	5999	7599	9899		Y		Y						
3	309	<b>PROPLER DISPLAY OF MESSAGE BY VIRTUAL LEDS:</b> Microcontroller interfaced LEDs mounted on a single column of 10 LEDs only displays programmed text message virtually while rotating at high speed based upon the principle of persistence of vision of eye.	<a href="#">(Abstract)</a>	7099	8399	10599	MC 8051				Y					

4	339	<b>DENSITY BASED AUTO TRAFFIC SIGNAL CONTROL WITH ANDROID BASED REMOTE OVERRIDE:</b> Remote override control of density based traffic signal by emergency 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	<a href="#">(Abstract)</a>	7499	8399	10599	MC 8051	Y			Blue Tooth			
5	329	<b>REMOTE INDUCTION MOTOR CONTROL BY ANDROID APPLICATION WITH 7 SEGMENT DISPLAY:</b> 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.	<a href="#">(Abstract)</a>	7599	8599	10899	MC 8051	Y			Blue Tooth			
6	312	<b>XBEE BASED REMOTE MONITORING OF 3 PARAMETERS ON TRANSFORMER / GENERATOR HEALTH:</b> 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.	<a href="#">(Abstract)</a>	7999	9499	11899	MC 8051	Y			XBEE			
7	341	<b>REMOTELY CONTROLLED ANDROID BASED ELECTRONIC NOTICE BOARD:</b> 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	<a href="#">(Abstract)</a>	7999	9099	11599	MC 8051	Y			Blue Tooth			

8	328	<p><b>HOME AUTOMATION BY ANDROID APPLICATION BASED REMOTE CONTROL:</b> 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</p>	<a href="#">(Abstract)</a>	8299	9499	11899	MC 8051		Y			Blue Tooth			
9	342	<p><b>REMOTE OPERATED DOMESTIC APPLIANCES CONTROL BY ANDROID APPLICATION:</b> 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.</p>	<a href="#">(Abstract)</a>	8299	9499	11899	MC 8051		Y			Blue Tooth			
10	325	<p><b>REMOTE AC POWER CONTROL BY ANDROID APPLICATION WITH LCD DISPLAY:</b> 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.</p>	<a href="#">(Abstract)</a>	8399	9599	11999	MC 8051		Y		Y	Blue Tooth			

11	340	<p><b>REMOTE OPERATED DOMESTIC APPLIANCES CONTROL BY ANDROID APPLICATION:</b> 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</p>	(Abstract)	8499	9799	12299	MC 8051	Y			Blue Tooth			
12	336	<p><b>FOUR QUADRANT OPERATION OF DC MOTOR REMOTELY CONTROLLED BY ANDROID APPLICATIONS:</b> 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.</p>	(Abstract)	8599	9899	12399	MC 8051	Y			Blue Tooth			
13	331	<p><b>PASSWORD BASED REMOTE CONTROLLED DOOR OPENING BY ANDROID APPLICATION:</b> 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.</p>	(Abstract)	8799	10199	12799	MC 8051	Y			Blue Tooth			

14	327	<b>REMOTE SPEED CONTROL OF DC MOTOR BY ANDROID APPLICATIONS:</b> 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.	<a href="#">(Abstract)</a>	8899	10199	12799	MC 8051		Y			Blue Tooth			
15	337	<b>RAILWAY LEVEL CROSSING GATE OPERATION REMOTELY BY ANDROID:</b> 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.	<a href="#">(Abstract)</a>	8899	10199	12799	MC 8051		Y			Blue Tooth			
16	326	<b>ANDROID APPLICATION CONTROLLED REMOTE ROBOT OPERATION:</b> 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.	<a href="#">(Abstract)</a>	9099	9899	11999	MC 8051		Y			Blue Tooth		Y	

17	338	<p><b>ANDROID BASED REMOTELY PROGRAMMABLE SEQUENTIAL LOAD OPERATION:</b> 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.</p>	(Abstract)	7699	8999	11199	MC 8051	Y			Blue Tooth			
18	330	<p><b>REMOTE ALIGNMENT OF 3D DISH POSITIONING BY ANDROID APPLICATION:</b> 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.</p>	(Abstract)	7999	9399	11699	MC 8051	Y			Blue Tooth			
19	332	<p><b>METAL DETECTOR ROBOTIC VEHICLE OPERATED BY ANDROID APPLICATION:</b> 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.</p>	(Abstract)	9299	10399	12699	MC 8051	Y			Blue Tooth		Y	

20	322	<p><b>XBEE BASED REMOTE MONITORING OF 3 PARAMETERS ON TRANSFORMER / GENERATOR HEALTH WITH VOICE ANNOUNCEMENT AND WIRELESS PC INTERFACE:</b> 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.</p>	<a href="#">(Abstract)</a>	11999	14199	17099	MC 8051			Y		Xbee			
21	310	<p><b>VEHICLE TRACKING BY GPS - GSM:</b> 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.</p>	<a href="#">(Abstract)</a>	13099	14099	16699	MC 8051					GSM, GPS			
22	333	<p><b>PICK N PLACE ROBOTIC ARM AND MOVEMENT CONTROLLED BY ANDROID WIRELESSLY:</b> 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.</p>	<a href="#">(Abstract)</a>	16799	19099	22299	MC 8051		Y			Blue Tooth		Y	

23	334	<p><b>FIRE FIGHTING ROBOT REMOTELY OPERATED BY ANDROID APPLICATIONS:</b> 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.</p>	<a href="#">(Abstract)</a>	18199	21199	24799	MC 8051	Y			Blue Tooth	Y
24	335	<p><b>WAR FIELD SPYING ROBOT WITH NIGHT VISION WIRELESS CAMERA BY ANDROID APPLICATIONS:</b> 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.</p>	<a href="#">(Abstract)</a>	18899	21199	24599	MC 8051	Y			Blue Tooth	Y
25	324	<p><b>VOICE CONTROLLED ROBOTIC VEHICLE WITH LONG DISTANCE SPEECH RECOGNITION:</b> 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.</p>	<a href="#">(Abstract)</a>	28799	30399	34299	MC 8051				Voice Modu le,RF	Y



30	347	<b>WIRELESS RASH DRIVING DETECTION:</b> 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.	<a href="#">(Abstract)</a>	13099	15899	18999	MC 8051						RF	IR		
31	348	<b>ARDUINO BASED AUTO INTENSITY CONTROL OF STREET LIGHTS:</b> 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 controlling the intensity.	<a href="#">(Abstract)</a>	7699	8599	10999	MC ATMEGA			Y						
32	350	<b>ARDUINO BASED SOLAR STREET LIGHT:</b> 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.	<a href="#">(Abstract)</a>	8799	10099	12299	MC ATMEGA			Y						Y
33	351	<b>ARDUINO BASED UNDERGROUND CABLE FAULT DETECTION:</b> 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 multiplexing 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.	<a href="#">(Abstract)</a>	8599	9899	12299	MC ATMEGA			Y						

34	352	<p><b>AURDINO BASED HOME AUTOMATION:</b> Using Bluetooth module interfaced an Arduino board is designed for controlling several loads in home or office for optimum use of energy.</p>	<a href="#">(Abstract)</a>	10199	11499	13899	MC ATMEG A		Y	Y		Bluet ooth			
35	353	<p><b>ATMEGA BASED GARRAGE DOOR OPENNING:</b> An Anroid OS based cell phone is used to remotely control a garage door motor through Bluetooth system connected to a prograded 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.</p>	<a href="#">(Abstract)</a>	8499	9899	12499	MC ATMEG A		Y			Bluet ooth			
36	354	<p><b>ARM CORTEX (STM32) BASED AUTO INTENSITY CONTROL:</b> 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 controlling the intensity.</p>	<a href="#">(Abstract)</a>	9699	10399	12599	STM32								
37	355	<p><b>ARM CORTEX (STM32) BASED MOTOR SPEED CONTROL:</b> 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.</p>	<a href="#">(Abstract)</a>	9799	10799	12999	STM32								



41	359	<p><b>RASPBERRYPI BASED PROGRAMMABLE SEQUENTIAL SWITCHING:</b> 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.</p>	<a href="#">(Abstract)</a>	19399	21199	24399	Proces sor Based								
42	360	<p><b>RASPBERRYPI BASED SOLAR STREET LIGHT:</b> 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.</p>	<a href="#">(Abstract)</a>	20499	22199	25499	Proces sor Based								Y
43	361	<p><b>SOFTSTART OF INDUCTION MOTOR BY AC-PWM:</b> 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.</p>	<a href="#">(Abstract)</a>	4499	5599	7699	MC 8051								



48	205	<b>MAINS OPERATED LED LIGHT:</b> 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.	<a href="#">(Abstract)</a>	2199	2399	3899		Y	Y						
49	208	<b>STEP UP 6 VOLT DC TO 10 VOLT DC USING 555 TIMER:</b> 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.	<a href="#">(Abstract)</a>	2199	2399	3899		Y	Y						
50	227	<b>WIRELESS AUDIO TRANSMITTER FOR TV:</b> 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.	<a href="#">(Abstract)</a>	2199	2399	3899			Y						
51	203	<b>AUTOMATIC DUSK TO DAWN (EVENING ON TO MORNING OFF):</b> 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.	<a href="#">Abstract</a>	2399	2499	4299			Y						
52	300	<b>SELF SWITCHING POWER SUPPLY:</b> This power supply unit gives a variable regulated DC for microcontroller circuits and switches off automatically in no load condition.	<a href="#">Abstract</a>	2499	2899	4499			Y						

53	215	<b>VIDEO ACTIVATED RELAY TO CONTROL THE LOAD:</b> 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.	<a href="#">Abstract</a>	2599	2999	4799				Y					
54	188	<b>HIDDEN ACTIVE CELL PHONE DETECTOR:</b> 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.	<a href="#">Abstract</a>	2899	3199	4999				Y					
55	189	<b>LONG RANGE FM TRANSMITTER WITH AUDIO MODULATION:</b> 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.	<a href="#">Abstract</a>	2899	3499	5099				Y					
56	206	<b>THERMISTOR BASED TEMPERATURE CONTROL:</b> 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.	<a href="#">Abstract</a>	2899	3299	5099				Y			Temp eratu re		

57	216	<b>TOUCH CONTROLLED LOAD SWITCH:</b> 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.	<a href="#">(Abstract)</a>	2899	3199	4999		Y		Y						
58	254	<b>PHASE SEQUENCE CHECKER FOR THREE PHASE SUPPLY:</b> 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).	<a href="#">(Abstract)</a>	2899	3299	5099		Y		Y						
59	209	<b>OVER VOLTAGE OR UNDER VOLTAGE TRIPPING MECHANISM:</b> 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.	<a href="#">(Abstract)</a>	2999	3499	5199		Y		Y						
60	218	<b>TIME DELAY BASED RELAY OPERATED LOAD:</b> 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.	<a href="#">(Abstract)</a>	2999	3499	5099		Y		Y						
61	297	<b>LED BASED AUTOMATIC EMERGENCY LIGHT:</b> 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.	<a href="#">(Abstract)</a>	2999	3499	5099				Y						

62	204	<b>RHYTHM FOLLOWING FLASHING LIGHTS:</b> 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.	<a href="#">(Abstract)</a>	3099	3599	5499				Y					
63	212	<b>INCOMING PHONE RING LIGHT FLASHER:</b> 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.	<a href="#">(Abstract)</a>	3099	3699	5499				Y					
64	222	<b>FASTEST FINGER PRESS QUIZ BUZZER:</b> 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.	<a href="#">(Abstract)</a>	3199	3699	5599				Y					
65	229	<b>INTELLIGENT OVERHEAD TANK WATER LEVEL INDICATOR:</b> 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.	<a href="#">(Abstract)</a>	3199	3699	5599				Y					
66	221	<b>ELECTRONIC EYE CONTROLLED SECURITY SYSTEM:</b> 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.	<a href="#">(Abstract)</a>	3499	3899	5799				Y					

67	7	<b>LAMP LIFE EXTENDER BY ZVS (Zero Voltage Switching):</b> 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.	<a href="#">(Abstract)</a>	3599	4299	6199	MC 8051				Y				
68	167	<b>SMOOTH START OF A SINGLE PHASE INDUCTION MOTOR:</b> 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.	<a href="#">(Abstract)</a>	3699	4399	6299					Y				
69	24	<b>DENSITY BASED TRAFFIC SIGNAL SYSTEM:</b> 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.	<a href="#">(Abstract)</a>	3799	4599	6499	MC 8051						IR		
70	174	<b>WIRELESS POWER TRANSFER:</b> 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.	<a href="#">(Abstract)</a>	3799	4499	6399		Y		Y					

71	237	<p><b>HIGH VOLTAGE DC BY MARX GENERATOR PRINCIPLES:</b> 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.</p>	(Abstract)	3799	4499	6499					Y			
72	1A	<p><b>BEACON FLASHER USING MICROCONTROLLER:</b> 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.</p>	(Abstract)	3799	4499	6399	MC 8051							
73	298	<p><b>RFID BASED PAID CAR PARKING:</b> 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.</p>	(Abstract)	3799	4799	6499	MC 8051					RFID		
74	6	<p><b>THYRISTOR CONTROLLED POWER FOR INDUCTION MOTOR:</b> 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.</p>	(Abstract)	3899	4799	6799	MC 8051				Y			



78	178	<p><b>LIFE CYCLE TESTING OF ELECTRICAL LOADS BY DOWN COUNTER:</b> 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 &amp; OFF for every count thus testing the life cycle of the product.</p>	(Abstract)	4199	5099	7099	MC 8051								
79	PIC108	<p><b>DENSITY BASED TRAFFIC SIGNAL SYSTEM USING PIC MICROCONTROLLER:</b> 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.</p>	(Abstract)	4199	5099	7099	MC PIC						IR		
80	1	<p><b>AUTO INTENSITY CONTROL OF STREET LIGHTS:</b> 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.</p>	(Abstract)	4299	5099	7099	MC 8051			Y					

81	144	<b>USING TV REMOTE AS A CORDLESS MOUSE FOR THE COMPUTER:</b> 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 appropriate instructions through serial communication to the PC.	<a href="#">(Abstract)</a>	4299	5199	7199	MC 8051					PC	IR		
82	166	<b>DISPLAY OF DIALED TELEPHONE NUMBERS ON SEVEN SEGMENT DISPLAYS:</b> Dialed telephone numbers are picked up by a DTMF decoder to feed to a microcontroller. This data is transmitted ten no's seven segment LED displays for better visibility.	<a href="#">(Abstract)</a>	4299	5199	7299	MC 8051					DTMF			
83	192	<b>SUN TRACKING SOLAR PANEL:</b> 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 microcontroller 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.	<a href="#">(Abstract)</a>	4299	5199	7299	MC 8051								Y
84	211	<b>OBJECT COUNTER WITH 7 SEGMENT DISPLAY:</b> 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.	<a href="#">(Abstract)</a>	4299	5199	7199	MC 8051						IR		

85	228	<b>FOUR QUADRANT DC MOTOR SPEED CONTROL WITH MICROCONTROLLER:</b> 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.	<a href="#">(Abstract)</a>	4299	5099	7099	MC 8051	Y								
86	1C	<b>DISCOTHEQUE LIGHT STROBOSCOPIC FLASHER:</b> 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.	<a href="#">(Abstract)</a>	4299	5099	7099	MC 8051									
87	48	<b>PORTABLE PROGRAMMABLE MEDICATION REMINDER:</b> 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.	<a href="#">(Abstract)</a>	4399	5499	7499	MC 8051									
88	161	<b>CELL PHONE BASED DTMF CONTROLLED GARAGE DOOR OPENING SYSTEM:</b> 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.	<a href="#">(Abstract)</a>	4399	5499	7499	MC 8051					DTMF				

89	8	<p><b>THREE PHASE SOLID STATE RELAY WITH ZVS:</b> 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.</p>	(Abstract)	4499	5499	7599	MC 8051				Y				
90	10	<p><b>INDUSTRIAL BATTERY CHARGER BY THYRISTOR FIRING ANGLE CONTROL:</b> 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 decreasing the DC power.</p>	(Abstract)	4499	5499	7599	MC 8051				Y				
91	29	<p><b>LINE FOLLOWING ROBOTIC VEHICLE :</b> 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.</p>	(Abstract)	4499	5099	6999				Y			IR	Y	
92	33	<p><b>PROGRAMMABLE LOAD SHEDDING TIME MANAGEMENT FOR UTILITY DEPARTMENT:</b> Multiple time operated electrical load control system is a reliable circuit that takes over the manual task of switch on/off the as per programmed time. It has an inbuilt real time clock (RTC) to keep tracking the time and switch ON/OFF the load accordingly.</p>	(Abstract)	4499	5499	7599	MC 8051								

93	225	<b>SPEED CHECKER TO DETECT RASH DRIVING ON HIGHWAYS:</b> 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.	<a href="#">(Abstract)</a>	4499	5599	7699				Y			IR	
94	289	<b>PROGRAMMABLE AC POWER:</b> 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.	<a href="#">(Abstract)</a>	4499	5599	7599	MC 8051				Y			
95	4	<b>THYRISTOR POWER CONTROL BY IR REMOTE:</b> 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.	<a href="#">(Abstract)</a>	4599	5699	7699	MC 8051				Y		IR	

96	19	<p><b>OPTIMUM ENERGY MANAGEMENT SYSTEM:</b> 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.</p>	(Abstract)	4599	5699	7699	MC 8051	Y						IR		
97	109	<p><b>PARALLEL TELEPHONE LINES WITH SECURITY SYSTEM:</b> 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.</p>	(Abstract)	4599	5799	7799	MC 2051									
98	234	<p><b>PC CONTROLLED SCROLLING MESSAGE DISPLAY FOR NOTICE BOARD:</b> 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.</p>	(Abstract)	4599	5699	7699	MC 8051						PC			
99	241	<p><b>FOUR QUADRANT DC MOTOR CONTROL WITHOUT MICROCONTROLLER:</b> 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.</p>	(Abstract)	4599	5799	7799		Y		Y						

100	242	<b>SPEED CHECKER TO DETECT RASH DRIVING ON HIGHWAYS:</b> 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.	<a href="#">(Abstract)</a>	4599	5699	7799	MC 8051							IR		
101	9	<b>INDUSTRIAL POWER CONTROL BY INTEGRAL CYCLE SWITCHING WITHOUT GENERATING HARMONICS:</b> 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 purpose.	<a href="#">(Abstract)</a>	4799	5899	7999	MC 8051				Y					
102	22	<b>PC BASED ELECTRICAL LOAD CONTROL:</b> 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.	<a href="#">(Abstract)</a>	4799	5799	7799	MC 8051	Y					PC			
103	181	<b>BLDC MOTOR SPEED CONTROL WITH RPM DISPLAY:</b> 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.	<a href="#">(Abstract)</a>	4799	5899	7999	MC 8051	Y						IR		

104	185	<b>STAMP VALUE CALCULATOR FOR POSTAGE NEEDS:</b> 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.	<a href="#">(Abstract)</a>	4799	5799	7799	MC 8051									
105	3	<b>AUTO POWER SUPPLY CONTROL FROM 4 DIFFERENT SOURCES:</b> 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.	<a href="#">(Abstract)</a>	4899	5999	8199	MC 8051	Y								
106	156	<b>AUTOMATIC SURVEILLANCE CAMERA PANNING SYSTEM FROM PC:</b> 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.	<a href="#">(Abstract)</a>	4899	5999	8199	MC 8051					PC				
107	182	<b>PREDEFINED SPEED CONTROL OF BLDC MOTOR:</b> 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.	<a href="#">(Abstract)</a>	4899	5999	8199	MC 8051	Y					IR			







118	30	<p><b>TV REMOTE OPERATED DOMESTIC APPLIANCES CONTROL:</b> 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.</p>	(Abstract)	5199	6499	8899	MC 2051							IR		
119	169	<p><b>NON CONTACT TECHOMETER:</b> 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.</p>	(Abstract)	5199	6399	8599	MC 8051							IR		
120	2	<p><b>SPEED CONTROL UNIT DESIGNED FOR A DC MOTOR:</b> 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.</p>	(Abstract)	5499	6899	9099	MC 8051	Y								



124	PIC115	<p><b>PORTABLE PROGRAMMABLE MEDICATION REMINDER USING PIC MICROCONTROLLER:</b> 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.</p>	(Abstract)	5499	6799	8999	MC PIC									
125	49	<p><b>PROGRAMMABLE ENERGY METER FOR ELECTRICAL LOAD SURVEY:</b> A The project is designed to automatically calculate energy details within a minute using programmable microcontroller 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.</p>	(Abstract)	5599	6499	8799	MC 8051	Y								
126	164	<p><b>UNDERGROUND CABLE FAULT DISTANCE LOCATOR:</b> 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.</p>	(Abstract)	5599	6999	9299	MC 8051	Y								



130	172	<p><b>AUTOMATIC DIALING TO ANY TELEPHONE USING I2C PROTOCOL ON DETECTING BURGLARY:</b> Automatic dialing of stored number (in EEPROM) by a microcontroller is achieved in the event of any burglary 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.</p>	(Abstract)	5699	7099	9499	MC 8051						DTMF		
131	35A	<p><b>CELL PHONE CONTROLLED ROBOTIC VEHICLE:</b> 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.</p>	(Abstract)	5699	6499	8799	MC 8051						DTMF	Y	
132	186	<p><b>DISH POSITIONING CONTROL BY IR REMOTE:</b> 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.</p>	(Abstract)	5799	7299	9699	MC 8051	Y						IR	

133	28A	<b>IR CONTROLLED ROBOTIC VEHICLE:</b> 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.	<a href="#">(Abstract)</a>	5799	6799	8899	MC 8051							IR	Y	
134	290	<b>DUAL CONVERTER:</b> 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.	<a href="#">(Abstract)</a>	5799	7299	9699	MC 8051				Y					
135	32	<b>PASSWORD BASED CIRCUIT BREAKER:</b> 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.	<a href="#">(Abstract)</a>	5899	7499	9799	MC 8051	Y								



139	PIC111	<p><b>SOLAR ENERGY MEASUREMENT SYSTEM:</b> 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.</p>	<a href="#">(Abstract)</a>	6199	7299	9499	MC PIC							Temp eratu re	Y
140	47	<p><b>DISTANCE MEASUREMENT BY ULTRASONIC SENSOR:</b> 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.</p>	<a href="#">(Abstract)</a>	6399	7199	9299	MC 8051							Ultras onic	
141	76	<p><b>SCADA (SUPERVISORY CONTROL &amp; DATA ACQUISITION) FOR REMOTE INDUSTRIAL PLANT:</b> 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.</p>	<a href="#">(Abstract)</a>	6399	7999	10399	MC 8051					PC	Temp eratu re		



146	160	<p><b>INDUCTION MOTOR PROTECTION SYSTEM:</b> 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 relay. The project is supplied with lamps in place of 3 phase motor for demonstration purpose.</p>	(Abstract)	6799	8599	11199		Y	Y						
147	168	<p><b>HIGH VOLTAGE DC UPTO 2KV FROM AC BY USING DIODE AND CAPACITORS IN VOLTAGE MULTIPLIER CIRCUIT:</b> 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.</p>	(Abstract)	6799	8599	11099		Y							
148	244	<p><b>FACTS (FLEXIBLE AC TRANSMISSION) BY TSR:</b> 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.</p>	(Abstract)	6799	8599	11099	MC 8051				Y				
149	243	<p><b>FACTS BY SVC (FLEXIBLE AC TRANSMISSION):</b> 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.</p>	(Abstract)	6899	8799	11299	MC 8051				Y				

150	13	<p><b>AUTOMATIC STAR DELTA STARTER USING RELAYS AND ADJUSTABLE ELECTRONIC TIMER FOR INDUCTION MOTOR:</b> 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.</p>	(Abstract)	6999	8899	11499		Y							
151	232	<p><b>PRE STAMPEDE MONITORING AND ALARM SYSTEM:</b> 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.</p>	(Abstract)	7099	9099	11699	MC 8051								
152	226	<p><b>HOME AUTOMATION USING DIGITAL CONTROL:</b> 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.</p>	(Abstract)	7299	9299	11899			Y		DTMF				



156	249	<b>OBSTACLE AVOIDANCE ROBOTIC VEHICLE:</b> 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.	<a href="#">(Abstract)</a>	7599	8299	10399	MC 8051						Ultras onic	Y	
157	170	<b>RFID BASED ATTENDANCE SYSTEM:</b> 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.	<a href="#">(Abstract)</a>	7699	8899	11099	MC 8051						RFID		
158	170A	<b>RFID BASED PASSPORT DETAILS:</b> 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.	<a href="#">(Abstract)</a>	7699	8899	11099	MC 8051						RFID		
159	246	<b>RF BASED HOME AUTOMATION SYSTEM:</b> Using RF technology several loads in home or office to be controlled for optimum use of energy.	<a href="#">(Abstract)</a>	7799	10199	12899	MC 8051				Y		RF		
160	PIC116	<b>PRE STAMPEDE MONITORING AND ALARM SYSTEM USING PIC MICROCONTROLLER:</b> 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.	<a href="#">(Abstract)</a>	7799	9899	12799	MC PIC								



164	149A	<p><b>METAL DETECTOR ROBOTIC VEHICLE:</b> 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.</p>	(Abstract)	7199	8799	11199	MC 8051						RF		Y	
165	34	<p><b>OBJECT DETECTION BY ULTRASONIC MEANS:</b> 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.</p>	(Abstract)	8599	9899	12299	MC 8051							Ultras onic		
166	PIC104	<p><b>RFID BASED DEVICE CONTROL AND AUTHENTICATION(using PIC Microcontroller):</b> 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.</p>	(Abstract)	8599	9999	12499	MC PIC						GSM			



171	40	<p><b>TAMPERED ENERGY METER MONITORING CONVEYED TO CONTROL ROOM BY GSM WITH USER PROGRAMABLE NUMBER FEATURES :</b> 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.</p>	<a href="#">(Abstract)</a>	8799	10099	12299	MC 8051					GSM	IR		
172	157	<p><b>FLASH FLOOD INTIMATION OVER GSM WITH USER PROGRAMABLE NUMBER FEATURES TO THE STATION MASTER:</b> 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.</p>	<a href="#">(Abstract)</a>	8799	10099	12299	MC 8051					GSM			
173	190	<p><b>RAILWAY TRACK SECURITY BY GSM WITH USER PROGRAMABLE NUMBER FEATURES:</b> 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.</p>	<a href="#">(Abstract)</a>	8799	10099	12299	MC 8051					GSM			
174	201	<p><b>WIRELESS ELECTRONIC NOTICE BOARD BY GSM WITH USER PROGRAMABLE NUMBER FEATURES :</b> 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.</p>	<a href="#">(Abstract)</a>	8799	9899	12299	MC 8051					GSM			

175	17	<b>AUTOMATIC WIRELESS HEALTH MONITORING SYSTEM IN HOSPITALS FOR PATIENTS:</b> 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.	<a href="#">(Abstract)</a>	9099	11799	14599	MC 8051						RF	Temperature		
176	154	<b>THEFT INTIMATION OF THE VEHICLE OVER GSM BY SMS WITH USER PROGRAMABLE NUMBER FEATURES TO OWNER WHO CAN STOP THE ENGINE REMOTELY:</b> 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.	<a href="#">(Abstract)</a>	9199	10399	12699	MC 8051						GSM	Temperature		
177	224	<b>SINE PULSE WIDTH MODULATION (SPWM):</b> Adaptive sine-weighted pulse width modulated output is generated by a programmed 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.	<a href="#">(Abstract)</a>	9399	12299	15199	MC 8051					Y				



181	233	<p><b>UNIQUE OFFICE COMMUNICATION SYSTEM USING RF:</b> 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.</p>	(Abstract)	9699	11999	14799	MC 8051					RF,PC			
182	147	<p><b>GSM BASED MONTHLY ELECTRICITY ENERGY METER BILLING WITH SMS UPON GSM WITH USER PROGRAMABLE NUMBER FEATURES TOGETHER WITH ONSITE DISPLAY TO THE USER:</b> 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 from the user to the department for generating the printed bill.</p>	(Abstract)	9799	10999	13399	MC 8051	Y				GSM			
183	146	<p><b>RAILWAY LEVEL CROSSING GATE CONTROL THROUGH GSM BY SMS WITH USER PROGRAMABLE NUMBER FEATURES BY THE STATION MASTER OR THE DRIVER:</b> 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 drive a relay for the gate motor operation.</p>	(Abstract)	9899	11399	13899	MC 8051					GSM			

184	159	<p><b>INTEGRATED ENERGY MANAGEMENT SYSTEM BASED ON GSM WITH USER PROGRAMABLE NUMBER FEATURES AND ACKNOWLEDGEMENT FEATURES:</b> 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.</p>	(Abstract)	10099	11599	14099	MC 8051	Y				GSM			
185	223	<p><b>PRE-PROGRAMMED DIGITAL SCROLLING MESSAGE SYSTEM:</b> The project is uses alphanumeric LED displays for scrolling message over it. This project can be used for advertisement purposes.</p>	(Abstract)	10199	13399	16399			Y						
186	235	<p><b>TOUCH SCREEN BASED INDUSTRIAL LOAD SWITCHING:</b> Touch screen panel managed industrial switching system( or home ) for industrial load control in corrosive / inflammable environment that prohibits use of conventional switches.</p>	(Abstract)	10799	11999	14299	MC 8051						Touch screen		
187	180	<p><b>ENERGY METER BILLING WITH LOAD CONTROL OVER GSM WITH USER PROGRAMABLE NUMBER FEATURES:</b>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.</p>	(Abstract)	10999	12599	15199	MC 8051	Y				GSM			

188	231	<b>SPEED SYNCHRONISATION OF MULTIPLE MOTORS IN INDUSTRIES:</b> 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.	<a href="#">(Abstract)</a>	10999	14499	17599	MC 8051						RF	IR		
189	253	<b>AUTO METRO TRAIN TO SHUTTLE BETWEEN STATIONS:</b> 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.	<a href="#">(Abstract)</a>	11499	13899	16799	MC 8051							IR	Y	
190	PIC114	<b>ENERGY METER BILLING WITH LOAD CONTROL over GSM WITH USER PROGRAMABLE NUMBER FEATURES ( by PIC Microcontroller):</b> 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.	<a href="#">(Abstract)</a>	11899	13799	16499	MC PIC	Y					GSM			

191	250	<p><b>SOLAR POWERED AUTO IRRIGATION SYSTEM:</b> 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.</p>	(Abstract)	12299	14999	18099	MC 8051	Y								Y
192	238	<p><b>TOUCH SCREEN BASED HOME AUTOMATION SYSTEM:</b> 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.</p>	(Abstract)	13699	15799	18699	MC 8051					RF	Touch screen			
193	152	<p><b>FIRE FIGHTING ROBOTIC VEHICLE:</b> 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.</p>	(Abstract)	17199	20899	24699	MC 8051					RF			Y	



197	471	<b>URBAN TRAFFIC SIGNAL BASED ON DENSITY AND ALSO WITH REMOTE OVERRIDE :</b> Remote override control of density based traffic signal by emergency vehicles like ambulance, fire brigade etc for getting priority in the desired direction	<a href="#">(Abstract)</a>	3899	4899	6899	MC 8051					IR, RF			
198	539	<b>POWER TRANSFER TO LOAD WIRELESSLY IN 3D SPACE:</b> Wireless power transfer up to 10 watts in 3 D space using high frequency from 38 KHz to 40 KHz through tuned circuits	<a href="#">(Abstract)</a>	5999	7599	9899		Y		Y					
199	545	<b>VIRTUAL DISPLAY OF MESSAGE BY PROPLER DRIVEN LEDS:</b> Microcontroller interfaced LEDs mounted on a single column of 10 LEDs only displays programed text message virtually while rotating at high speed based upon the principle of persistence of vision of eye.	<a href="#">(Abstract)</a>	7099	8399	10599	MC 8051			Y					
200	546	<b>SMART PHONE CONTROLLED TRAFFIC SIGNAL OVERRIDE WITH DENSITY SENSING SYSTEM :</b> Remote override of traffic signal for emergency vehicles like ambulance, fire brigade etc for getting priority in the desired direction through cell phone operated commands sent to a microcontroller over and above density sensing based automatic signal timing control.	<a href="#">(Abstract)</a>	7499	8399	10599	MC 8051		Y			Blue Tooth			

201	548	<b>ANDROID BASED SMART PHONE USED FOR INDUCTION MOTOR CONTROL :</b> 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.	<a href="#">(Abstract)</a>	7599	8599	10899	MC 8051		Y			Blue Tooth			
202	491	<b>AC PWM BASED POWER Control BY IGBT / MOSFET :</b> AC PWM based Induction motor speed control having negligible harmonic distortion compared to simple phase angle delayed mode of control using MOSFET / IGBT	<a href="#">(Abstract)</a>	4499	5599	7699	MC 8051	Y			Y				
203	536	<b>MAINS SUPPLY SENSED OVER VOLTAGE- UNDER VOLTAGE TRIP SWITCH:</b> 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.	<a href="#">(Abstract)</a>	5899	7499	9799		Y			Y				
204	550	<b>ARDUINO BASED LED STREET LIGHTS WITH AUTO INTENSITY CONTROL O:</b> 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 controlling the intensity.	<a href="#">(Abstract)</a>	7699	8599	10999	MC ATMEGA				Y				

205	492	<b>IGBT BASED SOFTSTART FOR INDUCTION MOTOR</b> : 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.	<a href="#">(Abstract)</a>	4499	5599	7699	MC 8051								
206	441	<b>BURGLAR ALARM ON WINDOW GLASS BREAKING</b> : The project is designed to generate an alarm signal in the event of breaking of an hair thin wire pasted on the window glass panes . The project uses a buzzer to alert the user.	<a href="#">(Abstract)</a>	1699	1799	3199				Y					
207	442	<b>TV OPERATION JAMMING SYSTEM:</b> 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.	<a href="#">(Abstract)</a>	2199	2399	3899				Y			IR		
208	443	<b>POWER SAVING LED LIGHT REPLACING CONVENTIONAL LAMPS:</b> 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.	<a href="#">(Abstract)</a>	2199	2399	3899		Y		Y					

209	444	<b>LOW VOLTAGE DC TO HIGHER VOLTAGE DC UP 6 VOLT DC TO 10 VOLT DC USING 555 TIMER:</b> A 555 timer is used in astable mode to deliver the output approximately twice the input voltage of 6v to 10 volts. The pwm output from the 555 timer is given to a voltage doubler circuit to get the desired output.	<a href="#">(Abstract)</a>	2199	2399	3899			Y		Y					
210	445	<b>LISTEN PRIVATELY TO TV AUDIO WIRELESSLY OVER FM BAND:</b> 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 over ear phone without disturbing any one else.	<a href="#">(Abstract)</a>	2199	2399	3899					Y					
211	446	<b>SUN SET TO SUN RISE LIGHTING SWITCH (EVENING ON TO MORNING OFF):</b> 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.	<a href="#">(Abstract)</a>	2399	2499	4299					Y					
212	447	<b>AUTO MAINS DISCONNECTING DC POWER SUPPLY:</b> This power supply unit gives a variable & regulated DC for microcontroller circuits / cell phone charging but switches off automatically sensing no load condition.	<a href="#">(Abstract)</a>	2499	2899	4499					Y					

213	448	<b>AUTO SWITCH OFF OF TV WHILE SCREEN GOES WITOUT VIDEO</b> : 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.	<a href="#">(Abstract)</a>	2599	2999	4799				Y					
214	449	<b>ACTIVE CELL PHONE DETECTOR</b> : 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.	<a href="#">(Abstract)</a>	2899	3199	4999				Y					
215	451	<b>FM TRANSMITTER 2 KM RANGE FOR YAGI ANTENNA</b> : 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 YAGI antenna to cover a line of sight distance of about 2 km or 20-100 Mtrs by GP/stick antenna.	<a href="#">(Abstract)</a>	2899	3499	5099				Y					
216	452	<b>TEMPERATURE CONTROLLED LOAD BY THERMISTOR SENSOR</b> : 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.	<a href="#">(Abstract)</a>	2899	3299	5099				Y			Temp eratu re		

217	450	<p><b>TOUCH SWITCH FOR SHORT DURATION LOAD:</b> 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.</p>	<a href="#">(Abstract)</a>	2899	3199	4999		Y	Y						
218	453	<p><b>3 PHASE SEQUENCE CHECKER BY LED INDICATION :</b> 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).</p>	<a href="#">(Abstract)</a>	2899	3299	5099		Y	Y						
219	456	<p><b>LOAD CUTOFF SWITCH UPON OVER VOLTAGE OR UNDER VOLTAGE:</b> 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.</p>	<a href="#">(Abstract)</a>	2999	3499	5199		Y	Y						
220	454	<p><b>HOME APPLIANCES CONTROL WITH TIME DELAY SWITCH:</b> 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.</p>	<a href="#">(Abstract)</a>	2999	3499	5099		Y	Y						

221	455	<b>AUTOMATIC EMERGENCY LIGHT WITH LED :</b> 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.	<a href="#">(Abstract)</a>	2999	3499	5099				Y					
222	457	<b>MUSIC TONE BASED DANCING LEDs:</b> 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.	<a href="#">(Abstract)</a>	3099	3599	5499				Y					
223	458	<b>TELEPHONE RING SENSED FLASHER IN INDUSTRIAL AREA:</b> 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.	<a href="#">(Abstract)</a>	3099	3699	5499				Y					
224	459	<b>QUIZ COMPETITION SENSOR FOR FASTEST FINGER PRESS :</b> 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.	<a href="#">(Abstract)</a>	3199	3699	5599				Y					

225	460	<p><b>9 LEVEL OVERHEAD WATER TANK INDICATOR:</b> 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.</p>	(Abstract)	3199	3699	5599				Y					
226	461	<p><b>SECURITY ALARM SYSTEM BY PHOTO ELECTRIC SENSOR :</b> 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.</p>	(Abstract)	3499	3899	5799				Y					
227	462	<p><b>ENHANCING PROJECTION LAMP LIFE BY ZVS (Zero Voltage Switching):</b> 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.</p>	(Abstract)	3599	4299	6199	MC 8051				Y				
228	463	<p><b>SOFT START OF SINGLE PHASE PUMP MOTOR:</b> 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 induction motor. A lamp is provided as load for demonstration purpose instead of motor.</p>	(Abstract)	3699	4399	6299					Y				







239	476	<p><b>PIC CONTROLLED DYNAMIC TIME BASED CITY TRAFFIC SIGNAL :</b> 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.</p>	(Abstract)	4199	5099	7099	MC PIC								IR	
240	477	<p><b>INTENSITY CONTROLLED ENERGY SAVING LED STREET LIGHTS:</b> White Light Emitting Diodes (LED) replaces HID lamps in street lighting system to include progressive dimming feature from dusk to dawn. A microcontroller of 8051 family is used for developing pulse width modulated signals that drives a MOSFET to control the LEDs with lesser and lesser intensity as the night advances to save energy.</p>	(Abstract)	4299	5099	7099	MC 8051			Y						
241	480	<p><b>MOUSE FUNCTION ACHIEVED BY A TV REMOTE FOR CORDDLESS OPERATION:</b> 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.</p>	(Abstract)	4299	5199	7199	MC 8051						PC		IR	

242	482	<b>DIALED TELEPHONE NUMBER LED BASED DISPLAY SYSTEM:</b> Dialed telephone numbers are picked up by a DTMF decoder to feed to a microcontroller. This data is transmitted ten no's seven segment LED displays for better visibility.	<a href="#">(Abstract)</a>	4299	5199	7299	MC 8051						DTMF		
243	483	<b>TIME PROGRAMED SUN TRACKING SOLAR PANEL:</b> The project uses a dummy solar panel coupled to a stepper motor to track the Sun . The microcntrroller used is programmed to rotate the stepper motor in regular time intervals so that it tracks the sun.This is far better compared to light (LDR) sensing method that is prone to erratic function in cloudy weather or dusty area.	<a href="#">(Abstract)</a>	4299	5199	7299	MC 8051								Y
244	481	<b>CONVEYOR BELT OBJECT COUNTING WITH IR SENSING &amp; DISPLAY:</b> 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.	<a href="#">(Abstract)</a>	4299	5199	7199	MC 8051						IR		
245	478	<b>DC MOTOR WITH PWM SPEED CONTROL IN ALL FOUR QUADRANTS USING MICROCONTROLLER:</b> 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.	<a href="#">(Abstract)</a>	4299	5099	7099	MC 8051	Y							

246	479	<b>PUB USED DISCO LIGHTS WITH POWER LEDs FOR STROBOSCOPIC EFFECT:</b> 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.	<a href="#">(Abstract)</a>	4299	5099	7099	MC 8051									
247	484	<b>PATIENT MEDICATION REMINDER:</b> 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.	<a href="#">(Abstract)</a>	4399	5499	7499	MC 8051									
248	485	<b>GARAGE DOOR LIFTING SYSTEM BY CELL PHONE :</b> 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.	<a href="#">(Abstract)</a>	4399	5499	7499	MC 8051					DTMF				
249	486	<b>SEMICONDUCTOR RELAY WITH ZVS:</b> 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.	<a href="#">(Abstract)</a>	4499	5499	7599	MC 8051					Y				

250	487	<p><b>BATTERY CHARGING BY THYRISTOR TRIGGERING CONTROL:</b> 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 decreasing the DC power.</p>	(Abstract)	4499	5499	7599	MC 8051				Y				
251	473	<p><b>TRACK SENSING ROBOTIC VEHICLE MOVEMENT :</b> 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.</p>	(Abstract)	4499	5099	6999				Y			IR	Y	
252	488	<p><b>TIME PROGRAMMABLE SWITCH TO CONTROL LOAD:</b> Multiple time operated electrical load control system is a reliable circuit that takes over the manual task of switch on/off the as per programmed time. It has an inbuilt real time clock (RTC) to keep tracking the time and switch ON/OFF the load accordingly.</p>	(Abstract)	4499	5499	7599	MC 8051								
253	493	<p><b>VEHICLE OVER SPEED DETECTION ON HIGHWAYS:</b> The time difference between 2 spots on a highway, one in advance to the other in the direction of the traffic flow, is sensed &amp; fed to a control board to convert the same to the speed of a vehicle and generate a warning upon exceeding specified speed limit.</p>	(Abstract)	4499	5599	7699				Y			IR		



257	497	<p><b>ENSURING SECRECY IN PARALLEL CONNECTED TELEPHONE INSTRUMENTS:</b> 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.</p>	(Abstract)	4599	5799	7799	MC 2051								
258	496	<p><b>SCROLLING MESSAGE DISPLAY BY LCD FROM PC TERMINAL:</b> 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.</p>	(Abstract)	4599	5699	7699	MC 8051					PC			
259	498	<p><b>AC TO DC WITH FOUR QUADRANT MOTOR OPERATION:</b> 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. It does not use any microcontroller.</p>	(Abstract)	4599	5799	7799		Y		Y					
260	499	<p><b>DETECTING SPEED LIMIT VIOLATION ON HIGHWAYS:</b> The time difference between 2 spots on a highway, one in advance to the other in the direction of the traffic flow, is sensed &amp; fed to a programmed microcontroller to convert the same to the speed of a vehicle and generate a warning upon exceeding specified speed limit.</p>	(Abstract)	4599	5699	7799	MC 8051						IR		

261	502	<p><b>INTEGRAL CYCLE SWITCHING ( CYCLE STEALING) MEANS OF POWER CONTROL WITHOUT GENERATING HARMONICS:</b> 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 only as against 61% of firing angle control. A lamp is provided as load for demonstration purpose.</p>	<a href="#">(Abstract)</a>	4799	5899	7999	MC 8051				Y				
262	500	<p><b>ELECTRICAL LOAD CONTROL FROM PC TERMINAL:</b> 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.</p>	<a href="#">(Abstract)</a>	4799	5799	7799	MC 8051	Y				PC			
263	503	<p><b>BRUSSLESS DC MOTOR (BLDC ) /PMDC SPEED CONTROL BY PWM WITH RPM DISPLAY:</b> 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.</p>	<a href="#">(Abstract)</a>	4799	5899	7999	MC 8051	Y					IR		
264	501	<p><b>PRECISE WEIGHT MEASUREMENT USING ADC :</b> 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.</p>	<a href="#">(Abstract)</a>	4799	5799	7799	MC 8051								

265	504	<b>AUTO SELECTION OF OPTIMUM POWER from 4 different sources:</b> 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.	<a href="#">(Abstract)</a>	4899	5999	8199	MC 8051	Y							
266	505	<b>PC CONTROLLED SURVELLIANCE CAMERA :</b> 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.	<a href="#">(Abstract)</a>	4899	5999	8199	MC 8051					PC			
267	506	<b>EEPROM BASED PRESET SPEED CONTROL OF BLDC MOTOR:</b> 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.	<a href="#">(Abstract)</a>	4899	5999	8199	MC 8051	Y					IR		
268	507	<b>PHONE CONTROLLED LOAD MANAGEMENT SYSTEM:</b> 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.	<a href="#">(Abstract)</a>	4999	5999	8199	MC 8051	Y				DTMF			

269	508	<b>INTELLIGENT TRAFFIC MANAGEMENT BY SYNCHRONIZED SIGNALLING :</b> (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 specified speed.	<a href="#">(Abstract)</a>	4999	5999	8199	MC 8051										
270	490	<b>PATH TRACKING ROBOTIC VEHICLE BY PROGRAMMED MICROCONTROLLER :</b> 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.	<a href="#">(Abstract)</a>	4999	5699	7599	MC 8051							IR	Y		
271	510	<b>PROGRAM BASED ACCURATE INTENSITY CONTROL LAMP :</b> A precise 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.	<a href="#">(Abstract)</a>	4999	6299	8399	MC 8051					Y					
272	511	<b>PROGRAM BASED ACCURATE INTENSITY CONTROL LAMP :</b> A precise 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.	<a href="#">(Abstract)</a>	4999	6299	8399	MC PIC							IR			



276	513	<b>GRID SYNCHRONISATION FAIL DETECTION ON SENSING FREQUENCY OR VOLTAGE BEYOND RANGE:</b> 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.	<a href="#">(Abstract)</a>	5099	6299	8499	MC 8051	Y									
277	512	<b>PROGRAMABLE SCHOOL / COLLEGE BELL RINGING SYSTEM FOR :</b> 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.	<a href="#">(Abstract)</a>	5099	6299	8399	MC 8051										
278	520	<b>HOME APPLIANCES CONTROL BY TV REMOTE :</b> 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.	<a href="#">(Abstract)</a>	5199	6499	8899	MC 2051							IR			
279	516	<b>CONTACTLESS TECHOMETER:</b> 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.	<a href="#">(Abstract)</a>	5199	6399	8599	MC 8051							IR			

280	526	<p><b>PWM BASED SPEED CONTROL FOR DC MOTOR:</b> 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.</p>	(Abstract)	5499	6899	9099	MC 8051	Y								
281	522	<p><b>SOIL MOISTURE SENSED AUTO IRRIGATION SYSTEM :</b> 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 whenever moisture in the soil reduces, it turns the water pump ON. This results in increase of the moisture content which in turn switches OFF the motor. The above operations are monitored by a 8051 family microcontroller.</p>	(Abstract)	5499	6799	8999	MC 8051									
282	523	<p><b>SEQUENTIAL SWITCHING SYSTEM REPLACING PLCs:</b> 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.</p>	(Abstract)	5499	6799	8999	MC 8051	Y								

283	524	<p><b>PI CONTROL FOR BRUSHLESS DC MOTOR RUNNIG AT ENTERED SPEED:</b> 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.</p>	(Abstract)	5499	6799	8999	MC 8051								IR	
284	525	<p><b>Medication Reminder using PIC Microcontroller:</b> 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.</p>	(Abstract)	5499	6799	8999	MC PIC									
285	518	<p><b>INSTANT ELECTRICAL LOAD SURVEY FOR INDUSTRIES / HOME :</b> A The project is designed to automatically calculate energy details within a minute using programmable 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.</p>	(Abstract)	5599	6499	8799	MC 8051	Y								

286	528	<b>PRECISE DETECTION OF DISTANCE IN UNDERGROUND CABLE FAULT :</b> 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.	<a href="#">(Abstract)</a>	5599	6999	9299	MC 8051	Y							
287	517	<b>CHARGE AND LOAD PROTECTION IN SOLAR POWER MANAGEMENT:</b> 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.	<a href="#">(Abstract)</a>	5599	6399	8599		Y		Y					Y
288	527	<b>Programable digital Temperature Controller:</b> 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.	<a href="#">(Abstract)</a>	5599	6899	9099	MC 8051	Y					Temp		

289	531	<p><b>HUMAN BODY TEMPERATURE SENSED AUTOMATIC DOOR OPENING SYSTEM:</b> Automatic door opening system is achieved by sensing any approaching body by PIR sensor interfaced to programmed microcontroller of 8051 family. Upon sensing human movement, microcontroller drives a motor through motor driver IC with locked rotor protection system for door operation.</p>	(Abstract)	5699	7199	9499	MC 8051						PIR		
290	532	<p><b>AUTO DIALING ON DETECTING BURGLARY USING I2C PROTOCOL:</b> Automatic dialing of stored number (in EEPROM) by a microcontroller is achieved in the event of any burglary 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.</p>	(Abstract)	5699	7099	9499	MC 8051					DTMF			
291	519	<p><b>ROBOTIC VEHICLE MOVEMENT BY CELL PHONE :</b> 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.</p>	(Abstract)	5699	6499	8799	MC 8051					DTMF		Y	
292	534	<p><b>REMOTE OPERATION OF DISH ANTENNA POSITIONING :</b> The project is designed to enable 3D movement of a dish antenna using two DC geared motors. One motor rotates in horizontal plane while the other in vertical plane. The project is controlled by a TV remote for distant operation of the dish positioning.</p>	(Abstract)	5799	7299	9699	MC 8051	Y					IR		

293	521	<p><b>ROBOTIC VEHICLE OPERATED BY A TV REMOTE:</b> 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.</p>	(Abstract)	5799	6799	8899	MC 8051							IR	Y	
294	535	<p><b>PAIR OF SCR BRIDGE BASED HIGH POWER Dual Converter:</b> 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.</p>	(Abstract)	5799	7299	9699	MC 8051				Y					
295	537	<p><b>ELECTRIC LINE MAN SAFETY WITH PASSWORD BASED CIRCUIT BREAKER:</b> 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.</p>	(Abstract)	5899	7499	9799	MC 8051	Y								



299	533	<p><b>MEASURING SOLAR PHOTOVOLTAIC POWER:</b> 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.</p>	(Abstract)	6199	7299	9499	MC PIC							Temp eratu re	Y
300	529	<p><b>ULTRASONIC SOUND REFLECTING MEANS OF DISTANCE MEASUREMENT :</b> 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.</p>	(Abstract)	6399	7199	9299	MC 8051							Ultras onic	
301	542	<p><b>SCADA (SUPERVISORY CONTROL &amp; DATA ACQUISITION) USING PC AND EMBEDDED SYSTEM:</b> 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.</p>	(Abstract)	6399	7999	10399	MC 8051						PC	Temp eratu re	



306	543	<b>DEDICATED MESSAGE COMMUNICATION WIRELESSLY, BETWEEN TWO COMPUTERS:</b> A pair of 2.4Ghz transceiver units are used for bidirectional communication from one PC to another wirelessly using hyper terminal.	<a href="#">(Abstract)</a>	7599	8399	10399						PC, XBEE		
307	544	<b>ULTRASONIC OBSTACLE SENSED ROBOTIC VEHICLE:</b> 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.	<a href="#">(Abstract)</a>	7599	8299	10399	MC 8051					Ultras onic	Y	

www.edgefxkits.com | info@edgefxkits.com | +91 99591 78000 | +91 99087 78000  
105, Liberty Plaza, Himayatnagar, Hyderabad-29.

**For personal counseling regarding project selection or guidance or any technical help please e-mail us at [info@edgefxkits.in](mailto:info@edgefxkits.in) or call on +91 9959178000.**