

# *GTU INNOVATION COUNCIL*

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## **A Report on Diploma Final Year Student Presentation, Electronics & Communication Department on 9<sup>th</sup> March 2012 at L.J.Polytechnic,Ahmedabad**

As per the GTU Circular dated on 23<sup>rd</sup> February 2012 we have arranged presentation of final year students.

Presentation details are described below

- No of Students : 86
- No of Groups : 27
- Industry Mentor : Mr. N.S.Jog
- Name of Industry : PRL, Ahmedabad
- Director : Prof. Maheshkumar Kella
- Internal Project Coordinators : Ami Mistry & Vama Shah

### Industry Mentor Introduction



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Mr. N.S.Jog worked in Physical Research Laboratory, Ahmedabad for 35 years in Astronomy Department. He developed various microcontroller and microprocessor based instruments which are presently used for observation in PRL laboratories of Nainital, Mount Abu and Hyderabad. He worked in Rocket payload which was launched at Thumbal, Tamil Nadu. He had published national level papers. He participated in many conferences which were held in various part of India.

- Presentation Started with Mr N.S.Jog's Speech



- Students giving Presentation



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## Group Details & Grades given by Industry Mentor

Team/ Group Identification no.	Student name	Title of IDP/UDP	Grade
1	STAVAN A PANCHAL	WATER TANK LEVEL WORNINGSING GSM SMS	B+
	ANUP A RANPURA		
	AJAY M RABADIYA		
	DHAVAL H THAKKAR		
2	EKTA K PATEL	8-ZONE HOME SECURITY SYSTEM	B+
	AARTI H RATNU		
	KINJAL M PATEL		

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3	HITESHA R KARELIA	PROGRAMABAL TEMPRATURE SENSER & CONTROLER	A
	HEMANGINI R CHAUHAN		
	VIDHI K PATEL		
4	SANGHARIYAT SALMA	8051 DEVLOPMENT BOARD	A
	SIKHA J TIWARI		
	ASHWINI D MISAL		
	RACHANA R GAJJAR		
5	JINAL M PATEL	PRESSURE AND TEMPERATURE INDICATOR	B+
	DIXITA J PATEL		
	AARTI V NANDANIYA		
6	NIRAG A SHAH	GENERATION OF PAL SIGNAL	B+
	KISHAN A PATEL		
	SAGAR A TRIVEDI		
7	NASIR SHAIKH K	ACCESS CONTROL SYSTEM	A
	AKASH J PRAJAPATI		
	RAYHAN MALIK I		
8	BHARGAV R GADOYA	TEMPERATURE CONTROLLER USING FAN REGULATER	A+
	KRUPA M BHATT		
	KAVAN K SHAH		
9	ALPESHKUMAR K PASI	FORWARD – REVERSE TIMER	A
	KIRANKUMAR D CHAUHAN		
	PRATIK N MAKWANA		
10	NIKUNJ K SUTARIYA	PWM GENERATOR USING 8051	B+
	RAJ K PATEL		
	ASHISH D SONIGARA		
11	YUVRAJ B VAGHELA	RFID BASED ATTENDANCE SYSTEM	B+
	AKSHAR B SONI		
	SUNNY ANAND RMISHRA		
12	DIPEN M PATEL	PARKING ZONE SYSTEM WITH AT89C51	A+
	VISHAL KALADHAR		
	HARVINDER RAJPUT		

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13	PRAKASH N KUMAVAT	CELLPHONE OPERATED LANDROVER BASED ON MICROCONTROLLER	A
	DHARMENDRASINGH SENGAR		
	SHAILESH S CHAUHAN		
14	JANKI S VACHHANI	PRODUCT COUNTING USING PROXIMITY SENSOR	A
	HET M PATEL		
15	ANIL N CHAVDA	SOLAR LANTERN SYSTEM	B
	DAVE NIKUNJ		
	VISHAL D SINGANE		
16	SHAH AALAP RAKESHBHAI	ULTRASONIC DISTANCE METER	B+
	PATEL DISHANT DASHARATHBHAI		
	SEN NIRMAL MANUBHAI		
	PATEL VIKAS BHIKHABHAI		
17	RATHOD BRIJESH RAMANBHAI	TRAFFIC SIGNAL CONTROLLER	B
	SONI KISHAN BHARATBHAI		
18	CHAUDHARI AJAY RAMABHAI	AUTOMATIC RAILWAY GATE CONTROL SYSTEM	B
	CHAUHAN SANTOSHKUMAR PREMKUMAR		
	PATEL DARSHAN BHIKHABHAI		
19	MANSURI SHEHZAD MOHD SHAKIR	TEMPERATURE INDICATOR	A+
	SHAIKH NAVEED MOHD NAZIR MOHD		
	SHAIKH MUSEBAHMED ABDULHAMID		

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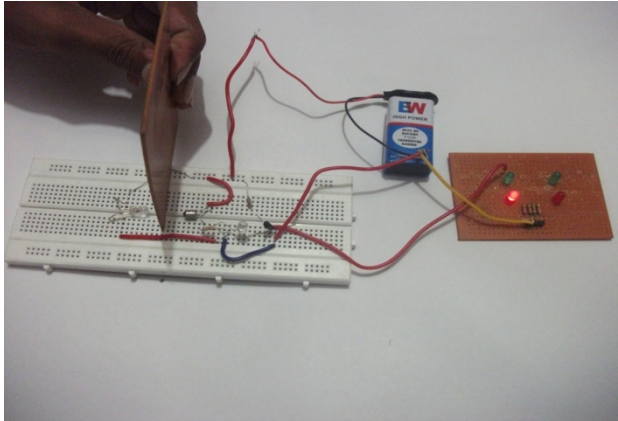
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20	THAKKAR TUSHAR DIPAKKUMAR	AUTONOMOUS ROBOT	B
	PUJARA RAJ VIJAYKUMAR		
	PANCHAL RAJAT PRAVINKUMAR		
	PATEL TUSHAR GANPATBHAI		
21	VYAS SHANDILYA KAMLESHKUMAR	GSM/GPS BASED VEHICLE AND PERSON TRACKING SYSTEM	A+
	PATEL NIKUL RAMESHBHAI		
	PANDYA DHVANIT HARNESHBHAI		
	RAJPUT MANISH SINGH		
22	SHAH YAKSH PANKAJKUMAR	DIGITAL TIMER CONTROLLER	B+
	DARJI MIHIR JITESHBHAI		
	MAKWANA HITESHKUMAR KHUSHALBHAI		
23	TRIVEDI KARAN RAJESH	PATIENT MONITORING THROUGH GSM MODEM	A
	LEO LOUIS		
	FERNANDES SHELDON SANTAN		
24	THAKKAR DARSHIT GHANSHYAMBHAI	HOME APPLIANCES USING GSM	B
	SHAH VISMAY HITESHBHAI		
	THAKAR DEVANG JAYESHBHAI		
	SHAIKH MOHSIN YASINBHAI		
	MEHTA ARJUN SAUMYABHAI		

25	PATEL MIHIR MAHENDRABHAI	TRAFFIC CONTROL USING PLC	B+
	PATEL MANTHAN PRAVINBHAI		
	MEHTA NIRMAL ASHWINBHAI		
	MAVANI PRASHANT		
26	PATEL DARSHAN KISHORBHAI	THYRISTOR HEATING CONTROL USING MICROCONTROLLER	B+
	PATEL ROMIL JIGNESHBHAI		
27	CHOKSI DHARMIK VRAJESHBHAI	ROTATION COUNTER	A
	PATEL JANAK JAYANTIBHAI		
	OZA RONAK CHETANBHAI		

### Special Innovations

- Automatic Parking Zone System

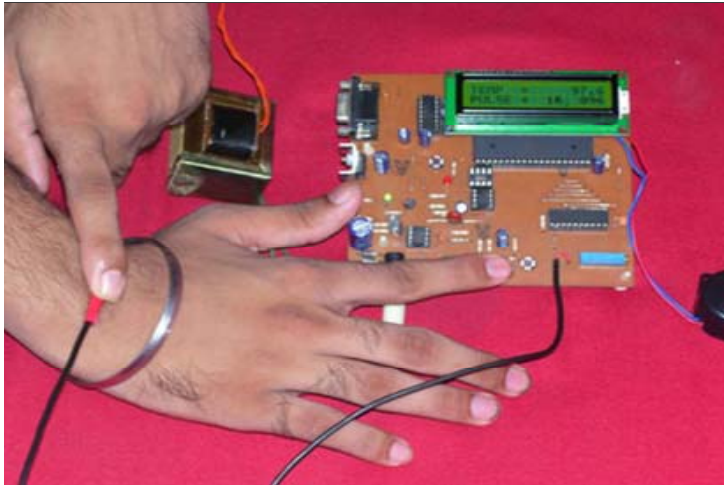


The parking zone system based on microcontroller is the control system for vehicle parking. It is used at industries, malls, theaters, hospitals and at many public places where the control on vehicle parking is most require. this system contain microcontroller AT89C51 , seven segment display , infrared sensor , stepper motor for the controlling purpose. Number of vehicles enters or come out from the parking zone are counted by up-down counter.In this system for the indication of no space for vehicle in the parking zone seven segment displays

and LED's are used .when the parking zone is full according to the space of vehicle are provided by parking zone area then RED LED will be ON. GREEN LED indicates that parking zone is empty. When parking zone is full stepper motor rotates and gate will be close and it's open when the space for parking remains empty in the parking zone.

Advantage of this system is that there are no requirements of the security guard to guide the person to park the vehicle.

- Patient Monitoring through GSM Modem



The primary function of this system is to monitor the temperature and Heart Beat of the Patient. The Data collected by the sensors are sent to the Microcontroller. The Microcontroller transmits the received data over the air, using the GSM modem. From the transmitter the recordings are sent as an SMS to the care taker or the expert which have been given as the recipient. Not only does the microcontroller send information through the GSM module as SMS but also display the readings on the LCD

When the conditions go abnormal, the microcontroller senses those values and then alarms the people around by blowing the alarm and also by sending an urgency SMS. The functioning of Heart Beat device is based on the truth that the blood circulates for every heartbeat that can be sensed by using a circuit formed by the combination of a LDR and LED. Depending upon the rate of circulation of blood the heart beat rate per minute is calculated. This calculated value is communicated to the remote person through a GSM modem interfaced to it.

*Report Edited by: Pinak K. Gajjar, Team GTU Innovation.*

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