

# GTU INNOVATION COUNCIL

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## Udisha Club

B. H. Gardi college of Engineering & Technology, Rajkot

(member of GTU Innovation Sankul, Jamnagar)

### *Campus Activity Report of October – 2012*

*Udisha club is inviting experts from industries, public organizations, academia every week for every branch and ensuring the students and faculties make the best out of it*

**Activity:** Expert talk on Innovation's Holy Grail: "Mining the Minds of the Mass at GTU Innovation Council lead by Technology students at Gardi Vidyapith"

**Type:** Seminar / Expert Talk

**Speaker:** Mr. Hiranmay Mahanta (Hon. Director)  
GTU Innovation Council, Ahmedabad.  
MD, Techpedia

**Date:** 13-Oct-2012

**Venue:** Convention Centre, Gardi Vidyapith

**Participant:** All Pre-Final and Final Year Students of BHGCET



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Mr. Hiranmay Mahanta started his session with highlighting the effort, faculties and students can put together, to achieve the vision of transformation through innovation.

He brought attention to some very persistent problems in India and how whiles our technology progresses, such problems persist. For example while we have now developed technology to find water on moon, the problems of finding water in areas of Kutch, Gujarat still persist. He motivated students to innovate and solve a number of similar problems in our society. It was an session worth interacting for as shared by students and faculties who otherwise were considering innovation as a tool for only intelligent minds. While interacting with Mr. Mahanta after the session students shared that they would certainly make their best effort to take their Innovation Sankul to new height. Mr. Hiranmay shared how they could create Techpedia like national platforms from the hostel rooms of SVNIT Surat by involving young students which later on inspired for the creation of 25 GTU Innovation Sankuls. He also shared that such efforts is rare within any University Ecosystem of this size and hence GTU Innovation Council needs active support and involvement from young techies, faculties, industry persons and policymakers to make it one of its kind Innovation Ecosystem in the whole world based out of University.

## Department: EC

**Activity:** Expert talk on “Industries’ Expectations from Engineers”

**Type:** Seminar / Expert Talk

**Speaker:** Mr. S.B. Mahajani, (Manager, HR),

Amtech Electronics Pvt. Ltd., Gandhinagar

**Date:** 04-Oct-2012

**Venue:** Convention Centre, Gardi Vidyapith

Under the series titled “**Know Your Industry (KYI)**”, to make students familiar with various companies in EC field, department has arranged and organized expert seminar on “Industries’ expectations from engineers” on Oct. 4<sup>th</sup>, 2012.

The whole talk was hosted by Prof.C.D. Parmar(EC), BHGCET, Prof. R.D.Oza, (EC), BHGCET. Mr. S.B. Mahajani of Amtech Electronics, Gandhinagar was introduced to the listeners by Prof. S.B. Bhatt and Prof. R. D. Oza welcomed him with a bouquet. Students from Electrical branch were also present to attend the seminar.



Being the H.R. Manager, Mr. S.B. Mahajani , then shared his views regarding the current scenario of industries and crisis faced by them. Some of them as under :-

- Development of power electronics with comparing its history.
- Various Power electronics components like IGBT, Thyristor etc. And also explained about Vector Drives which is mostly used in industries now days.
- How to develop the positive attitude And what kind of attitudes students should have.

He then gave a presentation on what industry expects from an engineer. By this he also made students understand the value of right education, skill development, discipline, team work, positive attitude and many other such helpful points. Those points were really helpful to boost courage and confidence in the students.

Meanwhile wherever possible he also revealed the job opportunities in all field. Presently they have many engineers in India in various branches.

As a part of very small valedictory session, *Prof. C.D.Parmar* offered memento to the Expert.

### Department: EC

**Activity:** Group Discussion Competition

**Type:** Student Organized Activity

**Date:** 13-Oct-2012

**Venue:** Communication System Laboratory, EC Department, Gardi Vidyapith

**Judge:** *Mr. Shabbir Parmar (Asst. Prof.),*

DHS Department, Gardi Vidyapith

**Participants:** Students of 3<sup>rd</sup> Semester EC Department



Under the guidance of EC department teachers and *Prof. Shabbir Parmar* two Students of 3<sup>rd</sup> EC 2011 batch *NATHWANI AVANI and DOSHI PARAS* has nicely organized a "GROUP DISCUSSION COMPETITION"

Before starting of GD competition *GHODASARA NATWAR*, the student of 3<sup>rd</sup> Sem MCA has guided all the class about Group Discussion and the necessary points required to crack GD competition. After this information GD competition initiated by event organizers.

The information Regarding The GROUP DISCUSSION COMPETITION is as per follows.

- 7 total Groups with 9 students each.
- 10 GD topics was already displayed before 2 hours and from that topics each group is given one topic randomly.
- RULES : 10 minutes for GD for each group. Time divided as follows.
  - 1 minute to think and write points to discuss
  - 8 minutes for Group Discussion.
  - 1 Minute to conclude the discussion.
- The best one or two performers from each group were selected for final GD round by judge.
- The final round was of 15 minutes and the best performers are given 1<sup>st</sup> , 2<sup>nd</sup> and 3<sup>rd</sup> runner-ups.
- Winner students were awarded with certificates as an encouragement to their best performance.
- Also SOA organizer students were awarded with certificates for their best efforts for organizing and conducting GD competition in the best possible way.

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Winner : Chovatiya Hardik  
1st Runner-up : Pandya Nisarg  
2nd Runner-up : Chauhan Sagar , Davada Divyesh



As this was the first GD competition for 3rd EC students, some of the students faced some problem to speak in front of group. But the goal of this event is to realize the students about their ability and efficiency to speak in English and to represent their views in front of the mass.

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This GD competition has tried to remove the stage fear of the students as well as students have found their faults. The goal was satisfied and students are so much encouraged to speak as well as improve themselves in communication area.

**Department: EC**

**Activity:** 3-Days Workshop on “MATLAB R2010a”

**Type:** Workshop

**Speaker:**

**(1) Prof. Jaimin Bhalani (Asso. Prof.)**

EC Department, CIT Changa

**(2) Prof. Dharmendra Chauhan (Asst. Prof.)**

EC Department, CIT Changa

**Date:** 18-Oct-2012 to 20-Oct-2012

**Venue:** Classroom No - 2, Department of MCA, Gardi Vidyapith

Now-a-days it is impossible to carry out research without efficient use of computer. MATLAB is very effective tools for doing complex and lengthy mathematical calculations and solving difficult problem as well. This Workshop is intended to provide an Opportunity to ME(EC) students at B.H.GARDI ENGINEERING COLLEGE to become familiar with this Scientific Software and be able to use them effectively in their respective fields of digital signal processing, Statistical signal analysis and information theory and coding. To satisfy departmental objective that is to make the students be skilled with the all MATLAB tools, EC department has organized 3 days hands on workshop on “MATLAB”, for students of ME 1<sup>st</sup> Semester, EC department.





**Department: EC**

**Activity:** Soldering Competition

**Type:** Student Organized Activity

**Date:** 20-Oct-2012

**Venue:** Project Laboratory, EC Department, Gardi Vidyapith

**Judge:** *Prof. Rakesh Oza (Asso. Prof.) and Mr. Prince Ladani (Research Asst.)*  
EC Department, Gardi Vidyapith

**Participants:** Students of 3<sup>rd</sup> Semester EC Department

Before starting of SOLDERING COMPETITION *Prof. Rakesh Oza* has guided all the class about Soldering competition and motivated them to have a healthy competition such that they can learn new things from this activity. After this soldering competition was initiated by event organizers.

The information Regarding the SOLDERING COMPETITION is as per follows.

- All the participants were given one circuit based on 555 IC.
- All the Participants need to draw that circuit and from a board and have to start making the circuit on the given small PCB with the soldering kit.
- All the students were given required components by the student coordinators.
- For 1 hour and 15 minutes Participants are required to make circuit.
- After time limit the participants can check their circuits working and output in the CRO available in other Laboratory. Square wave output was required at the output of 6 no. pin of 555 IC. And square wave must be varied with the change in preset value.
- Most of the participants were able to complete the circuit with their own ability of soldering.

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- Some of the students were successful in running the circuit and got required output.



Participants are actively participating and busy with soldering



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*Prof. S. B. Jadeja and Prof. Rakesh Oza taking a round to observe working of participants*



*Prof. Rakesh Oza sharing the positive points of event and motivating them to enhance their skills*

*Prof. S. B. Jadeja appreciating Student's enthusiasm, work done by student coordinators and motivating for more successful events*

## Department: EC

**Activity:** Expert talk on "RF Planning"

**Type:** Seminar / Expert Talk

**Speaker:** Mr. Avinash Aithal (Manager),

Network Planning Dept., IDEA Cellular Ltd.

**Date:** 20-Oct-2012 (10:00 AM to 01:00 PM)

**Venue:** Class 2, Main Engg. Building, Gardi Vidyapith

Wireless Communication – being a very important subject for the Electronics and Communication students, the department had arranged the session in which, *Mr. Avinash Aithal*, Manager in Network Planning Dept., delivered his talk on the RF frequency planning, Frequency Reusing, the parameters for the Site Selection of the towers to provide maximum coverage to the customers, the Shadowing Effect, Fresnel Field Effects, the software which is being used by the Cellular Companies to meet the requirements of the Site Planning, Frequency Hopping (Synthesizer, baseband mode), the different Algorithms used for the Data Encryption and Protection (A5, A8).

As the session proceeded, he gave the students more information about the new technologies which are being used now a day by almost all the service providers to serve the customers. Students came to know how to do the Site Selection and which are the parameters which are needed to be kept in mind for the good communication, how to protect the data from the different interferences and so on.



*Mr. Avinash Aithal* discussing recent trends in RF planning with the students

The positive response from all the students towards such sessions inspires us more to do such activities for them and to make more efforts to make students, the skillful engineers.

The session rested with the small ceremony of giving a Vote of Thanks to the expert along with bouquet and memento as the token of love and honor to *Mr. Avinash Aithal*, by *Prof. M.P.Patel* on the behalf of the entire Electronics & Communication Department.

**Department: EC**

**Activity:** Expert talk on “Recent Trends in GSM Architecture”

**Type:** Seminar / Expert Talk

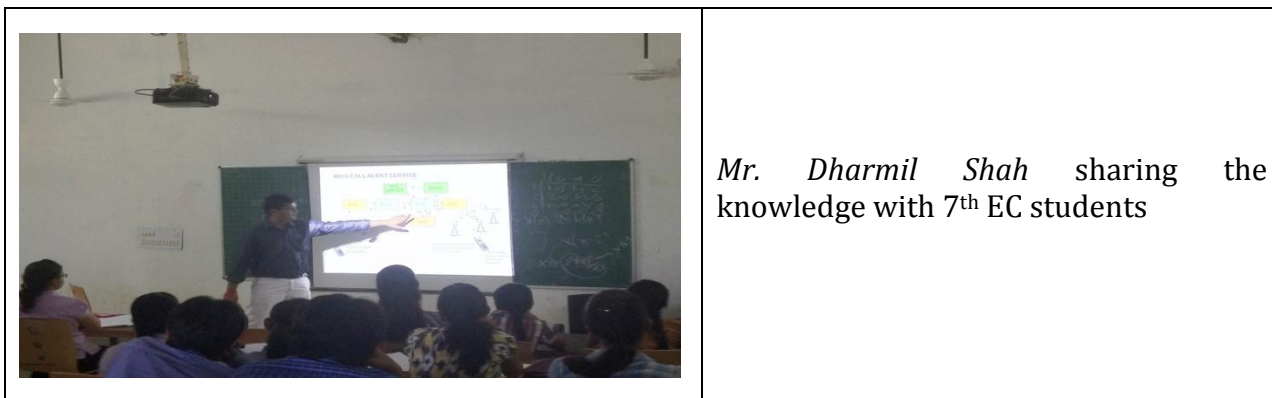
**Speaker:** *Mr. Dharmil Shah (Manager),*  
Network Switching, IDEA Cellular Ltd.

**Date:** 20-Oct-2012 (02:00 PM to 05:00 PM)

**Venue:** Class 2, Main Engg. Building, Gardi Vidyapith

Wireless Communication – being a very important subject for the Electronics and Communication students, the department had arranged the session in which, *Mr. Dharmil Shah*, Manager in Network Switching, delivered his talk on the GSM Architecture (MS, BTS, BSC, MSC, NSS), the different Control and Logical Channels which are being used in the GSM Architecture (RACH, AGCH, SDCCH, SACCH, FACCH, PCH, BCCH) and also satisfactorily answered all the queries asked by the students about the world wide GSM technology, the bands used GSM, the time frames, and the different interfaces in the network (Air interface, A-BIS interface, A interface).

As the session proceeded, he gave the students more information about the newer networks which are being used now a day by almost all the service providers to serve the customers. Students came to know about the difference between the network topology being used in the earlier days of the technology and the latest technology which we are using today; for example: the MSC which was considered as the single unit in the earlier days is now divided in MSS & MGW units so as to build the network as per the requirement in the particular area.



The positive response from all the students towards such sessions inspires us more to do such activities for them and to make more efforts to make students, the skillful engineers.

The session rested with the small ceremony of giving a Vote of Thanks to the expert along with bouquet and memento as the token of love and honor to *Mr. Dharmil Shah*, by *Prof.M.P.Patel* on the behalf of the entire Electronics & Communication Department.

**Department: CSE/IT**

**Activity:** Expert talk on “*Distributed Database and Application System*”

**Type:** Seminar / Expert Talk

**Speaker:** *Prof. Mehul Parikh (Asso. Prof. )*

Government Engineering College, Modasa.

**Date:** 25-Oct-2012

**Venue:** Class room No.6, Main Engg. Building, Gardi Vidyapith

**Participants:** 7<sup>th</sup> Semester IT Students

The Primary aim of this Expert Talk organized by IT Department of B H Gardi College of Engineering and technology is to bring technical knowledge across the state/country up to the speed with the latest developer’s tools & technology that are currently being used by IT field. This Expert talk is planned and schedule to address

Topics covered:-

1. Introduction of Distributed Database
2. Different models of Distributed database
3. Vertical and Horizontal Fragmentation Techniques
4. Case study
5. Query Processing



*Prof. Mehul Parikh* has explained the topics in depth with illustrations, which helps students to understand the topics in a great way.

**Department: ELECTRICAL**

**Activity:** Expert talk on “32-bit Microcontroller”

**Type:** Seminar / Expert Talk

**Speaker:** *Prof. Janak J. Patel (Prof.)*  
NIT Surat.

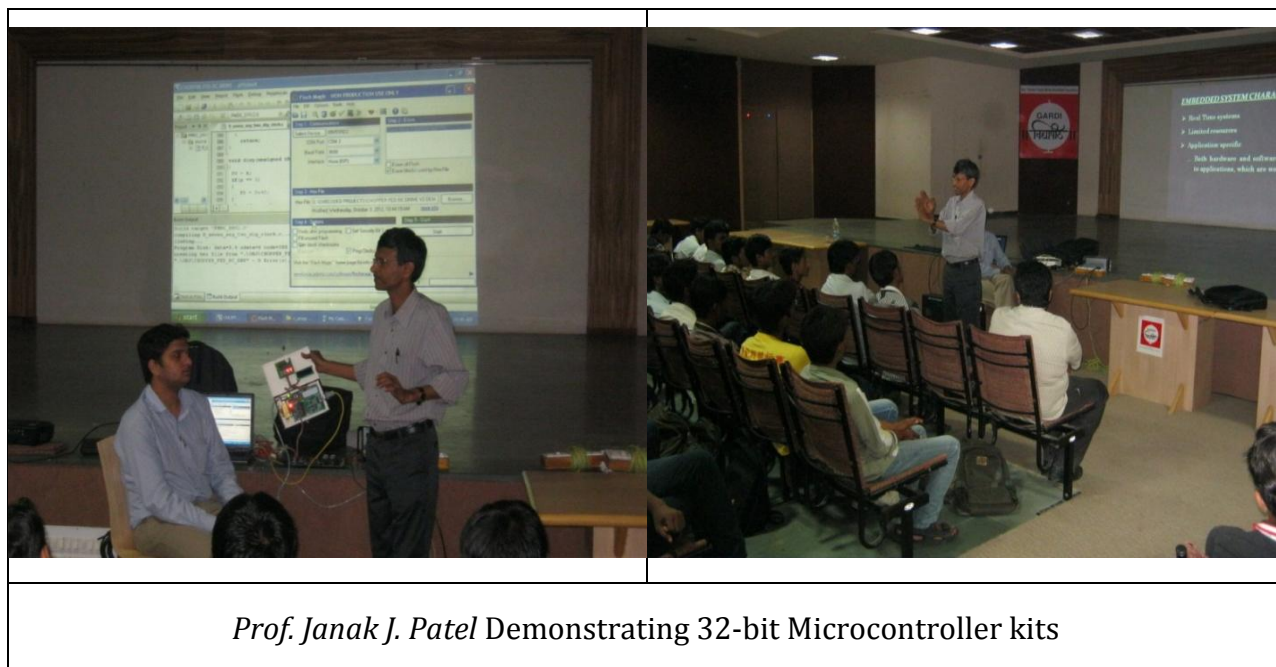
**Date:** 03-Oct-2012

**Venue:** Convention Centre, Gardi Vidyapith

At the start of the session, he discussed brief about the “32-bit Microcontroller” followed by the functional diagram. He also explained advantages of “32-bit Microcontroller” over the “8-bit Microcontroller”. He showed some practical demos related to 32-bit Microcontroller kit with the brief explanation of Programming in each step that “how the Program is execute”.

Following Topics are discussed:

1. History of Microcontroller
2. What is 32-bit Microcontroller
3. Technical aspects of 32-bit Microcontroller
4. Industrial application of Microcontroller
5. Use of controller in day to day life
6. Demonstrations of 32-bit Microcontroller kits
7. Doubt solving session



Prof. Janak J. Patel Demonstrating 32-bit Microcontroller kits

**Department: ELECTRICAL**

**Activity:** Expert talk on “Power System”

**Type:** Seminar / Expert Talk

**Speaker:** Prof. Naran Pindhariya (Asst. Prof.)  
IIT, Gandhinagar.

**Date:** 05-Oct-2012

**Venue:** Convention Centre, Gardi Vidyapith

At the start of the session, He discussed about the Current Scenario of the Power System and what's new is going in the field of the power system and followed by the simple concept of Micro and Smart Grid and recent trends in non-conventional energy source like Solar, Wind and of renewable Energy sources.

Following Topics are discussed:

1. What is power system?
2. Current scenario of Indian power system.
3. Through discussion on all types of Grid Patterns
4. What is Micro and Smart Grid ?

5. Pros and Cons of Present power system
6. Future modification in present power system



*Prof. Naran Pindhariya delivering expert talk on “Power System”*

**Department: CIVIL**

**Activity :** Industrial Tour @ Rajpath Siesta, Rajkot

**Type :** Industrial Visit

**Date :** 28-Oct-2012

**Venue:** "Rajpath Siesta",  
Near Gondal Chokdi,  
Rajkot.

Civil engineering for 1st sem students visited a site of 'Raj path siesta' (A residential and commercial buildings with 12 high rise tower spread over 15 acre land area) near Gondal chokdi, Rajkot. All the students enjoyed a lot.



They observed a live demonstration of slab casting and other activities like masonry work, plaster work, finishing stage work etc. At the end the owner has arranged one technical questionnaires session with students.

The students have asked so many questions related to site such as labour safety, working hours of the labours, builder's duties towards labours and customers, materials purchase and their present rates and related to building bye-laws.



They have also discussed related to the payment conditions along with bank loan documents information and so many other fruit full questions. The hospitality served by owner and their project team was really good. The visit has enhanced practical knowledge of the students and gave the new visionary approach towards the field work.

## Department: MECH

**Activity:** ASME Student Section Activity Report

**Type:** Student Organized Activity

- The ASME student section was opened for the first time in Saurashtra region in B.H. GARDI COLLEGE OF ENGINEERING AND TECHNOLOGY on NOVEMBER 2012 with 32 ASME MEMBERS and 9 student members attended the SLS/SPDC 2012 which took place at IIT ROORKEE and got a direction to lead and channel the ASME student section further. Also got opportunity to network with industrialist and section leaders.
- This year the BHGCET student section will be participating in SDC 2013.
- Then we were successfully able to open new student section at GCET College, VALLABH VIDHYANAGAR, with 28 members.
- ASME BHGCET was successfully able to organize regional level technical event MECHSEPT'12 which included two Workshops, Seminar, and Three Technical competitions.
- As it was organized for the first time the registrations were kept free and the whole budget of the event was provided by the college management.
- The student section successfully started the social activity which collected the funding of Rs. 22,270 and collection of 200 pair clothes willingly by all the students and faculties of the college
- After the opening of student section the networking and awareness between all semester students has been increased and helped to be in constant touch with all of them.
- We had arranged pro-e competitions for the student members and due to competition the skills of the student members developed.
- BHGCET student section has arranged workshop for the other student section.
- From college our In-charge Principal, *Prof.S.B.Jadeja*, ASME student section Advisor *Prof. Nirav Doshi*, student section co-chair person *Mr. Jigesh Patel* and treasurer for ASME

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Mr. Nishant Trivedi were attended the ASME India Leadership Conference at India Habitat Centre- New Delhi in October, 2012.



7<sup>th</sup> Mechanical Student *Nishant Trivedi* doing Handshake with *Miss. Marian Heller*, Senior Program Manager ASME



Prof. S B. Jadeja with ASME President Mr. Mark Goldsmith



Gardi Vidyapith's ASME Team Members with ASME Staff Team  
(1) *Madhukar Sharma*, Country Manager – India  
(2) *Marian Heller*, Senior Program Manager