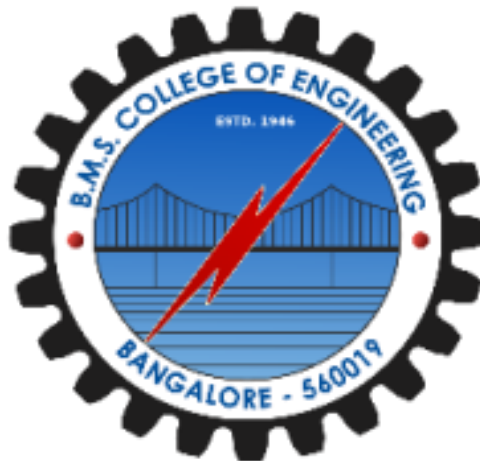


BMS COLLEGE OF ENGINEERING
(Autonomous college under VTU)

**DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION ENGINEERING**



PHASESHIFT 2016

BUOYANT (EVENT)

Date: 23rd September, 2016

Venue: IT Class Room, PG Block, BMSCE

No. of participants: 32

Faculty coordinators: Preethi K Mane, Dr Santhosh Desai

Student coordinators: Ashwin, Sandeep.

OBJECTIVE: To keep objects made of thermocol and card board floating and be able

To move through a given path(water).

OUTCOMES:

1. Understand effective principles in design and construction of the ship to make it float.
2. Use of motors for locomotion.

BRIEF DESCRIPTION:

This Event was conducted in IT Class room on 23-9-2016 from 11am to 4.00pm. A water path was built in the class room using cement bricks got from civil Engineering department and tarpaulin sponsored by start adders. Around 32 students participated in the event. The student worked on thermocol material to make different design of boats. First the Buoyancy of the design was checked and later on DC motors and associated boards were added and the ability of the boats to move from start to finish was checked before including the finished product in the final competition. The final round was judged by Dr

Aralimatti, Dean PG studies and Prof Madhuchand , HOD, Architecture. The teams were rated according buoyancy, aesthetics and speed of the boat to go to finish –fastest. The first Prize went to team from BIT College (EIE) and second prize went to team from BMSCE (TC& ML).The event had about 50%



participation from other department and college. The remainin

g 50% of the students comprised of third year and first year students from EIE department.

Problems faced:

1. Materials needed to make the water way.
2. Construction of the path way.



IOT TECHNIQUES AND IMPLEMENTATION USING ARDUINO ASSOCIATION WITH FIVETRON TECHNOLOGIES

Dates: 23rd to 24th September, 2016

Venue: EEE DSP Lab, PG Block, BMSCE

No. of participants: 28

Faculty coordinators: Ajay Kumar D, Namratha S.N

Student coordinators: Sarika J, prithvi D.

Objective:-IoT applications using sensors. using IoT technologies to improve industrial requirement , innovation in IoT Will lead transformation across industries and society, and enable change at a global scale, with specialized focus on the areas of industries, media, IT, and networks. To learn how IOT it is useful in social cause like using connectivity to address poverty, human rights and climate change.

Outcome:__students will be able to understand the IoT concepts, architecture and also will learn to implement basic program and interfacing sensors on IoT platform and do other applications using Arduino hardware kit.

DAY-1 (23.09.16) Workshop on IoT:-

On the Day 1, discussion was mainly on introduction to IoT, its trend, applications of the same in household, industries, medical, education and so on.

The discussion started on time as the resource persons and the participants both were actively present at the venue all excited about the workshop. The coordinators gave a hearty welcome to the resource persons one by one as they came on to the podium as the sessions progressed.

The first and foremost speaker was Srinivas Prasad who gave a very interesting introduction to "Internet of Things" in today's world. He explained how the technology has evolved over the period of time and that we have entered this era of IoT. Then, he talked about more concepts like cloud computing and the challenges or issues faced by IoT

Then, Viveka Sir shared his intellect about in depth knowledge on the architecture of IoT, its components and structure. He introduced all the participants to the 'Induino R5 board' ,Complete understanding of sensors and Vijai hosted a Lab session taught us how to learn basics and how to code to see few applications like blinking the LED, generating colors using RGB LED and so on.

To conclude, the day 1 was very interactive and informative which filled in the enthusiasm in everyone for the next day!

DAY-2 (24.09.16) DEMO + EVENT:-

As the Day 2 commenced, all the participants were all pumped up about the event. Looking at their faces, you can see how prepared they were about it. As Narayan Prakash Sir took over the podium, he started explaining about cloud, its structure, applications, advantages and risks, safety, etc. We were all shocked by how little we know about this amazing technology and looking at its wide applications fascinated us. Then, there was a demo Lab session conducted by Bharath Raj sir on Cloud regarding how to create a cloud and examples of programs to implement in cloud also taught us Bluetooth Hardware Interfacing or Receiver Transmitter interfacing or Wi-Fi Module interfacing with Arduino. Viswanath taught about how to Store data and sending data on IoT Cloud Platform Cloud interfacing with Arduino and learnt a bit about big data and analytics.



Now, the time had come for everyone to show their skills. All participants were grouped in teams and there was a small task given to everyone which had a time limit of 1 hour. All the teams were supposed to execute the program by creating their own logic. Everyone in the team started planning as to how efficiently they can complete the task. As the event started, all teams started analyzing the task. Soon, we had our first winners Team1 Samartha, Rakesh, Nikhil Srinivas, Rahul from MECH/CS/ML/EIE departments they got prize money of 2000 Rs. After sometime, we had Team 2 who were Runners up from EIE department Akshata & Radhika they got prize money of 1000 Rs.



The best part was that all remaining teams gave every ounce of blood to the task and finished the task. The time had come to give the prize money

and certificates. All the participants awarded with the certificates by the resource persons and were

parted with a thankful note for making this event a success!

SENSOR TO CLOUD CONNECTIVITY

Type of the Event: BMSCE Exclusive, No. of Participants: 40

Duration: Two days, First Day training, followed by a competition on second day

Outcome: Internship for the winner

Department of Electronics and Instrumentation conducted an event by name “**Sensor to cloud connectivity**”, for phaseshift-2016, under coordination of Dr. Veena.Hegde (faculty coordinator for the event). Along with her Ms.Neha M(5th sem,EI), Mr. Ajay Kumar(5th sem,EI), Ms.Chandana(3rd sem,EI), Mr.Chandan (1st sem,EI) and Mr. Karthik Gunalan(5th sem, EI) helped her to coordinate the event . On the first day of Phase Shift, that is 23rd September 2016, Dr. Sunil Shah along with his team of six members reached BMSCE, and started preparations for the event getting Roomba kits, an IOT enabled robot, sensors etc. The cloud was facilitated by SUNLUX, the collaborating industry and WiFi routers were provided by BMSCE.

The workshop was conducted as per the plan and at the end of the workshop the participants were given a problem statement, for which they had to arrive at a solution by developing a control logic to move the robot. The image processing algorithm was proposed by the industry to identify the object, with certain obstacles. The algorithm was implemented using Python and java programming. The participants were given a night’s time for coding. The mentors were assigned to each group and if any group found any difficulties, they were supported by their mentors that they could plan and execute the task properly. On the second day of Phase shift, that is 24th September 2016, teams were given two trials so as to test the outcomes of the task. Out of the four teams that had participated to finals, team-4 was recognized as the best in the overall judging and were offered an internship by Mr.Ram Kerur(CEO of Sunlux technologies pvt,ltd.,). The respective resource people were given honorariums and mementos for conducting the event. The event was successfully conducted and executed



Resource person demonstrating how to interface robot to cloud



Participants testing their algorithms with Roomba kits



Winners getting an internship offer
Divyashree(EC),Divya(EC),Monika(EC),Sushmitha(ISE),Namratha(ISE)

PROJECT DISPLAY ON HOME AUTOMATION

Duration of the event: 1 day (23/9/16)

Outcome of the event: Project display by student Groups

(1st prize - Rs. 3,000 and 2nd prize - Rs. 2,000)

Response-Faculty, Students, Industry trainers; exhibitors and Alumni

The Department of Electronics and Instrumentation conducted an event called "Project Display on Home Automation" for PhaseShift-2016. The event was conducted on 23/9/16 for about 3 hours in the project lab under the coordination of Dr. Veena Hegde who was the faculty coordinator of the event with the help of the event coordinators Chetna B.R (5th SEM) and Maria Shruthi (5th SEM).

Overall response is very Good

Experience-Learning & Challenges (three each)

1. Innovative Ideas in project implementation
2. Completeness of project
3. Presentation of a project

Impact in general and department in particular

Outcome: Resource person is ready to conduct sessions on how to bring an idea into a product

The jury and sponsor for the event was an eminent resource person **Mr. Kishan Vemuri** from the industry "ASSOCIATION WITH TRIZ AND TECHNICAL INNOVATION (ATTI)".

The objective of the event was to enable students to demonstrate the working models of simple applications of Home Automation. Participants (in teams of 3-4) were judged based on their use of sensors and IOT devices and creativity, innovation and presentation skills. The winners of this event were a group of **4 from Mechanical Department of BMSCE (Adarsh, Ashish, Ashutosh & Hanamant) who were given a prize money of Rs. 3,000/-**.

We also had the privilege of listening to a talk based on IOT and Innovation delivered by Mr. Kishan. As a token of gratitude for the talk, sponsorship and judgement of event, our department presented a small memento to our resource person.



Event banner



Dr.Kishan.Vemuri receiving memento

PROJECT DISPLAY ON HOME AUTOMATION

Objective: This event was intended, for students who are new to android programming and want to learn how to build Android apps.

Dates: 23rd to 24th September, 2016

Faculty Coordinator: Dr. Santosh R. Desai, Prof. Preeti k. Mane, Prof. S. Kumuda

Student Coordinator: Anusha & Sanjana

No of Participants: 13 teams (33)

First prize winner (₹ 3000/-) : Rakshita B. Jain, Pallavi P. Kumar , Prasanna L S (East West Institute of Technology)

Second prize winner (₹ 2000/-) : Hariharan, Harshita (MVJ College of Engineering)

Venue : Computer Lab, E& I Dept.

Day1 : On the first day the participants were taken through the process of making Android apps. The session included the essentials for Android app development such as Creating an Android Project, Running the Application, Building a Simple User Interface, Starting Another Activity. Further, how to build an app with alternative resources, Supporting Different Screens, Supporting Different Platform Versions were discussed. Later in the day, procedure to build a user interface for an app that is flexible enough to present multiple User Interface (UI) components on large screens and a more constrained set of UI components on smaller screens—

essential for building APK for mobile phones was dealt with using examples.

Day2 : On the second day the students were given some objective and suitable instructions and tips were given to attain the said objective. At the end of the event, the teams were able to build simple apps that can be shared with their friends.

Outcome: The event will help the students to take the first step on their journey to become an Android developer!. The prerequisites are that, the participants should be aware of using a smartphone to surf the web, chat with friends etc. and programming knowledge. They need not have Java programming experience to attend this event. If they are aware of android software, then it is an added advantage.

A total of 13 teams belonging to various colleges viz. East west Institute of Technology, M V J College of Engg., P E S Institute of Technology, B N M Institute of Technology etc had registered for the event. The winners were selected on the basis of the functionality, User Interface and added features like text to speech etc. The best app developer teams were shortlisted and then filtered to recognize the first and second prize winners. Certificates were also distributed to all the participants of the event.

First Prize Distribution:	Second Prize Distribution:
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**Rakshita B. Jain, Pallavi P. Kumar ,
Prasanna L S(East West Institute of
Technology)**



**Hariharan, Harshita
(MVJ College of Engineering)**