



B.M.S COLLEGE OF ENGINEERING
DEPARTMENT OF MEDICAL ELECTRONICS

Report on Phase shift 2018

Events:

Hands on Workshops:

1. GEOSPATIAL WORLD
2. BEYOND THE SKIES

Technical Events

1. SANE IN SPACE
2. TECHNO TEASER

Sponsors'



OPENLab

Pro

STUDENT COORDINATORS

1. AMALA V LAWRENCE
2. DIVYA BHARATHI SR
3. Shirley Kannan

FACULTY COORDINATOR

BEYOND THE SKIES WORKSHOP REPORT

EVENT DESCRIPTION

The glorious night sky is composed of various celestial bodies. On deeper introspection, they reveal fascinating worlds of their own. Have you always wondered what those marvellous objects look like through a telescope? Well this is the workshop you have been looking for! Don't limit yourself to the skies when there is a whole galaxy out there! Learn how to explore the universe with a handmade telescope. Star-gaze, watch and admire the beauty of the night sky with a pinch of science!

CONDUCTION OF THE EVENT

The event was conducted by Dr.Raveesha.KH on 15th September,2018 .He has conducted several such workshops for underprivileged kids and in several other colleges. The event started off with basic introduction to telescopes and using them for sky observation. This was followed by making of the telescope, which was conducted very smoothly and efficiently by Dr.Raveesha.KH.Participants were able to keep up with the step by step demonstration by him and enthusiastically reproduced the said steps to make a telescope of their own. The telescopes were made by the participants in about 15 minutes and all the participants were successful. This was followed by using the made telescope to observe sky.

Completion of the event & effectiveness:

- The event completed successfully with the participants being able to gain some ideas regarding telescopes and celestial objects.
- Their implementation of the making of telescope, showed that they were very clear on the concepts and grasped the given information very well.
- The Workshop was very interactive and one on one attention was given to all the groups by Dr.Raveesha.KH.
- The participants were extremely enthusiastic throughout the workshop.

Event Outcomes:

- The participants were able to get hands on experience on making a basic telescope from scratch.
- The participants were able to understand the proper concept of building a telescope and knowing the celestial objects and how to use the made telescope for observation of celestial bodies .

Dr.Raveesha.K.H briefing the participants on basics of telescopes.



Participants using the telescopes made by them to observe the sky under the guidance of Dr.Raveesha.K.H :



Faculty members and students responsible for the successful completion of the event :



PO's addressed :

- PO1 – The participants were able to apply the knowledge of science, mathematics to bring solutions to the topic provided.

- PO2 – They were able to identify & analyse the topic given & bring in suitable solutions for it.
- PO6 – They were able to understand the health & safety issues .
- PO7 – They were able to understand environmental considerations & sustainable engineering.
- PO8 – They were able to understand professional ethics in regard to the topic provided .
- PO9 – They were able to function effectively as an individual & as a team.
- PO10 – They were able to communicate effectively in front of an audience .

TECHNO TEASER: EVENT REPORT

Event Coordinators: Ashmita Deb

Sharadhi U Bharadwaj

Faculty Coordinator: Mrs. R Kalpana

Date of event: 15.09.2018

This was a circuit building event where teams of two had to build a proximity sensor. The components were provided by the department laboratory. The event got a total of 6 team registrations.

The event consisted of two rounds. The first round was a crossword puzzle based on space systems. This was conducted in classroom ML5001 and the participating teams were given 20 minutes. Out of the 5 teams that took part, 3 teams qualified to the second round. In the second round, the participants were given a problem statement, the answer to which was a 'proximity sensor'. The participating teams were allowed to use the internet for 20 minutes to obtain a circuit diagram and then were moved to the analog laboratory to build their own proximity sensors. The second round was judged by the department HoD, Dr. S.B. Bhanu Prashanth.

The winning team were third year students from BMS College of Engineering. Their prize money was INR 1000. The team that placed second was from first year, winning a prize money of INR 500.



Report- Sane In Space

EVENT DESCRIPTION

Humans, are bound to exhaust the earth's resources as we know it. We may hit the apocalypse sooner than predicted, and when we do, we need to be ready.

NASA powered up the Orion Spacecraft, bringing renewed attention to a new and exciting era of space exploration – a human mission to Mars.

Now we want you to come up with the solution. How are we as a race, to survive on Mars?

If we were to finally colonize the planet, how would we thrive there, with the ease and simplicity of thriving on Earth?

Tell us, and we'll tell the world why your idea is a game changer.

The sky has never been the limit.

And so, we will aim to build our future on Mars.

No of Registrations : 8 Teams (team of 3)

24 students

No of students participated: 3 teams

Resource Person: Mr. Kumar Sundaresan.

Event Outcomes:

1. The participants were able to present their ideas on how they will make mars suitable for living.
2. The participants were able to understand the proper concept of space & space systems.

Completion of the event & effectiveness :

- The event completed successfully with the participants being able to project their ideas & explain their concepts to the judges.
- Their ideas & presentations showed that they were very clear on the concepts & presented them in an effective manner.



POs addressed:

- PO1 – The participants were able to apply the knowledge of science, mathematics to bring solutions to the topic provided.
- PO2 – They were able to identify & analyse the topic given & bring in suitable solutions for it.
- PO6 – They were able to understand the health & safety issues .
- PO7 – They were able to understand environmental considerations & sustainable engineering.
- PO8 – They were able to understand professional ethics in regard to the topic provided .
- PO9 – They were able to function effectively as an individual & as a team.
- PO10 – They were able to communicate effectively in front of an audience .

Report on GEOSPATIAL WORLD (WORKSHOP)

DATE: 16th September

CONDUCTED BY: MR.NIYAS S

VENUE: MEDICAL ELECTRONICS COMPUTER LAB

TIMINGS: 9AM – 4PM

NO. OF PARTICIPANTS-39

EVENT COORDINATOR: ANANYA KAMATH

CHANDANA PRIYA

FACULTY COORDINATOR : DR. MANISHA JOSHI

ABOUT THE WORKSHOP

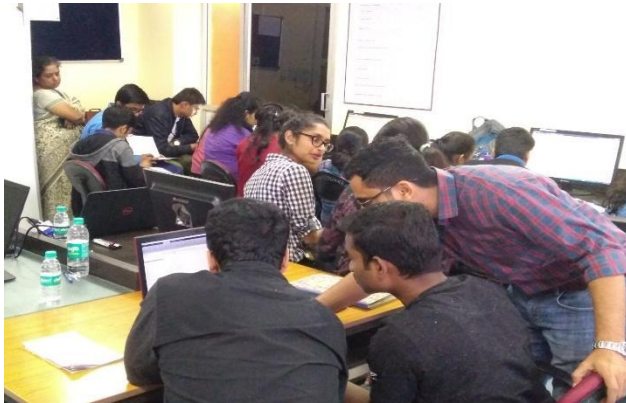
Geospatial world is a satellite image processing and pattern recognition hands-on workshop conducted by Mr.Niyas S, a researcher and developer in image processing and computer vision algorithms. The workshop included working on software such as MATLAB.

The workshop was held on the 16th of September. The workshop started at 9:30 AM with a brief introduction about basics of Image Processing followed by the provision of codes for beginners image processing. After a great interaction between the participants and the speaker, each of them were allowed to run the code in their respective systems and check the simulation of the codes.

A brief intermission was given at 12:30 pm where the participants were allowed to visit the stalls around the campus followed by lunch.

The second session began at 1:15 PM with more insights into image processing about its various applications in the modern world and the scope for it at present and the near future.

The workshop had a turn out of 39 participants from various colleges across Bangalore. The workshop was concluded by acknowledging the speaker followed by a vote of thanks by the HOD.



PROGRAMME OUTCOMES ADDRESSED:

- **PO1-** The workshop helped us to analyse complex engineering problems by applying the knowledge of mathematics, science and engineering fundamentals.
- **PO3 -** It also helped us to design solutions for complex engineering problems or processes that meet the specified needs with appropriate consideration for the public health and environmental considerations.
- **PO5-** As the workshop was mostly conducted using the software MATLAB , there was modern engineering and IT tool usage . Including prediction and modelling to complex engineering activities with an understanding of its limitations
- **PO12-** An ability to recognize the need for and have the preparation and to engage in independent and lifelong learning in the broadest context of technological change.

Exhibition Stall - 3 best UG projects of year 2017 and few UG and PG projects were displayed in stall. These projects were based on prototype developed for diabetic neuropathy detection, virtual bioinstrumentation, android app developed for speech therapy.

