

## **A 3-day Workshop on 'Creative Thinking, Innovation and Problem-Solving'**

The Tomorrow's Engineers Club organized a three-day workshop on 'Creative Thinking, Innovation and Problem-Solving', from 23.8.2018 to 25.8.2018, at Seminar Hall 4, for a group of 85 participants.

### **A Brief Account of the Workshop:**

#### **Day 1 (23.8.2018):**

The workshop started with an inspirational talk by Dr. Nagaraj Sitaram, Principal, MVJCE and Dr. P Giridhara Reddy, Professor & Dean, MVJCE. The importance of creativity and innovation in solving various societal problems was explained to students. 85 students from various Engineering disciplines participated in this workshop.

The Facilitators for the 1<sup>st</sup> day of the workshop were Prof. Ravikanth Talluri (HOD, Dept. of Civil Engineering), Prof. Muralidhara R (Associate Professor, Dept. of Civil Engineering), Prof. Rakesha Sharma (Assistant Professor, Dept. of Mechanical Engineering), Prof. Naem Ahmed (Assistant Professor, Dept. of Electronics and Communication Engineering), Prof. G L Chandrashekhar (Assistant Professor, Dept. of Mechanical Engineering) and Prof. Sanchari Saha (HOD, Dept. of Information Science Engineering).

The session started with a brief introduction of the workshop by Prof. Ravikanth Talluri. Following that, Prof. Rakesha Sharma and Prof. Naem Ahmed highlighted the role of engineers in solving the various societal problems. Prof. Muralidhara R given a brief outline on creative thinking, innovation and problem-solving process. A lecture on 'Awareness on analytical and creative thinking skills' was delivered by Prof. G L Chandrashekhar. 13 teams with interdisciplinary participants were formed, and all these teams presented the open-ended problems identified by them.



A 3-day workshop on 'Creative Thinking, Innovation & Problem Solving' by Tomorrow's Engineers Club - Day 1\_ 23.8.18: Team members presenting problem statement.

## Day 2 (24.8.2018):

The Facilitators for the 2<sup>nd</sup> day of the workshop were Prof. Muralidhara R (Associate Professor, Dept. of Civil Engineering), Prof. Srinivasan D (Associate Professor, Dept. of Aeronautical Engineering), Prof. Keerthi Pai (Assistant Professor, Dept. of Chemical Engineering) & Prof. Sanchari Saha (HOD, Dept. of Information Science Engineering).

The second day of the workshop started with a session on the importance of thinking out-of-the-box, by Prof. Muralidhara R. This was followed by a brainstorming session on identification of issues around us, by Prof. Keerthi Pai. Through these sessions, the participants understood the importance of a systematic approach for solving a problem. Prof. Srinivasan D illustrated how to set an objective and an action plan, to convert the proposed idea into implementation, and finally create a market ready product. Prof. Sanchari Saha explained the importance of team work and the need for acknowledging and appreciating the creativity and ideas of others. After this, the teams presented their solution idea for the chosen open-ended problem.

### The ideas presented by the 13 teams were:

- Team I - Heart Attack detection System
- Team II – Waste management
- Team III - Smart Helmet
- Team IV - Smart Vehicle safety system
- Team V - Braille Book
- Team VI - Solar amphibious vehicle
- Team VII - Kid E-track
- Team VIII - Smart Farming
- Team IX - Blind man's walking stick
- Team X - Organic sensor
- Team XI - Smog detection and removal, using drone
- Team XII - Smartect automation and security, using IoT
- Team XIII - AI based segmentation and classification of brain tumour



A 3-day workshop on 'Creative Thinking, Innovation & Problem Solving' by Tomorrow's Engineers Club - Day 2\_24.8.18: Team members presenting proposed solution.

### Day 3 (25.8.2018):

The Facilitators for the 3<sup>rd</sup> day of the workshop were Prof. Kavyashree C (Assistant Professor, Dept. of Computer Science Engineering), and Prof. Sanchari Saha (HOD, Dept. of Information Science Engineering).

A lecture on 'Types of stake holders and their Importance in problem-solving' was delivered by Prof. Kavyashree C. The teams were quick to identify the various stakeholders for their chosen problem, and explained the importance of those stakeholders in the context of their problem.



A 3-day workshop on 'Creative Thinking, Innovation & Problem Solving' by Tomorrow's Engineers Club - Day 3 \_25.8.18: Team members presenting stakeholders.

Finally, the workshop concluded with the distribution of certificates to all the participants. The dignitaries suggested to all the teams to implement their proposed solution and put their ideas into successful action.



A 3-day workshop on 'Creative Thinking, Innovation & Problem Solving' by Tomorrow's Engineers Club - Day 3\_25.8.18: Participants receiving certificates from Dr. Nagaraj Sitaram, Principal, MVJCE; Dr. P Giridhara Reddy, Dean, MVJCE and Prof. M Brindha, Vice Principal, MVJCE.

**Outcome of the workshop:** The participants understood the roles and responsibilities of aspiring engineers in solving societal problems. They learnt how to think out-of-the-box in identifying various societal problems and applying varied problem-solving skills for proposing solutions.