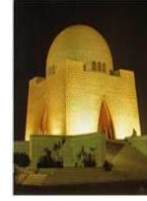


Region 10 Educational Activities Call for Proposal EA Support Fund 2018



Proposal for Educational Outreach (IEEE Science & Engineering Exhibit 2018) (REGION 10)

Name of Chapter/Section: Karachi Section, Pakistan

Name of Section Chair / Section Educational Activities Chair

Dr. Shahid Shaikh, Chair Karachi Section (shahid.shaikh@sse.habib.edu.pk)

Engr. Parkash Lohana, EA Committee Chair Karachi Section (Parkash@ieee.org)

Name of Project leader / contact person:

Engr. Parkash Lohana, Chair Education Activities Committee Karachi Section

Name of event and Type of the project to be submitted

IEEE Karachi Section Exhibit 2018 (University Student's Science and Engineering Exhibition) under the category of **an educational program University Education**

Date of event/Location of the event:

17th November, 2018 – Any centrally located hall or hotel

Objective of the event:

1. To explain and illustrate the fundamentals and applications of electrical and computer engineering to under-grad students in an interactive style and to create interest in these fields as a program of study and career path.
2. To promote the IEEE and its activities among the under-grad students and faculty
3. To create and enhance the recognition and public perception of IEEE.

Executive Summary:

IEEE Karachi Section is the only Section currently among three sections in Pakistan to kick-start first TISP Workshop in 2014.

Since then section has organized the different TISP Workshops in the different universities with different school teachers and participants, and the first section in all Sections in Pakistan to complete the first EPICS Project.

Moreover, it aims to have the awareness regarding IEEE Education Activities among pre-university, under-grad students and their faculty. This exhibition will further empower the faculty to employ STEAM learning based on innovation solving the real problems of the society.

This exhibition is mainly based on the concept to reduce the huge gap between the abstract concept of engineering and science and the real implementation so the learning engineering becomes more interesting for the students and in future they will focus on the solutions of the real world problems, particularly the use of technology for the cause of humanity.

Introduction:

This exhibition is organized to recognize the best social innovators in Karachi Section particularly and generally in Asia-Pacific. The under-grad students with drive and passion towards humanity can register for participating in this exhibition.

The relevant industry, NGOs, government officials or concern departments may also have approached to support this event.

This event will be divided into two rounds, the first round is to be held in all student branches under Karachi Section on the basis of registration.

The final round will be held in Karachi on November 17, 2018. All the student branches will be asked to prepare the prototype in alignment with some, if not all MGA goals.

The event will be one-day activity beginning with EA talks and some informative sessions around IEEE EAB and humanitarian initiatives.

Scalability and sustainability of the program

As this event is an exhibition of the engineering and science prototypes based on the social innovation challenges, the relevant industry, NGOs, and government will be the part of this exhibition and the best selected prototype will be supported by industry to convert it into a product/service and if required the government will help in making the relevant regulations, if the prototype deployable in any sector of community and for the sustainability, a board of the local community members, relevant industry and government officials to be formed to make sure the sustainability of the project for a longer period.

Following are the tentative agenda to be achieved in event:

The registered participants under the guidance of their faculty and mentorship of IEEE Karachi Section's professional members to design and develop some science and engineering prototypes (Details will be circulated later)

Educational outcomes of the program

Following two educational outcomes

1. The theoretical engineering and science concept will be understood in a better way so the students can easily grasp the concept and later may implement for solving a real world problem.
2. This will encourage the universities/educational institutions to adapt the concept of problem based learning.

Impact of the program to the participants

Following impact may create for the participants of this event.

- The gap between the abstract concepts and the implementation has become reduced and the student can better relate the theoretical science and engineering concept with real world problems.

- Interest and passion among students, faculty, and professional engineers towards use of technology for the cause of humanity.
- The interest in making the career in the design engineering may develop among the university student and their parents.

Number of participants: members/nonmembers

The EA committee of Karachi Section partnering with all student branches of Karachi Sections seeks to contribute with organizing a first ever IEEE Educational Activity in Karachi Section.

POINTS TO BE NOTED BY PARTICIPANTS (GENERAL RULES):

- Team size: Maximum of 4 members.
- Team members may come from different academic institutions and from different departments. Only the registered members of the team will be given certificates. Mentor names should also accompany the team registration.
- Teams are requested to register with their local universities / sections for the first round contest. After the selection, the winners should register for the last round held in Karachi City on November 17, 2018s. The registration process will be announced later.
- Teams are locked at the close of submissions 15 days before the first round contest, and no further changes to team membership and mentors can be made after that date.
- Each Team is solely responsible for its own cooperation and teamwork.
- The winning team is selected based on the following criteria:
 - Challenge, Innovation, Usability, and Scalability/Sustainability and Documentation.
- The team that is selected to represent its university at the IEEE Education Exhibit 2018 Finals may continue developing after the Prelims to prepare its submission to the Finals.
- An industry mentor may be provided by the organizers on request.

IMPORTANT DATES:

Registration of the Student Branches: Till 30.08.2018

Announcement of winners: Within a week of the First round contest

Registration for Finals: **Till 31.10.2018**

Finals: November 2018

VENUE FOR THE FINALS: Will be decided later