

# Annual IEEE WSA Section Awards

## General

IEEE WSA Section will organize annually engineering student's competitions. The main objective of these competitions is to encourage creativity and students participation in engineering activities. Accordingly, technology can be populated in west Saudi Arabia.

## Conditions

1. All entrants must be students of engineering during the academic year of the competition.
2. The competition is open to all engineering students at colleges and universities located in West Saudi Arabia.
3. They have read the "Student Ethics Competition Guidelines and Requirements" at [http://www.ieee.org/portal/cms\\_docs\\_iportals/iportals/aboutus/ethics/SEC\\_v2.pdf](http://www.ieee.org/portal/cms_docs_iportals/iportals/aboutus/ethics/SEC_v2.pdf) and will abide with it.
4. All submitted materials shall be the ownership of IEEE WSA section.
5. Decisions of the panel of the competition judges are final
6. IEEE WSA section reserves the right to update the competition terms and conditions.
7. Applicants must accept all terms and conditions of the competitions. By accepting them you are giving IEEE WSA Section the right to regularly update you via email about future student competitions details and arrangements.
8. The students must ensure that at all times their behavior and conduct is befitting the event and does not cause distress or harm to others.
9. Students are allowed later to participate nationally and internationally at other events using the same materials.
10. It is expected when approached by the media, the contestants make acknowledgement to IEEE WSA Section, which reserves the right to use any quotes, photos or statements of the students or other accompanying people in its publicity materials or press releases etc.
11. IEEE WSA Section reserves the right to change the date of the event and the prizes, the contestants will be notified at the earliest opportunity should this be necessary.
12. Nominations can be made as follows:
  - a) By one of the academic staff members.
  - b) Colleagues of the student.
  - c) The student himself.
13. Student nomination should be justified based on the following criteria:
  - a) The student has demonstrated that he is creative and has produced tangible results which clearly show his creativity. Institutions can rely on results from local competitions on campus, as an example.
  - b) The student has expressed himself through his interaction with his supervisors, professors and/or his colleagues, and presented ideas which can be judged as creative ideas.

### **Extra Conditions for Projects**

In case of working on projects, the following conditions are considered along with the previous conditions.

1. Teams of not less than three students can enter the competition. Senior students can not represent more than 70% of the team composition.
2. Highly recommended that teams will be from more than one department.
3. Each engineering institution is represented by only one team.
4. Teams consider a project related to one of the suggested topics. The idea must be proposed and presented before IEEE WSA Section.
5. The competition aims to encourage and reward creative, innovative and unique marketable projects.
6. Projects must be capable of being practically demonstrated.

### **Copy and Intellectual Rights**

Students should seek advice to protect their copyright and intellectual property rights.

### **First Award: Engineering Project Student Award (AESAs)**

AESA competition will be organized in a manner to become one of the most important engineering competitions in the Kingdom of Saudi Arabia. It will have one team from each academic engineering school, college, or university. The subject of the competition will be carefully selected to show that an engineering team is working together and is producing tangible results. It is thought that the project will be on one of the following topics:

- 1) Solar cells and solar energy
- 2) Wind energy
- 3) Biomedical engineering
- 4) Vehicles operated using alternative energy fuels.
- 5) Robotics
- 6) Global positioning systems
- 7) Water purification using non-chemical procedures
- 8) Arabic-language voice response system
- 9) Sensors (radiation, electromagnetic, temperature, anti-collision, etc).
- 10) Radiation fencing
- 11) Underground object detection
- 12) Remotely internet-controlled equipment
- 13) Remotely-controlled equipment

### **The Competition Materials**

The students are required to introduce a working model of their designs and to operate them before the jury. They are required to also introduce a manual of their designs containing all details of the designs so that these designs can be reproduced.

## **The Jury**

The competition submissions will be judged by a jury comprised of well-selected engineers in industry and academic professors, who are solely selected by the executive committee of IEEE WSA Section. Part of jury selection depends mainly on their profession, willingness to help building up a bright future of technology in Saudi Arabia. It is suggested that the number of jury members to be 7; 5 of them must be members of IEEE and selected by executive committee of IEEE WSA Section; while the last 2 jury members are not necessarily members of any of them but selected by other organizations. The jury focuses on the following criteria:

- a) The scientific validity of the project.
- b) The project subject is related to the suggested topics.
- c) It helps overcoming a scientific challenge
- d) It helps populating its related technology in west Saudi Arabia
- e) It serves the Saudi Arabian economy

## **The budget**

**The Awards:** The jury will award three prizes, which may be only money, valuable items, or both. Awards may vary from year to another depending on the sponsors of competitions.

**The Jury Expenses:** The members of the jury are paid for their work.

## **The Ceremony**

The ceremony of celebration can be held at anyone of the institutions in west Saudi Arabia with a prior arrangement between. The executive committee of IEEE WSA section and the institution authority.

## **Sponsorship and monetary support**

The organizing agency i.e. IEEE ( Depending on the sponsor) will provide the amount of SR 25000 for each team to meet the hardware and software requirements of the project. Each academic institution is expected to match this amount i.e. SR 25000 and to fully allow the team to use the institution facilities for the sake of the project. Upon agreement, it is understood that the institution is responsible for the team guidance for the best performance of the project.

Teams may seek additional sponsorship and support for their projects from industry, their colleges, or individuals. However, the teams are required to declare the amounts they have received and how it has been spent to the organizing committee.

## **The end of the first competition**

## **Annual WSA IEEE Section IEEE Student members Award (ASMA)**

The second award will have the same conditions above, but the participation will be limited to IEEE student members.

### **General**

This competition will be organized in a manner to become one of the most important engineering competitions in the Kingdom. It will have one team from each academic engineering school, college, and university. The subject of the competition will be carefully selected to show that an engineering team is working together and is producing tangible results. It is thought that the project will be on one of the following topics:

- 14) Solar cells and energy
- 15) Wind energy
- 16) Biomedical engineering
- 17) Vehicles operated using alternative energy fuels.
- 18) Robotics
- 19) Global positioning systems
- 20) Water purification using non-chemical procedures
- 21) Arabic-language voice response system
- 22) Sensors (radiation, electromagnetic, temperature, anti-collision, etc).
- 23) Radiation fencing
- 24) Electromagnetic compatibility
- 25) Underground object detection
- 26) Remotely internet-controlled equipment
- 27) Remote car-speed control (mainly for police to limit speeds of speedy cars)
- 28)

### **Conditions**

1. Teams of not less than three students can enter the competition. Senior students can not represent more than 70% of the team composition.
2. Highly recommended that teams will be from more than one department.
3. Each engineering institution is represented by only one team.
4. All teams will work on the same project.
5. The competition aims to encourage and reward creative, innovative and unique marketable projects.
6. Projects must be capable of being practically demonstrated.

### **Sponsorship and monetary support:**

The organizing agency i.e. IEEE (depending on the sponsor) will provide the amount of SR 25000 for each team to meet the hardware and software requirements of the project. Each academic institution is expected to match this amount i.e. SR 25000 and to fully allow the team to use the institution facilities for the sake of the project. Upon agreement, it is understood that the institution is responsible for the team guidance for the best performance of the project.

Teams may seek additional sponsorship and support for their projects from industry, their colleges, or individuals. However, the teams are required to declare the amounts they have received and how it has been spent to the organizing committee.

### **Copy and Intellectual Rights:**

Students should seek advice to protect their copyright and intellectual property rights.

### **The Competition Materials**

### **The Panel of Judges**

### **The Award**

### **The Ceremony**

### **The Budget**

### **The Schedule**

## **Student advancement in learning and engineering creativity (SALEC) competition**

1. Contestants are allowed as individuals to participate.

2. Competition materials focus on the good learning and creativity.
3. Students are allowed to participate nationally and internationally at other events.
4. Each college or university is represented by 3 students.
5. Place of contest will be decided on or it can be planned to be via online service.

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