



5th IEEE-GIKI National ElectroniX Olympiad 2013



Subject: Invitation to Participate in the 5th IEEE-GIKI National ElectroniX Olympiad 2013

Dear Sir/Madam,

I would like to cordially invite your institution to the **IEEE-GIKI National ElectroniX Olympiad 2013**, being held from the **8th to 10th February, 2013** at *Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI)*. We as members of the organizing team would be extremely pleased to have you here. This time around we aspire to reach new heights and set up some outstanding standards that would indeed be a unique experience for you.

GIKI is one of the most prestigious engineering institutes of Pakistan. Apart from its exceptional academic program, the institute is also renowned for its versatile and vivacious extramural events. The scenic location of the campus only adds to the exclusivity of such events.

It will be a three day event that includes Robothon and competitions catering to many roots of electronics and electrical engineering/sciences. The event includes competitions for **Robot Line Tracking, Robot Wall Tracking, Micro-Controller Interfacing, etc.** This year IEEE-GIKI has introduced two new modules **IEEE-Ethics Competition, All Pakistan Engineering Congress** and **The Figure 8**. A number of amusements too included like musical night, mime's night, e-night, scavenger hunt and hiking trip.

IEEE-GIKI Chapter has been instrumental in bringing together the highly intellectual minds from all over the country and providing them with an opportunity to exhibit their engineering talents in a national arena. Members of IEEE and professors from our university and external are invited to judge the work of participating students. They too have been appreciative of our efforts in promoting the scope of Electrical and Electronic engineering at a national level.

We would also like to inform you that for your comfort, we will be providing transport to and from the GIKI campus at designated times and places in Rawalpindi/Islamabad and Peshawar. Lodging facilities on campus will also be provided to the participants. Due to our limited lodging facilities only registered participants and chaperons will be entertained.

The last date for submission of entries is **31ST December, 2012**.

We look forward for your positive reply.

Yours sincerely,

Usman Mushtaq Dhudhaal

President, IEEE, GIKI

Dr. Nisar Ahmad

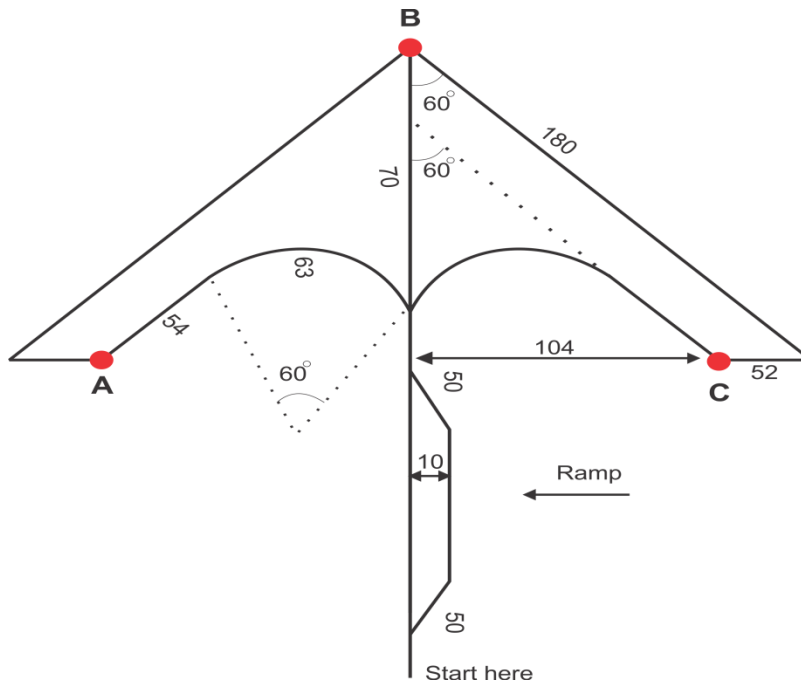
Advisor, IEEE GIKI



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❖ ROBOTHON:



- Prize money: PKR 20,000/-

Rules:

- There will be a **White line on blue background** and the line will be **3cm** wide.
- Starting and ending point of the track will be same. The robot must pass through the check points (A, B, C) in any sequence and return back to the starting point.
- Omitting any of the one check points will lead to deduction of 33% points. Omitting two points will lead to disqualification. The team with most scores in the shortest time will proceed to the second round.
- There is a knock out competition of a parallel robots race in which two robots will compete against each other. Two robots will start off at the same time on the track and the one reaching the finish line will be winner. The dimensions of the track are shown in figure.
- The robot should fit in a box of **30*30*30 cm** and the bigger robots will be disqualified.
- Robot that can damage the track in any sense will be disqualified. There is no limit on the voltage of batteries but the power source must be attached to the robot and the operator can not touch the robot once it has been started. Only dry batteries can be used.
- Only 3 consecutive retries in the first round are allowed. There is no retry in the knockout rounds
- In the first round, the teams will be shortlisted on the basis of their individual track completion time and from the next round knockout competitions start.



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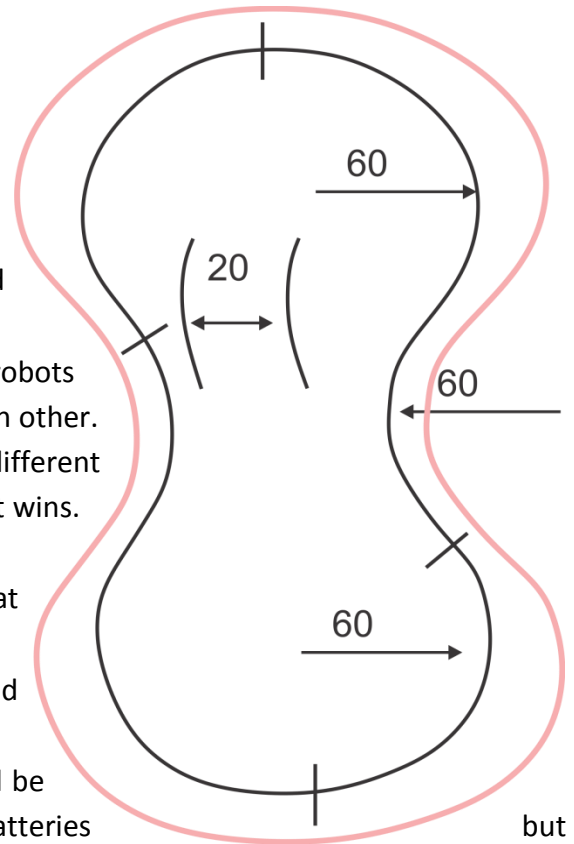


❖ The Figure 8:

- Prize money: PKR 10,000/-

Rules:

- There will be a **White line on blue background** and the line will be **3cm** wide.
- There is a knock out competition of a parallel robots race in which two robots will compete against each other. Two robots will start off at the same time from different check points. The one that catches the other robot wins. The one which deviates from the line loses.
- Max time duration allowed 90 s. The robot that travelled more distance wins.
- The robot should fix in a box of **30*30*30 cm** and the bigger robots will be disqualified.
- Robot that can damage the track in any sense will be disqualified. There is no limit on the voltage of batteries but the power source must be attached to the robot and the operator can not touch the robot once it has been started. Only dry batteries can be used.
- Only Lego and logic based robots are allowed.
- In the first round, the teams will be shortlisted on the basis of their individual track completion time and from the next round knockout competitions start.
- Only 3 consecutive retries in first round are allowed. There is no retry in the knockout rounds.



Other Events Details:

❖ RACE to Innovation:

- Team: Two to Three members per team.
- Round 1: The first round is quiz round. Quiz will contain IQ, logical, analytical questions. Only top teams will qualify for Round 2. The number of qualifying teams will be decided after results of Round 1.



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- **Round 2:** Use your skills to implement the appalling logic on bread board, provided the given equipment.

✓ **Topics for both rounds:**

- Logic Design
- Computer Architecture
- Basic Circuit Analysis
- Basic Electronics

❖ **MIC Night:**

- Maximum 2 members in a team.
- Only MIDE/KEIL software for burning. Bring any other software.
- Time 4hrs.
- Its open, can get data from anywhere (internet, book, journals, etc.).
- Teams must know hardware interfacing (i.e. LCD, External Memory, and Motors etc. interfacing).
- 8051 micro-controller will be provided.
- Burner and Hardware will be provided. However it is highly recommended that you bring your own burners.
- Kindly bring your own laptops & Flash drive to avoid any inconvenience.

❖ **Survival of the Brainiac:**

- **Team:** 2-3 members per Team.
- **Round 1:** The first round consists of general IQ questions with the time of max 1hr to challenge your mental skills. The top teams of round 1 will qualify for round 2.



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- **Round 2:** A number of mathematical, logical, analytical and pattern finding questions will be asked from each member of the team, in a given time limit. The questions will require your Brainiac power.

❖ Project Exhibition:

- **Rules:**
- Maximum number of members in a team will be 4.
- The team should submit their chart, abstract and poster (jpg) regarding their project to Event Coordinator.
- The charts and abstract should contain just a simple description about their project.
- There is no need to carry your project (hardware) with you.
- Your poster should completely describe your project.
- There will be a 5 min presentation about your project.
- After presentation, there will be a viva of 5 min on which evaluation will be performed.
- Required things should be submitted before **31st Dec 2012** on mrashidmaqbool@hotmail.com

❖ Ethics Competition:

- **No registration fee for this competition.**

The IEEE Student Ethics Competition is sponsored by the IEEE Ethics and Member Conduct Committee. It was developed for use at IEEE Regional student events to encourage the study and awareness of professional ethics by IEEE Student Members. The contest includes a presentation and defense of a case analysis by teams of students. Specific objectives of the contest program are:

- 1) to foster familiarity with the IEEE Code of Ethics and ethical concepts.
- 2) to promote a model for discussing and analyzing ethical questions.
- 3) to provide experience in applying ethical concepts to typical professional situations.

- **Rules:** Rules of this competition are standard.
- A case study will be given to each team and then there will be presentation of 5 minutes.

For queries regarding competition contact Ahsan Farouqi (VP Extnal Relations) : 03465371678

- **Download details by following this link.**

http://www.ieee.org/documents/SEC_v2.pdf

- **Poster:**

http://www.ieee.org/documents/SEC_Poster.pdf



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❖ ALL PAKISTAN ENGINEERING CONGRESS:

This is a module where students from all over the Pakistan meet, discuss, debate and try to find solution to a problem prevalent in Pakistan. It will be like a crisis committee called for the solution of the problem at hand.

The topic will be conveyed later as soon as the topic is announced you are to think of a solution and write an abstract of that solution and send it to us before the specified date. After that no abstracts will be accepted. Based on these abstracts the teams will be shortlisted and allowed entry to the event.

There should be a maximum of 3 participants per team.

Each team or one person from a team will have to speak for 45 second at the start of the conference. **This is presentation cum speech is very important because it decides whether your solution is worth looking at or not.** In these beginning speeches you are supposed to give an overview of your solution and convince the jury that your solution is exactly what they have been waiting for.

1. After the end of this first round of presentations there will be a second round. In this round the participating teams will have to present their whole solution extensively to the crowd **the time of this round will be decided on the result of the first round**, the more marks taken the more minutes you shall have to present your solution and the more chance you have to convince the judges.
2. After each presentation in the second round there will be a question answer session of 2 minutes, these questions will be asked from the crowd.
3. The judges can also ask questions after the presentations apart from the 2 minutes assigned for the crowd.
4. After this second round some groups may be merged together based on their similarity in the solution or some other factors and time given so that they can come up with a complete solution to the problem.
5. Then there will be final presentations in which the merged groups will present their complete solutions.
6. The teams will be judged for their teamwork, the simplicity and feasibility of their solutions, and of course their presentation skills. The three rounds of presentations carries marks so make sure that you take each and every one of them seriously. Likewise if you do not do well in one presentation you can always make up for that in the other.
7. Moreover the abstracts and questions asked or the answers given by you during the question answer session everything will be looked at and marks given accordingly.
8. Remember that this will not be a debate so your eloquence is of no use to you if you are not being logical. Be logical, be brief and be simple because this is nothing like a parliamentary session.



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❖ SOCIAL EVENTS:

The All Pakistan ElectroniX Olympiad, 2012 shall comprise of series of social events for the entertainment of the participants. The social events consist of:

➤ **Hiking Trip:**

Early morning of the 2nd day of the event, Team IEEE will take their esteemed participants to trip of GIKI hills, which will be arduous to some, but relishing to fun mongers and mountaineering enthusiasts. The

Trip will culminate with scrumptious yet traditional Halwa Puri breakfast from the hosts. It's just too hard to miss!!

➤ **GALA Dinner:**

To end up the memorable and exciting day two at NEO'5 our messing team will tempt your taste buds with luscious, traditional cuisines of Topi. A surprise theme of the night will enlighten the ambiance as our host team will ensure that your social evening commences at a high note.

➤ **Movie Night:**

A blockbuster movie shall be screened in the AHAA (Agha Hassan Abidi Auditorium) on a cinema screen.

➤ **Summit 4 glory:**

The theme of this event is that of scavenger hunt. Clues will be hidden in different locations of GIKI. In order to get to the next level you have to decode the clues.

➤ **Concert:**

There will be a live concert of a main-stream pop icon that will allow you to relax after the tiring and competitive modules of day.



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Important Contacts

In case of any query please feel free to contact our Liaison team or e-mail us at the address mentioned below.

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Liaison Team

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