VILNIAUS KOLEGIJA | HIGHER EDUCATION INSTITUTION
FACULTY OF ELECTRONICS AND INFORMATICS

INTERNATIONAL STUDENT ELECTRONICS CONTEST "EIFtronic 2023"

RULES OF THE CONTEST 2023

General regulations

The regulations define the objectives of the contest, the conditions of participation, organization of the contest, evaluation of the tasks, awards of the contestants.

Aim of the contest

To promote students' interest in electronics, develop knowledge and practical skills of the subjects in the field of electronics, improve teamwork and communication skills in a foreign language.

Time and venue of the contest

The contest will take place on May 9-11, 2023 at Vilniaus kolegija/Higher Education Institution, the Faculty of Electronics and Informatics.

Address: J. Jasinskio g. 15.

Room: Event hall (room 327, 2nd floor) Vilnius.

Online registration for the teams is open since 20-02-2023 until 10-03-2023.

The schedule of the contest

May 9, 2023:

- Registration of the contestants in the Event hall (coffee, tea, snacks): 14:00-15:00
- Opening ceremony, welcoming word: 15:00 – 15:15
- Self-presentation of the participating teams in the contest: 15:15 – 16:15
- The presentation of the contest rules to the contestants:16:15 – 16:30
- Dinner for the contestants. Room: Event hall, Faculty of Electronics and Informatics: 16:30 – 18:00

May 10, 2023:

- Coffee (coffee, tea): 10:00 – 10:15
- Theory task performance: 10:15 – 12:00
- Lunch. Room: Event hall, Faculty of Electronics and Informatics: 12:15 – 13:00
- Performance of the practical tasks: 13:00 – 15:00
- Visiting the museum of the Faculty: 15:00 – 15:30
- Announcement of the results and notification of the contest winners: 15:30 – 16:00
- Dinner for the contestants at the restaurant: 19:00 – 21:00

May 11, 2023:

- Coffee (coffee, tea): 10:00 – 10:15
- Round table discussion about the contest flow, outcomes, feedback, plans for future: 10:15 – 11:00
- Cultural program, event closing ceremony: 11:15

The participants of the contest:

Each team shall consist of four members: the Ist, the IInd or the IIIrd year students of the bachelor studies and a leader (a teacher). Students of electronics and electrical engineering study fields, who are interested in the field of electronics, robotics, programming, computer systems, are eligible to participate in the contest.

The Contest Committee

The Contest Committee (hereinafter the Committee) assesses the results of the contest. The Committe consists of the leaders of the teams participating in the contest. The Committee elects the chairman of the Committee. The Committee chooses the final individual winners and a team winner.

Tasks of the contest and proceeding

The tasks of the contest will be presented in English language. The contesting teams perform the following tasks:

The theory quiz:
All team members perform the theory quiz. The theory quiz consists of the study field subjects: Physics, Electronics, Electrotechnics, Analog and digital device, Signals and circuits, Electrical measurements.

***1st practical task*:**
Assembly of electronic circuit and measurement of the components:

Using *NI Multisim* program, to assemble the circuit and perform the measurements of the components.

2nd practical task
Programming embedded system with a Raspberry Pi .
To install an operating system on a Raspberry Pi, connect to a local WiFi network, set up a Python environment on Raspberry PI to control a GPIO device.

3rd practical task
Designing, assembling and testing a logic circuit.
As described in the task, to design, assemble and test logic circuit on the printed circuit board (PCB).

4th practical task
Assembling an electronic device
As described in the task, to mount and solder an electronic device**.**

ALL PRACTICAL TASKS ARE PERFORMED AT THE SAME TIME. EACH TEAM DELEGATES A TEAM MEMBER TO PERFORM ASSIGNED PRACTICAL TASKS.

Assessment of the tasks

Theory quiz
The theory quiz is worth 100 points. All team members perform the same theory quiz. The Committee assesses the individual performance of each team member, the average of the points obtained for individual performance is added to the overall team assessment. The time limit: 1 h 45 min

Practical tasks

The committee assesses the individual performance of each team member, and the average of the points obtained for individual performance is added to the overall team assessment. The time limit, during which the task is being completed, can be decisive in assessing the practical tasks.

The 1st practical task
The time limit: 2 h.
The task is worth 100 points if fully completed and submitted on time.

The 2nd practical task
The time limit: 2 h.
The task is worth 100 points if fully completed and submitted on time.

The 3rd practical task
The time limit: 2 h.
Tthe ask is worth 100 points if fully completed and submitted on time.

The 4th practical task
The time limit: 2 h.
The contestants are supplied with the component set, a PCB, equipment, electrical circuit, methodological guidelines.
Assessment criteria: functioning device delivered on time (up to 75 points), soldering quality (up to 15 points), mounting/assembling quality (up to 10 points).

More detailed information on assessment criteria will be presented during the meeting of team leaders.

Awarding the participants
The winner becomes the team with the maximum points collected. If there are two or more teams with the same points collected, the higher place will be designated to the team, which have more points on practical tasks. The team winner and the students, who collected the most points at individual tasks, will be awarded diplomas and sponsor prizes. IInd and IIIrd place winners will be awarded diplomas. For all participants and team leaders the certificates of participation will be handed.

Request: we would invite to wear team identifications (e.g., T-shirts, scarves, caps, etc.)

You are welcome to participate!

More detailed information
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