

The regulation of organization of the International Students Competition „Microelectronic Systems Engineering – Sergiu Radautan”



The Technical University of Moldova, the Faculty of Computers, Informatics and Microelectronics and the Department of Microelectronics and Biomedical Engineering, with the support of the Association of Graduates in Microelectronics of the Technical University of the Republic of Moldova, annually organizes the International Student Competition with themed „*Microelectronic Systems Engineering – Sergiu Radautan*”

I. General provisions

The Competition „Microelectronic Systems Engineering – Sergiu Radautan” invites students of the first cycle of studies with technical education in the field of microelectronic systems, programmable circuits, semiconductor devices, systems and applications with microcontrollers, hardware programming etc.

Competition objectives:

- Promoting the ideas of competition and performance in electronic system design and applied research;
- Attracting students to applied engineering activities in the field of microelectronic systems, hardware programming and their applications;
- Attracting students to independent electronic system design and to applied research;
- Attracting international students to participate in electronic system design and in applied research.

II. Competition sections and stages

The competition will take place in three stages:

1. Project registration and submission, deadline - April 30-May 10;
2. Pre-selection of contest participants, deadline - May 10 - 20;
3. The contest - May 15 - 30.

Competition sections include next areas of interest: **microelectronic systems, programmable circuits, hardware programming, semiconductor devices, systems and applications with microcontrollers, biomedical engineering.**

III. Responsibilities, attributions, and conflict of interest

The Department of Microelectronics and Biomedical Engineering from Technical University of Moldova is responsible for organizing and holding the competition. The department will form

a commission of five or six faculty members. This commission is usually made up of specialists of specialized or related disciplines. The head of the department is also a chairman of the organizing committee.

The Evaluation and Awarding Commission consists of the respective course holders and one representative for each company that supports the competition. The department appoints a faculty member as secretary of the Evaluation Commission. The members of the Evaluation commission work independently of the organizational structures in this activity, but they will submit a report to the organizers with the grading method and the results of the competition.

Any conflict of interest (close kinship between the members of the commission and the competitors, particular interests of the members of the commission in one of the proposed projects, etc.) will be resolved as the case may be, by self-recusal of the respective member.

The organizing committee will display the lists of awards and mentions.

IV. Participants registration. Competitions and evaluation criteria

The registration of the participants will be done individually or in group of 2-3 students (or mixed teams of students - master's students). One student can participate in 3 teams maximum. The contest contains two stages: verbal report and practical presentation.

1. **The verbal presentation test**, in which each competitor or team has 7-8 minutes to state the ideas and principles of its application. The presentation should contain 12-15 slides. There will be reserved 5 minutes, for answering questions.
2. **The practical presentation test**, where each candidate has 5 minutes to present the technical achievement and will answer questions for 5 minutes.

In special cases justified by the interest produced by the submitted project, the competition committee may extend the support time by 5 minutes.

The above tests will be scored separately, where the following criteria will be taken into account:

1. The complexity of the solved problem - 25%
2. The precision, the elegance, the adequacy and the degree of novelty of the solution - 25%
3. The quality of the practical solution and its usefulness - 25%
4. The quality of the exposition and the answer to the questions - 25%.

The themes presented by the competition participants may come from students, from mentors (coordinators) in the faculty, or from companies that support the competition. There is no limitation on the topic addressed, if it is from one of the areas of the competition sections.

V. Competition methodology

Members of the Evaluation Commission have equal scoring rights and will evaluate each competitor individually from the two tests, according to the 4 criteria, with marks from 0 to 10. The mark of each candidate is the sum of the marks given by the members of the commission, including secretary.

The maximum score is equal to $4 \times 10 \times$ the number of committee members.

Companies representatives (one representative for each company that supports the competition) will be able to vote with equal rights any of the participants. They can nominate the winners of the special prizes offered by the companies, regardless of the general score.

VI. Awards

The hierarchy of winners is established in the descending order of the points obtained. Is granted:

- 1st, 2nd, 3rd degree awards and gold/silver/bronze medals;
- prizes from each co-organizing company represented in the competition.

Justified by the number of competitors and the quality of the works, section prizes and/or special prizes may be awarded.

The awards and honorary mentions are certified by a diploma signed by the Rector of the Technical University of Moldova and the Chairman of the Organizing Committee.

Each entrant receives a participation diploma, as well as team coordinators.

The diploma for the special prizes offered by the companies will be signed by the representative of the respective company and the President of the Organizing Commission.