

Regulation of the International Student Contest "Microelectronic Systems Engineering – SERGIU RĂDĂUȚAN"



I. General regulations

These Regulations regarding the organization and conduct of the International Student Contest "Microelectronic Systems Engineering – SERGIU RĂDĂUȚAN" establish the conditions for the organization, conduct and totalization of the results.

The International Contest with the generic name "*Microelectronic Systems Engineering – SERGIU RĂDĂUȚAN*" is organized annually by the Technical University of Moldova, the Faculty of Computing, Informatics and Microelectronics, the Department of Microelectronics and Biomedical Engineering, with the support of Microelectronics Alumni Association of the

Technical University of Moldova

The International Student Contest "Microelectronic Systems Engineering – SERGIU RĂDĂUȚAN" is open for the participation of first and second cycle (first year) students of universities with an engineering and technical profile: in the field of microelectronic systems, programmable circuits, semiconductor devices, systems and applications with microcontrollers, hardware programming, etc.

II. Competition objectives:

- Attracting students to applied engineering activities in the field of microelectronic systems;
- Inoculating students with teamwork skills and performance;
- Promoting the competitiveness and performance of young people in design and applied research;
- Realization and demonstration of own innovative ideas;
- Ensuring the exchange of inter-institutional and international experiences.

III. Competition sections and stages

The competition is held in the following stages :

1. Announcement of the competition - three months before the date of the competition;;
2. Registration for participation with project submission: April 30 - May 10;
3. Pre-selection of contest participants: May 10 - 20;
4. Participant Notification - 7 days before the date of the competition;
5. Holding a competition – May 20 - 30.

The competition will be held in two sections:

Section I: Electronic Systems Engineering

Section II: Biomedical Systems Engineering

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

IV. Responsibility and attributes, incompatibilities

The Department of Microelectronics and Biomedical Engineering (DMBI) of the Technical University of Moldova is responsible for the organization and holding of the competition.

The Department will form the Organizing Committee of five to six people, holders of specialized or related disciplines. The Chairman of the Organizing Committee is ex officio the Head of the Department.

The Evaluation and awarding commission is made up of one representative of each company that supports the contest. The Department appoints a teaching staff as secretary of the Evaluation Committee. The number of the Evaluation Committee members is established by a mutual agreement with company delegates. The members of the Evaluation Committee work independently of the organizational structures, but they will submit a report to the organizers with the marking method and the results of the contest.

The Organizing Committee will announce and post lists of awards and prizes on the Department's website.

Note: Any incompatibilities (relationship of the first, second degree between the member of the Evaluation Commission and the competitor, particular interests of the member of the Commission in one of the projects, etc.) are declared in the evaluation process of the concrete exhibit and are resolved amicably by the self-recusal of the respective person from Committee.

V. Registration of participants. Competition tests and evaluation criteria

Enrollment of participants will be done individually or in teams of 2-3 students (or mixed teams of students-master's students (1st year) . One student can participate in a maximum of 3 teams. The competition includes two tests: oral and practical.

1. **The presentation stage** of the project, in which each participant or team has 7-8 minutes to present the ideas and principles of its application. The presentation should contain 12-15 slides. There will also be 5 minutes allocated here for answers and questions.
2. **Practical presentation stage** where each candidate has 5 minutes to present technical advancements and must answer questions within 5 minutes.

In cases of greater interest in the project, the Evaluation committee may extend the presentation time by 5 minutes.

The above stages will be assessed separately with taking into account the following criteria:

1. Complexity of the solved problem 25%
2. Accuracy, elegance, adequacy and the degree of novelty of the solution : 25%
3. The quality of the practical solution and utility, 25%
4. Quality of presentation and answers to questions: 25%.

Topics submitted by competition participants may come from students, from coordinators, or from companies supporting the competition. There are no restrictions on the topic discussed if it fits one of the areas of the competition sections.

VI. Methodology of the competition

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

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

Representatives of companies (one representative from the company supporting the competition) will be able to mark all participants with equal rights. Company representatives may nominate winners of special prizes offered by companies, regardless of the overall score.

VII. Awards

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

- first, second, third degree awards;
- prizes from each co-organizing company represented at the competition.

Depending on the number of participants and the quality of work, prizes may be awarded by section and/or special prizes.

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

Each participant entered in the competition receives a participation diploma, as well as the team coordinators.

The diploma for the special awards offered by the companies are signed by the representative of the respective company and by the Chairman of the Organizing Committee.