# Ministry of Education, Science, Research, Development and Youth of the Slovak Republic Secondary School of Electrical Engineering, Zochova Bratislava Slovak Society of Electronics Slovak Centre of Scientific and Technical Information



## NATIONAL COMPETITION in Building and Programming Robots for Primary and Secondary Schools

RoboCup 2025





#### PROPOSITIONS

### 25th National Competition in Building and Programming Robots for Primary and Secondary Schools - RoboCup 2025

**Competition Goal:** to develop the interests, creativity, knowledge, and skills of children and youth in the field of construction and programming of automated and cybernetic systems for controlling technological processes.

Competition Announcer: Ministerstvo školstva, vedy a výskumu SR

Ministry of Education, Science, Research SR

Competition Organizer: Slovak Society of Electronics Bratislava

Center of Scientific and Technical Information SR

Competition Host: Secondary School of Electrical Engineering

Zochova 9, Bratislava

**Organizing Committee:** Chairman: Mgr. Jakub Krcho (0948 187 540)

Ing. Marián Beniak, PhD., Mgr. Stanislav Slačka

**Competition Director:** Miro Kohút (0905 521 989)

Chairman of the Jury: Mgr. Pavel Petrovič, PhD. (0915 772 685)

Expert Jury: P. Bahník, R.Gaži, J.Gál, T. Gieci, B.Kahánková,

J.Krcho, K.Karabín, M.Kacián, M.Maszay, A.Matejov, M.Šuppa, M.Prokaj, P.Vargovčík

**Competition Date:** 26th – 28th February 2025

Location: SPŠE Zochova, Bratislava

**Competition Categories: Electronic Robot:** 

 Robot Construction from a robotic kit on a specified theme – autonomous robot

Robot Arm

Autonomous Drone

#### **RoboCup Junior:**

- Soccer Open League with an orange ball
- · Soccer Lightweight with an electronic ball
- Soccer 1 on 1
- · Rescuer on the Line Rescue Line
- Rescuer in the Maze Rescue Maze
- Rescuer CoSpace Rescue simulated version
- Rescuer Simulation rebus/CoSpace/Roberta
- Robot Dance On Stage

**Robot Construction**: teams will create a model on-site using their own kits (the type of kit and material used are unrestricted) and develop a program so the model fulfills the requirements of the given task. The scoring system will be announced by the jury before the competition.

**Robot Arm:** participants will program a robot arm to perform tasks at a robotic workstation according to a given assignment. Competitors bring their own robot arm to the competition, constructed according to the instructions on the manufacturer's website, LEGO - Robot Arm. The evaluation system will be announced by the jury before the competition

**Autonomous Drone**: the rules are published on the website <a href="http://robotika.sk/rcj/dron">http://robotika.sk/rcj/dron</a>.

**RoboCup** categories: participants can be students from primary or secondary schools and will be evaluated in a shared results list. Apart from soccer, primary schools (or lower grades of 8-year grammar schools) and secondary schools will also be evaluated separately.

Advancing teams must comply with the minimum age requirements according to international rules.

The rules for these categories are identical to the international rules (<u>rcj.robocup.org</u>). Matches in the soccer category consist of two 5-minute halves.

Winning teams in the RoboCup categories will advance to the 6th European RoboCupJunior Championships 2025 - **Bari, Italy, June 4–7, 2025** (<a href="https://www.robocupjunior.eu">https://www.robocupjunior.eu</a>),

and to the 28th World Championships for Robot Soccer - **RoboCup July 15–22, 2025**, in Salvador, Brazil (<a href="https://2025.robocup.org">https://2025.robocup.org</a>).

The qualification key is updated on the website: <a href="http://robotika.sk/rcj/kluc">http://robotika.sk/rcj/kluc</a>.

#### Schedule:

#### Wednesday, February 26, 2025

From 10:00: Arrival, registration, accommodation

12:00: Lunch

13:00: Competition opening

13:30: Construction, Robotic Arm, RoboCup training

18:00: Dinner

19:00: Presentation of solved tasks

20:00: Mentors' and jury meeting, RoboCup training

22:30: Lights out

#### Thursday, February 27, 2025

07:30: Breakfast

09:00: Soccer, Rescue

10:00: Drone, On Stage - interviews

12:00: Lunch

14:00: On Stage, Rescue, Soccer – semifinals and finals

18:00: Dinner

19:59: Gala evening for participants

22:30: Lights out

#### Friday, February 28, 2025

07:00: Breakfast

08:00: Official announcement of results

10:00: Departure of participants

Any changes to the program will be communicated to all parties in advance.

#### **Participation Conditions:**

Registration can be completed via <a href="http://www.skse.sk">http://www.skse.sk</a> – RoboCup.

The entry fee for each competition participant is €20. In the event of sponsor support, the entry fee may be reduced.

Accompanying pedagogical supervisors, as well as additional participants, will cover their own costs for meals and accommodation. The total cost is €69, which can be paid to the SSE account or in cash upon registration. This fee includes 2 nights of accommodation, 2 breakfasts, 2 lunches, and 2 dinners.

#### **Technical and Organizational Provisions:**

In the interest of further developing robotics and programming skills among children and youth, participation in the competition requires consent to the publication of factual materials. Participants also agree that they, or their robots, may be photographed or recorded, and such material may be used for technical, scientific, and promotional purposes.

Each team must bring its own kit and computer for solving assigned tasks, as well as its own robot for RoboCup and indoor shoes for school premises.

Details of models and developed programs for controlling competition robots must be uploaded in advance to the website galeria.robotika.sk.

An unlimited number of teams can register from any school. There are no restrictions on the number of students per team. A team may compete in multiple categories.

The entire competition will take place SPŠE, Zochova Street 9, 811 03 Bratislava, where all competitions, presentations, the opening ceremony, and the official announcement of results will be held.

Accommodation is provided for properly registered participants at the dormitory of SOŠT, Vranovská 4, Bratislava (<a href="https://www.sostvranovska.sk">https://www.sostvranovska.sk</a>).

The organizing committee reserves the right to update the schedule, and participants will be informed accordingly. The organizer ensures accommodation, meals, venues, and technical equipment (fields) for properly registered participants.

If the organizer incurs costs due to undisciplined behavior or failure to follow the propositions and instructions of the organizer, those responsible for causing the issue will be liable for these costs. The organizer is not responsible for any technical equipment or personal belongings of the participants.





