

Dear colleagues, doctoral students and students, we invite you to participate to International Scientific Conference on **5th November 2025**.

The goal of the international conference is to improve the perception of science and technology in the EU and at the same time emphasize the importance and popularization of science within the entire society. An equally important aspect of the Conference is to encourage the interest of the young generation in university studies in scientific and technical fields.

The conference is organized by:

- PRVÁ ZVÁRAČSKÁ, a. s., Bratislava
- Slovak University of Technology in Bratislava, Faculty of Materials Science and Technology in Trnava (as part of project APVV-21-0232)
- Alexander Dubček University of Trenčín, Faculty of Special technology, Slovakia

Organisation Committee

- Ing. Beáta Šimeková, PhD., Slovak University of Technology in Bratislava, Faculty of Materials Science and Technology in Trnava, Slovakia (SK)
- Ing. Ingrid Kovaříková, PhD., Alexander Dubček University of Trenčín, Faculty of Special technology, Slovakia (SK)
- Ing. Michal Šimek, PhD., PRVÁ ZVÁRAČSKÁ, a. s., Bratislava, Slovakia (SK)
- Ing. Daniel Dřímal, PhD., PRVÁ ZVÁRAČSKÁ, a. s., Bratislava, Slovakia (SK)
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- Ing. Igor Kováčik, PRVÁ ZVÁRAČSKÁ, a. s., Bratislava, Slovakia (SK)
- Dr. Róbert Sánta, University of Dunaújváros, Hungary (HU)

Conference language

Official Conference language is English.

Conference venue

PRVÁ ZVÁRAČSKÁ, a. s.
Kopčianska 14,
851 01 Bratislava 5
Slovakia
<https://www.pzvar.sk/en>

3rd INTERNATIONAL SCIENTIFIC CONFERENCE

WELDING TECHNOLOGY 2025: Industrial development technology of European Union

PROGRAM OF CONFERENCE

5th November 2025

12⁰⁰ – 13⁰⁰ Lunch

12³⁰ – 13⁰⁰ Visiting laboratories of PRVÁ ZVÁRAČSKÁ, a. s.

13⁰⁰ Presentation of participants

13¹⁵ Opening of the scientific conference

Dr. h. c. Ing. Peter Fodrek, PhD., host. prof., general director of PZ, a. s. Bratislava

Section A: Innovations of welding equipment

Chairman: Ing. František Kolenič, PhD., PRVÁ ZVÁRAČSKÁ, a.s.

13²⁰ Redesigned atmospheric electron gun (60 kV – 30 kW) for welding modern metal materials

Pavol Mašťalík, František Kolenič, Tomáš Fodrek (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)

13⁴⁰ Design concept of an electron beam welding system for executing rotational welds up to 300 mm in diameter

Slavomír Lipár, Tomáš Fodrek, Daniel Dřímal, Ľuboš Kováč (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)

14⁰⁰ Uncertainties in the execution time of program codes and their influence on control systems in welding and weld inspection

Peter Fodrek, Miroslav Kratochvíl, Tomáš Fodrek, Ľuboš Kováč (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)

14²⁰ Pulsed control voltage source for dynamic regulation of the welding current in an electron beam welding system

Roman Darovec, František Kolenič, Peter Koršňák (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)

14⁴⁰ From design to racing, the student project "Formula Student"

Jozef Jaroslav Fekiač, Ing. Lucia Kakošová (Alexander Dubček University of Trenčín, Faculty of Special technology)

15⁰⁰ Centratech TnUAD - a place where science connects with practice

Zuzana Štubňová (Alexander Dubček University of Trenčín, CenTraTech)

Coffee break

Section B: Welding technologies

Chairman: Ing. Ingrid Kovaříková, PhD., Alexander Dubček University of Trenčín, Faculty of Special technology

15⁴⁰ Impact of Dual Laser Welding on the Weld Quality of Duplex Stainless Steel

Michal Šimek, Beáta Šimeková (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava, MTF STU Trnava)

16⁰⁰ State of the Art in Electron Beam Welding of Aluminum Alloys

Daniel Dřímal, František Kolenič, Ľuboš Kováč (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)

16²⁰ Influence of friction stir welding parameters on weldability of AW7075-T651 alloy

Roman Kukuča, Jozef Bárta, Katarína Bártová, František Jurina (MTF STU Trnava)

16⁴⁰ Investigation of the Properties of an Active Sn-Cr-Based Solder Alloy

Mikuláš Sloboda, Roman Koleňák, Tomáš Meluš, Peter Gogola, Matej Pašák (MTF STU Trnava)

17⁰⁰ Implementation of reverse FMEA analysis at the welding station.

Alex Jeluš, Alena Breznická (Alexander Dubček University of Trenčín, Faculty of Special technology)

17²⁰ Integration of additive manufacturing, welding and energy efficiency: examples of good practice of cooperation between FVT TUKE and PRVÁ ZVÁRAČSKÁ a.s.

Michal Hatala (TUKE Košice)

Reviewers board

- prof. Ing. Milan Marônek, PhD., Slovak University of Technology in Bratislava, Faculty of Materials Science and Technology in Trnava (SK)
- doc. Ing. Peter Polák, PhD., PRVÁ ZVÁRAČSKÁ, a. s. Bratislava (SK)
- prof. Dr. József Sárosi, Szeged Science University (HU)
- prof. Dr. György Kovács, University of Miskolc (HU)
- prof. Petro Loboda, DrSc., National Technical University of Ukraine in Kyiv (UA)