

Dear colleagues, doctoral students and students, we invite you to participate to International Scientific Conference on **5<sup>th</sup> November 2023**.

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 organizers of the conference are:**

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

**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)
- Ing. Tomáš Fodrek, PRVÁ ZVÁRAČSKÁ, a. s., Bratislava, Slovakia (SK)
- Ing. Slavomír Lipár, PhD., PRVÁ ZVÁRAČSKÁ, a. s., Bratislava, Slovakia (SK)
- 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>

## 2<sup>ND</sup> INTERNATIONAL SCIENTIFIC CONFERENCE

### WELDING TECHNOLOGY 2024: Industrial development technology of European Union

#### PROGRAM OF CONFERENCE

5<sup>th</sup> November 2024

**12<sup>00</sup> – 13<sup>00</sup> Lunch**

**12<sup>30</sup> – 13<sup>00</sup> Visiting laboratories of PRVÁ ZVÁRAČSKÁ, a. s.**

**13<sup>00</sup> Presentation of participants**

**13<sup>15</sup> Opening of the scientific conference**

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

**Section A: Welding technologies**

**Chairman:** Ing. Ingrid Kovaříková, PhD.

**13<sup>20</sup> Effect of four spot brightline laser welding of duplex stainless steel to the weld properties and corrosion resistance**

*Čavojský M., Beronská N., Arenas M. A., Dřímal D., Kopčanová L., Garcia I., Conde A., J.J. de Damborenea, Nosko M. (SAV UMMS Bratislava, PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

**13<sup>40</sup> Possibilities of increasing the range of artillery ammunition caliber 155mm - M107**

*Timárová L., Kakošová L., Fekiač J. J., Krbat'a M. (Alexander Dubček University of Trenčín, Faculty of Special technology)*

**14<sup>00</sup> Comparison of the Efficiency of Calculations of Minimum Wall Thicknesses of Small-Caliber Barrels**

*Polášek M., Bilka M., Kohutiar M. (Alexander Dubček University of Trenčín, Faculty of special technology)*

**14<sup>20</sup> Eddy current testing of selective laser melted AlSi10Mg alloy**

*Geľatko M., Hatala M., Botko F., Vandžura R. (TUKE Košice)*

**14<sup>40</sup> Possibilities of Implementing LSP Technology to Improve Essential Surface Integrity Indicators on Materials for Automotive Industry**  
*Šajgalík M., Czánová T., Holubják J., Joch R., Cedzo M., Matuš M., Kasenčák M.. (UNIZA Žilina, PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

**15<sup>00</sup> Study of wettability of Bi-Ag-Ti-(Mg) soldering alloys on ceramic substrates soldered by laser-ultrasonic technology**  
*Sloboda M., Koleniák R., Gabrhel T., Meluš T., Gogola P., Šimek M. (MTF STU Trnava, PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

### Coffee break

**Section B:** Innovations of welding equipments

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

**15<sup>40</sup> Pulsed Electron Beam Welding Using a Dynamic Cathode Bombardment Voltage Source**  
*Darovec R., Kolenič F., Koršňák P., Sekerka R., (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

**16<sup>00</sup> Modification of the Electron Gun Beam Generation System to Increase the Dynamics of the Welding Current Control**  
*Sekerka R., Kolenič F., Koršňák P. (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

**16<sup>20</sup> The Process of Measuring and Evaluating Selected Electron Beam Parameters**  
*Kováč L., Dřímal D., Fodrek T. (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

**16<sup>40</sup> Laser Welding of Aluminum Alloy AW6005A Using Brightline Technology**  
*Oselský M., Nerád R., Ormandy R., Dřímal D. (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

**17<sup>00</sup> Examples of Laser Welding in Industrial Practice**  
*Šimek M., Kolenič F., Fodrek T. (PRVÁ ZVÁRAČSKÁ, a. s. Bratislava)*

### 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)