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International Conference on Applied Sciences

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International Conference on Applied Sciences ICAS2018



Banja Luka, Bosnia and Herzegovina, May 9-11, 2018

Organizers:



University Politehnica Timisoara



University of Banja Luka
Republic of Srpska

University of Banja Luka

and

in cooperation with

Ministry of Science and Technology of the Republic of Srpska, Bosnia and Herzegovina
Ministry of Trade and Tourism of the Republic of Srpska, Bosnia and Herzegovina
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The **International Conference on Applied Sciences ICAS2018** took place in Banja Luka, Republic of Srpska, Bosnia and Herzegovina, in the period May 9–11, 2018, at the University of Banja Luka, with the aims to serve as a platform for exchange of information between various areas of applied sciences, and to promote the communication between the scientists of different nations, countries and continents.

The conference has been focused on several fields of application, operation and influence of the applied sciences and technologies on industry.

Topics of the conference covers a comprehensive spectrum of issues from:

- 1. Materials Science:** Metallic Materials, Composite Materials, Metal Alloys, Metallurgy, Heat Transfer, and others...
- 2. Mechatronics:** Mechanical Engineering, Robotic Systems Engineering, Control Engineering, Reliability, and others...
- 3. Electrical Engineering:** Circuits and Systems, Signal Processing, Electric Motors, and others...
- 4. Computers Engineering:** Modeling and Simulation, Computational Methods in Engineering, Software Engineering, Data Bases, and others...
- 5. Fundamental Sciences:** Numerical approximation and analysis, Interdisciplinary applications of mathematics and physics, Chemistry, and others...

The conference gathered qualified researchers whose expertise can be used to develop new engineering knowledge that has applicability potential in Industry. The number of participants was 312 from 21 countries (Algeria, Austria, Bosnia and Herzegovina, Brazil, France, Germany, Croatia, Iran, Italy, Macedonia, Hungary, Malaysia, Morocco, Moldova, Norway, Poland, Romania, Serbia, Slovenia, Turkey, U.S.A.).

During the three days of the conference, 6 invited speakers and 144 oral talks were delivered. Based on the works presented at the conference, 60 papers have been selected to be included in this volume of *IOP Conference Series: Materials Science and Engineering*.

Invited speakers

Mohsen Razzaghi, Mississippi State University
Gabor Szeibig, UiT Arctic University of Norway
Branislav Borovac, University of Novi Sad
Ioan Ilca, Academy of Technical Sciences of Romania
Zora Konjevic, University of Novi Sad, University Singidunum
Nataša Trišović, University of Belgrade

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Predrag Damjanović, Director of the Pedagogical Institute of the Republic of Srpska, B&H
Igor Radojičić, Mayor of Banja Luka
Doru Ion Petrescu, CEO Arcelor Mittal SA, Romania
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Ludovic Dan LEMLE

Editor of the Proceedings of ICAS2018