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# *Central European Researchers Journal*



## A WORD OF WELCOME FROM THE EDITORS

Dear Readers and Authors,

We are glad to present you the new issue of the CERES journal. The contents of this issue are selected papers from two scientific events that were organized by the Department of Informatics of University of Zilina in November 2022. These events were The Second International Workshop on Reliability Engineering and Computational Intelligence (<https://ki.fri.uniza.sk/RECI2022>) and The Second International Workshop on ACeSYRI: Modern Experience for PhD students and Young Researchers (<https://ki.fri.uniza.sk/ACeSYRI2022>). More than 70 works and scientific reports were presented at these two events.

In recent years we have witnessed a huge development of systems of artificial intelligence and their deployment into operation. Further development of these systems should reflect not only their accuracy but also reliability. Similarly, reliability analysis of complex systems is more and more based on methods of artificial intelligence. This implies that reliability engineering and artificial intelligence are more and more connected, and thus, reliability engineers should be able to use machine learning in their work while data scientists using approaches of artificial intelligence should understand basics of reliability analysis. This aim is reflected by International Workshop on Reliability Engineering and Computational Intelligence. In the year 2022, organization of this workshop was supported by the Slovak Research and Development Agency under project New Methods Development for Reliability Analysis of Complex System (APVV-18-0027). Special part of this workshop was section Reliability Engineering and Computational Intelligence application in healthcare. This section was supported by the Erasmus+ project University-Industry Educational Centre in Advanced Biomedical and Medical Informatics (CeBMI 612462-EPP-1-2019-1-SK-EPPKA2-KA), and its goal was discussion of relevant topics and trends of reliability engineering, data mining, and machine learning in healthcare, medicine, and biotechnologies.

International Workshop on ACeSYRI: Modern Experience for PhD students and Young Researchers was prepared together with support of Nazarbayev, Satbayev and Zhangir Khan West Kazakhstan Agrarian-Technical Universities. The aim of this workshop was to bring together PhD students, young researchers, and teachers from the academy as well as industry working in informatics. Organization of this workshop was supported by Erasmus+ project Advanced Centre for PhD Students and Young Researchers in Informatics (ACeSYRI 610166-EPP-1-2019-1-SK-EPPKA2-CBHE-JP), which main goal is to improve research conditions of young researchers and PhD students in informatics from Kazakhstan universities based on the development of international cooperation with EU universities.

We hope that you will enjoy papers selected from these two scientific events and that they motivate you to participate in next editions of International Workshop on Reliability Engineering and Computational Intelligence or International Workshop on ACeSYRI: Modern Experience for PhD students and Young Researchers.

With the wish of pleasant reading

*Dr. Miroslav Kvassay,  
Prof. Vitaly Levashenko,  
Prof. Elena Zaitseva*

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