

26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES 2022)



KES 2022, Verona, Italy, 7 – 9 September, 2022

Invited Session IS25: Interdisciplinary Approaches in Data Science and Digital Transformation Practice



URL: <http://kes2022.kesinternational.org/>

General Information

One of the hot issues in many organization systems is how to transform large amounts of daily collected operational data into the useful knowledge from the perspective of declared company goals and expected business values. The main concerns of this invited session are Data Science (DS) and Digital Transformation (DT) paradigms, as a set of theories, methodologies, processes, architectures, and technologies that transform raw data into meaningful and useful information, knowledge, and value. Various interdisciplinary oriented DS and DT approaches may provide organizations the ability to use their data to improve quality of business, increase financial efficiency and operational effectiveness, conduct innovative research and satisfy regulatory requirements. Applications of appropriate DS and DS implementation methodologies together with outcomes related to collaborative and interdisciplinary approaches are inevitable when applying DT approaches to large and complex organization systems. For many years, such interdisciplinary approaches were used in analyzing big data gathered from not only business sectors, but also public, non-profit, and government sectors.

The main goal of the session is to attract researchers from all over the world who will present their contributions, interdisciplinary approaches or case studies in the area of DS and DT. The focus in Data Science may be set to various aspects, such as: data warehousing, reporting, online analytical processing, data analytics, data mining, process mining, text mining, predictive analytics and prescriptive analytics, as well as various aspects of machine learning, big data and time series analysis. We express an interest in gathering scientists and practitioners interested in applying DS and DT approaches in public and government sectors, such as healthcare, education, or security services, as well as in industry sectors and Industry 4.0 approaches. Experts from all other sectors are also welcomed.



Topics

Submissions are expected from, but not limited to the following topics:

- Artificial Intelligence, Machine Learning, Deep Learning – Theoretical and practical aspects
- Data privacy and security issues in DS and DT
- Data driven business models
- Organizational and human factors, skills and qualifications for approaches of DS and DT
- Specific topics of Data Science:
 - Impacts of Business Analytics for the performance of profit or non-profit organisations
 - Statistical analysis and characterization, predictive analytics and prescriptive analytics
 - Process Mining, Pattern Mining, and Swarm Intelligence
 - Data quality assessment and improvement: preprocessing, cleaning, and missing data
 - Semi-structured or unstructured data in Business Intelligence systems
 - Data Science and Analytics for Healthcare and other Public Sectors
 - Educational Data Science
 - Social network Data Analysis
 - Web survey methods in Business Intelligence and Data Science
 - Implications of Blockchain for Data Science
 - Information Visualization and Visual Analytics
- Specific topics of Digital Transformation
 - Digitization and impacts for Digital Transformation
 - Dynamic Pricing: potentials and Digital Transformation Approaches
 - Cloud-computing models and scalability in Digital Transformation systems
 - Mobile BI, Smart Data, Smart Services, and Smart Products
 - Digital Marketing, new web services, semantic web and data analytics
 - Opportunities and Barriers of Agility on Digital Transformation
 - Digital Transformation as an enabler of Agility and Ambidexterity
 - New concepts of Agility in times of ongoing digitization
- Teaching new approaches of DS and DT in academic and industrial environments
- Theoretical and practical aspects, Applications and Industry Experience of DS and DT
- The new role of IT in enterprises

Paper Submission and Publication

- Papers will be refereed and accepted on the basis of their scientific merit and relevance to the conference.
- The required full paper length is 8 to 10 pages. Call for papers and detailed information for the authors can be found [here](#).
- Papers to be considered for the conference must be submitted through the PROSE online submission and review system available [here](#).

Session Chairs:

Prof. Ivan Luković, University of Belgrade, Serbia
Prof. Ralf-Christian Härting, University of Aalen, Germany

Important Dates

- Paper submission: **4 April, 2022**
- Acceptance notification: **13 May, 2022**
- Final paper submission: **3 June, 2022**
- Conference: **7 – 9 September, 2022**

More information

- About KES 2022 and IADSDTP / Invited Session IS25:
<http://kes2022.kesinternational.org/>
<http://kes2022.kesinternational.org/cms!Sdisplay.php>