

**ICDAM-2022**  
**International Conference on Data Analysis and Management**  
*Organized by THE KORKONOSZA UNIVERSITY OF APPLIED SCIENCE*

**On 25<sup>th</sup> - 26<sup>th</sup> June, 2022**

**\*\*\*\*\* CALL FOR PAPERS \*\*\*\*\***

**SPECIAL SESSION ON**  
**Data Science and AI Applications in the field of Engineering & Healthcare**

**EDITORIAL BOARD:**



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### **SESSION ORGANIZERS:**



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### **SESSION DESCRIPTION:**

Healthcare is being transformed by data science and artificial intelligence (AI). While advances in the sharing and analysis of medical data lead to better and earlier diagnoses and more patient-tailored treatments, trends like increased patient-centricity (with shared decision making), self-care (e.g., using wearables), and integrated care delivery have an impact on data management. The exchange and integration of health data across organizational boundaries is revolutionizing the way health services are delivered. Researchers can use data science and AI to develop new methods

for combining, analyzing, and processing complicated data in order to get more useful insights, understanding, and knowledge at the individual and population level.

This Research Topic examines how artificial intelligence (AI) is applied in healthcare, as well as related themes including data sharing, data management, and bioethical concerns. For instance, AI is playing an increasingly important role in data processing to support clinical practice, yet AI-based judgments are biased. The growing use of AI in healthcare opens up a slew of new and exciting possibilities, but it also raises trust (the "black box" problem) and privacy concerns. This issue aims to demonstrate how AI will affect healthcare, as well as address its benefits and drawbacks, as well as alternative remedies.

Data science is an interdisciplinary field that uses artificial intelligence and other approaches to extract knowledge and insights from large amounts of data.

#### **RECOMMENDED TOPICS:**

Topics to be discussed in this special session include (but are not limited to) the following:

- Data management in AI healthcare applications, including current, emerging and future applications (e.g., medical visualization)
- Use of devices beyond the traditional healthcare system to aid data collection (e.g., wearables)
- Barriers to the application of AI in healthcare, such as data bias from under-represented populations as well as policies around data sharing and open access vs proprietary platforms
- Management of big data, including use of FAIR Guiding Principles for scientific data management and stewardship
- Regulatory, legal, and ethical issues related to using of AI such as data governance, data protection, privacy, and bioethics (e.g. GDPR and AI)
- Distributed learning and use of federated data systems.
- Case studies of various related solutions, etc.

**SUBMISSION PROCEDURE:**

Researchers and practitioners are invited to submit papers for this special theme session on Data Science and AI Applications in the field of Engineering & Healthcare on or before 28/2/2022. All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at [http://icdam-conf.com/paper\\_submission.html](http://icdam-conf.com/paper_submission.html). All submitted papers will be reviewed on a double-blind, peer review basis.

**NOTE:** While submitting paper in this special session, please specify Data Science and AI Applications in the field of Engineering & Healthcare at the top (above paper title) of the first page of your paper.

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