



# International

*Innovation in Knowledge Based and Intelligent  
Engineering Systems*



## INVITED SESSION SUMMARY

**Title of Session: Knowledge and data engineering in medicine and health care**

**Name, Title and Affiliation of Chair:**

Chair: Pancierz Krzysztof, Associate Professor, Academy of Zamosc, Poland

Co-Chairs:

Paja Wieslaw, Assistant Professor, University of Rzeszow, Poland

Stoean Catalin, Associate Professor, University of Craiova, Romania

Wosiak Agnieszka, Associate Professor, Lodz University of Technology, Poland

**Details of Session (including aim and scope):**

This session provides an interdisciplinary forum for researchers and developers to present and discuss latest advances in research work as well as prototyped or fielded systems of applications of knowledge engineering in the different field of medicine. The session will cover the whole range of theoretical and practical aspects and technologies based on knowledge and data engineering in the medical domain and aims to bring together specialists for exchanging ideas and promote fruitful discussions.

The topics of interest include, but are not limited to:

- Knowledge Management and Analysis of Medical Data
- Ontologies and Modelling of Medical Information
- Computational Models of Cognition
- Social Aspects of Knowledge Engineering in Medicine and Health Care.
- Mining Gene Databases and Biological Databases
- Feature Learning, Grouping, Discretization, Selection and Transformation
- Frequent Pattern Mining
- High-Content Analysis of Microscopic Images in Medicine, Biotechnology and Chemistry
- Time Series and Sequential Pattern Mining in Medical Data
- Mass Data Analysis in Medicine, Dietetics, Drug Discovery and System Biology
- Text Mining in Electronic Medical Records
- Information Fusion and Knowledge Transfer
- Data Quality Assessment and Improvement
- Visualization of Disease Models, Prescriptions Drugs and Interactions, etc.
- Privacy and Security Issues, Fraud Detection in Healthcare Systems

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

University of Rzeszow, Department of Computer Science, Poland

University of Rzeszow, Interdisciplinary Centre for Computational Modelling (ICCM), Poland

University of Craiova, Department of Computer Science, Romania

University of Žilina, Department of Informatics, Slovakia

Lodz University of Technology, Poland

Academy of Zamosc, Poland

John Paul II Catholic University of Lublin, Poland

Singidunum University, Serbia

**Website URL of Call for Papers (if any):**

**Email & Contact Details:**

[krzysztof.pancerz@upz.edu.pl](mailto:krzysztof.pancerz@upz.edu.pl)

[wpaja@ur.edu.pl](mailto:wpaja@ur.edu.pl)

[catalin.stoan@inf.ucv.ro](mailto:catalin.stoan@inf.ucv.ro)

[agnieszka.wosiak@p.lodz.pl](mailto:agnieszka.wosiak@p.lodz.pl)