



**INVITED SESSION SUMMARY**

**Title of Session:**

Complex and dispersed classifiers (CDC 2024)

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

Assoc. Prof., dr hab. Małgorzata Przybyła-Kasperek,  
University of Silesia in Katowice, Poland

Ph.D., dr Rafał Skinderowicz,  
University of Silesia in Katowice, Poland

Assoc. Prof., dr hab. inż. Piotr Sulikowski  
West Pomeranian University of Technology

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

The aspect of using complex classifiers or ensembles of classifiers becomes extremely important due to the fact that increasingly we deal with difficult, multidimensional, and large data. Ensemble methods can generalize better and reduce the overfitting in comparison with a single classifier. Moreover, in the case of classifiers that perform local searches, the use of multiple classifiers often brings very good results. Using complex classifiers with hierarchical, parallel, or otherwise organized structures we can also speed up the computations with the help of parallel processing. Sometimes the improvement of classification time and quality can be obtained by searching only subspaces of possible solutions.

The main goal of the session is to attract researchers who will present their contributions, interdisciplinary approaches, or case studies in the area of complex and dispersed classifiers. Submissions are expected from, but not limited to the following topics: ensembles of classifiers, complex rule-based systems, applications of fuzzy sets and rough sets, data analytics, data mining using difficult data, as well as various aspects of machine learning, big data, and parallel processing.

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

West Pomeranian University of Technology, Poland  
University of Silesia in Katowice, Poland  
University of Economics in Katowice, Poland  
Lodz University of Technology, Poland  
Constantine the Philosopher University in Nitra, Slovakia  
University of Bielsko-Biala, Poland

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

**Email & Contact Details:**

Małgorzata Przybyła-Kasperek,  
malgorzata.przybyla-kasperek@us.edu.pl

Rafał Skinderowicz,  
rafal.skinderowicz@us.edu.pl

Institute of Computer Science, University of Silesia in Katowice, ul. Będzińska 39, Sosnowiec, Poland

Piotr Sulikowski,  
piotr.sulikowski@zut.edu.pl

Institute of Computer Science, West Pomeranian University of Technology, ul. Żołnierska 49, 71-210 Szczecin, Poland