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# Database and Expert Systems Applications - DEXA 2021 Workshops

BIOKDD, IWCFS, MLKgraphs, AI-CARES, ProTime, AISys 2021  
Virtual Event, September 27–30, 2021  
Proceedings

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# Preface

The Database and Expert Systems Applications (DEXA) workshops are a platform for the exchange of ideas, experiences, and opinions among scientists and practitioners – those who are defining the requirements for future systems in the areas of database and artificial technologies.

This year DEXA featured six international workshops:

- The 12th International Workshop on Biological Knowledge Discovery from Data (BIOKDD 2021)
- The 5th International Workshop on Cyber-Security and Functional Safety in Cyber-Physical Systems (IWCFS 2021)
- The Third International Workshop on Machine Learning and Knowledge Graphs (MLKgraphs 2021)
- The First International Workshop on Artificial Intelligence for Clean, Affordable and Reliable Energy Supply (AI-CARES 2021)
- The First International Workshop on Time Ordered Data (ProTime 2021)
- The First International Workshop on AI System Engineering: Math, Modelling and Software (AISys 2021)

DEXA workshops included papers that focus mainly on very specialized topics on applications of database and expert systems technology.

We would like to thank all workshop chairs and Program Committee members for their excellent work, namely Lukas Fischer and Bernhard Moser, the co-chairs of the BIOKDD workshop; Atif Mashkooor and Johannes Sametinger, the co-chairs of the IWCFS workshop; Anna Fensel, Bernhard Moser, and Jorge Martinez-Gil, the co-chairs of the MLKgraphs workshop; Sohail Khan and Thomas Strasser, the co-chairs of the AI-CARES workshop; Paolo Meloni, Maqbool Khan, Gerald Czech, Thomas Hoch, and Bernhard Moser, the co-chairs of the AISys workshop; Siegfried Hörmann and Florian Sobieczky, the co-chairs of the ProTime workshop.

DEXA 2021 was the 32nd in the series of annual scientific conferences on Database and Expert Systems Applications after Vienna, Berlin, Valencia, Prague, Athens, London, Zurich, Toulouse, Vienna, Florence, Greenwich, Munich, Aix en Provence, Prague, Zaragoza, Copenhagen, Krakow, Regensburg, Turin, Linz, Bilbao, Toulouse, Vienna, Prague, Munich, Valencia, Porto, Lyon, Regensburg, and Linz.

Due to the pandemic and for the safety of all participants as well as other restrictions preventing travel and gatherings, this year's DEXA was held as a virtual conference in the Central Europe time zone.

We would like to express our thanks to all institutions actively supporting this event, namely, once again:

- Johannes Kepler University Linz (JKU)
- Software Competence Center Hagenberg (SCCH)

- The International Organization for Information Integration and Web based applications and Services (@WAS)

Finally, we hope that all the participants of the DEXA 2021 workshops enjoyed the program that we put together.

September 2021

Gabriele Kotsis  
A Min Tjoa  
Ismail Khalil

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