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Weina Fu · Yuan Xu · Shui-Hua Wang · Yudong Zhang (Eds.)

# Multimedia Technology and Enhanced Learning

Third EAI International Conference, ICMTEL 2021 Virtual Event, April 8–9, 2021 Proceedings, Part II



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#### **Preface**

We are delighted to introduce the proceedings of the Third European Alliance for Innovation (EAI) International Conference on Multimedia Technology and Enhanced Learning (ICMTEL 2021). This conference has brought together researchers, developers, and practitioners from around the world who are leveraging and developing multimedia technologies and related enhanced learning methods. The theme of ICMTEL 2021 was "the state of the art and future perspectives of multimedia technologies and enhanced learning".

The technical program of ICMTEL 2021 consisted of 97 full papers, including 2 invited papers, in oral presentation sessions at the main conference tracks. Track 1 – state-of-the-art techniques for multimedia and Track 2 – multimedia-based applications with machine learning methods. The technical program also featured three keynote speeches and four technical workshops. The three keynote speeches were given by Manu Malek from Stevens Institute of Technology, USA, Ng Yin Kwee from Nanyang Technological University, Singapore, and Shuai Liu from Hunan Normal University, China. The five workshops organized were "Deep Learning Techniques for Online Social Network Analysis", which aimed to present novel solutions for problems of online social networks with deep learning methods; "Networking Representations of Data, Images, and Systems", which aimed to provide structure, thinking, and technologies of networking representations for image-based systems; "Intelligent Application in Education", which aimed to focus on the intelligent educational system with multimedia analysis; "Information Fusion and Their Applications", which aimed to analyze how to construct the information fusion system for multimodal multimedia data and the industrial application of the multimodal systems; and "AI-based Data Processing, Intelligent Control, and Their Applications", which aimed to discuss research on the dynamic system of multimedia data processing.

Coordination with the steering chairs, Imrich Chlamtac, Deshuang Huang and Chunming Li, was essential for the success of the conference. We sincerely appreciate their constant support and guidance. It was also a great pleasure to work with such an excellent Organizing Committee team for their hard work in organizing and supporting the conference. In particular, we are grateful to the Technical Program Committee, led by our TPC chair, Shi-Hua Wang, who completed the peer-review process of technical papers and put together a high-quality technical program. We are also grateful to the conference manager, Natasha Onofrei, for her support and all the authors who submitted their papers to the ICMTEL 2021 conference and workshops.

We strongly believe that ICMTEL provides a good forum for all researchers, developers, and practitioners to discuss all science and technology aspects that are relevant to multimedia and enhanced learning. We also expect that future ICMTEL conferences will be as successful and stimulating as ICMTEL 2021, as indicated by the contributions presented in this volume.

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