

EAI/Springer Innovations in Communication and Computing

José Antonio Marmolejo-Saucedo ·
Román Rodríguez-Aguilar ·
Pandian Vasant · Igor Litvinchev ·
Brenda M. Retana-Blanco *Editors*

Computer Science and Engineering in Health Services

6th EAI International Conference
Proceedings, COMPSE 2022, Mexico City,
July 28, 2022

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EAI/Springer Innovations in Communication and Computing

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Preface

Universidad Anáhuac México has been delighted to introduce the sixth edition of the European Alliance for Innovation (EAI) International Conference on Computer Science and Engineering on Digital Transformation in Organizations: New Challenges in the Post-Covid Era. This very interesting topic has arisen from the COVID-19 pandemic, which has given us the opportunity to search for different technologies to transmit the knowledge of distinguished engineering personalities from anywhere in the world. The plenary conference “Blurred Technology: Roadmaps for Artificial Intelligence and Bioengineering” by Dr. Utku Kose has invited researchers to explore the new possibilities of interaction who was presented by Brenda Retana.

We had the opportunity to prepare an online congress, receiving 16 papers which discussed topics of biomedicine, optimization, logistics, simulation, machine learning, IoT, strategy and artificial intelligence. The papers were sent from universities located in Europe, America and Asia. This modality of communication gives the opportunity to receive a greater number of papers for subsequent editions.

It is a pleasure to thank the support of the committee which is greatly appreciated, especially to Diego Leon, in charge of broadcasting the event. We are also grateful to the Dean of school of engineering MSc. Mario Buenrostro, Erika Pedraza and Ramiro Navarro for their support, and Dr. José Antonio Marmolejo and Veronika Kissova as EAI Conference Manager.

The School of Engineering of the Anáhuac University México strongly believes that this international forum is relevant to develop, discuss and strengthen new trends by engineering researchers members of scientific community for the benefit of others. We hope to contribute to future editions of EAI.

Naucalpan de Juárez, Mexico

Brenda M. Retana-Blanco

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About the Editors



José Antonio Marmolejo-Saucedo is a Professor at the National Autonomous University of Mexico, Mexico. His research is on operations research, large-scale optimization techniques, computational techniques and analytical methods for planning, operations and control of electric energy and logistic systems. He is particularly interested in topics related to artificial intelligence, digital twins, the Internet of Things and Industry 4.0. Currently, Prof. Marmolejo, together with his graduate students, leads the laboratory for the development of digital twins in companies and businesses. He received his PhD in Operations Research (Hons) at the National Autonomous University of Mexico. At present, he has the first-highest country-wide distinction granted by the Mexican National System of Research Scientists for scientific merit (SNI Fellow, Level 3). He is a member of the Network for Decision Support and Intelligent Optimization of Complex and Large-Scale Systems and Mexican Society for Operations Research. He has co-authored research articles in science citation index journals, conference proceedings, presentations, books and book chapters. E-mail: jose.marmolejo@fi.unam.edu.



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Igor Litvinchev received his MSc degree in Applied Mathematics from Moscow Institute of Physics and Technology (Fizteh), Russia, PhD in Systems Theory and Operations Research and DrSci (Habilitation) in Systems Modeling and Optimization from Computing Center, Russian Academy of Sciences, Moscow. He is currently a Professor at Nuevo Leon State University (UANL), Mexico. His research is focused on large-scale systems modeling, optimization, and control with applications to interdisciplinary research. Professor Litvinchev is an author of four books and an editor of eight more books published by Kluwer, Springer and Elsevier. He published more than 90 research papers in leading international journals and served in Program and Organizing Committees for more than 50 international conferences. His research was supported by more than 30 grants from NATO Scientific Affairs Division and European Community; ISF (USA) and RFBR (Russia); CNPq and FAPESP (Brasil); BRFBR (Belarus); CONACYT, PROMEP and PAICYT (Mexico). Professor Litvinchev is a member of the Russian Academy of Natural Sciences and Mexican Academy of Sciences. He is a co-founder of Mexican Society of Operations Research and Mexican Logistics and Supply Chain Association.



Brenda M. Retana-Blanco studied MSc in International Business at The Dublin Institute of Technology in Dublin, Irlanda, Diploma in Business at Macquarie University, Sydney, Australia and a BS in Industrial Engineering at Anahuac University, Mexico.

She is committed, proactive, process-oriented and focused on execution. Brenda is particularly interested in developing academic projects and financial and insurance sectors with the ability to relate and work in multicultural teams in Mexico and overseas.

She is currently Head of Industrial Engineering Department at Universidad Anahuac Mexico. It leads the national and international accreditations of the program. It is also responsible for updating the curriculum of the career, strengthening the knowledge lines of Operations Research, Data Mining, Manufacturing and Quality.