



**5th International Conference on Intelligent Computing & Optimization 2022**  
**October 27-28, 2022**

**Keynote Speakers**

**Modeling-based Optimization for Linear Integer Programming and Quantum Annealing based on Petri Nets**

**Professor Morikazu Nakamura**

**University of the Ryukyus, Okinawa Japan**



Morikazu Nakamura received B.E and M.E degrees from University of the Ryukyus in 1989 and 1991, respectively, and a D.E degree from Osaka University in 1996. He was a visiting researcher at University of Zaragoza in Spain from 1998 to 1999 and a visiting professor at the Center for Spatial Information Science of Tokyo University from 2001 to 2014. He is currently a professor in the Computer Science and Intelligent Systems unit, Faculty of Engineering, University of the Ryukyus. His research interests include algorithm design for optimization such as meta-heuristics, computational intelligence, quantum annealing, parallel and distributed processing design and analysis, and Petri net theory and its application. In addition, he performs collaborated research projects with agriculture and biology fields based on optimization and Petri net theory. He is a member of IEICE and IEEE. He was the chair of the MSS (Mathematical Systems Science and Its Applications) research group of IEICE from 2017 to 2018.

## **Methods of Biometric Cryptosystems with Iris Data**

**Professor Ivan Matveev**

**Federal Research Center “Computer Science and Control” of Russian Academy of Sciences (FRC CSC RAS)**



Ivan Matveev received MSc degree from Moscow Institute of Physics and Technology (MIPT) in 1997 and PhD in computer science from Dorodnitsyn Computing Center of Russian Academy of Sciences (CC RAS) in 1999. The focus of earlier works were 3D models in stereo vision, their estimation in real time, and applications in facial biometrics. Since 2002 Ivan was employed as a researcher in the department of Complex Systems at CC RAS and stays there till present time, currently in position of chief researcher. From 2001 to 2019 Ivan collaborated with Iritech Inc., developed recognition and medical diagnostic systems based on iris pattern and pupil shape. Based on the results and implementations, he received SciD degree in 2014. Also since 2011 Ivan is a senior researcher at the Aerocosmos Research Institute for Aerospace Monitoring, running the projects in processing of the Earth remote sensing data. In 2005 Ivan was invited at the Intellectual Systems chair of MIPT as a professor, now he is deputy head of the chair. Current field of interest is a broad range of remote sensing, data processing, pattern recognition, biometric identification, both theory and applications.

## **Unmanned Aerial Vehicle Application for Transport and Open Field Farm Activities Monitoring**

**Professor Elmer P. Dadios**

**De La Salle University, Manila, Philippines**



Dr. Elmer P. Dadios currently holds the rank of Distinguished Professor and University Fellow at the De La Salle University, Manila, Philippines. He is a Professorial Chair holder of Thomas J. Lee Chair in Manufacturing Engineering Management and Victor T. Lu Chair in Production Management at the DLSU Gokongwei College of Engineering. He is a consultant on software and hardware development in the area of robotics and intelligent systems applications. He is the Chairman of the Board of the Intelligent Systems Innovation (ISI) Corporation, and the Neuronmek Inc. His research interests include: robotics, artificial intelligence, evolutionary systems, fuzzy logic, neural networks, genetic algorithms, mechatronics and manufacturing processes. A multi-awarded educator and scholar, Elmer has earned over 20 recognitions and distinctions from various international and national scientific award-giving bodies and professional organizations. Among the awards he garnered include: The 2019 top 100 scientists

listed in Asian Scientist Magazine; The 2019 Leaders in Innovation Fellowship “Fellow” given by the United Kingdom Royal Academy of Engineering; The 2018 Philippine Association for the Advancement of Science and Technology D. M. CONSUNJI AWARD for Engineering Research. Lifetime Achievement Award from the National Research Council of the Philippines (NRCP). The Department of Science and Technology (DOST) 50 Men and Women of Science and Technology; The Department of Science and Technology (DOST) Scholar Achievers. Best Paper Presentation at the 27th Annual Conference of the IEEE Industrial Electronics Society (Denver, USA). Over All Best Paper Award in 2021 IEEE R10 Humanitarian Technology Conference. Outstanding Scientific Paper Award from the National Academy of Science and Technology (NAST); He was a recipient of the Japan Society for the Promotion of Science Exchange Scientist Program at Tokyo Institute of Technology, Tokyo, Japan. He was the chair of the IEEE Asia and the Pacific Awards and Recognition Committee. Currently, Elmer serves as editor of the Journal of Advanced Computational Intelligence and Intelligent Informatics (JACIII) published by the Fuji Technology Press, Ltd. (Tokyo, Japan). He is the Editor in Chief of the Journal of Computational Intelligence and Engineering Applications (JCIEA) published by the DLSU publishing house. Elmer edited and published four books on fuzzy logic systems with InTech (Croatia); On top of these, Elmer has published over 400 Scopus index technical papers in highly reputable journals and IEEE Xplore.

## **Data Science and Machine Learning for Smart Applications**

**Professor Mohammad Shamsul Arefin**

**Department of CSE, CUET, Bangladesh; Vice-Chair (Activity), IEEE CS BDC**



Professor Dr. Mohammad Shamsul Arefin is affiliated with the Department of Computer Science and Engineering (CSE), Chittagong University of Engineering and Technology, Bangladesh. Earlier he was the head of the department. Prof. Arefin is the Vice-Chair (Activity) of IEEE CS BDC for the year 2021. He was the Conference Co-Coordinator of IEEE CS BDC for two consecutive years, 2018 and 2019. He also served IEEE in different format such as Organizing Chair, International Conference on Big Data, IoT and Machine Learning (BIM 2021) to be held on September 23-25, 2021 at Cox’s Bazar, Bangladesh, TPC Chair, International Conference on Electrical, Computer and Communication Engineering (ECCE 2017). Organizing Co-Chair, ECCE 2019, Organizing Chair, 1st National Workshop on Big Data and Machine Learning (BDML 2020) and Technical Co-Chair, Winter Symposium organized by IEEE CS BDC. Dr. Arefin has more than 120 referred publications. He received his Doctor of Engineering Degree in Information Engineering from Hiroshima University, Japan with support of the scholarship of MEXT, Japan. As a part of his doctoral research, Dr. Arefin was with IBM Yamato Software Laboratory, Japan. His research includes privacy preserving data publishing and mining, distributed and cloud computing, IoT and big data management, multilingual data management, semantic web, object oriented system development and IT for education, agriculture and environment. Prof. Arefin is the Editor in Chief of Computer Science and Engineering Research

Journal (ISSN: 1990-4010) and was the Associate Editor of BCS journal of Computer and Information Technology (ISSN: 2664-4592) and a reviewer of many international journals and conferences. Dr. Arefin has more than 100 referred publications in international journals, book series and conference proceedings. Dr. Arefin is a senior member of IEEE, Member of ACM, Fellow of IEB and BCS. Prof. Arefin involves / earlier involved in many professional activities such as Chairman of Bangladesh Computer Society (BCS) Chittagong Branch; Vice-President (Academic) of BCS National Committee; Executive Committee Member of IEB Computer Engineering Division; Advisor, Bangladesh Robotic Foundation. He was also a member of pre-feasibility study team of CUET IT Business Incubator, first campus based IT Business Incubator in Bangladesh. Dr. Arefin visited Japan, Indonesia, Malaysia, Bhutan, Singapore, South Korea, Egypt, India, Saudi Arabia and China for different professional and social activities.