Proposal of a half-day Tutorial 4th IEEE International Conference on Industrial Cyber-Physical Systems (ICPS 2021)

Wider Applications of Industry 4 and Data Management in The (post) Corona Period

Organizer: Navid Sadjadi

The emergence of the pandemic has caused the businesses to constrain the contact to the citizens. Upon the studies, the shutdown of the business caused the major progress in utilization of the industry 4 solutions and data management.

At the external relations, the businesses have turned to the major use of m-commerce, e-commerce, remote sensing, data analysis, data mining, social networks, multi-agent system and robotics to keep the contact to the involved actors in the value chain.

Inside the businesses, also artificial Intelligence solutions, augmented reality (AR), internet of things and data fusion are between the interested technologies of the manufacturers and businesses.

Therefore, we plan to present the different aspects of the technological solutions that will assist in the reconstruction of the business and industry in the (post) period of corona in this tutorial.

We would try to keep the presentation at the modest level such that no deep background will be required for the interested students, researchers and practitioners. The minimum number of participants is predicted to be about fifteen.

Speakers

- José M. Molina
- Jesus Garcia
- Behzad Moshiri
- Navid Sadjadi

Proposed Topics to Discuss

- Post Pandemic Measures Foster the Transition Toward the Smart City Conceptualization
- Data and Information Fusion in Monitoring Applications
- Application of Soft and Hard Data Fusion in Industry 4.0
- Multiagent Solutions in IoT Applications

Biography of Speakers

José M. Molina is full professor at the Universidad Carlos III de Madrid. He joined the Computer Science Department of the Universidad Carlos III de Madrid in 1993. Currently he coordinates the Applied Artificial Intelligence Group (GIAA). His current research focuses on the application of soft computing techniques (NN, Evolutionary Computation, Fuzzy Logic and Multi-Agent Systems) to radar data processing, air traffic management, e-commerce and ambient intelligence. He has authored up to 50 journal papers and 100 conference papers. He received a degree in Telecommunications Engineering in 1993 and a PhD degree in 1997 both from the Universidad Politécnica de Madrid.

Jesus Garcia is full professor at the Universidad Carlos III de Madrid, Computer Science Department. His main research interests are computational intelligence, sensor and information fusion, machine vision, traffic management systems and autonomous vehicles. He has co-authored more than 10 book chapters, 60 journal papers and 180 conference papers. He has served on several advisory and programming committees in organizations IEEE, ISIF and NATO.

Behzad Moshiri is currently full professor of control systems engineering at the school of ECE, University of Tehran. He has also been as adjunct professor of the department of ECE at the University of Waterloo, Canada since 2014. He is now serving as the chairman of the IEEE control system chapter in the Iran section since March 2019. He has been the member of the International Society of Information Fusion (ISIF) since 2002 and senior member of IEEE since 2006. He is the author/co-author of more than 360+ articles including 120+ journal papers and 20+ book chapters. His fields of research include advanced industrial control, advanced instrumentation systems, data fusion theory and its applications in areas such as robotics, process control, mechatronics, information technology (IT), intelligent transportation systems (ITS), bioinformatics and financial engineering.

Navid Sadjadi has the extensive experience in teaching at all levels and in providing the workshops and tutorials. His teaching specialties include data management, digitalization and optimization of the ICT based Industries. His publications include theoretical and application based academic articles and case-studies in the high impact Journals and two methodological monographs (books).