

Practical Cyber-Physical Systems in Industry 4.0 and Society 5.0

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Abstract

Nowadays, a lot of types of communication system to make consensus among people are provided. We can utilize these kinds of systems, such as Social network system, e-mail, and instant messenger system, to make a decision and determination through online discussion. In the next decade, we can forecast a lot of types of consensus formation systems are provided and we may find new communication systems integrating between cyber and physical environment. In this talk, I introduce our conducted experiments using cyber-physical discussion environment in the panel discussion session in the conference. In the session, facilitator asks question to panelists about issues on the discussion and attendees can also do as well by their voice. Each attendee also can post and declare his/her opinions and suggestions through the online discussion system during the session. One or two facilitators facilitate the discussion in the online system as well as real discussion. We found out a lot of interesting results of attendees survey taken in before/after the experiments. I also introduce the environment to provide useful information for attendees by the digital signage system in the conference venue. This digital signage system is connected to the attendees location capture system and conference registration system. These integrations between cyber and physical environments and data enable to make better consensus formation between all sorts of people.

Bio

Dr. Tokuro Matsuo is currently a Full Professor (tenured) at Advanced Institute of Industrial Technology (AIIT) in Public University Corporation Tokyo Metropolitan University from 2012. Also, he is currently a Director of Research Center for Artificial Intelligence and Service Science at AIIT; CEO of International Institute of Applied Informatics (IIAI); a Guest Professor at Bina Nusantara University, Indonesia; a Guest Professor at Nagoya Institute of Technology, Japan; an Adjunct Professor at Asian University, Taiwan; and Japan Conference Ambassador. He was an Associate Professor (tenured) at Yamagata University, Japan (2006-2012); an Invited Professor at City University of Macau, Macau (2018-2020); a Visiting Professor at University of Nevada, Las Vegas, USA (2016-2017); a Vice-President, International Association for Computer and Information Science, USA (2015-2017); a Vice-President, Software Engineering Research Foundation, USA (2013-2018); a Visiting Researcher at University of California at Irvine, USA (2010-2011); a Research Fellow at Shanghai University, China (2010-2013); and a Project Professor of Green Computing Research Center at Nagoya Institute of Technology, Japan (2011-2014); and a Research Fellow of SEITI in Central Michigan University, USA (2010-2018). He received my Ph.D. in computer science from Nagoya Institute of Technology in 2006. His current research interests include agent-based electronic commerce, qualitative reasoning and simulation, material informatics, IT and business management, and IoT.