

APARM Special Session Proposal

Special Session Basic Information:

Session Title	Frontiers in Process Performance Evaluation Using Statistical Techniques
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Introduction and topics

This special session welcomes high-quality research contributions focusing on statistical evaluation methods for high-quality level processes. As manufacturing systems continue to advance toward greater precision, reliability, and sustainability, rigorous statistical tools play an increasingly critical role in ensuring consistent process performance. We invite studies that develop, refine, or apply statistical methodologies such as quality control charts, process capability analysis, multivariate quality assessment, Bayesian approaches, machine-learning-assisted evaluation, and other innovative methods to address the challenges of modern high-quality production environments. Both theoretical advancements and practical applications are highly encouraged. This session aims to bring together researchers and practitioners to share insights, exchange ideas, and explore new directions for enhancing quality evaluation in advanced manufacturing systems.

Special Session Chair(s):

	Name	Shih-Wen Liu
	Prefix	Associate Professor
	Department	International Master Program in Smart Manufacturing and Applied Information Science
	Organization	National Chin-Yi University of Technology
	City/Region	Taichung City/Taiwan

Organizer's Brief Biography

Dr. Shih-Wen Liu serves as an Associate Professor within the International Master Program in Smart Manufacturing and Applied Information Science (SMAIS) at National Chin-Yi University of Technology (NCUT) in Taiwan. He earned his Ph.D. in Industrial Management from National Taiwan University of Science and Technology (NTUST) in 2016.

His academic development was notably supported by the Ministry of Science and Technology (MOST) of Taiwan, which enabled him to participate in research programs at Rutgers University in the United States in 2015.

Before joining the faculty at NCUT, Dr. Liu accumulated three years of industry experience as an R&D engineer in the Hsinchu Science Park, a role that significantly enhanced his expertise in Industrial Engineering. His professional background also includes serving as a Postdoctoral Researcher at the

Quality Management Lab at National Tsing Hua University (NTHU).

Dr. Liu's research focuses on several critical domains, including quality engineering and management, statistical process control, process capability analysis, applied statistics, and data analysis.

	Name	Netnapha Chamnisampan
	Prefix	Assistant Professor
	Department	International Master Program in Smart Manufacturing and Applied Information Science
	Organization	National Chin-Yi University of Technology
	City/Region	Taichung City/Taiwan

Organizer's Brief Biography

Dr. Netnapha is an assistant professor in the International Master Program in Smart Manufacturing and Applied Information Science at the College of Management, National Chin-Yi University of Technology. She specializes in Supply Chain Management, Platform Economy, Operation-Finance Interface, and Economics of Information Systems. Dr. Netnapha holds a Ph.D. in Industrial and Information Management from National Cheng Kung University, Taiwan, and has a diverse professional background in academia and industry.