
Editorial

Hung-Yin Tsai*

Department of Power Mechanical Engineering
National Tsing Hua University,
No. 101, Sec. 2, Kuang-Fu Rd.,
Hsinchu City, 30013, Taiwan
Email: hytsai@pme.nthu.edu.tw
*Corresponding author

You-Min Huang and Zone-Ching Lin

Department of Mechanical Engineering,
National Taiwan University of Science and Technology,
No. 43, Sec. 4, Keelung Rd., Taipei City, 106, Taiwan
Email: ymhuang@mail.ntust.edu.tw
Email: zclin@mail.ntust.edu.tw

Biographical notes: Hung-Yin Tsai received his BS and PhD degrees in Power Mechanical Engineering from National Tsing Hua University, Taiwan in 1994 and 1999, respectively. He is currently Professor and Vice Chair at the Department of Power Mechanical Engineering, National Tsing Hua University, Taiwan. He received the silver medal of National Innovation and Creation Award by Ministry of Economic Affairs at the national level in 2005 and National Innovation Award in 2011. His current research interests include advanced fabrication and analysis of nano/micro-structure, diamond film deposition and its field emission applications, image processing, automated optical inspection and additive manufacturing.

You-Min Huang received his BS in Mechanical Engineering from Tamkung University, Taipei, Taiwan, in 1974, and the Doctor of Engineering degree in Mechanical Engineering from the University of Tokyo, Tokyo, Japan, in 1981. He is currently a Distinguished Professor at the Department of Mechanical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan. His primary research focuses on the area of sheet metal forming processes, rapid prototyping processes, micro-forming processes and thin films. He is a member of CSME, and serves as the Chairman of Taiwan Society for Technology of Plasticity (TSTP).

Zone-Ching Lin received his PhD in Mechanical Engineering from the Purdue University in 1984. He is Chair Professor at the Department of Mechanical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan. He received the Merit MOST Research Fellow Award from the Ministry of Science and Technology, Taiwan in 2012, and the William Johnson Gold Medal Award in 2013 in recognition of his achievements in research and technology development. His research interests cover the areas of forming, machining, micro/nano technology, and innovative engineering and patents analysis. He is currently the President of the Chinese Society of Mechanical Engineers.

Advanced surface engineering has been widely applied in different industrial sectors. Recent developments in surface integrity, surface treatment or modification, micro/nano-structure fabrication, surface grinding and polishing, metrology on micro/nano patterns, thin film deposition or coating, and analysis of advanced machining are highly related to the manufacturing processes. This special issue provides a forum for scholars, researchers and engineers to present recent researches exploring the challenges and/or surmounting difficulties in advanced surface engineering in manufacturing processes.

The issue carries revised and substantially extended versions of selected papers presented at the 16th International Conference on Advances in Materials and Processing Technologies (AMPT 2013), and also some articles submitted by researchers who were unable to participate in the conference.