Abstract
Scheduling is essential in manufacturing to enable timely and cost-effective production, and thereby to meet the deadlines of the products with target qualities. Scheduling has also adapted itself to the ongoing manufacturing technologies as well as drastic changes in social, economic and environmental conditions, which implies that scheduling in manufacturing is a crucial decision making process; often recognized as "the control stick" of a large and complicated manufacturing system. The talk will start with the fundamental role of scheduling in real manufacturing, followed by introducing the representative scheduling models and methods. The advanced topics in scheduling will be also addressed in this lecture, such as how to cope with uncertainties and energy-aware manufacturing operations.

Vita
Haruhiko Suwa is a professor of Mechanical Engineering at Setsunan University. He has been the Setsunan faculty since 1997, and has served as a Director of Techno-Center at Setsunan University since April, 2014. He has been a Visiting Scientist of Lab for Manufacturing and Productivity at Massachusetts Institute of Technology. He received his B. Eng., M. Eng. and Ph.D. in engineering degrees from Kobe University, respectively in 1992, 1994 and 1997. His research areas cover systems engineering, manufacturing engineering and industrial/operations management. He is currently interested in optimization of green manufacturing systems and energy-aware planning/scheduling. He was awarded the Best Presentation Award from Institute of Electrical Engineers of Japan in 2003, and the Best Paper Award from Scheduling Society of Japan in 2007.