
Introduction

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Biographical notes: Tugrul U. Daim is an Associate Professor and PhD Program Director in the Department of Engineering and Technology Management at Portland State University. He has published over 200 refereed papers in journals and conference proceedings. He has co-authored four books of readings and several proceedings. He is the Editor-in-Chief of *International Journal of Innovation and Technology Management*. He received his BS in Mechanical Engineering from Bogazici University in Turkey, MS in Mechanical Engineering from Lehigh University in Pennsylvania, MS in Engineering Management from Portland State University, and PhD in Systems Science: Engineering Management from Portland State University in Portland Oregon.

As the world gets more populated and resources get scarce, use of our resources and building a sustainable future becomes a priority.

Sustainable development then becomes a mechanism to reach to a sustainable future. As we build a sustainable infrastructure, we leverage development through multiple perspectives. One of the critical elements of development is technology. Emerging and established technologies will enable the sustainable future while impacting multiple areas on the way. So it is critical to explore management of technology along its journey building a sustainable future.

This issue is compiled with papers selected from Portland International Conference on Management of Engineering and Technology which was held in Portland, Oregon, USA in August of 2011.

Linstone (1999) provided three perspectives to explore multiple perspectives: Technical, Personal and Organisational. Papers in this issue are distributed along these perspectives. There are five papers in this issue.

Wong et al. focus on the technical perspective in the development of an intelligent vehicle management system which targets reduction of pollution. They use a genetic algorithm to define the appropriate sets of components for the development of vehicle engine.

Ojanen et al. merge personal and organisational perspectives in their study of asset management where they explore the customer value expressed as availability and economic sustainability.

J. Zhou et al. focus on disruptive innovations through a cellular phone case and argue that changes in business models are required to initiate a disruptive innovation. Linstone (1999) explained this as the organisational perspective. He argued that technical innovations will need to be matched with organisational innovations to fully exploit the technical innovation. Mizushima and Ikawa explore the open source phenomenon which merges all three perspectives. They also emphasise the balance among the three

perspectives. Q. Zhou et al. study sustainable development at a regional level and demonstrate the whole point of this issue by establishing a significant relationship between technological innovation and economic growth.

As a whole, this issue creates several future research questions to explore. It is critical to leverage technology to attain sustainable development. However, as demonstrated by the papers in this issue, managing technology while paying attention to the multiple perspectives is the key.

Reference

Linstone, H.A. (1999) *Decision Making for Technology Executives: Using Multiple Perspectives to Improve Performance*, Artech House, Boston, MA.