
Editorial

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Biographical notes: Tugrul U. Daim is an Associate Professor of Engineering and Technology Management at Portland State University. He had been with Intel Corporation for over a decade before he joined PSU as a fulltime faculty. His research involves exploration of technology assessment in industries including automotive, energy, semiconductor manufacturing, communications and healthcare. He consults with government agencies and companies all around the world. He is also a Visiting Professor at Technical University of Hamburg Harburg. He has over 100 papers published in journals and conference proceedings. He is the Editor-in-Chief for *International Journal of Innovation and Technology Management*. He has his PhD in Systems Science and Engineering Management and MS in Engineering Management from Portland State University, MS in Mechanical Engineering from Lehigh University and BS in Mechanical Engineering from Bogazici University in Turkey.

Automotive sector has witnessed several changes in the recent decades. There are several countries which started to emerge as leaders while leaders such as the USA have been struggling to hold on to their leadership. One of the critical reasons for such changes can be attributed to effective practices of technology management. For example General Motors has always been ranked in the top five in terms of its research and development expenditures. However this did not help the company which had to file bankruptcy very recently. This clearly demonstrates that investing into new technologies can not alone lead any company to success. The key is effective technology management.

Portland International Center for Management of Engineering and Technology (PICMET) holds an annual conference on technology management. This issue is compiled from papers presented at prior PICMET conferences. The papers deal with several aspects of managing technology in the automotive sector with six applications from five different countries. Each paper deals with a different aspect of managing technology.

The issue starts with a research paper from Japan. Shirahada explored the aspects of managing technical personnel. As stated by Shirahada improving for the employee's goal commitment is one of the crucial issues for highly competitive environment. As a result of investigation of 63 technical personnel in a large Japanese automobile company, the author found that the managerial actions contributed to realizing fruitful communication between managers and subordinates and increasing employees' goal commitments.

The next two papers focused on modular design. Shamsuzzoha et al. from Finland concluded through a literature survey that modular product structures ensure real improvements and provide considerable benefits for the business firms. Cauchick Miguel and Prieto from Brazil explored transferring value-added activities within the context of

modular design through multiple case studies and found that the companies studied were positioned in distinct levels of modular competencies according to the empirical evidence.

Hussain and van Waveren studied the implementation of total quality management in the South African motor industry. They found that there are definitely differences in the manner business is conducted among different types of suppliers.

The last two papers explored research and development (R&D) management as well as technological innovation in the Chinese automotive industry. Li and Xie developed and tested an R&D capability assessment model for the Chinese automotive industry. Xie on the other hand explored opportunities and the challenges of the Chinese automotive part industry and proposed strategies for improving technology innovation mode of Chinese automotive part makers.

Overall the issue covered different aspects of technology management including personnel management, design management, quality management, R&D management, and innovation management through the perspectives of five different countries.