
Editorial

Gang Xie*

Academy of Mathematics and Systems Science,
Chinese Academy of Sciences, Beijing 100190, China
Fax: +86-10-62541823
E-mail: gxie@amss.ac.cn
*Corresponding author

Wuyi Yue

Department of Intelligence and Informatics,
Konan University, 8-9-1 Okamoto, Kobe 658-8501, Japan
E-mail: yue@konan-u.ac.jp

Shouyang Wang

Academy of Mathematics and Systems Science,
Chinese Academy of Sciences, Beijing 100190, China
E-mail: sywang@amss.ac.cn

Biographical notes: Gang Xie received his PhD in Management Science and Engineering from Huazhong University of Science and Technology, Wuhan, Hubei Province, China, in 2006. He is an Assistant Professor at Academy of Mathematics and Systems Science, Chinese Academy of Sciences. His research interests are focused in project management, supply chain management, risk management and rough sets.

Wuyi Yue received her BEng in Electronic Engineering from Tsinghua University, China, and MEng and Dr. Eng. in Applied Mathematics and Physics from Kyoto University, Japan. She is currently a Professor at the Department of Intelligence and Informatics, Konan University, Japan. She is also the Director of the Institute of Intelligent Information and Communications Technology, Konan University. She is a Fellow of the Operations Research Society of Japan, senior member of the IEICE of Japan, member of the IEEE and other societies. Her research interests include stochastic processes, optimal methods, operations research, operations management, performance modelling and analysis, and systems engineering.

Shouyang Wang received his PhD degree from Chinese Academy of Science in 1986 and is a Bairen Distinguished Professor of Management Science at Academy of Mathematics and Systems Sciences, Chinese Academy of Sciences and Chair Professor of Hunan University. His current research interests cover decision analysis and risk management, operations management, and economic forecasting. He is a co-editor of 16 journals including *Information and Management*, and *Energy Economics*. He has published 25 monographs and over 180 journal papers in top journals in the related fields.

Over the past decades, project risk management (PRM) has gained increasing attention. A risk is something that may happen and if it does, will have a positive or negative impact on the project. Generally, the process of PRM includes risk identification, risk assessment, risk analysis, risk response and risk monitoring.

Nowadays, rapid technological developments, organisational changes and increased demand for efficiency have all brought risk variability to project management. For many industries, during the life cycle of a project, risk status alters frequently. There is the need to investigate dynamic risk management in the project. Projects are subjected to more risks in their development process. For example, a petroleum project involves multiple risks, such as political and economic risks, environmental risk, price volatility and financial risk, and geological and technical risks. Hence, we should cope with multiple risks. Due to the insufficiency in PRM, some of projects, for example, BP oil-leak events of the offshore petroleum project in Gulf of Mexico, have caused great calamity. Also, there are risks beyond human control such as the 9-11 terrorist attack in New York, Hurricane Katrina in New Orleans and the 5-12 Earthquake in China. As a result, risk response measures should be taken for these risks.

This special issue is intended to publish the newest researches on PRM and its applications. While research in the area of PRM encompasses a wide range of topics and methodologies, we expect this special issue to provide a good snapshot of current and emerging concepts, tools, approaches, issues, and trends within the field. The aim of this special issue is to disseminate state-of-the-art research on PRM.

Eight papers are accepted for this special issue. The first two articles are for risk response in projects as follows.

‘A structured process to managing complex interactions between project risks’, authored by Franck Marle, presents a structured project risk interactions management (PRIM) process for risk response planning decisions.

‘Evaluating the effectiveness of task overlapping as a risk response strategy in engineering projects’, authored by Lucas Grèze, Robert Pellerin, Patrice Leclair and Nathalie Perrier, proposes an evaluation model to measure the effectiveness of overlapping strategy as a risk response in terms of additional cost and total maximum time reduction.

The next three articles are general papers with new methods and results as follows.

The paper entitled ‘Fuzzy critical chain risk management for quantifying impact of variation in non-critical activity duration on project duration’, authored by Thoetida Thipparate, develops a method for quantifying and minimising risks causing variation in critical and non-critical activity duration which influences a project completion time. Uncertainty associated with the risk assessment and variation in activity duration is represented by fuzzy numbers.

‘Optimal resource allocation in activity networks – stochastic environment’, authored by Salah E. Elmaghraby and Girish Ramachandra, treats the problem of optimally allocating a single resource under uncertainty to the various activities of a project to minimise a certain economic objective composed of resource cost and tardiness cost.

‘Lock-in risk in IT outsourcing projects: mechanism and mitigation system’, authored by Guodong Cong, provides an insight into the mechanism and the effectiveness of mitigation system on lock-in risk.

The last three articles are more application oriented as follows.

‘Managing rare and undetectable events in risk assessment: the case of a satellite system launch project’, authored by Cristiano Angeletti, Andrea Giacchero and

Massimiliano M. Schiraldi, focuses on those risks that, despite their low occurrence probability, may significantly compromise a project result. The case of a satellite system launch project is used to illustrate the risk evaluation procedure and detectability issues.

‘Project risk management practices in the UAE construction industry’ is authored by Sameh Monir El-Sayegh. The objectives of the study are as follows:

- 1 evaluate the risk management practices in the UAE construction industry in order to identify deficiencies
- 2 identify the key barriers to the successful implementation of a formal risk management process
- 3 compare the practices of international and local companies working in the UAE.

‘The communicative effect of risk identification on project success’, authored by Karel de Bakker, Albert Boonstra and Hans Wortmann, provides an insight on how the use of risk identification plays an important role in project success, especially highlights the effect of communication between project members during risk identification.

This special issue is a result of hard work of the authors and the reviewers. It is a pleasure for us to witness very critical and constructive discussions and reviews. We are grateful for their contribution. The work is supported by the National Natural Science Foundation of China (No. 70871107, 70731003) and China Postdoctoral Science Foundation (Grant No. 20060400103), and is in part supported by the Grant-in-Aid for Scientific Research (No. 21500086) and the Hirao Taro Foundation of KUAAR, and MEXT, Japan. Also, we thank the Editor-in-Chief, Professor John Wang, of the *International Journal of Project Organisation and Management (IJPOM)* for his support and encouragement.