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## Editorial

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**Biographical notes:** Kleanthis Sirakoulis holds a BSc in Mathematics (University of Thessaloniki) and a PhD and an MSc in Planning with emphasis in quantitative methods for spatial analysis (University of Thessaly). Since 2003, he is a Lecturer at the Department of Project Management, Technological Education Institute of Larissa. He teaches project scheduling, operation research and statistics. His research is focused on the development and application of statistical and operational research methodologies in the fields of project management. His work has been published in journals and conference proceedings.

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The application of project management principles and tools covers a plethora of activities. From construction industry to developmental programmes project management offers a cohort of valuable methodologies and instruments to use human and material resources in an efficient way, coordinate tasks effectively, meet deadlines and achieve well-specified goals and objectives successfully. For complex projects such as construction, project management proves to be an indispensable instrument in managing and integrating resources towards a pre-specified objective. Indeed, accumulated experience proves that construction projects is one of the many fields that such management tools and principles are of vital and paramount importance that secure successful completion. Furthermore, construction management has emerged as a field where new ideas, tools and principles of project management have been developed and tested before finding more general applications in other areas.

However, the reverse is also the case. In fact, as Dubois and Gadde (2002) astutely observe, as the complexity of construction projects is increasing the transfer and application of management tools and ideas from other sectors is becoming more and more challenging. But this complexity with the concomitant needs, it generates for construction firms has acted as the impetus to radically change the construction sector in many countries as noted by Veenswijk and Berendse (2008). For instance, Dulaimi et al. (2003), in the case of Singapore, have studied the motivational factors which encourage construction firms to adopt innovations and conclude that the benefits stemming from an innovation must be substantial and all parties must be involved in the process for it to be successful.

The 5th Scientific Conference on Project Management that was organised by PM-Greece (member of IPMA) in Crete 29–31 May 2010 was a forum where such issues concerning, were discussed and debated by both academics and practitioners. This special issue of *International Journal of Project Organisation and Management* contains a selection of papers that were presented in this conference on ‘Concepts, tools and techniques for managing successful projects’. Rokou et al. paper presents an effective

method for schedule reengineering and optimisation through knowledge acquisition. Assuming that the main problem of schedule development is about defining the right activities, their duration and the right dependencies among project activities; paper shows the creation of a corporate memory in the form of a set of schedule prototypes, along with all the needed processes for future projects execution. Christodoulou et al. paper deals with the relationship between project resources and the entropy generated during construction, showing that there is a strong relationship between entropy and project duration and cost. The aim is to optimise the allocation of resources in a resource-constrained project by use of entropy metric, to study the delays which occur during the project and to relate them with the resources and the entropy in the project. Yuan and Polychronakis develop a framework that deals with the project scheduling problem from the start of a project through to the finish, and therefore, provides a whole robust project scheduling strategy which is tolerant to various uncertainties. The proposed scheduling framework tested using a large experimental design in order to detect the effectiveness of each procedure. Carter and Chinyio is an extensive survey conducted with participants from the UK construction industry. It focuses on barriers and enablers for risk management and in view of these, solutions for improvement were proffered such as providing adequate training to personnel, not circumventing some steps in the risk management process and nurturing the right attitude towards risks. The topic of risk management is the theme of Yirenyi-Fianko et al. They identify critical success factors and examine the perception of construction professionals on their importance. The paper is based on a postal survey from 103 construction organisations in Ghana that are active in the local construction industry. The paper argues that the identified critical success factors could be used as a 'road map' for the successful implementation of risk assessment and management processes in developing countries. Marinelli et al. focus on earthmoving trucks deterioration. The paper uses data from two large Greek construction companies containing the characteristics of 126 earthmoving trucks (capacity, age, kilometres travelled to date, maintenance class, and condition level) that have been analysed by means of discriminant analysis. The analysis allows for the assessment of the connection of each characteristic with the condition level of the sample trucks and also leads to rules that can be used for the prediction of the condition level of other trucks. Badger et al. explore the link between leadership competency at a construction site, project success and profitability and the possibility of identifying a 'great superintendent'. Based on empirical data, the study confirms a significant correlation between field construction superintendent's leadership competency and job performance. Finally, Edrisi and Bajracharya deal with rework from an organisation's perspective. This contribution to the special issue presents the rework and its source as it is understood by project team members in an organisation which works with power system projects in the United Arab Emirates (UAE). Using an inductive qualitative approach to explore the understanding of rework in the organisation, the findings show that 'failure in quality' and 'change from the side of customer' is the two primary sources that are responsible for generating rework in the projects.

Before concluding this short editorial, I would like to express my sincere thanks to all the colleagues that have, as authors, contributed with their valuable inputs towards this special issue. Special thanks are also owed to John-Paris Pantouvakis – President of the 5th Scientific Conference on Project Management – who kindly released the copyright from the initial papers and Professor John Wang who gave me the opportunity and the encouragement to edit this issue. Last but not least, many thanks to the anonymous

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