

GUEST EDITORIAL PREFACE

Special Issue on Information Systems Applications in Project Management: From Construction to Digital Cities

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The use of information systems in project management is not a new issue. Due to the complexity of large scale projects it is impossible to manage a project without the appropriate software. According to a survey conducted by Liberatore et al. 83% of professional project managers use project management software for planning and control, and that in construction industry resource levelling is used by 58% for planning and by 44% for project control. Geoff Reiss (2000) describes the information systems available for programme planning and management. The basic argument is that “the current breed of software tools, which were developed in the context of project management, are not adequate for the needs of programme management”. The observation seems to be true since most of the existing tools were developed for the single project case and they modified to extend their applicability into the multi-project environment. The rapid growth of Information Technology creates a totally new picture in

the area of project management software. As Levy (2007) said “Wireless mobility has freed the project manager and their field supervisors from their copper umbilical cord so they can now instantaneously transmit and receive verbal and written directives at the touch of a button from their office, from the field, or traveling in between”. In the new era project management information systems are not only a relational database able to manage task and resources, but something more complicate. The special issue tries to illuminate a part of this area in project management trends.

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 Information Technology Project Management contains a selection of papers that were presented in this conference on ‘Concepts,

tools and techniques for managing successful projects'. Fragkakis et al. paper presents a computer-aided conceptual cost estimating system for prestressed concrete road bridges. The system provides estimates of the material quantities and cost of all bridge elements. It relies on a database incorporating actual data collected from recently constructed bridges and exploits material estimating models developed with statistical analysis. As it can be used to provide different cost estimates to the owner, designer and contractor during the project's early stages, the proposed computer-aided system represents a useful decision making tool. The paper of Vukomanović et al. develops a neural network model for predicting cost of prefabricated housing. The neural network model was applied on more than 30 projects and it relies on 17 critical cost prediction variables. The main result for the construction industry is that using this model the firms can influence project performance during project early phases, and acquire more competitive position on the market. Martin Böhringer and Dirk Röhrborn paper deals with Microblogging in Project Management. Their attempt starts from the observation that Microblogging represents a significant change in enterprise communication. The paper aims to improve project communication and documentation with status Information. It introduces the technology's concept, motivates use cases and discusses two examples as well as available software tools. Maravas et al. paper focuses on an integrated information system for monitoring construction works. The integrated information system that has been utilized to monitor the construction works of the Egnatia Motorway project in Greece is presented in this paper. Since Egnatia Motorway has a lot characteristics, like its geographical dispersion, the number of contractors and subcontractors involved and the total amount of work, it easily can be recognized as a large and complex construction project. Except the presentation of the software, hardware, information technology architecture, quality procedures and personnel training for the successful implementation of

the system the paper suggests comments made from the experiences drawn from the implementation of the system. Finally, Anthopoulos et al. present a paper on the Project Management perspective for a Digital City. The topic of digital cities seems to be very important during the last decade. The aim of the paper is to approach the digital city as a unique project instead of a program of projects. The paper tends to describe a common management model for such kind of projects and to provide with useful instructions that can be used by current and by future project managers who approach a similar initiative.

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 referees whose valuable comments and insightful suggestions helped to improve the quality of the papers included here.

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