EDITORIAL

Introduction

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This issue of IT-AEC contains a set of papers drawn from regular submissions. The papers address a number of interesting topics. Kumar et al focus on the application of fuzzy linear programming in construction projects. This is intended to overcome the difficulties in representing the objective function and constraints in a classical optimization model. A case study is used to demonstrate the advantages of the adopted approach over classical linear programming.

Park and Pena-Mora present the Dynamic Planning and Control Methodology (DPM), which integrates the CPM-based network scheduling concept and the simulation approach. They argue that the DPM has the ability to simulate the dynamic state of construction with the required flexibility and to help prepare a robust construction plan against uncertainties.

Yang et al continue on the theme of dealing with uncertainty by describing a fuzzy logic decision support system (VCMR) for routing materials on construction sites. Intended for planning and visualising the movement of materials on complex construction sites, the system uses GIS technology and a fuzzy logic–based decision support system. The paper presents the evaluation of the system based on trials on two complex construction sites.

The paper by Cheng et al is concerned with the exchange of project scheduling information using the Process Specification Language (PSL). It demonstrates how interoperability between different project scheduling and management software systems employed in the construction industry can be achieved using PSL. The applicability of PSL to reasoning about potential conflicts and consistency checking on project scheduling information is also addressed.

The final paper in this issue (by Wong et al) examines the application of information technologies to the building control process. Building plan preparation, submission and approval processes are examined and critically reviewed to explore the opportunities for IT-based process re-engineering. A case study from the Hong Kong Buildings Department is used to demonstrate the proposed approach.

All the papers address interesting issues and will be of interest to a wide variety of AEC professionals.