Editorial

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In recent years, the growing competition of enterprises and the need for higher service quality, better financial performance, efficiency, greater flexibility, greater customer satisfaction and productivity have changed the face of business community. A great challenge for today's companies is not only how to adapt to this changing and demanding business environment, but also how to draw a competitive advantage from the way in which they choose to do so.

In today's competitive business environment, the effective use of Information Technology (IT) to help modern companies improve service quality, financial performance, customer satisfaction and productivity is a very crucial issue nowadays. Intelligent solutions, based on artificial intelligence (AI) technologies, to solve complicated practical problems in various sectors are becoming more and more widespread. However, the real success of applied AI-based systems in the improvement of companies' performance is under investigation in the research community. The scepticism which exists in the academic and business community emanates from the hype and some over dimensioned expectations of early AI applications.

The *International Journal of Intelligent Systems Technology and Applications* has invited research, application and survey papers for this special issue devoted to the 30 years of applied research in AI, and has selected six contributions from industry, research institutes and academia on international level. Selecting relevant papers for the special issue has been a challenging endeavour.

Basra et al. investigate how a Multi-Agent System (MAS) may be used for resolving complex scheduling issues. They propose the innovative system MASLU, based on the use of MAS technology, with the aim of solving the London Underground's scheduling/logistics issues in real time.

Based on the fact that self-excited induction generators have been found to be most suitable for wind energy conversion in remote locations, Joshi et al. propose the application of a genetic algorithm to improve voltage regulation of self-excited induction generators in a wind energy conversion system.

Many brokers and investors in Korea tend to believe that stock prices in Korea are unpredictable because they are determined largely by socio-political factors instead of fundamental factors of the firm. The research of Kim aims to examine the price behaviour of stocks trading on the Korean Stock Exchange (KSE) and to find critical factors that determine the market prices. Several accounting and non-accounting variables that represent risk and return of the firm are used as input variables for the model. In this paper, an Adaptive Learning Network (ALN) approach is used to examine the behaviour of stock prices.

The paper of Hasan et al. is devoted to the development and implementation of an Artificial Neural Network (ANN) technique to solve the forward kinematics problems for robot control. The proposed (ANN) technique does not require any prior knowledge of thekinematics model of the system to be controlled; the basic idea of this concept is the use of an ANN to learn the characteristics of the robot system.

Pagourtzi et al. present an innovative artificial neural network, which takes advantage of the strengths of Multiple Linear Regression technique (MLR), in order to deal with uncertainty in real estate analysis and valuation. The proposed method was tested and compared with other approaches on data from the Attica urban area in Greece.

Finally, Psarras presents a state-of-the-art review of the use of Genetic Algorithms (GAs) in the field of production planning and scheduling, focusing on the last decade, due to the relative explosion of interest in this area and the fact that other surveys have covered more or less previous research activities. The paper presents the famous GAs known in the literature and current applications, analyses the relative benefits and concludes by sharing thoughts and estimations on GAs' future prospects in this area.