



Negotiation Systems and Studies

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The special issue on “Negotiation Systems and Studies” is dedicated to the life and work of Gregory Kersten, who was editor in chief of this journal from 2016 until he passed away unexpectedly in May 2020. In addition to his editorship, Gregory served the GDN community as president of the INFORMS GDN section, organiser of several conferences and in many other ways with extraordinary dedication. His internationally highly acknowledged research on Group decision and negotiation combined mathematical rigour with a strong interest in making mathematical models applicable in the real world. He was a pioneer in the development of negotiation support system and established the tradition of empirical research in electronic negotiations which is now a highly active international research stream.

To commemorate Gregory Kersten’s role in negotiation systems and studies, several excellent papers were submitted to this Special Issue and the following five were accepted after a rigorous double-blind review process.

The paper “Modeling and Implementation of a New Negotiation Decision Support System for Conflict Resolution Under Uncertainty” by Haiyan Xu et al. is about dynamic decision making and negotiation under uncertainty. Since negotiations are highly dynamic, unknown, changing or missing preferences are a major problem for providing decision support. In this paper, a new approach using option prioritising is proposed and then implemented in a web-based decision support system.

The paper “Analytical Comparison of Clustering Techniques for the Recognition of Communication Patterns” by Muhammed-Fatih Kaya et al. evaluates clustering methods for their ability to recognise patterns in high-dimensional data. To this end, four established clustering methods are applied on large sets of negotiation communication data. Their performance is assessed using external and internal criteria and it can be shown that communication patterns are recognised.

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The paper “Negotiation Support Through Interactive Dominance Relationship Specification” by Eduarda Frej et al. highlights the connection between preference modelling and negotiations, that is an important element in negotiation support systems. It describes the application of a specific method of preference elicitation, the FITradeoff method, in the context of negotiation support. By applying this method, the authors show how incomplete information on the parties’ preferences can be used to identify dominated packages of issues, thereby supporting the parties to reach an efficient negotiation outcome.

The paper “An Agent that Facilitates Crowd Discussion” by Takayuki Ito et al. examines discussion platforms for participatory public processes. Crowd-scale platforms are an example for interactions between citizens and local authorities. Human facilitators on such platforms face challenges when the number of actors is very large. The idea presented in this paper is to employ an agent as the facilitator. Results of several experiments of such agent facilitators are presented.

The paper “Gamification of Electronic Negotiation Training: Effects on Motivation, Behaviour and Learning” by Andreas Schmid et al. is about enhancing negotiation training. Such training is essential when using negotiation support systems that require negotiators not only to have the necessary negotiation skills but also to have digital system skills. A gamified approach is presented that enhances an existing system with elements such as badges and feedback and can be shown to enhance the learning and knowledge acquisition.

This collection of papers provides an overview of the current state-of-the-art in GDN research. We hope that it will help to preserve the memory of an outstanding researcher and true leader of our field.

Mareike Schoop and Rudolf Vetschera as editors of this Special Issue.

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