

Preface

Soft computing techniques are widely known for their use in control systems, but applications to decision systems could be equally significant. The symposium participants, representing interests in both research and applications, discussed the roles for soft computing in decision systems and identified directions for further work.

Models of decision making were reviewed and important problems and opportunities were discussed. The use of soft computing -- which is an association of fuzzy logic, artificial neural network, and probabilistic reasoning techniques -- was described for the development of Information/Intelligent Systems. Relevant aspects of soft computing include tolerance of imprecision, uncertainty, and partial truth. Fuzzy granularization, a key to understanding the ability of humans to process information, is a fundamental contribution of soft computing that must be included in realistic models of decision making. Integration of various techniques is needed, as no single technology alone is adequate for complex problems.

Issues in the following areas were discussed: theoretical and practical aspects of adding soft techniques to decision systems, current decision making problems in industry and business, soft computing in group decision support systems, soft computing techniques in intelligent agents, opportunities for soft computing in the world wide web and information retrieval systems, challenges for large data systems, and empirical studies of the use of soft computing techniques to add human aspects to decision systems. In the final session of the symposium, the participants made plans for future activities to explore this exciting frontier of soft computing and decision systems.

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