The use of workflow management systems for the automation of business processes promises significant efficiency gains for the enterprise through the automated coordination of activities, process participants and the integration of applications. Recently, the use of workflow management systems in cross-organizational scenarios, such as b2b-transactions, has received significant attention in both industry and academia. On the business side, the standardization of XML-based business data exchanges enables companies to integrate their processes independent of the underlying technology. On the technical side, the use of application architecture frameworks such as CORBA or J2EE enables designers of workflow applications to integrate both legacy systems and internet technology with relative ease. The workflow minitrack is now in its sixth year at HICSS. Its objective is to explore the whole area of workflow application with particular emphasis on Internet-based applications. Consistent with this objective, the papers in this minitrack are concerned with a broad spectrum of research issues and applications of workflow technologies.

The first paper of the minitrack by Dickson K. W. Chiu, S. C. Cheung and Sven Till, entitled “A Data-driven Methodology to Extending Workflows to E-services over the Internet”, focuses on the integration of web services and workflow management. It extends the workflow system ADOME to the management of web services using a data-driven approach. The paper by Minxin Shen, Gwo-Hshiung Tzend and Duen-Ren Liu, entitled “Multi-Criteria Task Assignment in Workflow Management Systems”, analyzes different strategies for the distribution of pending activities to workflow participants. The authors present a fuzzy logic algorithm for role-based task assignment. The algorithm considers workers' capability, social relationships among workers, and current workflow load. The final paper by Jeffrey V. Nickerson, entitled “Event-based Workflow and the Management Interface”, discusses the interaction of a workflow management system with its environment and the reactions on a changing process environment. Based on the observation of long running transactions, the author proposes a monitoring system for the context of a workflow instance, that can help anticipate potential problems over the course of process enactment.

The diversity of topics presented within the three papers is a living example of the variety of workflow research performed to date. The interdisciplinary nature of workflow research creates new questions with every aspect analyzed, and will continue to provide motivation for researchers to study the technical, organizational and managerial implications of process automation technology.