

**MANAGEMENT OF TECHNOLOGY
Mini-Track**

**Robert M. Mason
Weatherhead School of Management
Case Western Reserve University
Cleveland, OH 44106-7235
USA**

**Louis A. Lefebvre
Ecole Polytechnique
University of Montreal
Montreal, Quebec
CANADA**

The management of technology continues to develop as a field of inquiry, and this year's sessions at HICSS demonstrate different contributions to this field. Two themes unite the papers in this year's sessions: modernization processes and the learning that occurs as new technology is implemented in organizations, and the special issues faced by small manufacturing enterprises (SMEs) in their efforts to develop.

In the first session, Élizabeth, Louis A. Lefebvre, and Lise Préfontaine demonstrate a model of organizational learning of SMEs. This model shows the relationship between organizational performance and organizational fit and illustrates some of the subtle but discernible impacts of such different factors and influences as the CEO in SMEs. In the second paper, Elizabeth J. Davidson focuses on the adoption of information technology. She takes a more in-depth look at how technological frames influenced the cognitive interpretations of an information technology (*IT*) application by key stakeholders. In the third paper, Ramiro Montealegre reports on a long-term study of management's role in implementing information technology in a Guatemalan sugar company. This study suggests that managers must continuously and actively develop workers' skills and that "informating" the environment (rather than "automating" its production processes) will have long-run benefits.

In the first paper in the second session, Robert M. Mason examines the adoption of electronic commerce technologies by SMEs and compares

the US vision of the benefits of the emerging national information infrastructure with the reality of what SMEs may be able to accomplish from their current position on the Venkatraman model of progressive *IT* use. He concludes with recommendations for strategies that could accelerate SME learning for electronic technologies. In the second paper, Benjamin J. C. Yuan and Wang-Yiu Yuen analyze the competitive factors faced by the integrated circuit industry in Taiwan. Their analysis, using the dynamic random access memory (DRAM) business, concludes with a checklist of recommendations for government policy consideration. The final paper in the second session, by Thaise Graziadio and Paulo Antônio Zawislak, look at the role of R&D activities in SMEs in Brazil. They use a field study with guided interviews to explore the approaches being used by the Brazilian mechanics industry to build technological capabilities.