Invited Speaker: Barbara Pernici

Biography:
Barbara Pernici is full professor of computer engineering at Politecnico di Milano. Her research interests include cooperative information systems, workflow management systems, information systems modeling and design, temporal databases, and applications of database technology. She holds a Dr. Eng. from Politecnico di Milano and a master's of science in computer science from Stanford University. She has published 35 papers in international journals, including IEEE and ACM Transactions, co-edited 10 books, and published about 130 papers at the international level. She is an editor of the Requirements Engineering Journal. She has participated in several ESPRIT/IST projects (TODOS, Equator, ITHACA, F3, WIDE, Chorochronos). She was chief scientist of the Italian FIRB MAIS (Multichannel Adaptive Information Systems), 2002-2005. She is chair of Working Group 8.1 Design and Evaluation of Information Systems of IFIP (International Federation for Information Processing).

Title: PAWS: Processes with adaptive web services

Abstract:
The talk introduces PAWS (Processes with Adaptive Web Services), a framework for flexible and adaptive execution of managed Web service-based business processes. The relationship between design-time and run-time mechanisms for adaptive process specification and execution in a global framework are discussed. Design-time mechanisms include identification of candidate services for each process tasks, negotiating quality of service, specifying quality constraints, and identifying mapping rules for invoking services with different interfaces. Run-time mechanisms exploit the design time mechanisms to support adaptation during process execution, in terms of optimizing service selection, reacting to a service failure, or preserving the execution when a context change occurs. The use of the PAWS framework in several case study prototypes is discussed.