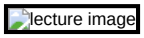

IT Eminent Lecture Series

Information Infrastructures for Crisis Management

Mani Chandy

Life Sciences Building Annex A101
April 28, 2006 - 01:30 pm

Abstract:
Crises have unexpected elements. Despite extensive preparation, crises such as hurricanes have features that were not planned for. As a consequence, information infrastructures that support crisis management must adapt rapidly to evolving situations. Responses to crises are carried out by dynamic collections of individuals and institutions including the general public, government agencies, non-governmental organizations and corporations. Getting information to the right place at the right time is a critical aspect of crisis management. Traditional address-based message-passing systems are insufficient because the proper recipients for an item of information may change with time. Another problem with crisis situations is that people and software agents are overloaded with information, and so separating the critical piece of information is difficult. This talk discusses abstract models for crisis management systems and compares them with other types of systems - such as sensor networks and database streaming systems. The talk describes software frameworks for implementing crisis management systems including notations for specifying events and actions of interest. Theories of how processes gain knowledge and change estimates will be explored. Experiences, both positive and negative with using these frameworks will be presented. Open problems and pointers to research elsewhere will be described.

Speaker's Bio:
Mani Chandy received his B.Tech from IIT Madras and a PhD from MIT in Electrical Engineering. He was a professor at the University of Texas at Austin from 1970 to 1987, and at the California Institute of Technology since 1987 where he is the Simon Ramo Professor of Computer Science. He has received the IEEE Kobayashi Award and the CMG Michelson Award for contributions to computer performance analysis. He is a member of the National Academy of Engineering.

Center for Computation & Technology
2003 Digital Media Center • Telephone: +1 225/578-5890 • Fax: +1 225/578-8957
© 2001–2025 Center for Computation & Technology • Official Web Page of Louisiana State University.