



Introduction of 2008 CRL UR Theme

June, 2008

Theme: Green Innovation

Focus on development of methods and tools to address major environmental issues, integrating data collection and analysis, mathematical modeling, and visualization techniques to provide enhanced understanding of environmental ecosystems. Of particular interest are proposals that involve participatory modeling, i.e. ways to provide collaborative opportunities for environmental modeling and analysis, enabling solution of problems none of us could have solved individually. Topics of interest include, but are NOT limited to, the following:

- Ecosystem modeling and analysis, such as ecologically-smart economy system
- Advanced water management
- Carbon management
- Food safety
- Alternative energy management

Theme:

Service Science, Management and Engineering

Developing a theory/method/technology of SSME to speed up the process of building modern services industries, and make it real through a demonstration of establishing a modern service. Topics of interest include, but are NOT limited to, the following:

- Practice on service innovation in various industries, such as banking, telecommunication, manufacturing, healthcare, and public etc.
- Services Management at the macro-level, like services development planning and its impact on education, environment, quality of life, employment, and economic growth etc.
- Vehicle maintenance in virtual world

Theme: Participator Web Collaboration

The Participatory Web Collaboration refers to the explosive use of the Web as an open platform where entities, including individuals, SMBs and even large enterprises, freely come together and cooperate to conduct business or solve a problem. It lowers the barrier for entities to contribute to and benefit from each other collectively and economically via providing their own unique value in the dynamically and flexibly changing roles. This is changing how products and services are invented, produced, marketed, and distributed in a dynamic and fast growing business environments. Topics of specific interest are (not limited to):

- Web Engineering
- Web-scale Distributed Computing
- Web Information Management
- Application
- Cross-Cultural Implications on Social Software for Business

Companies are looking to social software and 'web2.0 to help address critical workplace challenges. We are identifying cultural impact on social software adoption of enterprise and recommend cultural-specific adoption strategies for better leveraging social software for business. To achieve this, we intend to:

- Understand national and organizational cultural factors that have impact on adoption of social software
- Develop and examine hypothesis to explain cultural impacts
- Recommend and validate adoption strategies for successful usage of social software

Theme: System and Networking

We will explore new and potentially revolutionary technologies for processing, storing, and communicating information, and entirely new ways to use information technology. We will focus on advanced technologies and applications in networking, streaming, and large scale systems for the time being. Topics of specific interest are (not limited to):

- Data center networking
- Wireless & networking technology for developing areas
- Next generation wireless technology
- Understand emerging network applications
- Network infrastructure & service management
- Business intelligence for mobile services
- High-volume real-time stream processing technologies