The University of Southern California’s Information Sciences Institute (www.isi.edu) has multiple openings in our Distributed Scalable Systems Division (http://www.isi.edu/division2.html). These represent opportunities to engage in full time research on topics including (but not limited to):

* Advanced planning and scheduling
* Human-machine interfaces and computer-supported collaborative work
* Intelligent decision support
* Distributed and data-intensive computing

These opportunities arise in two projects: Criticality-Sensitive Coordination, and Coordinated Multisource Maintenance on Demand.

**Criticality-Sensitive Coordination (CSC).** Participants will work on multi-agent systems to develop decision support assistants that enable fielded human units to dynamically adapt their mission plans in response to change. Research problems include distributed coordination over large interconnected mission structures that change dynamically, supporting coordination of large-scale operations where units may have roles in multiple missions, learning to support the units better by automating decision making when data is potentially sparse, responding in (fast enough) “real time” to change, and reasoning about decision-making policies and procedures during coordination.

**Coordinated Multi-source Maintenance on Demand (CMMD).** Participants will work on distributed collaborative planning, scheduling, and decision support. CMMD explores how to help NASA Space Exploration units balance between multiple sources of demands on available resources. This has applications to mission scenarios for Crew Exploration Vehicle and other systems including fleets of unmanned and manned vehicles and robotic probes. Research issues include mixed-initiative planning via enhanced interfaces for controlling reasoning by giving guidance on priorities, minimally-disruptive plan and schedule repair, interleaved planning and scheduling processes, and collaborative context-sensitive (task and urgency) interfaces to decision support tools.

USC ISI is part of the Viterbi School of Engineering (http://viterbi.usc.edu/), whose Graduate Engineering Program is ranked #6 by US News and World Report (#3 among private schools). USC ISI has roughly 100 research contracts going at any given time, with over a dozen different funding sources. We have over a dozen researchers in the 98.5 or higher percentile of most frequently cited Computer Science authors, according to CiteSeer. More than 30 of our researchers have joint appointments as research faculty in one of USC's academic departments, allowing our large body of full-time personnel to be complemented by graduate students. We pride ourselves as a crossroads where large research projects, systems/services efforts, and educational concerns come together and enrich each other. We're located in temperate Marina del Rey, CA (http://www.visitthemarina.com/), where winters run 65F and summers peak at 77F.

We're looking at all levels: senior people, new Ph.D.s, and M.S. level programmers. So, please feel free to pass this along to appropriate colleagues.
To apply for openings in USC ISI’s Distributed Scalable Systems Division:

Project Leaders: Requires Ph.D. in CS and five years experience, managerial leadership ability, collaborative research skills, must be effective technical writer. Visit http://www.usc.edu/bus-affairs/ers/jobs/19176.html

Sr. Computer Scientists: Requires Ph.D. and three years post-Ph.D. experience, expertise in programming, collaboration with other researchers, must be effective technical writer. Visit http://www.usc.edu/bus-affairs/ers/jobs/19180.html

Computer Scientists: Requires either a Ph.D. or a MS plus minimum of three years experience, expertise in Java, collaboration with other researchers, must be effective technical writer. Visit http://www.usc.edu/bus-affairs/ers/jobs/19194.html, http://www.usc.edu/bus-affairs/ers/jobs/19191.html, or http://www.usc.edu/bus-affairs/ers/jobs/19193.html

Postdoctoral Research Associates: Requires CS Ph.D, expertise in Java, collaborative research skills, must be effective technical writer. Visit http://www.usc.edu/bus-affairs/ers/jobs/19177.html

Programmer Analyst IV: Requires BS and five years experience, expertise in Java, software and documentation skills, must be effective in team programming efforts. Visit http://www.usc.edu/bus-affairs/ers/jobs/19179.html