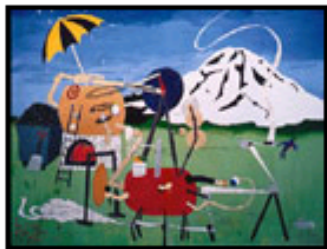


A decorative graphic consisting of a thin yellow circle. A thick black left square bracket is positioned on the left side of the circle, and a thick yellow right square bracket is on the right side. A horizontal bar with a light-to-dark yellow gradient is placed across the middle of the circle, containing the text.

World-Wide Sensor Web

*2006 UW-MSR Summer Institute
Semiahmoo Resort, Blaine, WA*

Background



University of Washington
Computer Science & Engineering

UW CSE UW/Microsoft Summer Research Institutes

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The University of Washington and Microsoft Research host annual summer institutes to bring together a cross-section of researchers in areas of mutual interest.

- [2006 - World-Wide Sensor Web](#) (August 6-9, 2006)
- [2005 - Infrastructure for Managing Imprecise Information in Relational Database Systems](#) (July 31 - August 4, 2005)
- [2004 - Trends in Testing: Theory, Techniques and Tools](#) (August 22-26, 2004)
- [2003 - Software Security: How Should We Make Software Secure?](#) (June 15-19, 2003)
- [2001 - Specifying and Checking Properties of Software](#) (August 12-17 2001)
- [2000 - Accelerating the Pace of Software Tools Research](#) (August 6-11 2000)
- [1999 - Technologies to Improve Software Development](#) (August 2-6 1999)
- [1999 - Technologies for Invisible Computing](#) (July 19-23 1999)
- [1998 - Intelligent Systems: Biological and Computational Perspectives](#) (August 18-23 1998)
- [1997 - Data Mining](#) (July 6-11 1997)

[Topic]

- Sensors + Networks + Databases
- Important issues need to be addressed
 - Scale
 - In-network computation
 - Personal and ambient systems
 - Data fusion
 - Privacy
 - Data pedigree
 - Data mining
 - Collection from distributed sources

[Why you are here]

- Leading researchers in these areas
- Experiences with deployments
- Learned many lessons
- Know where to focus efforts

- Ability to articulate a research agenda

[What we hope to accomplish]

- Discuss lessons learned
- Outline problems identified
- Develop a research agenda to present to the larger research community
- Attract others to work on these problems

[How we are going to go about it]

- Architect a set of papers for a special issue of IEEE Pervasive Computing to appear in 2nd quarter of 2007
 - Co-authors and outline to be determined here
 - Should describe:
 - an important problem or set of closely related problems
 - highlight examples
 - illustrate interesting issues
 - show benefits of solving
 - outline research agenda
- Companion article in IEEE Computer
 - Higher circulation pointer to special issue of IEEE Pervasive

[IEEE Pervasive Computing]

- Themes over the past year
 - Pervasive Computing in Healthcare
 - Intelligent Transportation Systems
 - Real-world Deployments
 - Emerging Economies
 - RFID Technology
 - Rapid Prototyping
 - Sports Technologies



[Agenda]

- Presentations
 - Lessons/problems from your personal experience
 - Limit of 10 minutes (except for keynotes)
 - Think ahead to how to group into paper topics
- Informal interactions
 - Discussion over meals, drinks, and activities
- Breakout groups
 - By the end of Monday, we will have groups assigned
 - Start outlining process Tuesday – make adjustments
 - Finalize plan on Wednesday – first pass, present to group, second pass before adjourning
- After the meeting
 - Prepare papers for review at IEEE by the end of the year (exact data to be determined – probably early Dec)

[What you will need to do]

- Participate in discussions
 - 10-minute presentation, questions, comments
 - Informal discussions
- Participate in breakout groups
 - Offer input if you are leaving early
- Commit to co-authoring a paper
 - Maybe take the lead on a paper
 - Write the paper