ICWS is a forum for researchers and industry practitioner to exchange information regarding advancements in the state of art research and practice of Web Services, to identify emerging research topics, and to define the future directions of Web Services computing. ICWS 2004 has special interest in papers that contribute to the convergence of Web Services, Grid Computing, e-Business and Autonomic Computing, or those that apply techniques from one area to another. The industry application areas that are of interest are business-to-business integration, business process integration and management, content management, e-sourcing, composite Web services creation, design collaboration for computer engineering, multimedia communication, digital TV, and interactive Web solutions. Currently, Grid computing has also started to leverage Web services to define standard interfaces for Business Grid services and generic reusable Grid resources.

As the first academic conference in the field of Web services, the 2003 First International Conference on Web Services (ICWS'03) was held at the Monte Carlo Resort in Las Vegas, Nevada, June 23 - 26, 2003, attracting hundreds of participants from 25 countries (USA, India, France, China, Hong Kong, Taiwan, Singapore, Australia, Canada, UK, Sweden, Switzerland, The Netherlands, Germany, Japan, Italy, Korea, Thailand, Finland, Austria, New Zealand, Poland, and Turkey). ICWS'03 has proven to be an excellent catalyst for research and collaboration. With the growing interest of Web Services in both business and scientific information management practice, we fully expect that ICWS 2004 will continue this success. The program of ICWS'04 will feature a variety of papers on fundamentals, infrastructure, technology support, and business management for Web Services. Topics of interest include, but are not limited to, the following:

- Mathematical foundations of Web Services
- Data Management Issues in Web Services
- Frameworks for building Web Service applications
- Composite Web Service creation and enabling infrastructures (e.g., workflow technology)
- Web Services Modeling & Design
- Web Services Discovery & Selection
- Semantic Web, Ontologies, and Web Services
- Dynamic invocation mechanisms for Web Services
- Contractual Issues between provider and consumer of Web Services
- Version Management in Web services
- Customization of Web Services
- Software reusability
- Web Services architecture
- Web Services Negotiation & Agreement
- UDDI and SOAP enhancements
- Web Services and Process Management
- Trust, Security & Privacy in Web Services
- Scalability and Performance of Web Services
- Web Services Standards and Technologies
- Autonomic Computing for Web Services Infrastructure
- Autonomic Middleware and Toolkits for Monitoring and Management
- Autonomic e-Business integration and collaboration
- Wireless Web, Mobility, and Web Services
- Web Service Based Grid Computing and Peer to Peer Computing
- Business Grid Solution Architecture
- Web Services based Applications for e-Commerce
- Quality of service for Web Services
- Multimedia applications using Web Services
- Grid Architectures, Middleware and Toolkits
- Grid Services Integration and Management
- Economics and Pricing models of utility computing and Web Services
- Resource management of Web Services
- Solution Management for Web Services
- Adoption of Web Services by organizations
- Case studies on Web Services based applications
- Business process integration and management using Web Services
- Impact of Web Services Architecture on Business continuity
- Changing role of Information Technology Departments in Organizations

**SUBMISSION OF PAPERS:**
Prospective authors are invited to submit a draft paper of about 8-10 pages in IEEE Proceeding style (single space, two columns, font size of 10 to 12) in PDF or Word format via on-line submission system (to be announced in ICWS 2004 website in Nov. 2003). The length of the Camera-Ready papers (if accepted) will be limited to 8 (IEEE style) pages. Papers must not have been previously published or currently submitted for publication elsewhere.

**BEST STUDENT PAPER AWARDS:** One Best Paper award and 1-3 Best Student Paper Awards will be presented by ICWS'2004. The first author of the best student papers should be full-time students.

**PUBLICATION:** All accepted papers will be published in the conference proceedings in hardcopy and on-line version by IEEE Computer Society. The selected papers will be invited to for submission to the *International Journal of Web Services Research (JWSR), International Journal of Grid and Utility Computing, International Journal of Business Process Integration and Management*, and *International Journal of Autonomic Computing*.

**IMPORTANT DATES:**
- January 26 (Monday): Abstract Submission (optional)
- Feb. 2, 2004 (Monday): Submission Due
- March 19, 2004 (Friday): Notification of acceptance
- April 16, 2004 (Friday): Camera-Ready copy & Author Pre-registration due

URL: http://conferences.computer.org/icws/2004