

## Call for Papers

## IEEE—ICDM 2007

October 28 - 31, 2007

Embassy Suites Hotel, Omaha, NE, USA

<http://www.ist.unomaha.edu/icdm2007/>

The IEEE International Conference on Data Mining series (ICDM) is well established as a top ranked research conference in data mining, providing a premier forum for presentation of original research results, as well as exchange and dissemination of innovative, practical development experiences.

The conference covers all aspects of data mining, including algorithms, software and systems, and applications. In addition, ICDM draws researchers and application developers from a wide range of data mining related areas such as statistics, machine learning, pattern recognition, databases and data warehousing, data visualization, knowledge-based systems, and high performance computing. By promoting novel, high quality research findings, and innovative solutions to challenging data mining problems, the conference seeks to continuously advance the state-of-the-art in data mining. Besides the technical program, the conference will feature workshops, tutorials, panels and, new for this year, the ICDM data mining contest.

High quality papers in all data mining areas are solicited. Original papers exploring new directions will receive especially careful consideration. Papers that have already been accepted or are currently under review for other conferences or journals will not be considered for ICDM '07.

A selected number of IEEE ICDM '07 accepted papers will be invited for possible inclusion, in expanded and revised form, in the Knowledge and Information Systems journal (<http://www.cs.uvm.edu/~kais/>) published by Springer-Verlag.

### ICDM Best Paper Awards:

IEEE ICDM Best Paper Awards will be conferred at the conference on the authors of (1) the best research paper and (2) the best application paper. Strong, foundational, results will be considered for the best research paper award and application-oriented submissions will be considered for the best application paper award.

### Workshops and Tutorials

ICDM'07 will host short and long tutorials as well as workshops that focus on new research directions and initiatives. All accepted workshop papers will be included in a separate workshop proceedings published by the IEEE Computer Society Press.

### ICDM Data Mining Contest

A data mining contest will be organized this year to challenge researchers and practitioners with a real practical data mining problem.

More details about the organization and the program will be provided on the conference home page at <http://www.ist.unomaha.edu/icdm2007/>.

Paper submissions should be limited to a maximum of 10 pages in the IEEE 2-column format. All papers will be reviewed by the Program Committee on the basis of technical quality, relevance to data mining, originality, significance, and clarity.

A **double blind review process** will be adopted. All paper submissions will be handled electronically. Detailed instructions are provided on the conference home page.

## Organizing Committee

### Conference Co-Chairs:

Yong Shi, University of Nebraska at Omaha (USA)  
Christopher W. Clifton, Purdue University (USA)

### Program Committee Chairs:

Naren Ramakrishnan, Virginia Tech (USA)  
Osmar Zaiane, University of Alberta (Canada)

### Workshop Chairs:

Qiuming Zhu, University of Nebraska at Omaha (USA)  
Anthony K.H. Tung, National University of Singapore (Singapore)

### Tutorials Chair:

Jian Pei, Simon Fraser University (Canada)

### Panels Chair:

Geoffrey I. Webb, Monash University (Australia)

### ICDM Data Mining Contest Chairs:

Chris Ding, Lawrence Berkeley National Laboratory (USA)  
Gang Kou, Thomson Corporation (USA)  
Qiang Yang, Hong Kong University of Science and Technology (Hong Kong)

### Local Arrangements Chair:

Zhengxin Chen, University of Nebraska at Omaha (USA)  
Hai-Feng Guo, University of Nebraska at Omaha (USA)

### Registration Chair:

Parvathi Chundi, University of Nebraska at Omaha (USA)

### Publicity Chair:

Prithviraj Dasgupta, University of Nebraska at Omaha (USA)  
Xuelong Li, University of London (UK)

### Finance Chair:

Wikil Kwak, University of Nebraska at Omaha (USA)

### Sponsorship Chair:

Mark Pauley, University of Nebraska at Omaha (USA)

### Proceedings Chair:

Xindong Wu, University of Vermont, USA

## Important Dates

**May 25, 2007** : Open for title and abstract submission

**June 1st, 2007**: Deadline for abstract and full paper submission

**July 30th, 2007**: Notification of acceptance

**August 13th, 2007**: Camera-ready copy and copyright release form deadline

Tutorial proposal submission: July 13, 2007

# **IEEE—ICDM 2007**

## **October 28 - 31, 2007**

### **Topics of Interest**

High quality papers in all data mining areas are solicited.

Topics related to the design, analysis, and implementation of data mining applications are of interest.

These include, but are not limited to:

#### **Data mining foundations**

- Novel data mining algorithms in traditional areas (such as classification, regression, clustering, probabilistic modeling, and association analysis)
- Algorithms for new, structured, data types, such as arising in chemistry, biology, environment, and other scientific domains
- Developing a unifying theory of data mining
- Mining sequences and sequential data
- Mining spatial and temporal datasets
- Mining textual and unstructured datasets
- High performance implementations of data mining algorithms

#### **Mining in targeted application contexts**

- Mining high speed data streams
- Mining sensor data
- Distributed data mining and mining multi-agent data
- Mining in networked settings: web, social and computer networks, and online communities
- Data mining in electronic commerce, such as recommendation, sponsored web search, advertising, and marketing tasks

#### **Methodological aspects and the KDD process**

- Data pre-processing, data reduction, feature selection, and feature transformation
- Quality assessment, interestingness analysis, and post-processing
- Statistical foundations for robust and scalable data mining
- Handling imbalanced data
- Automating the mining process and other process related issues
- Dealing with cost sensitive data and loss models
- Human-machine interaction and visual data mining
- Integration of data warehousing, OLAP and data mining

#### **Broadening perspectives**

- Security, privacy, and data integrity

#### **Applications of data mining**

- intrusion detection, finance, marketing, healthcare, telecommunications and other fields)