

**CALL FOR PAPERS
and
Call For Workshop/Session Proposals**

**DMIN'10
The 2010 International Conference on Data Mining**

<http://www.dmin-2010.com>

Date and Location: July 12-15, 2010, Las Vegas, USA

You are invited to submit a full paper for consideration. All accepted papers will be published in the 2010 DMIN conference proceedings (in printed book form; later, the proceedings will also be accessible online). Those interested in proposing a workshop, special session, or a tutorial should refer to the relevant sections that appear below.

SCOPE: Topics of interest include, but are not limited to, the following:

Data Mining Tasks

- Regression/Classification
- Time series forecasting
- Segmentation/Clustering/Association
- Deviation and outlier detection
- Explorative and visual data mining
- Web mining
- Mining text and semi-structured data
- Temporal and spatial data mining
- Multimedia mining (audio/video)
- Others

Data Mining Algorithms

- Artificial neural networks
- Fuzzy logic and rough sets
- Decision trees/rule learners
- Support vector machines
- Evolutionary computation/meta heuristics
- Statistical methods
- Collaborative filtering
- Case based reasoning
- Link and sequence analysis
- Ensembles/committee approaches
- Others

Data Mining Integration

- Mining large scale data
- Distributed and grid based data mining
- Data and knowledge representation
- Data warehousing and OLAP integration
- Integration of prior/domain knowledge
- Metadata and ontologies
- Agent technologies for data mining
- Legal and social aspects of data mining

Data Mining Process

- Data cleaning and preparation
- Feature selection and transformation
- Attribute discretisation and encoding
- Sampling and rebalancing
- Missing value imputation
- Model selection/assessment and comparison
- Induction principles
- Model interpretation
- Others

Data Mining Applications

- Bioinformatics
- Medicine Data Mining
- Business/Corporate/Industrial Data Mining
- Credit Scoring
- Direct Marketing
- Database Marketing
- Engineering Mining
- Military Data Mining
- Security Data Mining
- Social Science Mining
- Others

We particularly encourage submissions of industrial applications and case studies from practitioners. These will not be evaluated using solely theoretical research criteria, but will take general interest and presentation into consideration.

Data Mining Software

- All aspects and modules

Alternative and additional examples of possible topics include:

- Data Mining for Business Intelligence
- Emerging technologies in data mining
- Computational performance issues in data mining
- Data mining in usability
- Advanced prediction modelling using data mining
- Data mining and national security
- Data mining tools
- Data analysis
- Data preparation techniques (selection, transformation, and preprocessing)
- Information extraction methodologies
- Clustering algorithms used in data mining
- Genetic algorithms and categorization techniques used in data mining
- Data and information integration
- Microarray design and analysis
- Privacy-preserving data mining
- Active data mining
- Statistical methods used in data mining
- Multidimensional data
- Case studies and prototypes
- Automatic data cleaning
- Data visualization
- Theory and practice - knowledge representation and discovery
- Knowledge Discovery in Databases (KDD)
- Uncertainty management
- Data reduction methods

- Data engineering
- Content mining
- Indexing schemes
- Information retrieval
- Metadata use and management
- Multidimensional query languages and query optimization
- Multimedia information systems
- Search engine query processing
- Pattern mining
- Applications (examples: data mining in education, marketing, finance and financial services, business applications, medicine, bioinformatics, biological sciences, science and technology, industry and government, ...)

USEFUL WEB LINKS

To see the DBLP list of accepted papers in the last offering of DMIN, go to <http://www.informatik.uni-trier.de/~ley/db/conf/dmin/dmin2009.html>.

The main web site of DMIN'10 can be found at <http://www.dmin-2010.com>.

The web site of WORLDCOMP'10 can be found at <http://www.world-academy-of-science.org/>.

ACADEMIC CO-SPONSORS:

Currently being prepared - The sponsors will include a number of active research labs and centers that have helped to shape our field. The Academic sponsors of the last offering of DMIN & WORLDCOMP included research labs and centers affiliated with United States Military Academy, Harvard University, MIT, Argonne National Lab., University of Illinois at Urbana-Champaign, University of Minnesota, University of Texas at Austin, Georgia Institute of Technology, George Mason University, Vienna University of Technology, University of Siegen, Russian Academy of Sciences, University of Iowa, SECLAB (Italy), University of North Dakota, Texas A&M University, National Institute for Health Research, International Society of Intelligent Biological Medicine, Academy of Biomedical Sciences and Technologies, and European Commission. For 2010, we will also include The Berkeley Initiative in Soft Computing/BISC of University of California, Berkeley (confirmed.) In recent offerings of WORLDCOMP/DMIN, corporate sponsors included: Google, Intel, Salford Systems, Element CXI, Synplicity, NIIT, SuperMicro, HPCNano, Council on Medical & Care Compunetics, Scientific Tech. Corp., HoIP, GridToday.

DMIN'10 Conference Chairs:

Dr. Robert Stahlbock
University of Hamburg, Germany
conference-chair@dmin-2010.com
(General Conference Chair)

Dr. Sven F. Crone
Lancaster University, United Kingdom
s.crone@lancaster.ac.uk
(Program Chair)

Members of the Steering Committee of WORLDCOMP 2010:

(DMIN'10 is an important track of WORLDCOMP which is a federated event. What appears below is a partial list of members of the steering committee.)

Prof. Hamid R. Arabnia
Coordinator & General Co-Chair, WORLDCOMP 2010,
Professor, Computer Science,
Editor-in-Chief, The Journal of Supercomputing (Springer),
Co-Editor/Board, Journal of Computational Science (Elsevier),
Advisory Board, IEEE Technical Committee on Scalable Computing,
The University of Georgia, Georgia, USA
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Dr. Selim Aissi
Chief Strategist - Security, Manageability and Virtualization,
Ultra Mobile Group, Intel Corporation, USA

Prof. Ruzena Bajcsy
Member, National Academy of Engineering,
IEEE Fellow, ACM Fellow,
Professor, Electrical Engineering & Computer Sciences
University of California, Berkeley, California, USA

Prof. Hyunseung Choo
ITRC Director of Ministry of Information & Communication, Korea,
Director, ITRC: Intelligent HCI Convergence Research Center, Korea,
Director, Korea Information Processing Society,
Assoc. Editor, ACM Transactions on Internet Technology,
Assoc. Editor, Transactions on Computational Science, Springer-Verlag;
Director, Korean Society for Internet Info. (KSII) + Society for Sim.;
Sungkyunkwan University, Korea

Prof. Andy Marsh
Director HoIP (Healthcare over Internet Protocol),
Secretary-General WABT (World Academy of Biomedical Science & Tech.),
Vice-president ICET (Int'l Council for Engineering & Technology),
Vice-president ICMCC (Int'l Council on Medical & Care Compunetics),
Visiting Professor, University of Westminster, UK

Prof. Lotfi A. Zadeh
Member, National Academy of Engineering,
IEEE Fellow, ACM Fellow, AAAS Fellow, AAAI Fellow, IFSA Fellow,
Director, Berkeley Initiative in Soft Computing,
Professor, University of California, Berkeley, USA

PURPOSE / HISTORY:

DMIN'10 Conference is being held jointly (same location and dates) with a number of other research conferences (WORLDCOMP). WORLDCOMP is the largest annual gathering of researchers in computer science, computer engineering and applied computing. We anticipate to have 2,000 or more attendees from over 85 countries participating at WORLDCOMP Congress. A number of individual research tracks of the Congress have been held for many years; for example, PDPTA has been held annually since 1995 (PDPTA'10 is the 16th annual conference); ERSAs has been held annually since 2001 (ERSA'10 is the 10th annual conference); ICAI has been held annually since 1999 (ICAI'10 is the 12th annual conference); DMIN has been held annually since 2003 (DMIN'10 is the 8th annual conference; originally it was offered as part of IKE). Other tracks of WORLDCOMP Congress have similar records.

The motivation behind this federated congress is to assemble a spectrum of affiliated research conferences into a coordinated research meeting held in a common place at a common time. The main goal is to provide a forum for exchange of ideas in a number of research areas that interact. The model used to form DMIN facilitates communication among researchers from all over the world in different fields of computer science, computer engineering, applied computing, information science, and computational biology. Both inward research (core areas) and outward research (multi-disciplinary, inter-disciplinary, and applications) will be covered during the conference. DMIN makes concerted effort to reach out to participants affiliated with diverse entities (such as: universities, institutions, corporations, government agencies, and research centers/labs) from all over the world.

DMIN'10 will be composed of research presentations, keynote lectures, invited presentations, tutorials, panel discussions, and poster presentations. In recent past, keynote/tutorial/panel speakers have included (as part of the federated event):

Prof. David A. Patterson (pioneer/computer architecture, U. of California, Berkeley), Dr. K. Eric Drexler (known as Father of Nanotechnology), Prof. John H. Holland (known as Father of Genetic Algorithms; U. of Michigan), Prof. Ian Foster (known as Father of Grid Computing; U. of Chicago & ANL), Prof. Ruzena Bajcsy (pioneer/VR, U. of California, Berkeley), Prof. Barry Vercoe (Founding member of MIT Media Lab, MIT), Dr. Jim Gettys (known as X-man, developer of X Window System, xhost; OLPC), Prof. John Koza (known as Father of Genetic Programming, Stanford U.), Prof. Brian D. Athey (NIH Program Director, U. of Michigan), Prof. Viktor K. Prasanna (pioneer, U. of Southern California), Dr. Jose L. Munoz (NSF Program Director and Consultant), Prof. Jun Liu (Broad Institute of MIT & Harvard U.), Anousheh Ansari (CEO, Prodea Systems & first female private space explorer), and many other distinguished speakers.

Tutorial speakers for data mining oriented tutorials have included Prof. Eamonn Keogh (U. of California, Riverside), Ashu M.G. Solo (Principal of Maverick Technologies America Inc.), Mikhail Golovnya (Senior Scientist, Salford Systems), Prof. Nitesh V. Chawla (U. of Notre Dame, USA), Dr. Peter Geczy (National Institute of Advanced Industrial Science and Technology (AIST), Japan), Prof. Asim Roy (Arizona State University), and Dr. Dan Steinberg (CEO of Salford Systems).

To get a feeling about the events' atmosphere, see the 2009 delegates photos available at <http://www.pixagogo.com/1672514104>.

2008 delegates photos can be viewed at <http://www.pixagogo.com/8658134154>.

SUBMISSION OF PAPERS, PUBLICATION, INDEXING INFORMATION:

Prospective authors are invited to submit their papers by uploading them to the DMIN'10 online paper collection and review system. Submissions must be uploaded by March 1, 2010 and they must be in pdf format. Details (submission system, typesetting formats etc.) can be found on the DMIN'10 web site at <http://www.dmin-2010.com/submission.htm>

The length of the Camera-Ready papers (if accepted) will be limited to 7 (IEEE style) pages. Papers must not have been previously published or currently submitted for publication elsewhere. The first page of the draft paper should include: title of the paper, name, affiliation, postal address, and email address for each author. The first page should also identify the name of the Contact Author and a maximum of 5 topical keywords that would best represent the content of the paper.

Full papers will be evaluated for originality, significance, clarity, impact, and soundness. Each paper will be refereed by at least two experts in the field who are independent of the conference program committee. The referees' evaluations will then be reviewed by one member of the program committee who will recommend a decision to the chair of the track that the paper has been submitted to. The chair will make the final decision. Lastly, the final papers will be reviewed by one member of the program committee.

All accepted papers will be published in the respective conference proceedings (in both, printed book form as well as online). The proceedings will be indexed in Inspec/IET/The Institute for Engineering

and Technology, DBLP/Computer Science Bibliography, and others.) The printed proceedings will be available for distribution on site at the conference.

In addition to the publication of the proceedings, selected authors will be invited to submit extended versions of their papers for publication in a number of research books being proposed/contracted with various publishers (such as, Springer, Elsevier, IOS, ...) - these books would be composed after the conference. Also, many chairs of sessions and workshops will be forming journal special issues to be published after the conference. For DMIN'10, it is planned to publish extended papers in a Special Issue in Annals of Information Systems focused on Web Mining.

PROPOSAL FOR ORGANIZING SPECIAL SESSIONS/WORKSHOPS:

Each session will have at least 6 paper presentations from different authors (12 papers in the case of workshops). The session chairs will be responsible for all aspects of their sessions; including, soliciting papers, reviewing, selecting, ...

The names of session chairs will appear as Associate Editors in the conference proceedings and on the cover of the books.

Proposals to organize sessions should include the following information: name and address (+ email) of proposer, his/her

biography, title of session, a 100-word description of the topic of the session, the relevance for DMIN), and a short description on how the session will be advertised (in most cases, session proposers solicit papers from colleagues and researchers whose work is known to the session proposer). Please email your session/workshop proposal to the DMIN'10

Special Session Chair Gary M. Weiss via special-session-chair@dmin-2010.com.

We would like to receive the session proposals by January 30, 2010.

IMPORTANT DATES:

January 30, 2010: Proposals for organizing sessions/workshops

March 1, 2010: Submission of papers (about 5 to 7 pages)

March 25, 2010: Notification of acceptance

April 22, 2010: Final papers + Copyright + Registration

July 12-15, 2010: The 2010 International Conference on Data Mining (DMIN'10)

MEMBERS OF PROGRAM AND ORGANIZING COMMITTEES:

The Program Committee includes members of chapters of World Academy of Science (chapters: supercomputing; scientific computing; AI; imaging science; databases; simulation; software eng.; embedded systems; internet & web technologies; communications; computer security; & bioinformatics.) The Program Committee for DMIN'10 conference is currently being formed. Many who have already joined the committees of individual tracks are renowned leaders, scholars, researchers, scientists and practitioners of the highest ranks; many are directors of research labs., fellows of various societies, heads/chairs of departments, program directors of research funding agencies, deans and provosts. You can view the list of program committee of the last offering of DMIN at: <http://www.dmin--2009.com/committees.htm> Program Committee members are expected to have established a strong and documented research track record. Those interested in joining the Program Committee should email to the Program Chair (programme-chair@dmin-2010.com), the following information for consideration/evaluation: Name, affiliation and position, complete mailing address, email address, and a one-page biography that includes research expertise.

LOCATION OF CONFERENCE:

DMIN'10 will be held at Monte Carlo Resort, Las Vegas, Nevada, USA (with any overflows at other near-by hotels). This is a mega hotel with excellent conference facilities and over 3,000 rooms. It is minutes from the airport with 24-hour shuttle service to and from the airport. This hotel has many recreational attractions, including: waterfalls, spa, pools, sunning decks, Easy River, wave pool, nightly shows, many restaurants, ... The hotel is adjacent to CityCenter (<http://en.wikipedia.org/wiki/CityCenter>) which is the largest private development in the United States' history (costing over \$11 Billion); this offers access to additional recreational and entertainment attractions. The negotiated room rate for conference attendees is very reasonable.