



## CALL FOR PAPERS

### DMIN'13

## The 2013 International Conference on Data Mining

Date and Location: July 22-25, 2013

The New Tropicana Hotel, Las Vegas, Nevada, USA

<http://www.dmin-2013.com>

<http://www.world-academy-of-science.org>

You are invited to submit a full paper for consideration. All accepted papers will be published in the DMIN conference proceedings (in printed book form; later, the proceedings will also be accessible online). Those interested in proposing workshops/sessions, 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
  - Others
- 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
  - Business/Industrial
  - Engineering
  - Military/Security
  - Social science
  - Others
- Data Mining Software
 

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 stringer into consideration.
- 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; 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; 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, ...).

## **TUTORIALS AND INVITED TALKS**

see <http://www.dmin-2013.com/tutorials.htm> for details

## **USEFUL WEB LINKS**

The main web site of DMIN'13 can be found at <http://www.dmin-2013.com>.

The web site of WORLDCOMP'13 can be found at <http://www.world-academy-of-science.org>.

## **IMPORTANT DATES (extended deadlines)**

April 20, 2013: Submission of full papers (about 7 pages)

May 11, 2013: Notification of acceptance (+/- two days)

May 25, 2013: Final papers + Copyright + Registration

July 22-25, 2013: The 2013 International Conference on Data Mining (DMIN'13)

## **CITATION INDEX**

The proceedings/books of DMIN have been evaluated for inclusion into science citation index / SCI databases. We are happy to report that so far, the evaluation board of science citation index databases have APPROVED the indexing, integrating, and inclusion of DMIN into relevant Elsevier indexing databases (Elsevier indexing databases include, among others: Scopus, [www.info.scopus.com](http://www.info.scopus.com); SCI Compendex, Engineering Village, [www.ei.org](http://www.ei.org); EMBASE, [www.info.embase.com](http://www.info.embase.com); and others). In addition, proceedings will be indexed by a number of other science citation databases that track citation frequency/data for each paper.

## **CO-SPONSORS**

Currently being prepared - The Academic Sponsors of the last offering of DMIN (2012) included research labs and centers affiliated with: Minnesota Supercomputing Institute, USA; Argonne National Laboratory, Illinois, USA; George Mason University, Virginia, USA; Harvard University, Cambridge, Massachusetts, USA; Center for Cyber Defense, NCAT, North Carolina, USA; Center for Advanced Studies in Identity Sciences (CASIS: NC A&T, Carnegie Mellon, Clemson, UNC Wilmington), USA; Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts, USA; Texas A&M University, USA; UMIT, Institute of Bioinformatics and Translational Research, Austria; University of Iowa, USA; Russian Academy of Sciences, Moscow, Russia; NDSU-CIIT Green Computing and Communications Laboratory, USA; Medical Image HPC and Informatics Lab, Iowa, USA; and others.

Sponsors At-Large included (corporate, associations, organizations): Intel Corporation; Super Micro Computer, Inc., California, USA; Altera Corporation; The International Council on Medical and Care Compunetics; International Society of Intelligent Biological Medicine; US Chapter of World Academy of Science; High Performance Computing for Nanotechnology; Luna Innovations; World Academy of Biomedical Sciences and Technologies; Manx Telecom; Computer Science Research, Education, and Applications Press; HoIP Telecom; Hodges Health; Leading Knowledge; OMG; Science Publications and others.

## **SUBMISSION OF PAPERS**

Prospective authors are invited to submit their papers by uploading them according to the instructions provided on the DMIN website via <http://www.dmin-2013.com/submission.htm>. Please follow the formatting and uploading instructions (different to practice at some other WORLDCOMP'13 conferences). Submissions must be uploaded by April 20, 2013. Papers must not have been previously published or currently submitted for publication elsewhere. The length of the final/Camera-Ready papers (if accepted) will be limited to 7 (two-column IEEE style) pages.

Each paper will be peer-reviewed by two experts in the field for originality, significance, clarity, impact, and soundness. In cases of contradictory recommendations, a member of the conference programme committee will be charged to make the final decision (accept/reject) - often, this would involve seeking help from additional referees by using a double-blinded review process. In addition, all papers whose authors included a member of the conference program committee will be evaluated using the double-blinded review process. (Essay/philosophical papers will not be refereed but may be considered for discussion/panels). All proceedings of WORLDCOMP will be published and indexed in: Inspec / IET / The Institute for Engineering & Technology, DBLP / CS 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, ...) - 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.

## **SUBMISSION OF POSTER PAPERS:**

Poster papers can be 2 pages long. Authors are to follow the same instructions that appear above (see, SUBMISSION OF REGULAR PAPERS) except for the submission is limited to 2 pages. On the first page, the author should state that "This paper is being submitted as a poster". Poster papers (if accepted) will be published if and only the author of the accepted paper wishes to do so.

## **MEMBERS OF PROGRAMME AND ORGANIZING COMMITTEES**

Currently being finalized. The members of the Steering Committee of The 2012 Congress that DMIN was (and will be) part of included: Dr. Selim Aissi, (formerly: Chief Strategist - Security, Intel Corporation, USA) Senior Business Leader & Chief Architect, Visa Corporation, USA; Prof. Babak Akhgar, PhD, FBCS, CITP, Professor of Informatics, Sheffield Hallam University, Sheffield, UK; Prof. Hamid R. Arabnia, Professor of Computer Science, Elected Fellow of ISIBM, Editor-in-Chief of Journal of Supercomputing (Springer), University of Georgia, USA; Prof. Kevin Daimi, Professor of Computer Science, Director of Computer Science and Software Engineering Programs, Department of Mathematics, Computer Science and Software Engineering, University of Detroit Mercy, Detroit, Michigan, USA; Prof. Gerry Vernon Dozier, Professor of Computer Science, Chair of Department of Computer Science and Director of Center for Advanced Studies in Identity Sciences, Center for Cyber Defense, North Carolina A&T State University, North Carolina, USA; Dr. Michael R. Grimaila, Associate Professor, Air Force Institute of Technology, Systems Engineering, Fellow of ISSA, CISM, CISSP, IAM/IEM, Editorial Board of ISSA Journal, Air Force Center of Cyberspace Research, Advisor to the Prince of Wales Fellows & Prince Edward Fellows at MIT and Harvard Universities and PC member of NATO Cooperative Cyber Defence Centre of Excellence (CCD COE); Prof. Kun Chang Lee, Professor of MIS and WCU Professor of Creativity Science, Business School and Department of Interaction Science, Sungkyunkwan University, Seoul, South Korea; Prof., Dr., Dr.h. Victor Malyshkin, Head of Supercomputer Software Department (SSD), Institute of Computational Mathematics and Mathematical Geophysics, Russian Academy of Sciences, Russia; Prof. George Markowsky, Professor and Chair of Computer Science, Associate Director of School of Computing and Information Science,

Chair of International Advisory Board of IEEE IDAACS and Director 2013 Northeast Collegiate Cyber Defense Competition, Chair Bangor Foreign Policy Forum, Cooperating Professor of Mathematics & Statistics Department UMaine, Cooperating Professor of School of Policy & International Affairs UMaine, University of Maine, Orono, Maine, USA; Prof. Andy Marsh, Director of HoIP, Director of HoIP Telecom, UK, Secretary-General of WABT, Vice-president of ICET, Visiting Professor, University of Westminster, UK; Prof. James J. (Jong Hyuk) Park, Professor of Computer Science and Engineering, Seoul National University of Science and Technology (SeoulTech), Korea, President of KITCS, President of FTRA, Editor-in-Chief of HCIS, JoC and IJTCC Journals; Ashu M. G. Solo (Publicity Chair), Fellow of British Computer Society, Principal R&D Engineer, Maverick Technologies America; Prof. Sang C. Suh, Head and Professor of Computer Science, Vice President, of Society for Design and Process Science (SDPS), Director of Intelligent Cyberspace Engineering Lab (ICEL), Texas A&M University, Com., Texas, USA; Prof. Layne T. Watson, IEEE Fellow, NIA Fellow, ISIBM Fellow, Fellow of The National Institute of Aerospace, Virginia Polytechnic Institute & State University, Virginia, USA

The DMIN'13 programme committee is currently being compiled. Many who have already joined the committee are renowned leaders, scholars, researchers, scientists and practitioners of the highest ranks; many are directors of research labs., members of National Academy of Engineering, fellows of various societies, heads/chairs of departments, program directors of research funding agencies, deans and provosts as well as members of chapters of World Academy of Science.

## **GENERAL INFORMATION**

DMIN is an international conference that serves researchers, scholars, professionals, students, and academicians who are looking to both foster working relationships and gain access to the latest research results. It is being held jointly (same location and dates) with a number of other research conferences; namely, The 2013 World Congress in Computer Science, Computer Engineering, and Applied Computing (WORLDCOMP). The Congress is the largest annual gathering of researchers in computer science, computer engineering and applied computing. We anticipate to have 2,100 or more attendees from over 85 countries.

The 2013 Congress 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: Prof. David A. Patterson (pioneer, 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 (pioneer, Broad Institute of MIT & Harvard U.), Prof. Lotfi A. Zadeh (Father of Fuzzy Logic), Dr. Firouz Naderi (Head, NASA Mars Exploration Program/2000-2005 and Associate Director, Project Formulation & Strategy, Jet Propulsion Lab, CalTech/NASA; Director, NASA's JPL Solar System Exploration), Prof. David Lorge Parnas (Fellow of IEEE, ACM, RSC, CAE, GI; Dr.h.c.: ETH Zurich, Prof. Emeritus, McMaster U. and U. of Limerick), Prof. Eugene H. Spafford (Executive Director, CERIAS and Professor, Purdue University), Dr. Sandeep Chatterjee (Vice President & Chief Technology Officer, SourceTrace Systems, Inc.), Prof. Haym Hirsh (Rutgers University, New Jersey, USA and former director of Division of Information and Intelligent Systems, National Science Foundation, USA), Dr. Flavio Villanustre (Vice-President, HPC Systems), and many other distinguished speakers. To get a feeling about the Congress's atmosphere, see the 2012 delegates photos available at:

<http://infinitydempsey.smugmug.com/WorldComp>

An important mission of the Congress is "Providing a unique platform for a diverse community of constituents composed of scholars, researchers, developers, educators, and practitioners. The Congress 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. The Congress also attempts to connect participants from institutions that have teaching as their main mission with those who are affiliated with institutions that have research as their main mission. The Congress uses a quota system to achieve its institution and geography diversity objectives."

One main goal of the Congress is to assemble a spectrum of affiliated research conferences, workshops, and symposiums into a coordinated research meeting held in a common place at a common time. This model facilitates communication among researchers in different fields of computer science, computer engineering, and applied computing. The Congress also encourages multi-disciplinary and inter-disciplinary research initiatives; ie, facilitating increased opportunities for cross-fertilization across sub-disciplines.

#### **MEASURABLE SCIENTIFIC IMPACT OF WORLDCOMP CONGRESS:**

As of December 2012, papers published in the Congress proceedings have received over 27,000 citations (includes about 2,000 self-citations). Citation data obtained from <http://academic.research.microsoft.com/> .

#### **CONTACT:**

Inquiries should be sent to: [conference-chair@dmin-2013.com](mailto:conference-chair@dmin-2013.com)

Robert Stahlbock  
General Conference Chair  
[conference-chair@dmin-2013.com](mailto:conference-chair@dmin-2013.com)