IRIT RESEARCH REPORT: IRIT/RR--2016--08—FR

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Dear Euro Working Group members! Dear Friends!

Time passes quickly and the last three quarters of 2015 and the first of 2016 have again been full of activities for the EWG-DSS group. In 2015 the group managed to organize with success a number of activities and events. Some of them were: the Stream of Decision Support Systems in the EURO 2015 (the 27th European Conference for Operational Research and Management Science), organized by EURO in conjunction with the UK OR Society at the University of Strathclyde in Glasgow, Scotland from July 12th to 15th, 2015; the DSS Session collaboration with the PADSING Stream on Preference Analysis and Decision Support in Negotiations and Group Decisions, within the GD’15 (15th conference organized by the INFORMS Section on Group Decision and Negotiation, June 22-26, 2015), and of course the main EWG-DSS annual event, the 1st EWG-DSS International Conference on Decision Support System Technology - ICDSSST-2015 on “Big Data Analytics for Decision Making”, which was successfully held in Belgrade, Serbia on May 27-29, 2015. Another important event that some EWG-DSS coordination members participated was the ICT 2015 networking event in Lisbon, Portugal in October 2015, organized by the European Commission.


More information about those editions you will find in the Publications section of this Newsletter. All prizes and award initiatives have been successfully carried on by the EWG-DSS. Among them, we cite: the promotion of the “Best Papers Prizes” in our Conferences, for which some sponsors-companies distribute licenses of simulation and DSS-area-related software packages as prizes for best presented papers; and the EWG-DSS Yearly Award for young researchers happened as usual.

The research cooperation among the EWG-DSS Coordination Board Members’ Institutions and the University of Pernambuco in Recife, Brazil towards the advances of the EWG-DSS Collaboration Academic Social Network (Project Collab-Net) has also been carried on with fruitful results. A new online version of the Collab-Net project was deployed earlier in 2016. For the year 2016, the EWG-DSS has the pleasure to announce its 2nd International Conference on Decision Support System Technology, in Plymouth, UK, from May 23rd to 25th, 2016. The ICDSSST Conferences offer the European and International DSS Communities, including the academic and the industrial sectors, opportunities to present state-of-the-art DSS developments and to discuss about the current challenges that surround Decision-Making processes, focusing on realistic but innovative solutions; as well as on potential new business opportunities. The main focus of the ICDSSST-2016 is on “Decision Support Systems Addressing Sustainability & Societal Challenges”. A full report about the ICDSSST2016 Conference you can find in the “EWG-DSS Events” section in this issue.

This Newsletter Nr.14 summarizes the EWG-DSS achievements of 2015/2016, and announces the planned events for 2016/2017, together with some relevant information from the group and the DSS community. For this Newsletter, we interviewed Prof. Marko Bohanec, an active and long-term EWG-DSS member. It is a pleasure for us to count with Marko’s support in our initiatives. His interview is special and exciting. We hope you enjoy reading it!

As a researchgroup we reached in 2015 our planned collaboration goals and we are very happy about the successful impact that we have made so far within the DSS communities in Europe and Worldwide. All this would not have been possible without the consistent support from all of the EWG-DSS members and collaborators. Hence, we sincerely thank You All for your contributions.

We appreciated your support and collaboration in 2015 / 2016 and we look forward to working even more with you in the years to come!

Best wishes from the EWG-DSS Coordination Board!

Boris Delibasic, Isabelle Linden, Rita Ribeiro, Fátima Dargam, Shaofeng Liu, Pascale Zaraté and Jason Papathanasiou. Photo taken in Belgrade, Serbia, in 2015.
EWG-DSS Members

The EWG-DSS has currently over 270 officially registered members (status of February 2016) in its mailing list; and 280 members in its LinkedIn group. Since 1989, the EWG-DSS membership has grown substantially. We are very proud to continuously attract the interest of new members and the participation of old ones in the organized scientific events and editions of the group.

An updated list of registered members with their respective e-mail addresses can be sent to you, by request (mailto: ewg-dss@fccdp.com). If you are a member, you can also check the EWG-DSS list of members and their research interaction via the link http://www.collab.net.com/, using your e-mail address to login.

EWG-DSS Channels

The EWG-DSS communication channels facilitate the interaction among the working group members and between the Coordination Board and all members.

**EWG-DSS Mailing-List:**

ewg-dss@irit.fr

This mailing-list address is devoted only to the registered EWG-DSS members for announcements, projects information, as well as calls for publications. The EWG-DSS Mailing list is managed within the IRIT Server.

- **EWG-DSS – IRIT Server**

**EWG-DSS Web-Links:**

- **EWG-DSS – Blog**
  
  http://ewgdss.wordpress.com/

  In the EWG-DSS blog you find up-to-date information about the group’s activities, projects, awards, newsletters, research collaborations, publications and links to the organized conferences. You can also use the EWG-DSS Blog to send messages to the Coordination Board and to register as a new member.

- **EWG-DSS – EURO Homepage**
  
  http://www.euro-online.org/web/ewg/10/ewg-decision-support-systems

  The EWG-DSS page at the EURO online site is the DSS Working Group’s official homepage. There you find a summary of the detailed information you find in the EWG-DSS Blog and the links to the DSS organized Streams in EURO K Conferences, our Annual Events; Conferences; Meetings; Awards, etc.

- **EWG-DSS – LinkedIn Group**
  
  https://www.linkedin.com/groups?about=&gid=1961459

  The Linked-In EWG-DSS Group has currently over 280 members. This group is open to all Linked-In users. There you find briefings of the EWG-DSS’s activities, discussions of related topics, job opportunity announcements, conferences calls for participation, Journals calls for papers, etc. You are also very welcome to post your announcements in it. If you like networking and you wish to make your announcements more visible to a wider and selective audience, you should take advantage of this platform! interact with.

- **EWG-DSS – Slideshow Account**
  
  http://www.slideshare.net/ewgdss

  In the EWG-DSS Slideshow account you find all the digital versions of the EWG-DSS Newsletters, as well as some online presentations. If you wish to share some of your research presentations with us, you are also welcome to use this account. Please contact us for more details.

- **EWG-DSS – Twitter Account**
  
  https://twitter.com/EWGDSS

  The EWG-DSS Twitter account is operative since 2014 and has continuously gained attention of several group members, collaborators and ICT professionals. There you can be updated with short announcements of our events and publications. We also use the EWG-DSS Twitter account to post pertinent information about our ICT areas of research. Follow us on Twitter to get breaking news of our activities within the DSS communities in Europe and Worldwide!

  **Remember:**

  “Our communication channels are our main tools to cooperate!”

**Interview**

Prof. Marko Bohanec
Professor of Computer Science, University of Nova Gorica, School of Engineering and Management. Jožef Stefan Institute, Department of Knowledge Technologies, Jamova 39, SI-1000 Ljubljana, Slovenia, marko.bohanec@ijs.si
http://kt.ijs.si/MarkoBohanec/mare.html

EWG-DSS: Dear Marko, thank you very much for agreeing to this interview. First of all please let us know a few things about your background and how did you become involved with Decision Support Systems.

MB: My background is in computer science. I studied at the University of Ljubljana, where I graduated in 1981 and obtained a Ph.D. in 1991. I spent most of my professional career working as a researcher at the Jožef Stefan Institute (JSI), which is the largest Slovenian research institute. I am also associated with the University of Nova Gorica, the smallest of four Slovenian universities, as professor in computer science.

I first came across with Decision Support Systems already as a student. My first teacher of computer programming was Vladislav Rajočič, who worked at Jožef Stefan Institute at that time. Around 1980, he returned from his visit at Durham University with an idea to combine multicriteria decision modeling methods with fuzzy sets and expert systems; these were very new concepts at the time. We began working together along these ideas for many years to follow. For my B.Sc. Thesis in 1981, I developed a first software implementation of the method, a program called DECMAK. In 1980s, we carried out a number of fairly successful decision-support consulting sessions and seminars for various Slovenian institutions, learning the trade of decision analysis along the way. The method eventually became known as DEX and turned out an important foundation for my lifetime involvement with the DSS.

EWG-DSS: What is your current personal research agenda and what are your research plans for the near future?

MB: Strangely enough, after so many years, my main research is still very much related to DEX, its extensions and practical applications. DEX as a method is fairly well-established and stable. For those not familiar with it, let me just mention that it is essentially a hierarchical multi-attribute modeling method that uses qualitative (symbolic) variables and decision rules to evaluate decision alternatives. I believe that DEX, or – more generally – the class of qualitative decision modeling methods, is still an evolving concept that offers a lot of potential for further improvement. Recently, together with a young researcher Nejc Trdin, we explored several ways of extending DEX to support some features required in real-life decision situations: combining qualitative and numeric information, dealing with missing and incomplete information, and handling relational decision alternatives, that is, alternatives composed of sub-components, for instance like a company and its departments. These extensions already became part of our decision-support toolbag and were first used in a project in which we assessed the sustainibility of electrical energy production technologies in Slovenia.

In the future, I wish to carry out research that would further extend this toolbag with methods for developing qualitative decision models from data (e.g., from examples of past decisions), and to incorporate feedback loops in the evaluation of alternatives, in a way similar to the Analytic Network Process (ANP).

Another important aspect of my further work will be focused on practical applications. Currently, I am involved in three EU projects which all address the development of a DSS for a particular purpose. In the project called DECATHLON, a group of researchers from RIKILT Wageningen and our institute have just developed a DSS called SIGMO (http://decathlon.ijs.si/gmo/). The system is aimed at the assessment of the presence of genetically-modified organisms in food or feed products. At this point, it is still at a level of a “proof of concept”, but we have many ideas and plans for its further enhancement. The other two projects are in the area of medicine and health-care. In the project PD manager (http://www.parkinson-manager.eu/), we aim to develop a DSS for Parkinson’s disease management. The project introduces a number of innovative elements, from collecting patient’s data using mobile devices and various sensors, to combining these in order to provide best possible support for clinicians and caregivers at maintaining and improving patients’ quality of life. The third project, HeartMan, which has just started in 2016, is based on similar ideas, but for the purpose of heart failure management.

EWG-DSS: You have participated in many EU funded research projects and collaborated with colleagues across Europe. Are you satisfied with the current status of research regarding the DSS discipline at a European level? Related to the previous question, what do you think should be the general directives and trends for future DSS research?

MB: EU-funded projects in which I collaborated addressed problems in areas such as health care, financial management and fraud detection, food and feed production, management of supply chains, and dealing with genetically modified organisms. On the positive side, these areas provided a great playground for the application and promotion of DSS. On the negative side, however, there was very little room in such projects to actually advance the DSS discipline itself. In most cases, DSS was considered only as a service for the target problem domain, and my organisation was typically the only DSS partner in these projects.

I want to say that we were not in a position to collaborate with other partners specialized in DSS with the aim to contribute to the field of DSS. I wish we had more projects that would explicitly support the progress of DSS as a scientific discipline. Regarding the future of DSS, I believe that the basic aim of such systems will remain the same as conceived in 1950s: to support, rather than replace, human decision makers in solving difficult real-life decision problems. However, the technology and the ways how these systems are put together and used will change dramatically. We are already witnessing this change, with, for instance, moving from centralized to distributed and mobile architectures, providing access from any location at any time, providing personalized services, using rich real-time structured and unstructured data, etc. Never before in human history have we had access to – and the capability to store and process – so much data and information worldwide. This brings enormous potential for the DSS, which we have just started to explore. Of course, this also raises questions about the abilities of human DSS users to adapt to these rapid technological changes and actually benefit from them.

EWG-DSS: Do you feel that the DSS community, especially in Europe, is well connected?

MB: Yes and no. I am fairly satisfied with opportunities for meetings and exchanging ideas with researchers at the scientific level. For my profile, there are many strong international conferences in the areas of DSS, Operational Research and Multi-Criteria Decision Making. Sometimes, I even find it difficult to follow all the relevant events. International
organisations, including EWG-DSS, but also others, such as IFIP WG 8.3 on DSS, IFORS, EWG-MCDA, are doing a great job of defining and connecting the DSS community. On the other hand, I am missing more collaboration between DSS researchers and organisations at the level of working together, both at basic and applied research. Here, the initiative is very much left to individual organisations and is not really encouraged by the typical setup of funding projects. I am sure that more collaboration between DSS actors would boost the DSS field and should be encouraged by all means. I was very happy with the recent EWG-DSS initiative to propose a network action to support DSS collaboration, which was, in my opinion, a move in the right direction.

EWG-DSS: You also have remarkable experience in the software development aspects on the DSS discipline. Please share with us a few details on the software you have developed and the lessons learnt from the development and actual operation of the systems.

MB: Well spotted, thank you. Yes, I often say that “it ain’t finished until it works”. DSS is a practical discipline and, in the context of a DSS project, I am always committed to deliver something that runs on a computer: an algorithm, a piece of software code, a software library, a prototype system or, ideally, a fully developed DSS aimed at supporting its happy users for many years. This does not always work out, but it is worth trying and pays off in the long run. For me, computer programming is also fun and I still practice it a lot, to maintain condition and to stay in touch with new technologies.

My main line of software development is again connected with the method DEX. The current version of supporting software, a desktop program called DEXi is actually the third generation of the software I had developed for DEX [http://kt.ijs.si/MarkoBohanec/dexi.html].

Even though DEXi is maintained regularly, it is already showing its age. There is a strong need for the fourth generation of software, which would implement all recent methodological developments and take the advantage of new web and mobile technologies. I am already working on this, and I expect to have a first prototype in about six months.

Apart from DEX, I was involved in the design and development of many other DSSs. Some of them went into regular operation, while some others were forgotten instantly. In the 1990s, probably most impact had a series of decision support systems for the Housing Fund of the Republic of Slovenia, which were used to process and approve thousands of housing loans for Slovenian citizens. I am also very proud of two other systems: Talent for advising children in choosing sports and Ptah for an early detection of nosocomial infections in hospitals.

More recently, we made quite some progress with a series of decision models and systems for assessing cropping systems in agriculture. They were heavily used particularly in France, and at some point even influenced recommendations put forward by the European Commission.

EWG-DSS: Finally, please tell us a few things about the history and research activities of the institute and the department you are currently working.

MB: The Jožef Stefan Institute was founded in 1949, together with two other institutes in the former Yugoslavia, for the research in nuclear physics. The institute is named after the distinguished 19th century physicist Jožef Stefan, known for his work with Ludwig Boltzmann the law of black-body radiation. Over the 66 years, JSI has grown to the leading Slovenian research organisation, carrying out a broad spectrum of basic and applied research in the fields of natural sciences and technology. The staff of about 90 researchers work in the areas of physics, chemistry and biochemistry, electronics and information science, nuclear technology, energy utilization and environmental science.

I work in the Department of Knowledge Technologies, a research unit with about 40 members. We carry out the research and applications of knowledge technologies, including data, text and web mining, machine learning, decision support, language technologies, and other information technologies that support the acquisition, management, modeling and use of knowledge and data. We are truly international, both in terms of the staff and international collaboration. Most of our funding comes from EU projects. I am one of the senior researchers in the department, responsible for the areas of decision support, decision analysis and multi-criteria decision modelling.

EWG-DSS: Marko, we sincerely thank you very much for this informative & enjoyable interview! It was a pleasure meeting you in almost all the EWG-DSS events over the years. We also wish you Good Luck with all your new endeavours!

EWG-DSS Award

The annual EWG-DSS Award is a motivating initiative for PhD students and young researchers to have their papers selected as best papers or most innovative presented work, among the research work submitted to the EWG-DSS organized scientific events of the same year.

Each year, the winner is rewarde d with a modest prize in money, sponsored by the EWG-DSS, and the EWG-DSS Award certificate.

How to sponsor the Award?

The EWG-DSS hopes to count with sponsorship from research funds and from the industrial sector to make the future “EWG-DSS-Awards” more financially appealing to the candidates. You are encouraged to support this initiative by financially sponsoring it if possible, as well as to participate and/or to disseminate this information among your students, colleagues, research partners and collaborators.

Winner of the 2015 Award:

In 2015, the EWG-DSS Award has been granted to Jadielson Moura with the paper “Incorporating Individual Characterisitcs of the Negotiators in the Negotiation Process Supported by Negotiation Support System”, a joint work with Ana Paula Costa that was presented during the ICDSST 2015 conference in Belgrade in May 2015.

Jadielson Moura – 2015 Award winner.

The EWG-DSS Award prize for 2015 is of € 300.000 and was officially given to Jadielson by Prof. Pascale Zarate during her one month and a half
academic visit period at the UFPE Universidade Federal de Pernambuco. The prize ceremony took place during a doctoral conference of Pascale Zaraté at UFPE, in Recife, Brazil, with 50 participants, among students and researchers.

EWG-DSS 2015-Award Ceremony.  
We take this opportunity to congratulate Jadielson and his research collaborators again for their achievement!

**EWG-DSS 2016-Award**
The “EWG-DSS Award 2016” can still be yours! Participate!

**How to apply?**  
To apply for the annual EWG-DSS Award, you only need to participate in one of our Conferences, or Session Streams organized by the group and allow your work to be part of our selection! More details can be found via the link:  
http://ewgdss.wordpress.com/awards/.

**Publications**

In this section you find the list of recent EWG-DSS editions (a comprehensive list of EWG-DSS publications is found in:  
https://ewgdss.wordpress.com/ewg-dss-academic-production/), as well as individual publications of members of the group, who sent their information for this Newsletter. We encourage all EWG-DSS members to send to us their lists of most recent publications for the next Newsletter!

**EWG-DSS Recent Editions:**

**Edited Special issues and books**


  Following the GDN 2014 a Feature Issue on “Collaborative Decision Processes and Analysis” in the EURO Journal of Decision Processes (EJDP) was organized by Pascale Zaraté and Fátima Dargam as Guest Editors.  


- **IJDSST Special Issue on “Business Data Analytics and Management”** (2016).

Members’ Recent Publications:


Book Announcements:


This book illustrates the diversity of Multicriteria Decision Aiding (MCDA) techniques through 15 applications, by underlining the difficulties that a “decision aider” (or analyst) could face in a real-world situation. The first three chapters propose the reader to (re)discover the theoretical foundations of the MCDA field as well as of preference modeling. The next 15 chapters present a large variety of applications: decision problems linked to issues such as energy, environment, transportation or finance. An originality of this book is that each of these chapters is highlighted by a comment of the editors which allows the reader to position the application in the general context introduced in the first three theoretical chapters, showing also how all the applications fit a common scheme of a decision aiding process. Hence the book not only illustrates the diversity of decision aiding contexts but also inscribes them all in a unifying decision aiding process concept. Finally, the last two chapters present free software tools which support the decision aiding process, namely the diviz ecosystem. This book may be useful for:
- studying the decision aiding process;
- experimenting with a variety of MCDA methods in the realistic decision aiding situations described in the case studies;
- for training students for the role of analyst by involving them in simulated decision aiding processes inspired from a case study;
- for providing decision analysts with examples of decision aiding processes in which they could find inspiration for their own practice.


Most common definitions of the information system fail to clearly separate the notions of information and knowledge, and these terms are generally used quite loosely. This is particularly the case for projects dealing with digital information systems (DIS) using applications of Web 2.0 and big data. This book presents the inherent risks linked to this ambiguity and studies the notion of the Enterprise’s Information and Knowledge System (EIKS). It specifies the limits and conditions within which knowledge can be considered as an object and treated as an object in a DIS. EIKSs allow data exchanges, but also ensure how they are interpreted. They become actual knowledge systems.


Multiple Criteria Decision Making (MCDM) has become one of the most important and fastest growing areas of Operations Research and Management Science. Various MCDM methods have been developed over the years. This book aims to present the most widely-used MCDM methods and provide illustrative examples and Python codes to demonstrate them in real-world applications. This book covers TOPSIS, fuzzy TOPSIS, VIKOR, fuzzy VIKOR, PROMETHEE, SIR, AHP, Goal Programming, etc. For each method, we present: (i) its steps, (ii) an illustrative example, and (iii) a Python code that implements the method. Finally, we present the most well-known methods for calculating the criteria weights.


The aim of this edited book is the presentation of cases of real-world Decision Support Systems. The overall and primary goal in each case is to point out the lessons learnt in each stage of the system life cycle, from the initial requirements analysis and design phases to the final stages of the project. All chapters present the user experiences after some time of system use, the derived good practices during development and the limitations of the proposed DSS. Chapters describe DSSs in various applications domains, such as Water Resources Management, Environment and Forestry, Public Procurement, Health, Emergency Management, Earth Observation and Urban Traffic Control.

Thanks to all group members who contributed to this section.
EWG-DSS Events

General aims of the EWG-DSS:
- Encourage the exchange of information among practitioners, end-users, and researchers in the area of Decision Systems.
- Enforce the networking among the DSS communities available and facilitate activities that are essential for the start-up of international cooperation research and projects.
- Facilitate professional academic and industrial opportunities for its members.
- Favor the development of innovative models, methods and tools in the field Decision Support and related areas.
- Actively promote the interest on Decision Systems in the scientific community by organizing dedicated conferences, workshops, seminars and conference streams in major conferences, as well as editing special conference streams in major conferences, as well as editing special issues in relevant scientific journals.

Following its objectives, the EWG-DSS has been organizing since 2011 at least one conference/workshop per year. With thousands of events, our group has made a step forwards within its main purpose of establishing a platform for encouraging state-of-the-art high quality research and collaboration work within the DSS community in Europe and Worldwide. Below you find a chronological list of all places where EWG-DSS organized events up to the current year.

EWG-DSS Meetings

List of all EWG-DSS Meetings, Workshops & Conferences:
- Fontainebleau (France) – 1990;
- Bruges (Belgium) – 1991;
- Nagycenk (Hungary) – 1992;
- Sintra (Portugal) – 1993;
- Turku (Finland) – 1994;
- Samos (Greece) – 1995;
- Ispra (Italy) – 1996;
- Bruges (Belgium) – 1997;
- Granada (Spain) – 1998;
- Turku (Finland) – 1999;
- Toulouse (France) – 2000;
- Caiscas (Portugal) – 2001;
- Bruges (Belgium) – 2002;
- Luxembourg – 2003;
- Istanbul, (Turkey) – 2003;
- Prato, (Italy) – 2004;
- Graz (Austria) – 2005;
- London (UK) – 2006;
- Reykjavik (Iceland) – 2006;
- Montreal (Canada) – 2007;
- Prague (Czech Republic) – 2007;
- Toulouse (France) – 2008;
- Bonn (Germany) – 2009;
- Lisbon (Portugal) – 2010;
- London (UK) – 2011;
- Paris (France) – 2011;
- Liverpool (UK) – 2012;
- Vilnius (Lithuania) – 2012;
- Thessaloniki (Greece) – 2013;
- Rome (Italy) – 2013;
- Toulouse (France) – 2014;
- Barcelona (Spain) – 2014;
- Belgrade (Serbia) – 2015;
- Warsaw (Poland) – 2015;
- Glasgow (UK) – 2015;
- Plymouth (UK) – 2016;
- Poznan (Poland) – 2016.

Events in 2015


Special Focus on: “Big Data Analytics for Decision Making”

We are happy to share the success of the ICDSST 2015 with you! The ICDSST 2015 – 1st EWG-DSS International Conference on Decision Support System Technology with special focus on “Big Data Analytics for Decision Making” was a great success! We had a very nice time in Belgrade in the end of May!

The EWG-DSS is grateful to all the ICDSST 2015 Sponsors, Chairs, Participants, Keynote Speakers, Program Committee, Panelists, Local Organizers, Support Volunteers, and everyone else who contributed to make it a successful event. Specially, the EWG-DSS wishes to thank ICDSST 2015 Local Chair Boris Delibasic and his Team for bringing this event together within a friendly and pleasant atmosphere within the Faculty of Organizational Sciences in Belgrade. Thank YOU!

The ICDSST 2015 attracted 75 participants coming from 17 countries: Serbia, Brazil, USA, Slovenia, UK, Portugal, Greece, Spain, Italy, France, Algeria, China, Canada, Austria, Japan, Germany, and Belgium (ordered in terms of number of participants). Pictures taken during the ICDSST 2015 are available in the conference homepage.

Link: https://ewgdsstbelgrade2015.wordpress.com

The ICDSST 2015 proceedings are composed of two volumes, one Springer LNBIP 216 volume, and one local volume. The ICDSST 2015 Springer LNBIP 216 Proceedings can be obtained directly with Springer (http://www.springer.com/de/book/978319185323).


During the ICDSST 2015, the EWG-DSS Coordination Board had the opportunity to grant its 4th Award Ceremony. The EWG-DSS 2014 Award went to Ksenija Mandic, concerning the paper “Supplier Selection using Interpolative Boolean Algebra and TOPSIS Method” that was presented in the GDN-2014 in Toulouse, in June 2014. We congratulate again Ksenija for her achievement!

During the ICDSST 2015, new candidates were selected for the EWG-DSS 2015 Award, which will be granted next year during the ICDSST 2016 in Plymouth.

Most of the presentations and panels of the ICDSST 2015 were recorded and are available in the YouTube channel “Egw icdsts15” linked below: https://www.youtube.com/channel/UC mc5djmT Lj9SARS0w1A.

You are very welcome to check them!

It was a great pleasure for the EWG-DSS to organize the ICDSST 2015 Conference in Belgrade!

The EWG-DSS DSS Stream at the EURO2015 included the following topics in its sessions: Applications in Decision Making & Decision Analysis; Business Intelligence and Knowledge-Based Decision Support; Knowledge Management & Decision Systems; DSS Simulation and Optimization Approaches; Collaborative Decision Making (Social Networks & Web Resources); and Big Data Analytics & Decision Making. [https://ewgdss.wordpress.com/2014/12/15/dss-stream-at-euro-2015-in-glasgow/](https://ewgdss.wordpress.com/2014/12/15/dss-stream-at-euro-2015-in-glasgow/)

The EURO2015 was highly interesting and well organized. The EWG-DSS Coordination Board was represented in Glasgow by Pascale Zaraté and Fatima Dargam.


The EWG-DSS collaborated with the PADSING Stream in the Group Decision and Negotiation Conference GDN-2015. Details of the collaboration were documented in the EWG-DSS blog. Link: [https://ewgdss.wordpress.com/2014/12/15/dss-session-at-gdn-2015/](https://ewgdss.wordpress.com/2014/12/15/dss-session-at-gdn-2015/)

**EWG-DSS Participation on the ICTEvent in Lisbon, Oct. 2015**

On October 20-22, 2015, the EWG-DSS participated in the ICT 2015 European Commission Event in Lisbon.

**Events in 2016**


The ICDSST 2016 was an interesting event to get information about the future EC program of 2016-2017 and also to get fit on their innovation requirements.

The EWG-DSS was well represented in this event. The EWG-DSS Coordination Board Members Fatima Dargam, Rita Ribeiro, Pascale Zarate, and Shaofeng Liu participated in the ICT 2015 Event.

A document was produced by the EWG-DSS and distributed in ICT2015 among potential contacts for project collaboration. Link to the document: [https://ewgdss.files.wordpress.com/2015/10/ewg-dss-information-project-interests.pdf](https://ewgdss.files.wordpress.com/2015/10/ewg-dss-information-project-interests.pdf)

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**Purpose of the ICDSST 2016**

The main purpose of the EWG-DSS 2016 International Conference on Decision Support System Technology (ICDSST 2016), with its main theme on “Decision Support Systems Addressing Sustainability & Societal Challenges”, is to attract researchers, developers and specialists in the related areas of decision making, including its methodologies and technologies, as well as application oriented practitioners directed to the implementation of solutions for societal challenges, to get together in order to exchange experiences and identify the key issues within the areas in focus, so that exploitation of new approaches and tools for future developments can take place.

Citizens in the current fast changing world are facing a great number of challenges, and decisions in relation to citizens’ activities either regarding business, commerce, work, and leisure or recreation and social life, are getting more and more complex.

**ICDSST 2016 Main Theme**

The ICDSST 2016 focuses on the theme of how DSS can help address various sustainability & societal challenges (inspired by the EU Horizon 2020 programme), in order to build a better society for us and for future generations to live in. Addressing societal issues is a daily need for each one of us. The various developments within Decision Systems, including collaborative decision making with the use of social networks and web resources; dynamic spatial-temporal
decision making; and the existing research behind the technical and social aspects of web-based decision processes can certainly be of great support for future developments for solving societal challenges.

ICDSSST 2016 Specific topics of interest include:
- DSS for health, demographic change and well-being
- DSS for food security, sustainable agriculture and forestry, and bio-economy
- DSS for marine and maritime and inland water research
- DSS for secure, clean and efficient energy
- DSS for smart, green and integrated transport
- DSS for sustainable construction and architecture
- DSS for climate action, environment, resource efficiency and raw materials
- DSS for inclusive, innovative and reflective societies
- DSS for secure societies – protecting freedom and security of the world and its citizens
- DSS for business sustainability, innovation and entrepreneurship
- DSS for lean operations, reverse logistics and sustainable supply chain management
- DSS for green marketing management and new product/service development
- DSS for human resource/leadership management and organisational ethics
- DSS for socially responsible accounting, finance and banking management
- DSS for economics sustainability and regional/international development
- Innovative decision making approaches/methods and technologies
- Big Data analytics for solving societal decision making issues
- Knowledge management and business intelligence
- Decision making in modern education

The ICDSST 2016 promises to offer a pleasant conference environment for all participants, within the beautiful city of Poznan in May.

We expect all members of the EURO Working Groups related to Decision Making and Societal Problems, as well as all associates of collaborative International DSS Communities to participate in the ICDSST2016, so that further collaboration can be promoted on a larger scale in the future.

Invited speakers/ Special talks in ICDSSST-2016:


Talk: **Transforming manufacturing decision support through a holistic ICT approach.**

**Prof. Steve Goodhew**, Professor of Environmental Building, Associate Head of School, University of Plymouth, UK.

Talk: **Decision making in sustainable construction.**

**Dr. Hing Kai Chan**, Univ. of Nottingham, Ningbo Campus, China, Industrial Management and Data Systems Editor.

Talk: **What factors affect decision-makers who set up environmental policies?**

**Dr. Festus Oderanti**, Lecturer in Information & Knowledge Management Programme Leader, Digital and Social Media Marketing.

Talk: **Fuzzy inference approach to uncertainty in budget preparation and execution.**

**DSS Stream at EURO-2016**

The EURO 2016 is the 28th European Conference for Operational Research and Management Science (ORMS), organised by the European Association of Operational Research Societies in conjunction with the Polish OR Society.

The EURO 2016 will take place at the Poznan University in Poznan, Poland from July 3rd to 6th, 2016. More details about the Conference and the venue can be found in the Conference Homepage:

http://www.euro2016.poznan.pl/

As the organizers of the Stream of Decision Support Systems, the EWG-DSS welcomes researchers, students and practitioners working in the areas of decision making, analysis and decision support to participate in the stream. The DSS Stream at EURO2016 is composed of over 20 presentations distributed in 4 sessions, including the topics: Applications in Decision Making & Decision Analysis; Business Intelligence and Knowledge-Based Decision Support; Decision Making & DSS; and Big Data Analytics for Decision Making.

The EWG-DSS Coordination Board is represented in the EURO2016 in Poland by Boris Delibasic and Isabelle Linden.

**Best Paper Prizes**

**EWG-DSS Best Papers Prizes**

Continuing the initiative created in 2013 for the EWG-DSS Thessaloniki Workshop and repeated in the EURO Mini-Conference in Graz, and the EWG-DSS events in Toulouse and Belgrade, the EWG-DSS will also distribute prizes for best papers during the ICDSST 2016 in Plymouth in May 2016.

The following licenses of DSS-area-related software packages will be sorted among the participants as prizes for best presented papers during the ICDSST-2016 Conference:

- A License of *Analytica Enterprise*, sponsored by Lumina - http://www.lumina.com/;

- A full license of *Paramount Decisions* software (https://paramountdecisions.com/)
• A full license of 1000 Minds software
  (https://www.1000minds.com/)
• A license of ExtendSim, sponsored by Imagine That Inc., US. www.ExtendSim.com;

More details about the sponsors at: https://icdsist2016.wordpress.com/sponsors/

Other Events

MCDA/M Summer School 2016

The MCDA/M Summer School is a two-week event, taking place July 18th through 29th, 2016 in Recife/Brazil. Details about the program and the application process are available at http://cdsid.org.br/mc-summer-school2016/

The aim of this school is to give graduate students/young researchers a state-of-the-art presentation of multiple criteria methods, applications and software and to stimulate a networking of young researchers in MCDA/M.

The scientific program of the summer school consists of invited lectures and teams of participants working on case studies.

Distinguished professors participation:
• Ehrgott, Matthias;
• Figueira, José Rui;
• Fonseca, Carlos
• Geiger, Martin J.;
• Greco, Salvatore;
• Keeney, Ralph L.;
• Köksalan, Murat;
• Słowikski, Roman.

Topics included in the program:
• Introduction to MCDA/MCDM;
• Applications in real world problems;
• Problem Structuring;
• Preference Modelling;
• Outranking Methods;
• MAVT/MAUT (Multi-Attribute Value/Utility Theory);
• Robust Ordinal Regression;
• Decision Rule Approach;
• MCDM Group Decision;
• Interactive Methods of Multiobjective Optimization (IMMO);
• Multiobjective Combinatorial Optimization (MOCO);
• Evolutionary Multiobjective Optimization (EMO);
• Decision Deck;
• Scientific writing and publication strategy;

• MCDM community and History.

The number of participants will be roughly limited to 50 graduate students. Registration with accommodation includes attendance to the summer school, educational material, lunches, dinners, and social activity and its highly recommended to facilitate the highest level of interaction among students. Don’t miss this opportunity!

For more details about the MCDA/M Summer School in Recife/Brazil, in July 2016, visit the homepage: http://cdsid.org.br/mc-summer-school2016/

Conference of the IFIP WG 8.3, University College Cork, Ireland, June 22nd-24th 2016

Main Theme: Big Data, Better Decisions, Brighter Future

The theme of the conference: “big data, better decisions, brighter future” is set to highlight the trends in the increasing abundance of data/information, increased technological advancements and the resulting requirement for a strong research focus on data/information management and decision making, to provide a better and brighter future. Using this platform we aim to continue the success of past IFIP WG 8.3 conferences in supporting the dissemination of quality research, but also to provide a memorable experience through our hospitality, location and conference facilities. We wish you all the best in your research endeavours and hope to get the opportunity to meet you in person in University College Cork, Ireland in June 2016.

The IFIP WG 8.3 conference committee welcomes both academic and practitioners, community contributions on a wide range of topics using a range of scholarly approaches that showcase the latest innovations and achievements in decision support and decision making. Submitted contributions that showcase real case studies will be especially welcomed. All contributions will be peer-reviewed and the acceptance of a contribution will be based on the originality of the work, the relevance to the conference theme and its overall quality.

The 2016 Open Conference of the IFIP WG 8.3 will highlight the applications, data (big & small), analytics, stakeholders and impacts of decision making and decision support in the business world of today. Suggested research topics (presented as conceptual/theoretical, empirical, design science and case-based approaches, amongst others) can include, but are not limited to, the A to Z of applying big data and big ideas in:
• Decision Support, Methodologies & Systems
• Decision Making, Behaviours & Decision Models
• Business Analytics, Intelligence & Knowledge Discovery

For more details, visit the homepage: http://www.ucd.ie/2016conf/registration/registration.html


This is the Third International Conference on Data Science and Advanced Analytics sponsored by IEEE. The conference website is: https://www.ualberta.ca/~dsaa16/.

Data driven scientific discovery is an important emerging paradigm for computing in areas including social computing, services, Internet of Things, sensor networks, telecommunications, biology, healthcare, and cloud. Under this paradigm, Data Science is the core that drives new researches in many areas, from environmental to social. There are many associated scientific challenges, ranging from data capture, creation, storage, search, sharing, modeling, analysis, and visualization. Among the complex aspects to be addressed we mention here the integration across heterogeneous, interdependent complex data resources for real-time decision making, streaming data, collaboration, and ultimately value co-creation. Data science encompasses the areas of data analytics, machine learning, statistics, optimization and managing big data, and has become essential to glean understanding from large data sets and convert data into actionable intelligence, be it data...
available to enterprises, Government or on the Web. Following the previous two successful editions DSAA’2014, DSAA’ 2015, the 3rd IEEE International Conference on Data Science and Advanced Analytics (DSAA’ 2016) aims to provide a premier forum that brings together researchers, industry practitioners, as well as potential users of big data, for discussion and exchange of ideas on the latest theoretical developments in Data Science as well as on the best practices for a wide range of applications. DSAA’2016 will consist of two main tracks: Research and Applications. The Research Track is aimed at collecting original contributions related to foundations of Data Science and Data Analytics. The Applications Track is aimed at collecting original papers (not published nor under consideration at any other venue) describing substantial contributions related to Data Science and Data Analytics in real life scenarios. DSAA solicits then both theoretical and practical works on data science and advanced analytics.

**Publications:**
All accepted papers will be published by IEEE and included in the IEEE Xplore Digital Library. The conference proceedings will be submitted for EI indexing through INSPEC by IEEE. Top quality papers accepted and presented at the conference will be selected for extension and publication in the special issues of some international journals, including IEEE TKDE, ACM TKDD, ACM TIIS and WWWJ.


**Conference on Computational Science and Its Applications (ICCSA 2016)**

http://www.iccsa.org/

The 16th International Conference on Computational Science and Applications (ICCSA 2016) will be held on July 4 - 7, 2016 in Beijing, China in collaboration with the Beijing University of Posts and Telecommunications, China.

ICCSA 2016 is the next event in a series of highly successful International Conferences on Computational Science and Its Applications (ICCSA). Computational Science is a main pillar of most of the present research, industrial and commercial activities and plays a unique role in exploiting Information and Communication Technologies as innovative technologies. The ICCSA Conference offers a real opportunity to discuss new issues, tackle complex problems and find advanced enabling solutions able to shape new trends in Computational Science. Submitted papers will be subject to stringent peer review by at least three experts and carefully evaluated based on originality, significance, technical soundness, and clarity of exposition. Accepted papers will appear in the conference proceedings to be published by Lecture Notes in Computer Science (LNCS) (edited by Springer) or Conference Publishing Services (CPS).

For more details, visit the conference homepage: http://www.iccsa.org/.

**MWAIS 2016, 11th Annual Midwest United States Association for Information Systems**


**Conference on Sustainable Energy Information Technology (SEIT 2016)**

**ANT 2016**

The 7th International Conference on Ambient Systems, Networks and Technologies May 23-26, 2016, Madrid, Spain

http://cs-conferences.acadiau.ca/ant-16/
ISCRAM is a learned society for people working in the field of Information Systems for Crisis Response and Management. The ISCRAM Association’s primary mission is to foster a community dedicated to promoting research and development, exchange of knowledge and deployment of information systems for crisis management, including the social, technical and practical aspects of all information and communication systems used or to be used in all phases of management of emergencies, disasters and crises.

The Conference ISCRAM2016 will take place in Rio de Janeiro, locally organized by the Federal University UFRJ, in May 2016. The following tracks are included in ISCRAM2016:
- Analytical Modeling and Simulation
- Command and Control Studies
- Community Engagement & Practitioner Cases
- Ethical, Legal, and Social Issues
- Geospatial Data & Geographical Information Science
- Human-Centered Design & Evaluation
- Intelligent Decision Support in the Networked Society
- Planning, Foresight and Risk Analysis
- Social Media Studies.

For more details, visit the homepage: http://www.iscram2016.nce.ufrj.br/.

ICORD 2016 - International Conference on OR for Development, “Constructing pathways to advance societies through OR”
Instituto Tecnológico Autónomo de México (ITAM), Mexico City, Mexico, June 9-10, 2016
http://ifors.org/icord2016/

ICORD aims to bring together researchers around the world to present and discuss models and methods to overcome issues existing in developing countries. The theme for ICORD 2016 is “Constructing pathways to advanced societies through OR”.

ICORD has a workshop format that allows participants to present their projects and receive formal feedback from assigned reviewers and comments from the general audience. The reviewers are identified from amongst the pool of participants and their objective is to provide a constructive evaluation of the paper.

ICORD is suitable for presenting papers that are close to submission to a peer-reviewed journal and demonstrate a thorough OR analysis in a problem area important to developing countries. The feedback received at ICORD is an opportunity for authors to improve the quality of the paper in a short time. The problems covered in submitted papers may include, but not be limited to, sustainability, healthcare, energy, mobility, education, natural resource management, public policy and infrastructure. Purely technical papers, or those that have no relevance in the developmental context, will not be accepted.

For more details, visit the homepage: http://ifors.org/icord2016/.

PACIS 2016 - 20th Pacific Asia Conference on Information Systems
Chiayi, Taiwan, June 27- July 1, 2016. Main theme: “IT Governance for Future Society”.
PACIS2016 Publication Opportunities:

- International Journal of Accounting Information Systems (IJAIS, Elsevier’s Journal)
- Information & Management (I & M, SSCI Journal)
- Industrial Management & Data Systems (IMDS, SCIE Journal)
- Journal of Electronic Commerce in Organizations(JECO)
- Journal of Electronic Commerce Research (JECR, SSCI Journal)
- Journal of Global Information Management (JGIM, SSCI Journal)
- Journal of Information Systems (JIS, AAA Journal)
- Journal of Knowledge Management (JKM, SSCI Journal)
- Pacific Asia Journal of the Association for Information Systems (PAJAIS, AIS Journal)

For more details about the PACIS2016 Conference, visit the homepage: http://www.pacis2016.org/.

OR 2016 - INTERNATIONAL CONFERENCE ON OPERATIONS RESEARCH – ANALYTICAL DECISION MAKING. HAMBURG, AUG. 30 – SEPT 2

The conference OR2016 will take place in Hamburg at the Helmut-Schmidt-Universität, Universität der Bundeswehr Hamburg, in Germany.

The conference theme, Analytical Decision Making, places emphasis on the process of researching complex decision problems and devising effective solution methods towards better decisions. This includes classical mathematical optimization, statistics, and simulation techniques, yet more and more such approaches are complemented by methods and tools from computer science for the processing of data and the design and implementation of information systems. Recent advances in information technology enable the treatment of big data volumes and real-time predictive and prescriptive business analytics to drive decisions and actions. Problems are modeled and treated under consideration of uncertainty, risk management, behavioral issues, and strategic decision situations. This certainly necessitates interdisciplinary collaborations regarding different scientific areas and application domains.

OR2016 invites participants to gain insights, share your expertise with others, recruit your next employees or find your next job, or just enjoy meeting new and old friends that work in the intriguing field of operations research, management science, data science and analytics. Deadline for abstract submission is May 9, 2016.

For more details, visit the homepage: http://or2016.de/.
IFIP TC7 Conference 2017 on System Modelling and Optimization

July 17-21, 2017 Middle East Technical University Ankara, Turkey
http://ifip17.iam.metu.edu.tr/index.html

In a cycle of two years, the International Federation for Information Processing (IFIP) Technical Committee 7 - System Modelling and Optimization - arranges highly regarded conferences on several topics of Applied Optimization such as Optimal Control of Ordinary and Partial Differential Equations, Modeling and Simulation, Inverse Problems, Nonlinear, Discrete, and Stochastic Optimization and Industrial Applications. For more details, visit the homepage: http://ifip17.iam.metu.edu.tr/index.html.

EWG-DSS Collab-Net Project

EWG-DSS Collaboration Academic Social Network Project (Collab-Net) targets mainly to disseminate research being conducted by members of the group.

The development of the EWG-DSS Collab-Net project counts with efforts of the EWG-DSS Coordination Board team and with the support of researchers from the Federal University of Pernambuco in Recife, Brazil, under the supervision of Adiel Almeida and Ana Paula Costa, from the University of Macedonia in Greece, under the supervision of Jason Papathanasiou; and the University of Namur in Belgium, under the supervision of Isabelle Linden. We are very grateful to all the involved persons in this project cooperation.

At the moment, we are concentrating on the online interface for the EWG-DSS Membership and publications/collaborations database and network. A technical report about the current version (3) of the Collab-Net project was recently published by IRIT (Jadielson Moura; Ana Paula Cabral; Fatima Dargam; Isabelle Linden; Pascale Zaraté. EWG-DSS Collab-Net Project Version 3, IRIT/RR-


Online Collab-Net Project (version 3)


Updated details about the Collab-Net Project can be read in the link below and in the papers published about it, listed in the Publications of the EWG-DSS group. Link: http://ewgdss.wordpress.com/ewg-dss-net/

News about Members

Research Collaboration among EWG-DSS Members

The Coordination Board with members of the EWG-DSS, together with professionals of Big Data and other DSS communities, have concentrated great effort during 2015 and 2016 to start a high quality research network for further collaboration and deployments in the area of Big Data Analytics for Decision Support. A proposal for such network to be funded was elaborated and is currently under evaluation. The interaction among the participants of this initiative was extremely motivated and professional. We are really proud to coordinate such a valuable group of researchers! We all keep our fingers crossed to have this network proposal for funding accepted. We hope you will all soon read more about it and have also a chance to collaborate with it!

Other Announcements

Experience & Competence

EWG-DSS Members-Institutions Research & Development Competences for Collaboration in European Projects

The EWG-DSS has Experience in Research and Development in: Decision Support Systems Applications in various Real & Global Scenarios; Multi-Criteria Decision Making (MCDM), including Dynamic Decision Making Models; Negotiation Support Systems, including distributed, web-based systems; Knowledge Management & Resource, Discovery for Decision Making (DM); and Innovative DM Methods, Technologies and Real-Industry Applications; among others.

In the pdf document linked below, https://ewgdss.files.wordpress.com/2015/01/competences-of-ewg-dss-members.pdf, you find a summary of some EWG-DSS Members-Institutions about their experience and competence in research and development for projects’ collaboration. For more details about this, check: https://ewgdss.wordpress.com/experience-competence/.

Disclaimer

The EWG-DSS organizes its meetings, conferences and workshops, counting with the EUROfinancial support and with the respective participation fees to cover the events’ expenses. The EWG-DSS makes no profit with its conferences and meetings.

The EWG-DSS is very grateful to all group members who sent contributions to this Newsletter.

Contribution to next Newsletters

Every member is very welcome to contribute to the EWG-DSS annual Newsletters.

Subjects can be related to:
- Project Descriptions
- Recent Publications
- PhD Dissertations
- Book Presentations / Reviews
- Research Group Presentations
- Research Views & Perspectives
- Journal Announcements – CIP
- Forthcoming Events
- General Announcements

Contributions should be sent to the email address ewg-dss@fccdp.com with the subject: “Newsletter”