No. 18, Year 2019/ 2020

EWG-DSS Newsletter

Newsletter of the EURO Working Group on Decision Support Systems

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Editorial Board

The Newsletter of the EURO WG on Decision Support Systems is annually edited by its current Coordination Board Members:

Shaofeng Liu; Boris Delibasic; Isabelle Linden; Jason Papathanasiou; PavlosDelias; Ana Paula Cabral Seixas Costa,
with support from the EWG-DSS Advisory Board.

Comments and announcements for the next issues of the EWG-DSS Newsletter should be sent to the email address below with the subject: "Newsletter".

Email: ewg-dss@fon.bg.ac.rs

Editorial *(by the EURO Working Group on DSS Coordination Board Members)*

Dear Euro Working Group Members! Dear Friends!

The past year has been both fruitful and challenging for many of us across the world. It is our pleasure to share with you the recent news from the EWG-DSS community, by looking back some of the key achievements we have succeeded despite all the unforeseen challenges.

This is the last opportunity for the seven of us together, as the Co-ordination Board (CB), to present to you this edition of newsletter. It has been an enjoyable journey for us to serve the EWG-DSS community. This dynamic CB has been renewed and consolidated over the past three decades, while experienced individuals have been providing their unreserved support and help to develop and mentor new generations. We are pleased that the CB has reached a position that it is possible for two of the most senior members, Pascale Zarate and Fatima Dargam, to shift their focus from CB to Advisory Board (AB), while the new CB members are confident in carrying on the Board's duty to look after the society. As the founding members of the EWG-DSS, Pascale and Fatima are apparently passionate and emotional at this moment, hence would like to share their feelings with all of us. Please read Pascale and Fatima's formal farewell speeches on the next pages of this newsletter. In the meantime, Ana Paula Cabral, a long-time member of the community joins us to strengthen the CB. The new CB will continue to work hard for the community, with the community in the spirit of professionalism, fun and kindness as Pascale and Fatima have always championed through.

Year 2020 did not go exactly the way as we would have wished for. Covid-19 has brought significant difficulties to many of us, both in work and in personal life. We would like to send our sincere regards to all those whose families have been affected severely by the terrible pandemic. We wish you and your loved ones come out of the other side of the pandemic stronger and better. As a professional society, we can meet tough challenges. One excellent example is the successful organization of the 2020 International Conference on Decision Support System Technology (ICDSST 2020) during May 27-29 in Zaragoza, Spain. Despite all the problems Covid has thrown to us, the ICDSST 2020 Organization Committee led by our AB member, José María Moreno-Jiménez, and CB members, Pascale Zarate and Isabelle Linden, overcame all the challenges and smoothly run our first ever online conference. Please read the ICDSST 2020 conference report in the newsletter for more details on the event.

Alongside our headline event of ICDSST2020 conference, we also have edited a great number of journal Special Issues and books, especially a book dedicated to the celebration of the EWG-DSS's 30 years of success's is being published by Springer. The contributions to the journal Special Issues and books are mainly from our EWG-DSS members. Besides all the editorial work carried out or led by the CB and AB members, we have seen productive outputs from the whole community. Please read our "Publications" section for all the details.
For the coming year, two important events are on the way: (1) the 2021 International Conference on Decision Support System Technology (ICDSST2021), to be held in Loughborough, UK during 26-28 May 2021.The organization of ICDSST 2021 is led by Uchitha Jayawickrama, a member of our Board of Assistants, and supported by Shaofeng Liu and Pavlos Delias from the CB. The theme for ICDSST 2021 is Decision Support Systems, Analytics and Technologies in response to Global Crisis Management; and (2) the Decision Support stream in the EURO 31 which will take place in Athens, Greece during 11-14 July 2021. Our new AB member, Pascale Zarate will lead the DS stream which plans to have ten sessions. See "2021 events" section for details of the CfPs.

In this Newsletter we have summarized the successful achievements of the past year, together with the information from members about projects and publications. As a group we have reached far and we are very happy about it! Moreover, we are completely aware that all the successful impact that we have made so far within the DSS communities and international societies, would not have been possible without the consistent support from all of you, the EWG-DSS members. Hence, we sincerely thank You All for your contribution and collaboration. We hope you enjoy this edition of newsletter! All the restrictions, lockdown and travel-ban, resulted from the pandemic, cannot really isolate us, as long as we stay connected as one big, friendly, collaborative community!

We wish you all and your family safe and well! We appreciated your support and collaboration in the past and we look forward to working even more with you in the future!

Best wishes from the EWG-DSS Coordination Board!

A big ***Thank You*** from the Coordination Board! ***Enjoy your reading!***

EWG-DSS Coordination Board from 2017 up to 2020.

EWG-DSS Coordination Board from 2020 onward.

(From left to right: Fátima Dargam, Pascale Zaraté, Jason Papathanasiou, Isabelle Linden, Boris Delibasic, Pavlos Delias, Shaofeng Liu and Ana Paula Cabral S. Costa.)

Coordination Board News

Prof. Pascale Zaraté

"It is not a secret that the EWG-DSS was created in 1989 following the Euro Summer Institute (ESI) on DSS organized in Madeira by José Paxão. At that time, I was a PhD student at Lamsade, University Paris Dauphine. The group of 24young researchers of the ESI-DSS supported by 5 professors and the Euro Association decided to create the working group. Even if this original group worked a lot during the 2 weeks of the ESI, the specific spirit of this group was born there. By specific spirit, I mean hard working but also fun and kindness. The first meeting, a workshop, was organized by Tawfik Jelassi at INSEAD in 1990. I then defended my PhD in 1991. The group organized every year a workshop or a conference and I participated every year inthose events. It was not very easy for a young researcher like me at that time, to find the financial support to participate to these workshops; I even participated inthe meeting organized in Turku, Finland in 1994, when I was 6 months pregnant of my first daughter.The only year whenI did not participate, for a good reason, was in May 1997: it was a Mini-Euro Conference organized by J.P. Brans in Bruges, as my second daughter was born in March 1997. It was very important for me to participate inthose EWG-DSS events for three reasons.

Firstly, the research area of the group is mine since the beginning. Even if I did some digression to Group Decision Making, my research focus is mainly Decision Support Systems or "How to support a decision maker in his/her decisional process?"

Then, I had the feeling that this group was very promising. Since its creation, the group is growing every year a little more by the number of participants (395 members in the IRIT mailing list) and by the number of publications.

Last, but not least, I have in this group more than very good colleagues, they are also my friends. I am delighted to meet them every spring. The specific spirit of these events is always the same and I would now describe it as friendship, happiness, fun, empathy but also seriousness.

Then, having a stable Associated Professor position in Toulouse, I became coordinator of the group in 2000. Since that time, I did my best to promote this particular spirit. The coordination board was then extended to two of my very good friends: Fatima Dargam (Brazil-Austria) and Rita Ribeiro (Portugal). The three women promoted the group always in a very good spirit. Then in 2007, in addition to the three of us, an international coordination board was created involving the new generation of researchers. It is now composed by Ana Paula Cabral (Brazil), Boris Delibasic (Serbia), Pavlos Delias (Greece), Isabelle Linden (Belgium), Shaofeng Liu (UK), Jason Papathanasiou (Greece).

For 20 years, I have seen this group very active by the number of developed actions:

- A yearly International Conference the International Conference on Decision Support System Technologies (ICDSST).
- Two yearly editedconference proceedings, one of them published by Springer.
- At least two-yearly special issues edited, following the conference in several journals.
- One yearly young researcher Award.
- A strong involvement in the International Journal of Decision Support System Technologies (IJDSST).
- One yearly track organized at the EURO or IFORS conferences composed by several sessions.
- 395current members.
- Several communication tools: mailing list, blog, Twitter, Linkedin etc…

As long as I remember, I never imagined such activities and such sustainability for this group. I am delighted to have contributed to such a success, but I think that it mainly comes from the existing spirit within this group and from the involvement of every coordination board members and participants as well.

It is now time for me to leave this coordination role and give the place to the new generation coordination board. This was for me an excellent adventure and I am very thankful to Fatima Dargam, Boris Delibasic, Pavlos Delias, Marc Kilgour, Isabelle Linden, Shaofeng Liu, José Maria Moreno Jimenez, Jason Papathanasiou, Rita Riberio, Alexis Tsoukias for their support and friendship.

I wish this group and the new Coordination Board a long research life and a long personal life. I will of course

participate in the organized events, not only for the research activities, but also above all to meet my friends."

Pascale Zaraté

Dr. Fatima Dargam

"Saying good-bye to an important, long-lasting, challenging andfulfilling position is never so light. This summarizes the way I feel now, when writing my farewell to the EURO Working Group on Decision Support Systems Co-coordination position, after 13 years.

I guess it makes sense to start with a brief recap of my pathway within the EWG-DSS: As a freshly graduated M.Sc. Student in Artificial Intelligence, from IME-RJ in Brazil, I had the opportunity and the privilege to take part in that memorable EURO Summer Institute on DSS in Madeira in 1989. Since then, I became one of the founding members of the Working Group on DSS and could interact much more with international researchers of related areas: fact that contributed a lot to many of the decisions I took later, namely: to study further for my PhD in Europe at Imperial College in London (from 1990 to 1995). So, since the EWG-DSS foundation I have been connected to the group, participating already since 1991 in the EWG-DSS organized events (since I was already living in the UK), as well as publishing my research work with the group's journals special issues' editions whenever possible. For me, meeting the friends made in Madeira during the group organized events and consolidating our personal/professional relationships, was always the highlight of those occasions.

It was then in 2002 that I started actively supporting Pascale (already the group coordinator by then) to publish the yearly EWG-DSS Newsletter. This way, we could have a regular means to keep our activities well documented and to keep the members informed, updated with the recent research work and developments of the others, and connected. By then, I also started participating together with Pascale in the organized DSS streams of the group in the EURO conferences, strengthening our representation (since I stayed in Europe after my PhD, establishing residence in Austria since 1995 – married and happy).

In 2007, Pascale officially invited me and Rita Ribeiro to form with her the EWG-DSS Coordination Board (CB). This 3-formation of the coordination team lasted up to 2011, when there was the need to expand and to acquire more co-coordinators to the CB, to support the growing number of activities, events and initiatives that the group got into. This made the group grow systematically, but

steadily not only in number of members, but most of all in terms of research collaboration, via the dissemination of our research work and projects with the organization of regular workshops, conferences and publication opportunities.

Since 2011, there has been always a great team of collaborators supporting the EWG-DSS, not only in its Coordination Board but also in its Board of Assistants and Advisory Board. Gradually, the EWG-DSS management know-how has been passed to the younger generation of the CB, with enough time and opportunity to allow each one to practice through all the most demanding tasks of our yearly organization of events (ICDSST Conferences); management of publication editions and reviewing tasks involved in the journal volumes published as a consequence of the organized events; as well as the DSS Stream Sessions management within the IFORS and EURO-K Conferences.

It was a pleasure for me to actively participate in all those engagements of the EWG-DSS and to have been the initiator of some of them, like the Collab-Net project (started in 2009), and the EWG-DSS yearly Award (since 2011) for the young researcher's best presented paper of the organized conferences.

Since the beginning, the EWG-DSS has built strong professional and friendship links among its members, which last up to our current days. Through the EWG-DSS, I had the chance to meet and get to know many interesting people and to make real good friends, with whom I intend to carefully polish our relationship all through my lifetime with great admiration, respect and estimation.

I am very grateful to have had the opportunity to co-organize in 2019 the 30th Anniversary Celebration of the EWG-DSS within the ICDSST2019 conference, back in Madeira where the group was born. On that occasion, many of the founding members had the chance to get together or to be present via virtual messages. A great event!

Serving the EWG-DSS CB since 2007 in a volunteering basis, of course has taken a lot of my free time away, but on the other hand, it has given me an enormous sense and know-how on high-quality research collaboration - within the areas that I chose to work with – that I would have never acquired otherwise. This period has made me the "hybrid-ICT-professional" I am now, combining the activities of research and development with real life projects and applications, from academic and industrial sectors.

While in May 2020, during the virtual ICDSST2020 conference, Pascale and I were acknowledged and thanked for all our contributions to the EWG-DSS achievements so far, I had to think about how much I would have to thank EURO and specially the Working Group on DSS with its awesome team of collaborators, for allowing me to lay some of the paving-bricks that is building the Decision Support Systems Research Roadmap in Europe (with many International links). Many Thanks!

Now it is time that we (Pascale and I) leave the CB and join our friends of the EWG-DSS Advisory Board (AB). In this new position, we will "*step back from the stage to be able to watch the play from the gallery*" and to continue contributing with our research work to the group's events, allowing the current CB team to execute the coordination tasks the best way they for sure can.

For the EURO representatives, this change means a shift of names on the same responsibilities that we have been committed for so long.

I leave the CB 100% sure that the current board team is more than ready I guide the EWG-DSS successfully further. I hope that the main principles of ethics, gender-balance and members-equality for opportunities always prevail in the group's decisions for the benefit of us all in the research community.

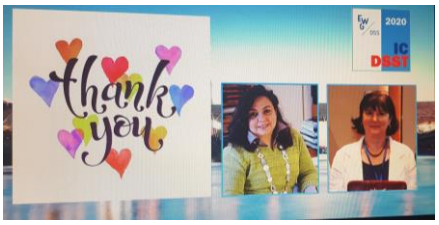
EWG-DSS CB: It was an honor to serve!

EWG-DSS AB: Let's keep up the good collaboration!

EWG-DSS: It has been a pleasure to be here all these years!

Fatima Dargam

Thanks Pascale & Fatima!



In the name of all EWG-DSS Members, we thank Pascale and Fatima from the bottom of our hearts for their excellence dedication and performance as leaders of the group Coordination all these years. We (the remaining CB Members) have learned a lot with you and we shall guide the group further with the know-how inherited from you both! It is now time to welcome our new CB Member!

Prof. Ana Paula Cabral

Ana Paula Cabral Seixas Costa is a Professor in the Department of Production Engineering (PPGEP) of the Federal University of Pernambuco UFPE, belonging also to its Information and Decision Systems Center CDSID (Centro de Desenvolvimento em Sistemas de Informação e Decisão); as well as to its Institute of Information and Decision Systems INSID (Instituto Nacional de Sistemas de Informação e Decisão), (Participação confirmada). Ana Paula is a long term and active member of the EWG-DSS, collaborating to the development of the Collab-Net Project of the group since its early phase. The EWG-DSS is extremely pleased to count with her participation from 2020 onward in the Coordination Board.

EWG-DSS Members

The EWG-DSS has currently over 395officially registered members, 356 members in its LinkedIn group, and 187 followers in Twitter.

The EWG-DSS membership has substantially grown since its creation in 1989 (with 24 members). 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.

If you are a member, you can check the EWG-DSS list of members and their research interaction via your login in the IRIT server (using option Review Members). Alternatively, an updated list of registered members can be sent to you, by request *(mailto: **ewg-dss@fon.bg.ac.rs**)*

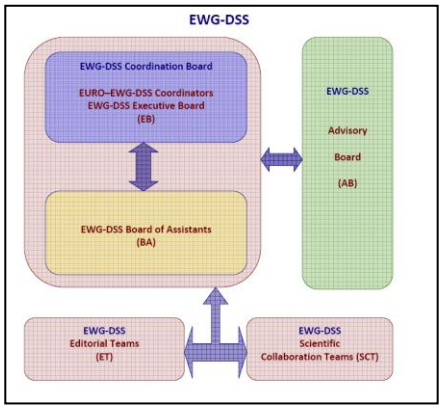
EWG-DSS complies with the terms of the data protection legislation in force in the European Union (the General Data Protection Regulation GDPR). If you, as a member of the EWG-DSS, does not wish to have your name and affiliation listed in the "list of Members" that may be distributed to other members on request, please contact the EWG-DSS Coordinators and opt out of the list officially via E-mail.

EWG-DSS Management Structure

The EWG-DSS management structure

includes a Coordination Board (EWG-DSS Coordinators & Executive Board), an Advisory Board (AB), a Board of Assistants, and two teams formed by the group members who collaborate with EWG-DSS joint editions and research projects, namely: the Editorial Team (ET) and the Scientific Collaboration Team (SCT). The ET is composed of researchers that have guest-edited Journal Special Issues and Springer Books with the CB. The SCT includes researchers who are involved with the EWG-DSS research projects and initiatives, like for instance the Collab_Net Project.

Board and Team members can be in more than one of the groups of the EWG-DSS Management Structure. See figure below. However, the members of the Coordination Board are not members of the Advisory Board, and vice-versa.



Only the Coordination & Executive Board CB-EB can officially report to EURO and reply to EWG-DSS Members. The Board of Assistants (BA) is to be formed by young researchers linked to the CB-EB members, in order to assist them with the EWG-DSS annual tasks.

Current EWG-DSS BA Members

Find below the list of the Board ofAssistants that currently collaborate with the EWG-DSS CB.

EWG-DSS Board of Assistants (*BA*):

1. **Dr.DaoudaKamissoko**
Ecoles des Mines d'Albi Carmaux
Albi, Midi-Pyrénées, France
daouda.kamissoko@mines-albi.fr

2. **Dr. Femi Olan**
Northumbria University, UK
femi.olan@northumbria.ac.uk

3. **Mr Sandro Radovanovic**
University of Belgrade, Serbia
sandro.radovanovic@fon.bg.ac.rs

Ms. Panagiota (Giota) Digkoglou
University of Macedonia, Greece
giotadigkoglou@outlook.com

4. **Dr. Uchitha Jayawickrama**
Staffordshire University, UK
U.Jayawickrama@lboro.ac.uk

The EWG-DSS Advisory Board

The AB includes experienced long-term members and researchers of the EWG-DSS that have contributed to the DSS field and to the activities of the group. The Advisory Board members are expected to promote the EWG-DSS organized conferences and activities among your collaborators; support the EWG-DSS CB with manuscripts reviewing tasks; participate as actively as possible in the EWG-DSS organized events and activities, including conferences, projects and publication-editions; try to attend the annual conference of the EWG-DSS, the ICDSST; and bring new ideas for enhancing and innovating the EWG-DSS activities and organized events.

Current EWG-DSS AB Members:

Advisory Board Chair (*AB Chair*):
Prof. Rita Ribeiro
(e-mail: rar@uninova.pt)
UNINOVA University, Lisbon, Portugal

Advisory Board Members:

1. **Prof. Pascale Zaraté**
University of Toulouse, France

2. **Dr. Fatima Dargam**
SimTech Simulation Technology, Austria

3. **Prof. José Maria Moreno**
University of Zaragoza, Spain

4. **Prof. Alexis Tsoukias**
CNRS-LAMSADE, France

5. **Prof. Philip Powell**
Birkbeck, University of London, UK

6. **Prof. Adiel Teixeira de Almeida**
Federal University of Pernambuco, Brazil

7. **Prof. Marko Bohanec**
Jožef Stefan Institute, Slovenia

8. **Prof. D. Marc Kilgour**
Wilfrid Laurier University, Canada

9. **Dr. Jorge Hernández**
University of Liverpool, UK

Prof. Jorge Freire de Souza
University of Porto, Portugal

To contact the EWG-DSS Advisory Board, send an e-mail to the AB Chair.

EWG-DSS Channels

"Our communication channels are our main tools to cooperate!"

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

EWG-DSS Mailing Options:

EWG-DSS E-mail:

ewg-dss@fon.bg.ac.rs

This e-mail address put you in contact with all current EWG-DSS Coordination Board Members at the same time.

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
https://wwwsecu.irit.fr/listes/info/ewg-dss

The EWG-DSS Server, hosted by IRIT, contains all the EWG-DSS shared files. To access the server you need to be a registered member of the group and use your e-mail as login.Via the option "**Review Members**", one is able to check the e-mail addresses of each member.

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 EUROwebsite 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
http://www.linkedin.com/groups?about=&gid=1961459&trk=anet_ug_grppro

The Linked-In EWG-DSS Group has currently 318 members. This group is open to all Linked-In users. There you find briefings of the EWG-DSS activities, discussions of related topics, job opportunities and other announcements, like conferences calls for participation, Journals calls for papers, etc. You are very welcome to post your announcements in the EWG-DSS LinkedIn Group. If you like networking and you wish to make your announcements more visible to a wider and selective audience, you should take advantage of our group in this platform!

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

In the EWG-DSS Slideshare account you find all the digital versions of the EWG-DSS Newsletters, as well as some online presentations of the group. 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

Since 2014 the EWG-DSS Twitter account 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. The EWG-DSS Twitter account is also used to post pertinent information about our ICT areas of research. Follow us on Twitter (**@EWGDSS**) to get breaking news of our activities within the DSS communities in Europe and Worldwide!

Interview

Prof. Nikolaos Matsatsinis

Professor of 'Information and Decision Systems', School of Production Engineering & Management, Technical University of Crete, Greece (https://www.pem.tuc.gr/index.php?id=5015&L=242)

Nikolaos Matsatsinis

President of Hellenic Operational Research Society (HELORS, http://www.eeee.org.gr)

Prof. Nikolaos Matsatsinis is the President of Organizing Committee of EURO 2021 which be held in Athens.

EWG-DSS: Dear Nikolaos Matsatsinis, thank you very much for giving this interview to the EWG-DSS newsletter. We would like to start by knowing more about your background.

NM: I have a background in Physics from Aristotle University of Thessaloniki. I received my PhD in 1995 from the School of Production Engineering and Management of the Technical University of Crete. The subject of my PhD thesis was 'Development of an Intelligent Multicriteria Decision Support System for Marketing Decisions'.

EWG-DSS: Can you please tell us about your career?

NM:I started my career as a computer science professional but very soon I realized that I was more interested in research. That's why I chose to pursue an academic career. After my election as a professor, I became a member of the Laboratory of Decision Support Systems (ERGASYA). In this context, I have dealt with many issues during my long career that can be summarized as follows: Education, research and administration. All these years, I have placed great emphasis on the transfer of know-how from academia to solving the problems of the local community and businesses.

EWG-DSS: Could you describe to us the activities of ERGASYA?

NM: With great pleasure. The Laboratory of Decision Support Systems (ERGASYA) was founded in 1987 by Professor Yannis Siskos, who was also its first director. It was the first laboratory in the Decision Support Systems established in Greece. For the last 13 years I have had the honor of being the director of ERGASYA, which has as its members: four professors, four researchers as permanent staff, eighteen PhD candidates and about 25 postgraduate students. My colleagues who are members are: Professor Vangelis Grigoroudis, Associate Professor Giannis Marinakis and Assistant Professor Stelios Tsafarakis.
The scientific topics with which we deal in the laboratory are:
Decision Support Systems, Multi-Criteria Decision Analysis, Group Decision Making, Operational Research, Optimization, Artificial Intelligence & Multi-Agent Systems, Recommendation Systems, Data Mining and Data Analysis, Business Intelligence and Business Analytics, Evolutionary algorithms and algorithms inspired by nature, Supply Chain Management, Marketing & Consumer Behavior Analysis, Customer and Employee Satisfaction, Service Quality Measuring Processes, Business Excellence and Performance Evaluation, Electronic Business & eMarketing, User Modeling, Product Line Design and Optimization, Workflow Management Systems, Quality Assurance Procedures, etc.
It is worth noting that the laboratory has developed a number of SYAs that are used both for research purposes and in real applications, such as MINORA, MARKEX, MUSA, MIIDAS, FINEVA, TASK Allocator, INTELLIGENT INVESTOR, Skills Evaluator, etc.
The members of the laboratory have coordinated or participated in more than 80 research-funded programs, such as: FP7, Information Society Technologies, Horizon, Adapt, Fair, Joint Actions Socrates, Leonardo da Vinci and Youth 'Programs, SOCRATES II - Thematic Network E4, Enlargement -PHARE, Hellenic Ministry of National Education, General Secretariat of Research and Development, Region of Crete, ERASMUS, THALIS, COST, INTERREG, etc..

EWG-DSS: Could you describe to us the areas of your cooperation with the local community and enterprises/business? How do DSSs help make decisions?

NM: We have cooperated with all public organizations in Crete (eg Region of Crete, Prefectures, Hospitals, etc.) as well as with large companies, banks and SMEs in dealing with various problems they faced. Some of the problems of the local community and businesses that we dealt with were: the optimization of patient management in hospitals, the measurement of satisfaction of patients, doctors and nursing staff of the hospitals of Crete, the Placement of Landfills for the Prefecture of Chania, the study of Tourism in Crete, the satisfaction of tourists visiting Crete, the elaboration of studies for the export of agricultural products of Crete, the segmentation of

markets, the simulation of market behavior and the calculation of market shares, the competition of banks and the measurement of satisfaction by e-banking, the design of new agricultural products such as flour, oil, juices, organic oil and soap, etc., consumer behavior analysis and competition in consumers in European countries, the analysis of citizens' behavior in the parliamentary and municipal elections, the establishment of Greek companies abroad, etc.
An important benefit we had was that we made DSSs and their potential known in the business world.

EWG-DSS: This time what else do you do?
NM: Some of the most important activities, which require a lot of dedication, are the publication of scientific journals and the organization of scientific conferences. I am the editor-in-chief of the scientific journals Operational Research: An International Journal (Springer - IF: 1,485), and the International Journal of Decision Support Systems (Inderscience), and I am a member of the editorial board of several others. Operational Research: An International Journal (ORIJ) is a journal published by Hellenic Operational Research Society (HELORS) in collaboration with Springer.
Regarding the conferences, I organized in May 2019 the 13th Learning and Intelligent Optimization Conference (LION 13) in Chania (https://www.lion13.pem.tuc.gr/) in which Invited Speakers were: Professor Marco Dorigo, Université Libre de Bruxelles (ULB), Brussels, Professor Panos Pardalos, University of Florida, USA and Professor Xin-She Yang, Middlesex University London, UK.
This year we are organizing the XIV Hybrid Balkan Conference on Operational Research (Hybrid BALCOR 2020), which will be held in Thessaloniki, Greece (University of Macedonia), during 30th of September to 3rd of October, 2020 (http://balcor2020.uom.gr/).
At the same time, the organization of the 31st EURO, which will be organized on July 11-14 in Athens, has begun.

EWG-DSS: We would like to know how your scientific work relates with the Decision Support Systems research area.
NM: All my research activities have to do with the design and development of Decision Support Systems, Intelligent Decision Support Systems, Multicriteria Decision Support Systems and Group Decision Support Systems and SYOA, to solve problems in various fields of applications. In this context, my research was developed and expanded with the development and use of new models and methodologies with the contribution of various scientific fields such as: Multi-Criteria Decision Analysis, Marketing-Consumer Behavior, Expert Systems, Multi-Agent Systems, Analytics, Recommendation Systems, Machine Learning and Data Mining, Computational Intelligence, Intelligent Optimization, etc.

EWG-DSS: In this context, what is believed to be the future of DSS?
NM: I believe that their successful course will continue. All these years they are evolving, adapting to the new requirements of their users while at the same time constantly acquiring new users. I believe that SYAs will be the basis or the most important part of all systems that will be developed in the future. I see the most promising future in SYA in Intelligent SYA where there will be utilization of the possibilities of Artificial Intelligence and Analytics but also in their use in Artificial Intelligence.
The successful course of the Decision Support Systems to date and their even more promising future is proved by the large number and high scientific level of the members of our EWG-DSS.

EWG-DSS: In this context, can you please let us know about your most recent and challenging projects?
NM: At this time, my team's research activities are about large-scale and multi-stage group decision-making. These systems use multi-criteria methods of group decision making, robustness analysis, dynamic programming, intelligent optimization, machine learning and data mining, multi-agent systems and recommendation systems. The methodological framework is developed so that it can be used, after appropriate adjustments, in decision making in multi-agent systems and in recommendation systems. These systems will be applicable in large-scale group decision making in multiple stages to deal with emergencies and dangerous phenomena but also in cases of marketing decisions.

EWG-DSS: Can you please summarize what does the EURO organization mean to you and, more generally, how do you perceive the importance of EURO for the OR community?
NM:EURO has always had a fundamental role for me, as a framework of reference and as a framework for my activity as researcher, teacher and active member. I have been participating in EURO conferences since 1995 (EURO XIV, Israel). In 2004 I was a member of the organizing committee of EURO XX held in Rhodes, Greece.
As you know, EURO is the Association of European Operational Research Societies. I am actively involved in HELORS, the Hellenic Operational Research Society, of which I am currently president, while I have been its president four more times. At the same time, I participate in EWG, which I am interested in scientifically, such as EWG-DSS, EWG-MCDA, etc.
In this context, HELORS is pleased to host in 2020 the 31st EURO in Athens. At this conference I have the honor of being the President of the Organizing Committee. Selected members of the EWG-DSS are members of the Program Committee.
I have no doubt that EURO is an extraordinary example of how the result of the summation may be greater than the sum of the parcels.

EWG-DSS: Thank you once again for giving this interview and we hope to see you soon.
NM: Thank you for giving me the opportunity to connect with the people we share common interests with. On the occasion of our communication, I invite you to participate in EURO 2021.

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 rewarded 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.

Winners of the 2019-Award:

Francis Baumont De Oliveira and Sandro Radovanović has been awarded the EURO Working Group on Decision Support Systems EWG-DSS 2019 Young Researcher of the Year. Francis Baumont De Oliveira presented the paper "Methodology for a Risk Assessment Decision Support System in Vertical Farming" and Sandro Radovanović presented the paper "How

early can we predict student's MOOC performance? –A DSS for course stopout mitigation" during the EWG-DSS 2019 International Conference on Decision Support System Technology in Madeira, Portugal, May 27 – 29, 2019.

We sincerely congratulate Francis and Sandro for their achievements!

EWG-DSS 2020-Award

The EWG-DSS 2020Award will be given to the best paper or most innovative presented work, among the research work submitted to the ICDSST 2020 in Zaragoza, Spain. You will be informed about the winner before the end of 2020.

The "EWG-DSS Award 2021" can still be yours!

Participate in the ICDSST 2021, in Loughborough, UK, 26-28 May 2021.

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 below:

http://ewgdss.wordpress.com/awards/

News from Members

Jean Turet

Jean Turet is a Phd student in the graduate program in Management Engineering at Universidade Federal de Pernambuco (UFPE) Brazil under the supervision of Professor Ana Paula Cabral Seixas Costa. For 6 months (September 2019 to February 2020) he was at Université Toulouse 1 Capitole where he did a sandwich doctorate under the supervision of Professor Pascale Zaraté linked to IRIT. During these six months it was given continuity to the decision support system to security management (DSSecurity) that it is being developed during his PhD in PPGEP-UFPE (Brazil)

Description the problem

The concern about public security has increased over the years. Increase of criminality bring a variety of serious problems in countries around the world. In this context, one challenge faced by public security components is how best to tackle analyze a huge amount of crime data in order to improve the security management. Analyzing these data has become increasingly complex due to the fact that robust tools and high processing power are required and great software.
Thus, the DSSecurity (Decision Support Systems to the Crime Management) is a decision support system that provides to the public security one way to analyze the crime data in real time way taking in account a big volume of data.

Description of the system

DSSecurity is a technological product that aims to support the management of public security in the state of Pernambuco in the Northeast (which can be expanded to other states). The software aims to support the decision-making process based on mathematical models taking into account structured and unstructured data. These data are treated using a hybrid methodology that becomes the differential of this product.
Based on this methodology, it is possible to analyze structured data from the Pernambuco State Department of Social Defense, where there is data related to the amount and type of crime, as well as being able to analyze unstructured data from public security applications and sites. This analysis takes place using various tools, such as text mining, data mining and KDD (Knowledge Discovery Database), and uses online platforms, as is the case with CityCop. At CityCop citizens can report via images and texts (geo-referenced) crimes that happened in a certain region. This app is basically a social network that lets other citizens know what is happening in certain regions with regard to crime. In this context, there is a high availability of both structured and unstructured data. Thus, this methodology allows the union of these data, based on stratification and refinement, in order to obtain a central database from which machine learning algorithms can learn and contribute to the decision-making process.

System usability in the security department

In the current phase of the system, there are two main models: a real-time classification model for neighborhoods and a crime prediction model. The first model manages to establish in real time the classification of neighborhoods taking into account machine learning algorithms. This classification is based on the intensity of crime. Based on this classification, competent agencies will establish actions that aim to bring improvements in certain regions.
The system is in initial phase of implementation on the Social Defense Department of the Pernambuco state in Brazil with the support of SEPLAG (Secretariat of Planning and Management) and ATI (State Information Technology Agency) based on an agreement signed between the Government of the State of Pernambuco, Federal University of Pernambuco and PPGEP - UFPE (Graduate Program in Production Engineering)

Description of the award.

In 2020, Jean Turet and professor Ana Paula Cabral Seixas Costa with the DSSecurity software, received the award for best technological product from ANPEPRO (National Association of Graduate Programs and Research in Production Engineering).This award is given to technological products that have a high degree of innovation, economic impact, social impact and future potential for use or dissemination.

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

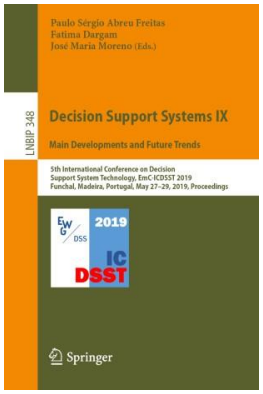
Decision Support Systems X: Cognitive Decision Support Systems and Technologies - 6th International Conference on Decision Support System Technology, ICDSST 2020, Zaragoza, Spain, May 27–29, 2020, Proceedings.

Editors: José María Moreno-Jiménez, Isabelle Linden, Fatima Dargam, Uchitha Jayawickrama.
Lecture Notes in Business Information Processing book series LNBIP, vol.384.

The proceedings of the tenth edition of the EWG-DSS Decision Support Systems published in the LNBIP series present a selection of reviewed and revised full papers from the 6th International Conference on Decision Support System Technology (ICDSST 2020) held virtually due to the corona-virus, organized by the Zaragoza University, in Zaragoza, Spain, during May 27–29, 2020, with the main theme:"Cognitive Decision Support Systems & Technologies - Building the future of Decision Support Systems: the power of the mind in the cognitive processes."
This LNBIP Springer edition has considered contributions selected from a triple-blind paper evaluation method, maintaining this way its traditional high-quality profile. Each selected paper was reviewed by at least three internationally known experts from the ICDSST 2020 Program Committee and invited external reviewers. Therefore, through its rigorous two-stage based triple-round review, 13 out of 51 submissions, which corresponds to a 25.5% acceptance rate, were selected in order to be considered for inclusion this 10th EWG-DSS Springer LNBIP Edition. In this context, the selected papers are representative of the current and relevant DSS research and application advances. The papers are organized in three sections:
(1) Methodological Contributions. Five papers are presented in this section: "Two Sides of Collective Decision Making - Votes from Crowd and Knowledge from Experts" by Zorica A. Dodevska, Ana Kovacevic, Milan Vukicevic, and Boris Delibašić. "Using Multi-level DEA to go beyond the three dimensions of sustainability" by Georgios Tsaples and Jason Papathanasiou. "Analysis of Graphical Visualizations for Multi-Criteria Decision Making in FITradeoff Method Using a Decision Neuroscience Experiment" by Lucia Reis Peixoto Roselli and Adiel Teixeira de Almeida. "The Multi-Actor Multi-Criteria Analysis (MAMCA): New Software and New Visualizations" by He Huang, Philippe Lebeau, and Cathy Macharis. And lastly, "Complexity Clustering of BPMN Models: Initial Experiments with the K-means Algorithm" by Chrysa Fotoglou, George Tsakalidis, Kostas Vergidis, and Alexander Chatzigeorgiou.
(2) Case Studies. This section opens with a case study application in Private Digital Security: "To Click or Not to Click? Deciding to Trust or Distrust Phishing Emails" by Pierre-Emmanuel Arduin. Then, three case studies from the Public Sector are presented: "Management Information System for Police Facility Location" by Ana Paula Henriques de Gusmão, Bruno Ferreira da Costa Borba, and Thárcylla Rebecca Negreiros Clemente; "An Automated Corpus Annotation Experiment in Brazilian Portuguese for Sentiment Analysis in Public Security" by Victor Diogho Heuer de Carvalho, Thyago Celso Cavalcante Nepomuceno, and Ana Paula Cabral Seixas Costa; and "An E-government Procurement Decision Support System Model for Public Private Partnership Projects in Egypt" by Karim Soliman and Nada El-Barkouky. Finally, there are three cases studies from the Private Sector: "Determinants of recommendation in the airline industry: An application of online review analysis" by Praowpan Tansitpong; "Artificial Intelligence Based Decision Making for Venture Capital Platform" by Ankit Tewari, Joaquim Gabarro, Josep Sole, Brice Lapouble, and Lluis Montull; and "Supporting Operational Decisions on Desalination Plants from Process Modelling and Simulation to Monitoring and Automated Control with Machine Learning" by Fatima Dargam, Erhard Perz, Stefan Bergmann, Ekaterina Rodionova, Pedro Sousa, Francisco Alexandre A. Souza, Tiago Matias, Juan Manuel Ortiz, Abraham Esteve-Nuñez, Pau Rodenas, and Patricia Zamora Bonachela.
(3) The last section involves a state-of-the-art overview paper: "DSS, BI, and Data Analytics Research: Current State and Emerging Trends (2015–2019)".

https://link.springer.com/book/10.1007/978-3-030-46224-6

Decision Support Systems IX: Main Developments and Future Trends
5th International Conference on Decision Support System Technology, EmC-ICDSST 2019, Funchal, Madeira, Portugal, May 27–29, 2019, Proceedings Editors: Paulo Sérgio Abreu Freitas, Fatima Dargam, José Maria Moreno



The proceedings of the ninth edition of the EWG-DSS Decision Support Systemspublished in the LNBIP series present a selection of reviewed and revised full papersfrom the EURO Mini Conference and 5th International Conference on Decision Support System Technology (EmC-ICDSST 2019) held in Madeira, Portugal, during May 27–29, 2019, with the main theme:"Decision Support Systems: Main Developments and Future Trends."This event was jointly organized by the EURO Association of European Operational Research Societies and the EURO Working Group on Decision Support Systems (EWG-DSS) and it was hosted by the University of Madeira (UMA) in Funchal, Portugal. The EWG-DSS series of the International Conference on Decision Support System Technology (ICDSST), starting with ICDSST 2015, was planned to consolidate the tradition of annual events organized by the EWG-DSS in offering a platform for European and international DSS communities, comprising the academic and industrial sectors, to present state-of-the-art DSS research and developments, to discuss current challenges that surround decision-making processes, to exchange ideas about realistic and innovative solutions, and to co-develop potential business opportunities. The ICDSST 2019 was organized as EURO Mini-Conference (EmC-ICDSST 2019) andhad the theme of"DSS: Main Developments and Future Trends" in order to take the opportunity of the celebration of the "EWG-DSS 30th Anniversary" for the conference to evaluate how the research area in DSS has substantially advanced within the past 30years and how the EWG-DSS has helped the DSS communities to consolidate research and development in the co-related areas, considering its research initiatives and activities. EmC-ICDSST 2019 recapitulated the developments of the decision support systems area in the past 30 years,

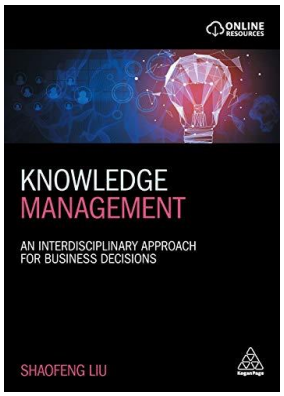
enforcing the trends and new technologies in use, so that a consensus about the appropriate steps to be taken in future DSS research work can be established.

https://link.springer.com/book/10.1007/978-3-030-18819-1

EWG-DSS Members' Recent Publications and other News

- **Knowledge Management. An Interdisciplinary Approach for Business Decisions**

  Author: Shaofeng Liu



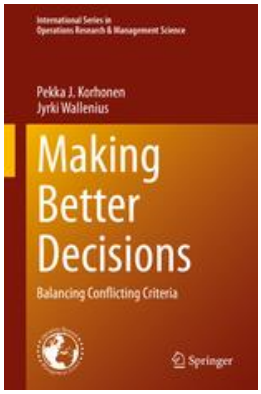
This new book "Knowledge Management: An Interdisciplinary Approach for Business Decisions", is authored by Professor Shaofeng Liu, a member of the EWG-DSS Coordination Board. The book takes a brand new approach to integrating knowledge management into business decision making. The book discusses Knowledge Management from three entangled perspectives: people, technology and business performance. As an internationally renowned scholar in the area, Professor Liu incorporates her own state-of-the-art research findings supported by real business cases into the book, besides comprehensive analysis of classic knowledge management theories and frameworks. The book consists of 13 chapters organised in four parts: Part One - Knowledge management key concepts and models; Part Two – Building knowledge competence in organizations; Part Three – Crossing knowledge boundaries; and Part Four – Knowledge support for business decision making. The four chapters in Part Three is dedicated to knowledge mobilization crossing different types of knowledge boundaries, for example, how knowledge can be shared and transferred across different stages of supply chains rather than within one single organisation. This book in written on invitation and published by Kogan Page in January 2020. The book can be used as a textbook for postgraduate and undergraduate students but also as a reference for academics/researchers and practitioners. Its English version has already been released in both Europe and North America. Its Chinese version will be published in 2021. The publisher, Kogan Page, has agreed an attractive discount rate for students, researchers and colleagues within the EWG-DSS community. If you are interested, please contact Professor Shaofeng Liu for the discount code and instructions.

https://www.koganpage.com/product/knowledge-management-9780749494834

Book Announcements

- **Making Better Decisions. Balancing Conflicting Criteria**

  Authors: Korhonen, Pekka J., Wallenius, Jyrki



This book offers a comprehensive introduction to decision-making in an MCDM framework. Designed as a tutorial, it presents the main concepts and methods to be applied, together with essential background information. This includes the concept of nondominance, Simon's bounded rationality, Tversky and Kahneman's prospect theory, and the concepts of behavioral vs. mathematical convergence and premature stopping put forward by Korhonen, Moskowitz and Wallenius. The book concludes with a non-technical review of many popular decision algorithms, including the Analytic Hierarchy Process (AHP), VIMDA, and a number of classic interactive man-machine algorithms. In essence, the book is a "one-stop" source on everything you need to know about managerial decision-making in the multiple-criteria setting.

https://www.springer.com/gp/book/9783030494575

- ***The Multi-Criteria Approach for Decision Support. An Introduction with Practical Applications***

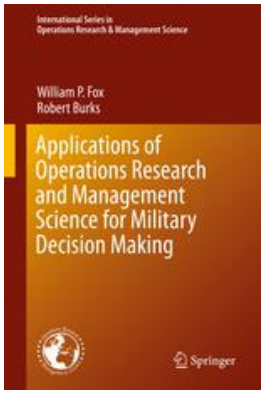
  Authors: Azzabi, Lotfi, Azzabi, Dorra, Kobi, Abdessamad

This book presents the multi-criteria approach to decision support, as well as the various multi-criteria tools to help avoid multi-objective optimization.
The book is intended as a tool for understanding the multi-criteria tools for decision support and modeling in mathematical programming. It helps to structure models, to easily model complex constraints, to have a basic modeling guide for any multi-criteria system and to better understand models already existing in the literature.
The book is structured in the same order as components of the methodology, established in a multi-criteria optimization problem. It introduces the elements of the actors, the decision-making activity under criteria, calculations, specifications and objective criterion.

https://www.springer.com/gp/book/9783030572617

- ***Applications of Operations Research and Management Science for Military Decision Making.***

  Authors: Fox, William P., Burks, Robert



This book presents the multi-criteria approach to decision support, as well as the various multi-criteria tools to help avoid multi-objective optimization.
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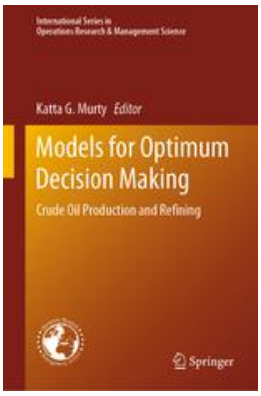
decision support and modeling in mathematical programming. It helps to structure models, to easily model complex constraints, to have a basic modeling guide for any multi-criteria system and to better understand models already existing in the literature.

The book is structured in the same order as components of the methodology, established in a multi-criteria optimization problem. It introduces the elements of the actors, the decision-making activity under criteria, calculations, specifications and objective criterion.

https://www.springer.com/gp/book/9783030205683

- **Models for Optimum Decision Making. Crude Oil Production and Refining**

  Editors: Murty, Katta G. (Ed.)

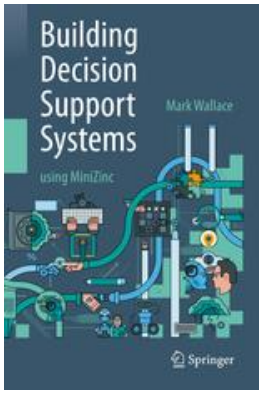


This book considers the problem of determining how many barrels of crude oil an oil-producing and exporting country should produce annually for export—along with several other important problems that decision-makers in the crude oil industry face—and discusses procedures for finding optimum solutions for them.
It considers the important Objective Functions they need in making these critical decisions, and discusses procedures to find the best solutions.
Outputs from the treatment units, in an oil refinery are only semi-finished products; these are blended into finished products like gasoline, diesel oil, etc., meeting various specifications that the marketplace demands.
The book discusses models for solving these problems optimally with examples.

https://www.springer.com/gp/book/9783030402112

- **Building Decision Support SystemsusingMiniZinc**

  Author: Wallace, Mark



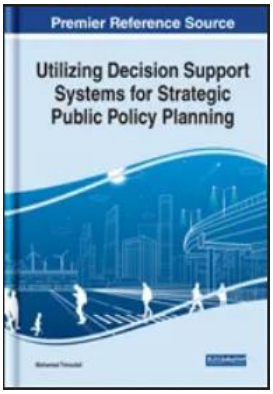
This book introduces readers to the principles of intelligent decision support systems (IDSS) and how to build them with MiniZinc, a free, open-source constraint programming language. Managing an IDSS project requires an understanding of the system's design and behaviour. The book enables readers to appreciate what "combinatorial" optimisation problems are, and how modelling a problem provides the basis for solving it. It also presents the main algorithms for tackling decision support problems, discusses their strengths and weaknesses, and explores ways of achieving the necessary scalability when problems become big. Moreover, to support the learning process it allows readers to try out the ideas described in the text on model applications and puzzles.
The book highlights the potential benefits of deploying an IDSS. It enables users to recognise the key risks involved and identify which techniques can be applied to minimise them, and to understand the decision support technology sufficiently in order to manage or monitor an IDSS project. It also helps readers distinguish between good sense and mere jargon when dealing with anyone involved in an IDSS project, from sales personnel to software implementers. As such it especially appeals to graduate students and advanced professionals who need to learn how to build an IDSS and to tackle the problems on the way

https://www.springer.com/gp/book/9783030417314

- **Utilizing Decision Support Systems for Strategic Public Policy Planning**

  Author: Mohamed Timoulali

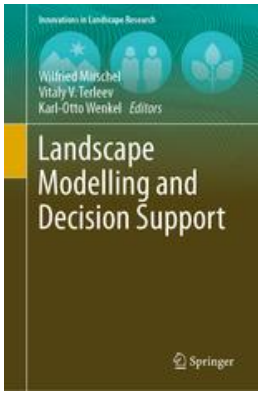
Advances in GIS technologies have provided a more robust framework for planners and designers. These frameworks offer greater control and monitoring, which can lead to greater accuracy in policymaking and urban planning.



Utilizing Decision Support Systems for Strategic Public Policy Planning is an essential research publication that provides comprehensive research on the possibilities of GIS technology for spatial analysis and visualization. Featuring a wide range of topics such as open data, architecture, and regional development, this book is ideal for design professionals, academicians, policymakers, researchers, professionals, and students.

https://www.igi-global.com/book/utilizing-decision-support-systems-strategic/234638

- **Landscape Modelling and Decision Support**
  Editors: Mirschel, Wilfried, Terleev, Vitaly V., Wenkel, Karl-Otto (Eds.)



This book contributes to a deeper understanding of landscape and regional modelling in general, and its broad range of facets with respect to various landscape parameters. It presents model approaches for a number of ecological and socio-economic landscape indicators, and also describes spatial decision support systems (DSS), frameworks, and model-based tools, which are prerequisites for deriving sustainable decision and solution strategies for the protection of comprehensively functioning landscapes. While it mainly focuses on the latest research findings in regional modelling and DSS in Europe, it also

highlights the work of scientists from Russia. The book is intended for landscape modellers, scientists from various fields of landscape research, university teaching staff, and experts in landscape planning and management, landscape conservation and landscape policy.

https://www.springer.com/gp/book/9783030374204

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.
• Favour 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 and contributed issues in relevant scientific journals.

Following its objectives, the EWG-DSS has been organising since 2011 at least one conference/ workshop per year. With thosescientific 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;
.Reykavik (Iceland) – 2006;
.Montreal (Canada) – 2007;
. Prague (CzechRepublic) – 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.
. Namur (Belgium) – 2017;
. Quebec (Canada) – 2017,
.Heraklion (Greece) – 2018.
. Madeira (Portugal) – 2019.
. Zaragoza (Spain) – 2020(virtual).
. Loughborough (UK) – 2021.

Projects

SIDTriagem: a Decision Information System for aiding medical decisions under COVID-19 pandemic

Universidade Federal de Pernambuco, Brazil

Eduarda Asfora Frej, Alexandre Ramalho Alberti, Lucia Reis Peixoto Roselli, Rodrigo José Pires Ferreira, Adiel Teixeira de Almeida (eafrej@cdsid.org.br, alberti@cdsid.org.br, lrpr@cdsid.org.br, rodrigo@cdsid.org.br, almeida@cdsid.org.br)

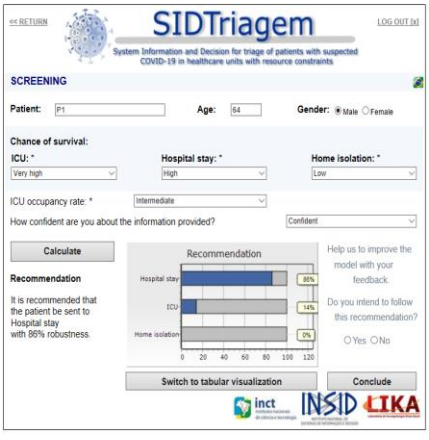


Figure 1. Screening module of SIDTriagem

The pandemic of COVID-19 brought up several complex and subjective medical decision situations. Screening of patients that arrive at a healthcare unit with suspected COVID-19 an important decision-making problem that doctors face daily, during Sars-CoV-2pandemic. Depending on the symptoms and clinical conditions of the patient, the doctor faces a decision with basically three alternatives: send the patient for isolation at home, hospital stay or Intensive Care Unit (ICU). The chosen conduct adopted by the doctor involve subjective aspects that should take into account the chances of survival of the patient in each of these three situations. Another critical decision faced by health professionals during the COVID-19 pandemic is regarding the allocation of patients in ICU allocation, when there are more patients that need an ICU bed than ICU beds available. Therefore, one should decide which patients goes to ICU and which ones do not. This decision should also be made according to the chances of survival of each of these patients inside ICU and outside ICU.

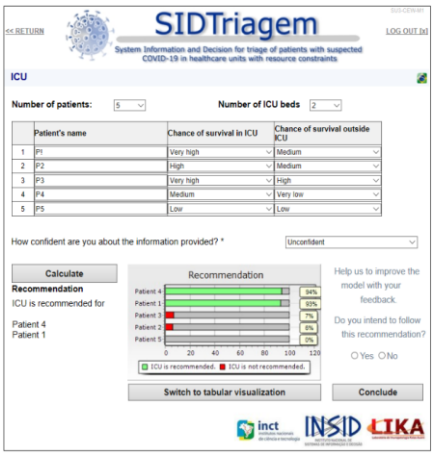


Figure 2. ICU allocation module of SIDTriagem

In this context, a Decision Information System was developed for aiding doctors when facing such decision situations. The system is named SIDTriagem and is freely available for users on http://insid.org.br/sidtriagem/app/. The input data of the system is related to the clinical evaluation of the patient, made by the doctor (user of the system). Based on this evaluation, the user estimates, on a verbal scale, the chances of survival of the patient in each possible scenario, considering the respective decision situation. These chances are declared based on a 5-point Likert scale: very low, low, medium, high and very high. Each level of this scale in then converted into a range of probabilities, due to the inherent imprecision of this kind of information and a Monte-Carlo simulation model is performed to build a recommendation for the user. The first module of SIDTriagem is for the screening decision problem. Figure 1 shows the screen of the system for this module.

First, the user may optionally enter some information about the patient: name, age and gender. Then, based on clinical evaluation conducted, the user enters the probability of survival of that patient in each of the three scenarios: in ICU, at hospital stay and at home isolation. Those chances are estimated based on the previously mentioned 5-point verbal scale. Besides that, the user should also state what is the current occupation rate of the ICU at that time (high, intermediate, or low). This information helps on the calibration of the model parameters. Optionally, the user may declare what is the level of confidence for the information provided (very unconfident, unconfident, neutral, unconfident, very unconfident or even N/A). Then, the user clicks on the button "Calculate", and then a Monte-Carlo simulation is performed for evaluate the best recommendation for the patient, considering a utility function based mathematical model. The final output is a robustness index for each alternative, which is computed based on the percentage of simulation instances that the corresponding alternative was better than the others in terms of expected utility.

The second module of the system aims to support allocation of patients in ICU beds, when the number of patients exceed the available ICU beds amount. Figure 2 shows the screen of the system for the ICU allocation module. As input data for this module, the user should enter the number of candidate patients needing an ICU bed, and the number of ICU beds available. Then, the user should state the chances of survival of each of those patients inside ICU and outside ICU. These chances of survival are given in the same 5-point Likert scale used for the screening module, and the levels of the scale are then converted into probability ranges, considering the imprecision nature of the information. The confidence also can also be provided by the user if so he/she desires. Then, by clicking on the button "calculate", a Monte-Carlo simulation model runs in order to find the best recommendation for the patients, based on a portfolio modeling approach, considering the maximization of the expected overall utility based on a binary integer optimization model. The output of this model concerns on a robustness index for each patient, which is the percentage of simulation cases in which the patient is part of the optimal portfolio, considering the simulations conducted.

SIDTriagem was developed within the scope of a research project of the National Institute of Information and Decision Systems (INCT-INSID: http://insid.org.br/en/), coordinated by Adiel Teixeira de Almeida and with Ana Paula Cabral Seixas Costa and Danielle Costa Morais as adjunct coordinators. It should be highlighted here that the intention of SIDTriagem is to give a methodological structured support for medical decisions, and a recommendation is given with no normative purposes; the final decision is always up to the doctor, who should consider all subjective inherit factors involved.

Workshops

Online research session 'Business strategies and decision making'

The first remote session inviting young students, ECRs and EWG-DSS members is planned on the 16th November 2020!

Date: 16 November 9:00am (UK) / 11:00am (Greece) / 18:00 (Japan)
(1.5 hours session by ZOOM)

Moderators:

- Professor Takuji Takemoto (University of Fukui, Japan)
- Professor Jason Papathanasiou (University of University of Macedonia, Greece)
- Dr Hiroko Oe (Bournemouth University, UK)

Participants: Seminar students from the universities as above and the student groups will make their presentations on their research themes which are followed by discussions. All virtual participants are invited for the discussions.

Tentative agenda

1. ECRs presentations and Q&A discussions

- Team Japan will present three presentations on the research ideas on the theme of regional development and business contribution (SDGs, design thinking, and public sector-universities' interventions). Dr Yamaoka will join this session as a discussant.

- Team UK: two presentations will be made on their research ideas and plan. Mr. Adriano Manna will discuss the impact of business clusters and ICT implementations for SCM, which will be followed by Mr. Herschel Pandits who will discuss the outline of his PG project on 'luxury consumption'. Dr Yamaoka will join this session as a discussant.

- Team Greece will lead the discussion as discussants with two specialists in the decision analysis field (Mr. George Tsaples and Ms. Panagiota Digkoglou). Also Dr Anastasia Blouchoutzi will participate as a discussant.

2. Discussion
3. Review and comments from Professors
4. Further activity planning

****

This session is the first event to enhance communications and collaboration among the research teams from different corners of the globe, and the members of the EWG-DSS are all welcome.

Please send an email to hoe@bournemouth.ac.uk with a title 'ZOOM seminar'. She will send you the link of the seminar responding to your email.

Journal Announcements & Call for Papers

1. Special Issue "Combining Multi-Criteria Decision Analysis and Life-Cycle Assessment: Challenges, Proposals, and Real-World Applications" for the journal *Sustainability*

Guest editors: Luis C. Dias, Fausto Freire

Dear Colleagues,
The literature on sustainability assessment recognizes the importance of life-cycle assessment (LCA) as a means to encompass the impacts of a product, service or process, without burden shifting. LCA focuses on environmental impacts, but the life-cycle perspective is also used in social LCA and life-cycle costing, which addressed together result in the more comprehensive life-cycle sustainability assessment (LCSA).
As LCA, or more generally LCSA, yield multiple indicators concerning a potentially large number of impact categories, multi-criteria decision analysis (MCDA) has been used to provide a synthesis of the assessment.

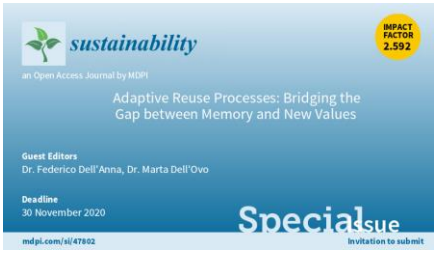
This is useful as a means to interpret and communicate results, as well as to support policy- and decision-makers.
This Special Issue intends to gather contributions addressing the combined use of MCDA and LC approaches, namely, concerning its current challenges, new proposals and real-world application. Topics of interest include:
- Discussing the role of MCDA in LCA/LCSA studies and vice versa;
- Novel MCDA methods or variants to be used together with LCA/LCSA;
- Synthetic indicators for LCA/LCSA;
- DEA and MCDA approaches to assess eco-efficiency;
- Elicitation of MCDA parameters, including participatory approaches;
- Multiobjective optimization and LCA/LCSA
- Studies combining MCDA and LCA/LCSA in industry;
- Studies combining MCDA and LCA/LCSA in public administration and policy making.

Keywords

- life-cycle sustainability assessment (LCSA)
- life-cycle assessment (LCA)
- social LCA
- life-cycle costing
- eco-efficiency
- multi-criteria decision analysis (MCDA)
- data envelopment analysis (DEA)
- decision support systems

Further information and submission: https://www.mdpi.com/journal/sustainability/special_issues/combining_multi-criteria_decision_analysis_life-cycle_assessment
(Deadline for manuscript submissions: 1 March 2021)

2. Sustainability



Dear Colleagues,
We are pleased to announce the launch of a new Special Issue on the exploration of new values generated by buildings and urban adaptive reuse.
Adaptive reuse is defined as “a process that changes a disused or ineffective item into a new item that can be used for a different purpose” (Department of Environment and Heritage, 2004).
Through our recent experiences in urban redevelopment, it has emerged that the traditional forms no longer work, which means that we need to rethink and reinvent the existing urban renewal processes. In several cities, the number of underused or vacant buildings is increasing at an alarming rate, which has a negative impact on the urban context under several dimensions. More generally, adaptive reuse is a multi-dimensional problem that requires the inclusion of stakeholders’ opinion aided by decision support systems. In this perspective, abandoned buildings and places can be considered as opportunities to establish new functions aiming to trigger economic, environmental, and social regeneration...
Dr. Federico Dell’Anna
Dr. Marta Dell’Ovo
Guest Editors
Deadline for manuscript submissions:
30 November 2020
https://www.mdpi.com/journal/sustainability/special_issues/ARP

Recent Journal and Book Publications

Journals

1. AGUARÓN, J.; ESCOBAR, M.T.; MORENO-JIMÉNEZ, J.M.; TURÓN, A. (2019): AHP-Group Decision Making base on Consistency. Mathematics 7(3), 242; DOI: 10.3390/math7030242.
2. ALTUZARRA, A.; GARGALLO, P.; MORENO-JIMÉNEZ, J.M.; SALVADOR, M. (2019): Homogeneous Groups of Actors in an AHP-Local Decision Making Context: A Bayesian Analysis. Mathematics 7(3), 294; DOI: 10.3390/math7030294.
3. ORENO-LOSCERTALES, J.M.; MORENO-JIMÉNEZ, J.M.; TURÓN, A. (2019): Incorporación de aspectos intangibles en el análisis de la viabilidaddel transporte urbano de Zaragoza. Estudios de EconomíaAplicada 37(1), 80-104. DOI: 10.25115/eea.v37i1.2572.
4. SANTAMARÍA, R.; AGUARÓN, J.; MORENO-JIMÉNEZ, J.M. (2019): A Multicriteria Approach Based on AHP and Compromise Programming in Portfolio Selection. Journal of Multi-Criteria Decision Analysis, 1-6. DOI: 10.1002/mcda.1699.
5. TURÓN, A.; AGUARÓN, J.; ESCOBAR, M.T.; MORENO-JIMÉNEZ, J.M. (2019): A Decision Support System and some Visualisation Tools for AHP-GDM. International Journal Decision Support System Technology 11(1), 1-19. DOI: 10.4018/IJDSST.2019010101.
6. SANAU, J.; GOMEZ-BAHILLO, C.; MORENO-JIMÉNEZ, J.M. (2020): The Economic Valuation of Social Aspects: A Multicriteria Approach based on Input-Output Models. Journal of Multi-Criteria Decision Analysis, 1-12. Doi: 10.1002/mcda.1700.
7. MORENO-JIMÉNEZ, J.M.; PÉREZ-ESPÉS, C.; RIVERA-TORRES, P. (2020): Relevant aspects for an EF3 evaluation of e-Cognocracy. Mathematics 8, 277. Doi:10.3390/math8020277.
8. PARRA, E.; ARENAS, M.D.; FERNÁNDEZ-REYES, M.J.; BLASCO FORCÉN, Á.; ÁLVAREZ-UDE, F.; AGUARÓN, J.; ALTUZARRA, A.; MORENO-JIMÉNEZ, J.M. (2020): Evaluation of dialysis centres: Values and criteria of the stakeholders. BMC Health Services Research 20, 297. Doi: 10.1186/s12913-020-05085-w.
9. AGUARÓN, J.; ESCOBAR, M.T.; MORENO-JIMÉNEZ, J.M. (2020): Reducing Inconsistency measured by the Geometric Consistency Index in the Analytic Hierarchy Process. European Journal of Operatinoal Research. Forthcoming.
10. AGUARÓN, J.; ESCOBAR, M.T.; MORENO-JIMÉNEZ, J.M., TURÓN, A. (2020): The Triads Geometric Consistency Index in AHP-pairwise comparison matrices. Mathematics 8, 926. Doi:10.3390/math8060926.
11. N. Vafaei, R. A. Ribeiro, L. M. Camarinha-Matos, “Improving Condition Based Maintenance with Early Warning Systems”, Computer and Industrial Engineering journal, ELSEVIER, Vol.128, pp.736 – 746, 2019, DOI: 10.1016/j.cie.2018.12.056
12. N. Vafaei, R. A. Ribeiro, L. M. Camarinha-Matos, Leonilde R. Valera, “Normalization Techniques for Collaborative Networks”, The international journal of cybernetics, systems and management sciences (Kybernetes), 2019, DOI: 10.1108/K-09-2018-0476
13. N. Vafaei, R. A. Ribeiro, L. M. Camarinha-Matos, “Comparison of Normalization Techniques for Skewed Data Sets”, Computer Science and Information Systems (ComSIS). (Accepted)

Books and Chapters

1. FREITAS, P.; DARGAM, F.; MORENO-JIMÉNEZ, J.M., (Eds) (2019): Decision Support Systems IX: Main Developments & Future Trends. Guest Editor Springer Book Lecture Notes in Business Information Processing (LNBIP), 348. 5th International Conference on Decision

Support System Technology, EmC-ICDSST 2019, Funchal, Madeira, Portugal, May 27–29, 2019. ISBN 978-3-030-18819-1.

2. FREITAS, P.; DARGAM, F.; RIBEIRO, R.; MORENO-JIMÉNEZ, J.M., PAPATHANASIOU, J. (Eds) (2019): EmC-ICDSST 2019 5thInternational Conference on Decision Support System Technology –ICDSST 2019& EURO Mini Conference 2019 on "Decision Support Systems: Main Developments & Future Trends". University of Madeira, Portugal, 27th-29th May 2019. ISBN: 978-989-8805-44-7
3. YEPES, V.; MORENO-JIMÉNEZ, J.M. (2019): Optimization for Decision Making. Guest Editor Special Issue Mathematics (ISSN 2227-7390) https://www.mdpi.com/journal/mathematics/special_issues/Optimization_Decision_Making.
4. MORENO-JIMÉNEZ J.M., AGUARÓN J., ESCOBAR M.T., SALVADOR M. (2020): Group Decision Support Using the Analytic Hierarchy Process. In: Kilgour D., Eden C. (eds) Handbook of Group Decision and Negotiation, chapter 44. Springer Major Reference Work, Cham. https://doi.org/10.1007/978-3-030-12051-1_51-1. Online ISBN 978-3-030-12051-1.
5. MORENO-JIMÉNEZ, J.M.; LINDEN, I.; DARGAN, F.; JAYAWICKRAMA U. (2020): Decision Support Systems X: Cognitive Decision Support Systems and Technologies. Guest Editor Springer Book Lecture Notes in Business Information Processing (LNBIP), 384. 6th International Conference on Decision Support System Technology, ICDSST 2020, Zaragoza, Spain, May 27–29, 2020. ISBN 978-3-030-46224-6 (ebook), ISBN 978-3-030-46223-9 (soft cover).
6. N. Vafaei, R. A. Ribeiro, L. M. Camarinha-Matos, "Comparison of Normalization Techniques for Skewed Data Sets", International Conference on Decision Support Systems Technology (ICDSST 2019) " Decision Support Systems: Main Developments & Future Trends", Portugal, Madeira, May 27- 29, 2019.
7. N. Vafaei, R. A. Ribeiro, L. M. Camarinha-Matos, "Selecting Normalization Techniques for the Analytical Hierarchy Process", The 11th Advanced Doctoral Conference on Computing, Electrical and Industrial Systems (DoCEIS), "Technological Innovation for Life Improvement." Portugal, Lisbon, July 1-3, 2020, IFIP AICT 577, pp. 43–52, 2020, (DOI: 10.1007/978-3-030-45124-0_4).

Events in 2020

ICDSST 2020

ICDSST 2020 is the EWG-DSS 6th International Conference on Decision Support System Technology
27-29 May 2020, Zaragoza, Spain

Main Theme:
"Cognitive Decision Support Systems & Technologies"
Building the future of Decision Support Systems: the power of the mind in the cognitive processes

The role that the human factor will play in the future of DSS and the technologies required to respond to the new challenges and demands of the Knowledge Society was the main aim of this Conference.

Organizing Committee

Conference General Chairs:
Pascale Zaraté, José María Moreno-Jiménez

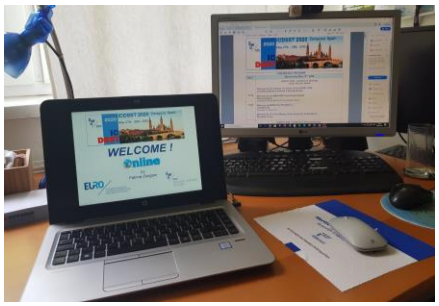
Conference Program Chairs:
Isabelle Linden, María Teresa Escobar Urmeneta, Alberto Turón Lanuza

Local Organizers:
Juan Aguarón Joven, Alfredo Altuzarra Casas, Victoria Muerza Marín

Following on from the issues considered at ICDSST2019 (Decision Support Systems – Main Developments and Future Trends), ICDSST2020 considered the role that the human factor plays in the future of DSS and the technologies (tools and knowledge) required to respond to the new challenges and demands of the Knowledge Society.
The Knowledge Society can be defined as a space for the talent, imagination and creativity of human beings. It has two fundamental characteristics: the development of Information and Communications Technologies (ICTs) and the relevance of the human factor.
Information technologies focus on the utilisation of large scale databases in order to identify patterns of behaviour and create tools that can exploit them. Communication technologies support the interaction and collaboration of the actors that participate in the resolution of problems.
The human factor is a key element of the Knowledge Society and when we speak of its 'relevance' we refer to its influence in the consideration of a 'new' scientific method that allows decisional processes to incorporate the subjective, intangible and emotional aspects, associated with the human factor, in conjunction with the objective, tangible and rational aspects that are associated with traditional scientific methodology.
As with other living systems, the life process of the human being is a cognitive process; only species that learn and adapt to their context are able to survive. This is why traditional scientific methodology must be adapted to the new cognitive orientation inherent in the Knowledge Society. The cognitive orientation focuses on the continuous training and learning of individuals (and the systems in which they are immersed) in the key aspect of being human: the ability to make decisions.
The scientific support for this new orientation must be through the development of technologies (tools and knowledge) that facilitate continuous training, in other words, the extraction and diffusion of the knowledge derived from the scientific resolution of problems; linking this knowledge to the arguments that support the different positions and decisions and to the technologies utilised for extraction and diffusion.
In addition to the consideration of the more traditional issues of our field, the ICDSST2020, under the title of "Cognitive Decision Support Systems and Technologies", concentrated on the development of technologies (tools and knowledge) that support the relevance of the human factor and the cognitive orientation in decision making.
60 papers were submitted for conference and 46 were accepted and presented. There were 13 long papers, 25 short papers and 8 posters. The presentations took place in six sessions of 2 hours. The first five included 7 articles with a

maximum duration of 17minutes per paper, the sixth session included 8 posters with a maximum duration of 7minutes and the remaining three articles were also given 17 minutes each. The sessions were moderated by a member of the Executive Board of the EWG-DSS, who was in charge of encouraging the participation of the attendees in the discussion of the works.

The COVID 19 pandemic meant that the ICDSST 2020 conference had to be held online.



A number of important organisational decisions were made as a result:
i) Authors were requested to prepare and send video presentations of the papers that lasted about 10 minutes, the presentation videos of the posters were given about 3-4minutes. This guaranteed the broadcasting of the presentations, with Zoom and YouTube.
ii) Presentation schedules were adapted to the middle of the day and there were specific sessions for authors from countries furthest from Zaragoza. One of thesessions included works from the west (USA, Canada, Brazil, Argentina, Chile etc.) andanother from the east (Australia, Thailand, Turkey, Egypt etc).
iii) Registration fees for the conference were reduced to 120€ with a reduced rate of100€ for students.
In addition to the 6 scientific sessions which took place from 11.00-1.00, 3.00-5.00 and5.15-7.15, the conference included opening and closing sessions, and 3 invited talks(1.30-2.30) related to the main topic of the conference. The Invited Talks were given by Luis G. Vargas from the University of Pittsburgh (USA); Diego Gutiérrez from the University of Zaragoza; and, David Ríos from the CSIC and the Royal Spanish Society of Exact, Physical and Natural Sciences. The three talks were a great success in terms of both content and participation. This was also true of all the scientific sessions, including the presentation of posters, which had a presence of between 35 to 42participants, as can be seen in the photographs that were taken at the end of each session.
To explain the roles of the moderators, speakers and assistants, a guide detailing the different tasks was sent out in advance. At the conclusion of the opening ceremony, participants were reminded of all the organizational points. The excellent technical and organisational efforts of the members of the Local Organising Committee (GDMZ) and the invaluable collaboration of the members of the EB of the EWG-DSS made it possible for the conference to achieve notable success.

ICDSST 2020 Keynote Speakers

Prof. Dr. Luis G. Vargas: "Conflict Resolution in the Era of Cognitive Multicriteria Decision Making"

Prof. Dr. Diego Gutiérrez: "Reinventing movies: how do we tell stories in VR?"

Prof. Dr. David Ríos Insúa: "Decision Support Issues in Autonomous Vehicles".

ICDSST 2020 Publications

- **Cognitive Decision Support Systems & Technologies**
  Online version containing all accepted papers.
  Guest Editors:Isabelle Linden, Alberto Turón, Fatima Dargam, UchithaJayawickrama.

- **Decision Support Systems X: Cognitive Decision Support Systems and Technologies**

  Guest Editors: José María Moreno-Jiménez, Isabelle Linden, Fatima Dargam, UchithaJayawickrama. Part of the Lecture Notes in Business Information Processing book series (LNBIP, volume 384).

- **Special Issue in the IJDSST International Journal of Decision Support System Technology**

  Topic: Cognitive Technologies and New Trends in Decision Support Systems.
  Guest Editors: María Teresa Escobar and Alberto Turón.

- Special Issue in the ITOR [International Transactions in Operational Research]

  Topic: Mind and Cognition in the Future of Decision Support Systems
  Guest Editors: José María Moreno-Jiménez and Luis G. Vargas.

Feedback from the online ICDSST 2020 Conference

by Pascale Zarate

ICDSST 2020 Conference report (https://icdsst2020.wordpress.com/)

Pascale Zaraté, Professor at University Toulouse 1 Capitole-IRIT, Toulouse, France, is one of the coordinator of the EURO Working Group on Decision Support System. The EURO Working Group on Decision Support System organizes the annual International Conference on Decision Support System Technologies. For 2020 the ICDSST was hosted by the University of Zaragoza, Spain, 27-29 May 2020. Due to the pandemic situation because of the CORONAVIRUS, the executive board of the EWG-DSS and the organization committee of the ICDSST 2020 decided to organize the conference on-line using the Zoom system. The ICDSST generally presents long papers, published in proceedings published at Lectures Notes in Business Processing, Springer; short papers and posters published in local proceeding. For 2020, 13 long papers, 22 short papers and 8 posters have been presented during the conference.

How the conference was organized?
It was organized in 6 sessions on three days plus an opening and a closing session. In order to allow all participants coming all over the world to participate, one special session for West countries was scheduled at the end of the day in Spain and another one at the beginning of the day in Spain for East countries. For each session,7 contributions were presented.

How the sessions were organized?
Before the conference, the participants were asked to create a 10 minutes video of their presentation. In order to allow, the participants to see the videos, all videos were storage on the Cloud accessible to all registered participants before the conference. For each session, one moderator was assigned. The moderator briefly introduced the session, requested to the technical support to broadcast the video, and at the end enabled sound and video of speaker and asked him questions received by chat. He also asked to the audience if any more comments or questions are still open putting the image of the speaker. At the conclusion of questions, he then went to the next speaker repeating the same sequence.
At the end of the conference, an *on-line survey*, including 11 questions, was sent to participants. We received 45 answers on the 60 registered persons. The following feedback was found:

- 69% think that the conference is prestigious or very prestigious
- 79% are satisfied or very satisfied with the online organization
- 79% are satisfied or very satisfied with the overall organization

Comments:
+ Amazing / Excellent coordination and organization / A success / Great alternative / Thank you
-Miss the networking

- Satisfied or very satisfied with sessions
  - Starting time : 71%
  - Duration : 69%
  - Content : 71%

Comments:
+ Perfect timing / Different time zones well managed
-Short break / Long Sessions

- 73% are satisfied or very satisfied with the videos

Comments:
+ Well-prepared / excellent technical support / Congratulations

- 73% are satisfied or very satisfied with the moderation

Comments:
+ Well-trained / Impressive punctuality

- 69% are satisfied or very satisfied with the communication system (Zoom)

Comments:
+ Very good
-Improve the questions system asking to prepare them in advance

- 62% would participate in the future in online conference

Comments:
+ Poster session very promising to be re-organized in this way (5-10 minutes presentations by video)
-Prefer face-to-face meeting / Social component absent

- 49% would like to introduce online session in future ICDSST meetings

What was the worst in the conference?
Social network / Not being able to hug friends / Not having personal contacts / Lunch time too short
What was the best in the conference?
Perfect organisation / Excellent community spirit / Exciting presentations / Closing session / Keynote presentations / Everything / Prepared videos / Good interaction / Quality of papers / Followed Schedule
General comments: Thank you / Positive experience / Great team
As conclusion of this survey, even if the participants appreciated the conference for its organisation, videos, sessions, schedule on time, content, we can assume that they missed their friends and missed meet their colleagues. As perspective, we can think to organize posters session including a video of 5-10 minutes based on the ICDSST2020 format.
Finally, I would like to thank GDMZ, the University of Zaragoza and its Faculty of Economics and Business, Prof José Maria Moreno, Prof Alberto Turon, Prof Maite Escobar and Prof Isabelle Linden from University of Namur, Belgium for this perfect organisation.

EWG-DSS Events in 2021

ICDSST 2021

ICDSST 2021 is the EWG-DSS 7th International Conference on Decision Support System Technology

26-28 May 2021, Loughborough, UK

Main Theme: "Decision Support Systems, Analytics and Technologies in response to Global Crisis Management"

The main aim of the conference is to investigate the role DSS and related technologies can play in mitigating the impact of pandemics and post-crisis recovery.

ICDSST 2021 Venue: Loughborough University, Loughborough, UK
School of Business and Economics
Epinal Way, Loughborough, LE11 3TU
Conference Web-Site:
https://icdsst2021.wordpress.com

Loughborough University has been named the best university in the world for sports-related subjects for the third year running by the global QS higher education league table.

Organizing Committee
Conference General Chairs:
Shaofeng Liu, Uchitha Jayawickrama
Conference Program Chairs:
Pavlos Delias, Alok Choudhary, Maite Escobar Urmeneta
Local Organizers:
Peter Kawalek, Kayode Odusanya, Konstantina Spanaki, Crispin Coombs

The EURO Working Group on Decision Support Systems invites you to participate in the ICDSST 2021 International Conference on Decision Support System Technology on **Decision Support Systems, Analytics and Technologies in response to Global Crisis Management** in Loughborough, UK. The Conference will be hosted at the School of Business and Economics of the Loughborough University, during the period of May 26th to May 28th, 2021.
The COVID-19 outbreak is a human tragedy and has a growing impact on most aspects of human beings including health, economy, education, sports and many more. There are many ways that we, human beings could have better managed this global crisis. Nevertheless, 'Learn from past and move forward' has been the nature of human beings for centuries in order to be safe from similar threats. ICDSST 2021 aims to investigate the role DSS and related technologies can play in mitigating the impact of such pandemics and post-crisis recovery. It is important to look at DSS with a fresh pair of eyes in order to develop new methods and technologies for better global crisis management. So that we, human beings can safeguard ourselves from future crises.
In addition to the consideration of the more traditional issues of our field, the ICDSST2021, under the title of "Decision Support Systems, Analytics and Technologies in response to Global Crisis Management", will concentrate on the development of new methods and technologies that support to prevent crises through intelligent decision making.

Target Participants:
The **ICDSST 2021** welcomes participants from a wide range of background around the world, including scholars, researchers, educators, developers, specialists, practitioners and other professionals, as well as Master and PhD students, who are interested in the decision making and decision support related areas, such as DSS methodologies and technologies as well as application-oriented solutions.

Check the Call for Papers for ICDSST 2021 HERE!
https://icdsst2021.wordpress.com/call-for-papers/

EURO31 in 2021

***The EURO 2021 is t*he 31st European Conference on Operational Research. 11-14 July 2021, University of West Attica, Athens, Greece**

The EURO 2021 is the largest and most important conference for Operational Research and Management Science (OR/MS) in Europe organized by EURO – the European Association of Operational Research Society and the Hellenic Operational Research Society (HELORS).

The conference will be held at the University of West Attica (UNIWA) in Athens located in the area of the Holy Olive Grove 'Eleonas' of the ancient Athenians, where Plato taught his students.

In the EURO31 in Athens, the 10 streams are organized within the Area Decision Support System chaired by Pascale Zaraté (zarate@irit.fr) and Milosz Kadzinski (milosz.kadzinski@cs.put.poznan.pl),
Below the information about the streams, including the ones organized by members of the EWG-DSS:

- GROUP Decision Making chaired by Prof. Nikolaos Matsatsinis and Prof. Evangelos Grigoroudis.
- AHP/ANP chaired by Josef Jablonsky and Prof. Y. Ilker Topcu and Prof. Dr. Alessio Ishizaka.
- AI and Decision Making chaired by Dr.Fatima Dargam and Prof. Pascale Zaraté.
- Data Mining and Statistics chaired by Prof. Dr. Gerhard-Wilhelm Weber and Dr. Pakize Taylan.
- Decision Analysis and Decision Analytics chaired by Prof. Pavlos Delias.
- DSS chaired by Dr. Jason Papathanasiou.
- Information Systems and Software for OR chaired by Prof. Shaofeng Liu.
- Intelligent Decision Methods chaired by Prof. Evangelos Grigoroudis and Prof. Nikolaos Matsatsinis and Prof. Michalis Doumpos.
- Multiobjective Optimization chaired by Prof. Kaisa Miettinen and Dr. Jussi Hakanen.
- MultiCriteria Decision Analysis chaired by Prof. Michalis Doumpos and Dr. Salvatore Corrente.

All these streams will be composed by several sessions.

For more details, please visit the homepage:
https://euro2021athens.com/

Other Events

XIV Balkan Conference on Operational Research (Virtual BALCOR 2020)

"Operational Research in the Era of Digital Transformation and Business Analytics"

30 September - 3 October 2020, Thessaloniki, Greece
Due to the situation with Covid-19 and with everyone's health and safety in mind, the BALCOR 2020 organizing committee has decided to convert Hybrid BALCOR 2020 to Virtual BALCOR 2020. Thus, participants will join the conference only through electronic participation (via Zoom).
The purpose of the Conference is to disseminate recent scientific advances in the field of Operational Research and Management Science in Balkan countries. The main benefits for the OR researchers are the successful exchange of ideas and information of interest to Operational Research and the promotion of international co-operation among participants by presenting both theoretical and applied results.

Call for papers: Download Call for Papers (PDF Version)

International Conference on Data Analytics for Business and Industry

***26 to 27* October, 2020, Kingdom of Bahrain**

The conference aims to provide an excellent international platform to researchers, data scientists, business managers, and industry practitioners to meet and exchange their ideas and novel approaches to the technical challenges of a data driven world. It provides a premier interdisciplinary forum for sharing knowledge and discussing the most recent innovations, trends, and practical challenges encountered and solutions in the wide fields of big data and data analytics emerging in all business and industrial sectors. Integrating sophisticated business analytics in the internal operational processes for marketing, sales, management, designing strategies, etc can play a powerful role in developing any business sector through increasing its efficiency, supporting its decision-making under uncertainty, and improving its business operations, in today's competitive market. The main goal is to encourage sustained economic growth through data technology.

For more details, please visit the homepage: http://data20.uob.edu.bh/

ANTS 2020
Twelfth International Conference on Swarm Intelligence

October 26-28, 2020. Barcelona

Conference Scope
Swarm intelligence is the discipline that deals with the study of self-organizing processes both in nature and in artificial systems. Researchers in ethology and animal behavior have proposed a number of models to explain interesting aspects of collective behaviors such as movement coordination, shape-formation or decision making. Recently, algorithms and methods inspired by these models have been proposed to solve difficult problems in many domains. ANTS 2020 will give researchers in swarm intelligence the opportunity to meet, to present their latest research, and to discuss current developments and applications.

Relevant Research Areas
ANTS 2020 solicits contributions dealing with any aspect of swarm intelligence. Typical, but not exclusive, topics of interest are:

- Behavioral models of social insects or other animal societies that can stimulate new algorithmic approaches.
- Empirical and theoretical research in swarm intelligence.
- Application of swarm intelligence methods, such as ant colony optimization or particle swarm optimization, to real-world problems.
- Theoretical and experimental research in swarm robotics systems.

For more details, please visit the homepage: https://www.iiia.csic.es/ants2020/#

DA2PL 2020
From Multiple Criteria Decision Aid to Preference Learning

5-6 November 2020, Trento, Italy

DA2PL 2020 (From Multiple Criteria Decision Aid to Preference Learning) aims to bring together researchers from decision analysis and machine learning. It provides a forum for discussing recent advances and identifying new research challenges in the intersection of both fields, thereby supporting a cross-fertilisation of these disciplines.
Following the four previous editions of this workshop, which took place in Mons in 2012, Paris in 2014, Paderborn in 2016 and Poznan in 2018, DA2PL 2020 will be held at the University of Trento, Trento - Italy.

AIMS AND TOPICS
Following the four previous editions of this workshop (DA2PL 2012, DA2PL 2014 and DA2PL 2016, DA2PL 2018), the fifth edition has the goal to bring together researchers from decision analysis and machine learning. It aims at providing a forum for discussing recent advances and identifying new research challenges in the intersection of both fields, thereby supporting a cross-fertilisation of these disciplines.
The notion of "preferences" has a long tradition in economics and operational research, where it has been formalised in various ways and studied extensively from different points of view. Nowadays, it is a topic of key importance in fields such as game theory, social choice and the decision sciences, including decision analysis and multicriteria decision aiding. In these fields, much emphasis is put in properly modelling a decision maker's preferences, and on deriving and (axiomatically) characterizing rational decision rules.
In machine learning, like in artificial intelligence and computer science in general, the interest in the topic of preferences arose much more recently. The emerging field of preference learning is concerned with methods for learning preference models from explicit or implicit preference information, which are typically used for predicting the preferences of an individual or a group of individuals in new decision contexts. While research on preference learning has been specifically triggered by applications such as "learning to rank" for information retrieval (e.g., Internet search engines) and recommender systems, the methods developed in this field are useful in many other domains as well.
Preference modelling and decision analysis on the one side and preference learning on the other side can ideally complement and mutually benefit from each other. In particular, the suitable specification of an underlying model class is a key prerequisite for successful machine learning, that is to say, successful learning presumes appropriate modelling. Likewise, data-driven approaches for preference

modelling and preference elicitation are becoming more and more important in decision analysis nowadays, mainly due to large scale applications, the proliferation of semi-automated computerised interfaces and the increasing availability of preference data.

For more details, please visit the homepage: https://event.unitn.it/da2pl2020/

ICORES 2021 10th International Conference on Operations Research and Enterprise Systems

Online Streaming, 4-6 February, 2021

The purpose of the International Conference on Operations Research and Enterprise Systems (ICORES) is to bring together researchers, engineers, faculty, and practitioners interested in both theoretical advances and practical applications in the field of operations research. Two simultaneous tracks will be held, covering on one side domain independent methodologies and technologies and on the other side practical work developed in specific application areas.

For more details, please visit the homepage: http://www.icores.org/Home.aspx

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EWG-DSS Collab-Net Project

How can you engage with the project?

The 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 Ana Paula Cabral S. Costa, from the University of Toulouse, under the supervision of Pascale Zaraté; 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.

Currently, an online version for the Collab-Net has been developed and presented on the last EWG-DSS conferences ICDSST2019 and ICDSST2020. It handles the EWG-DSS Membership and publications/ collaborations database and network (Check the Collab-Net page).

More details about the Collab-Net Version 3 can be checked in its domain: http://www.collab-net.com/.

We need volunteers from (members the EWG-DSS) to support us on this project! Please contact us if you think you can help!
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/

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 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/ .

Research Collaboration via EU Projects among EWG-DSS Members: Are you ready for Horizon-Europe?

Are you ready to explore the novelties of the new EU research programme Horizon-Europe? What has changed from Horizon-2020 programme? How can you apply your project proposals adapting to the new options in #HorizonEU? All these questions can be answered to you in a dedicated consulting session with REACH Innovation! Contact REACH!

Fatima Dargam, founding member of the EWG-DSS, has started in 2016 to collaborate with a consulting company dedicated to the Development, Management, Proposal Preparation and Dissemination of EU and International Projects. The company is called REACH Innovation Consultancy and is based in Graz, Austria, with a subsidiary in Athens, Greece. Check it out!

REACH Innovation EU
URL:www.reach-consultancy.eu
Email: office@reach-consultancy.eu

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

Disclaimer:

The EWG-DSS organizes its meetings, conferences and workshops, counting with the annual EUROfinancial support and with the respective participation fees to cover the events' expenses. The EWG-DSS makes no profit with its conferences and meetings.
If you wish to financially support further events of the EWG-DSS, you are very welcome to make a donation directly to the EWG-DSS bank account. Contact the current Coordination Board members for more details.

Contribution to Newsletters

Every member is very welcome to contribute to the annual EWG-DSS Newsletters.
Subjects can be related to:

- **Project Descriptions**
- **Recent Publications**
- **PhD Dissertations**
- **Book Presentations / Reviews**
- **Research Group Presentations**
- **Research Views & Perspectives**
- **Journal Announcements – CfP**
- **Forthcoming Events**
- **General Announcements**

Contributions should be sent to the email address ewg-dss@fon.bg.ac.rs with the subject: "Newsletter".