



PERSONAL DETAILS

Birth August 26th, 1988, Italy
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h-index 7 GS, 5 Scopus, 4 WoS

BACKGROUND

I have a PhD in “Technological Innovation Engineering” and a PhD in “Mathematics”. I love to work in international environments and I have gained a research background within universities and companies of such countries as Czech Republic, Brazil, Spain, England, Germany and France, besides Italy. I joined the Department of Decision-Making Theory of the Institute of Information Theory and Automation of the Czech Academy of Sciences in June 2020, where I work as a postdoctoral researcher. I have been Research Fellow at the Faculty of Management of the Prague University of Economics and Business since November 2020. On the whole, my main research interests integrate engineering and math, with a particular focus on decision support systems, treatment of uncertainty affecting human evaluations, mathematical modelling, process optimisation.

EDUCATION

PhD in Mathematics

2016-2019

Universitat Politècnica de València, Valencia, Spain

PhD in Mathematics with honors and international mention of merit. Doctoral thesis titled “Multi-criteria decision methods to support the maintenance management of complex systems” developed under an agreement of co-tutelle between two universities to achieve a double PhD degree. The thesis has been awarded with the extraordinary PhD prize for the area of “sciences” from the Universitat Politècnica de València.

PhD in Technological Innovation Engineering

2015-2019

Università degli Studi di Palermo, Palermo, Italy

PhD in Technological Innovation Engineering with maximum qualification and title of *Doctor Europaeus*. Developing the above-mentioned thesis in co-tutelle within the XXXI Cycle of Doctorate of the Università degli Studi di Palermo. PhD grant awarded for the whole duration of the doctorate from the Università degli Studi di Palermo through public contest. Integrating teaching activities for the for the subject “Production and Plants Management”.

Professional Engineering Qualification

2013-2014

Università degli Studi di Palermo, Palermo, Italy

Professional engineering qualification. Enrolled in the Engineers Register of the Trapani District, No. 1811, Industrial Engineering Section A, Sector b (from 2014 to 2020).

Master Degree in Management Engineering

2010-2013

Università degli Studi di Palermo, Palermo, Italy

Master Degree in Management Engineering with honors. Experimental thesis titled “Organisational risk at the airport: comparisons among three evaluation methods”.

Bachelor Degree in Management Engineering

2006-2010

Università degli Studi di Palermo, Palermo, Italy

Bachelor Degree in Management Engineering. Experimental thesis titled “Maritime container transport: the case of the Trapani Hub”.

High School Diploma

2001-2006

Liceo Classico Leonardo Ximenes, Trapani, Italy

Diploma in Classical High School specializing in languages and scientific subjects.

RESEARCH EXPERIENCE

Research Fellow

2020-present

Prague University of Economics and Business, Prague, Czech Republic

Leading research activities within the project titled “Managerial Decisions: Rationality of Paradoxical Behaviour” (GAČR project no. 19-06569S). Independently developing the theory of non-transitive preference relations at the Faculty of Management of the Prague University of Economics and Business (Vysoká Škola Ekonomická v Praze).

Postdoctoral Researcher

2020-present

Czech Academy of Sciences, Prague, Czech Republic

Developing scientific research at the Department of Decision-Making Theory at the Institute of Information Theory and Automation (UTIA) of the Czech Academy of Sciences. Fields of research: decision support systems, treatment of data uncertainty, multi-criteria decision-making methods, process modelling and optimisation.

Research Fellow

2020

Università degli Studi di Palermo, Palermo, Italy

Grant awarded through public contest for leading research activities on the topic “Experiments and metrics definition for validating an IT platform for cultural heritage” within the project titled “Data processing innovation in the Cultural Heritage sector” (acronym IDEHA, CUP B66C18000330005). The project was aimed at creating an open IT platform for Cultural Heritage through the use of new learning technologies.

Research Engineer

2019-2020

University of Sheffield, Sheffield, United Kingdom

Developing the research project titled “Evaluation of microbial risks assessment methods for drinking water distributions systems” at the Civil Structural Engineering Department within the **UPV ERASMUS+ postdoctoral traineeship program** (grant awarded). Elaborating innovative multi-criteria decision-making frameworks to deal with huge microbial datasets. Providing water utilities with efficient solutions for systems management.

Visiting Researcher

2019

Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

Leading scientific research and educational activities at the Departamento de Engenharia Hidráulica e Recursos Hídricos (EHR). Focusing on water networks optimisation by means of optimal sensors placement. Developing decision support systems for planning/implementing preventive maintenance and continuously improving networks service.

Research Engineer

2017

University of Bath, Bath, United Kingdom

Leading the research project titled “Predicting the time evolution of the population of the UK using genetic algorithms” in collaboration with the Centre for Energy and the Design of Environment (EDEn) within the **UPV ERASMUS+ doctoral traineeship program** (grant awarded). Human population modelling and algorithm results testing.

Research Engineer

2016

Universitat Politècnica de València, Valencia, Spain

Developing the project titled “Multicriteria decision making in dynamic contexts” at the Instituto Universitario de Matemática Multidisciplinar (IMM) within the **UNIPA ERASMUS+ doctoral traineeship program** (grant awarded). Consistency improvement in decision making scenarios affected by uncertainty. Official admission as a member of the FluIng international research group and start of the process of doctoral thesis in co-tutelle.

Research Fellow

2014-2015

Università degli Studi di Palermo, Palermo, Italy

Two different grants awarded through public contest for leading two stages of the project titled “Mechanical sweeper on a truck with intelligent remote diagnostics” (CUP G83F12000130004). The project was aimed at launching a novel street-cleaning vehicle endowed with an intelligent monitoring system to optimise maintenance operations. Developing reliability analyses of complex systems, failure risk assessment and predictive maintenance management.

TEACHING EXPERIENCE

Subject Expert

2019-present

Università degli Studi di Palermo, Palermo, Italy

Qualified according to the current Italian university system to autonomously teach the subject "Production and Plants Management" (15 credits) of the Bachelor degree course in "Innovation Engineering for digital enterprises" at the Engineering Department.

Teaching Assistant

2015-2019

Università degli Studi di Palermo, Palermo, Italy

Leading educational activities of support for the mentioned subject "Production and plants management". In-person lecturing dynamic classes and seminars both in English and Italian, personally attending to students, directing works of thesis, preparing teaching materials and supervising both oral and written exams as a component of commission.

Teacher trainer for companies' workers

2012-2016

Companies belonging to diverse industrial sectors, Sicily, Italy

Leading teaching and joint-teaching activities within programs of compulsory training courses for companies' workers according to the Italian regulation system. More than 200 teaching hours aimed at training workers of companies belonging to various sectors (e.g. production, transportation, and health) have been certified so far. Teaching themes: safety and security, organization, integrated management systems, maintenance and energy management.

EXPERIENCE IN INDUSTRY AND RELATED FIELDS

Research Engineer

2019

Aguas Bixquert SL, Xátiva, Spain

Developing industrial scientific research on the field of water distribution systems management. Data collection and analysis to establish effective monitoring and control processes through the use of suitable key performance indicators. Scientific focus on the topic of smart grid development environment by means of the Internet of Things technology.

Consultant and chief of the Management Area division

2008-2018

Studio di Ingegneria Carpitella, Trapani, Italy

Leading consulting and technical activities for industries operating in various sectors with relation to: optimal management of limited resources, improvement of safety and security conditions at work; industrial and organizational risk assessment; integrated systems implementation; process and layout optimization; maintenance management.

Research Engineer

2018

Ingeniousware GmbH, Karlsruhe, Germany

Developing industrial scientific research to potentiate the process of data exchange in manufacturing technologies. Designing and programming an innovative website aimed at providing worldwide companies with a tool capable to enhance performance of real complex systems. Link to the website: <https://ahp.imaxweb.de/>.

Trainee as a Master Degree student

2013

Vincenzo Florio Airport, Trapani, Italy

Six-months traineeship carried out to develop the master thesis. Focus on evaluating and managing organisational risks through different methodological approaches by taking into account technical aspects as well as human factors and work-related stress.

Trainee as a Master Degree student

2013

Ustica Lines s.p.a., Trapani, Italy

150-hours traineeship as a Master degree student. Analysing the field of administrative liability of companies; improving the Quality Safety and Environment (QSE) manual of the company in collaboration with the Safety Management System (SMS) department.

Trainee as a Bachelor Degree student

2010

Sosalt s.p.a., Trapani, Italy

225-hours traineeship as a Bachelor degree student. Leading production cycle assessment and market demand analyses, stock evaluation and storage optimisation, safety and security management, and maintenance planning of work equipment.

OTHER EXPERIENCE

Holiday Homes Manager

2014-2018

Oceanomare Tourism, San Vito Lo Capo, Italy

Supervising holiday homes located in San Vito Lo Capo City. Bureaucratic management, online promotion and complete assistance during summer journeys for local and foreign nationals.

SCIENTIFIC PRODUCTION

Journal papers, international conferences and educational articles

2018-present

The whole information is included in the attachment "Publication list". Details about my scientific products are available on my [Orcid record](#).

Referee for high impact journals and Scopus conferences

2018-present

The whole information is included in the attachment "Activity as a Referee". Details about my activity as a referee are available on my [Publons personal web page](#).

THESIS SUPERVISOR

Co-supervisor of doctoral thesis

2021

Università degli Studi di Palermo, Palermo, Italy

Thesis developed by the PhD candidate Umair Ahmed within the XXXV cycle of doctorate (in progress).

Co-supervisor of doctoral thesis

2019

Universitat Politècnica de València, Valencia, Spain

Thesis with option to Industrial Thesis mention developed by the PhD candidate Jorge Francés Chust, titled "Smarter Water Network Operation and Management" (in progress).

Director of bachelor degree thesis

2019

Università degli Studi di Palermo, Palermo, Italy

Thesis titled "Evaluation of maintenance activities for an industrial water system", developed by Cristiano Bazzano.

Director of bachelor degree thesis

2018

Università degli Studi di Palermo, Palermo, Italy

Thesis titled "Maintenance management of systems and key performance indicators", developed by Antonio Tambuzzo.

PRIZES, GRANTS AND CERTIFICATIONS

Prize of 2,000€ to the doctoral thesis

2020

Fondazione Ing. Luigi De Januario, Milan, Italy

Four prizes awarded to the best master or doctoral theses defended in all the Italian Engineering Universities between September 2018 and December 2019. My doctoral thesis has been awarded with one of the two prizes dedicated to the area of Industrial Plant.

Extraordinary prize to the doctoral thesis

2020

Universitat Politècnica de València, Valencia, Spain

Twenty-five extraordinary prizes awarded to the best doctoral theses defended at the Polytechnic University of Valencia between the 2017/2018 and 2018/2019 courses. My thesis has been awarded with one of the four prizes dedicated to the area of Sciences.

Certification of teaching and research activities

2020

Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)

Qualification to access to university contests in Spain as "Profesora Ayudante Doctora", ID:2020-749.

Certificate in Advanced English

2018

Cambridge English Language Assessment

Certificate in Advanced English (Level C1), 181IT0145001.

Diploma de Español como Lengua Extranjera

2017

Instituto Cervantes

Diploma de Español como Lengua Extranjera (Level C1), D95SJB JW5SUNE84B9QRY69LD20.

Mobility Grant of 5,300€ awarded

2017

Universitat Politècnica de València, Valencia, Spain

Grant awarded through public contest: UPV mobility program for PhD student.

SCIENTIFIC EVENT ORGANISATION**II meeting FluIng international research group, Sicily, Italy**

2019

Coordinating a three-days meeting on "Decision-making challenges in a changing world: an international overview on academic and professional environments" with the participation of experts from worldwide Universities and Companies (among them: Berliner Wasserbetriebe, University of Cambridge, University of Cantabria, Federal University of Minas Gerais, University of Palermo, Polytechnic University of Valencia).

XXIII Summer School Francesco Turco, Palermo, Italy

2018

Organising Committee member (Local Events and Logistics) of the XXIII edition of the Summer School F. Turco on "Innovative Management: Challenges and opportunities for industrial engineering", September 12-14, organised by the University of Palermo and the Italian organisation of industrial plants professors (AIDI).

XXII Summer School Francesco Turco, Palermo, Italy

2017

Organising Committee member (Local Events and Logistics) of the XXII edition of the Summer School F. Turco on "Innovation and development in engineering applications", held in September 13-15 in collaboration between the University of Palermo and the Italian organisation of industrial plants professors (AIDI).

Convention at the University Center of Trapani, Trapani, Italy

2012

Convention titled "High Education and Innovation, development possibilities for our territory", held in the Lecture Hall of the University and attended by students, professors and exponents from the industrial Sicilian reality.

INVITED TALKS**University of Palermo, Palermo, Italy**

2021

Lecture titled "Innovating the relationship between academia and enterprise by promoting flexible research" for students of the Bachelor degree course in "Innovation Engineering for digital enterprises".

University of Sheffield, Sheffield, United Kingdom

2020

Seminar titled "A novel perspective to manage the microbiology of drinking water distribution systems" for professionals of the water sector belonging to international companies.

University of Sheffield, Sheffield, United Kingdom

2019

Seminar titled "Frameworks to solve business decision-making problems in the water sector" for professors and PhD students of the Civil Structural Engineering Department.

Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

2019

Seminar "Decision-making perspectives for maintenance optimisation" for professors, PhD and Master students of the Departamento de Engenharia Hidráulica e Recursos Hídricos.

Castillo de Xátiva, Xátiva, Spain

2019

Talk titled "Multi-criteria selection of energy efficient pumping alternatives" within the III meeting of the FluIng research group on "Digitalisation for energy sustainability and water resources in water supply networks" for academics and professionals in the water sector.

Universitat Politècnica de València, Valencia, Spain

2019

Lecture titled "Applying the Analytic Hierarchy Process for industrial layout optimisation" for undergraduate students of the Instituto Universitario de Matemática Multidisciplinar.

Universitat Politècnica de València, Valencia, Spain

2016

Seminar titled "Techniques and functions of Multi-Criteria Decision-Making (MCDM) methods" for professors and PhD students of the Instituto Universitario de Matemática Multidisciplinar.

MEMBER OF SCIENTIFIC SOCIETIES

FluIng (International Research Group) <i>https://fluing.upv.es/</i>	2016-present
AIDI (Italian organisation of industrial plants professors) <i>http://www.docenti-impianti-industriali.it/</i>	2016-present
SIE (Italian society of ergonomics and human factors) <i>http://www.societadiergonomia.it/</i>	2017-2020


PARTICIPATIONS AND MOST RELEVANT COURSES

Kabinet Studia Jazyků, Prague, Czech Republic <i>Course of Czech language, level A1 with final exam.</i>	2020-2021
Erasmus+ Youth Exchange, Castellón, Spain <i>Taking part to the Erasmus+ Youth Exchange project “Youth in the face of radicalization through an artistic approach” with other 41 young people coming from 7 Countries.</i>	2019
École des Mines d’Albi-Carmaux, Albi, France <i>Attending the cycle of seminars on “Multi-Criteria Decision-Making (MCDM) methods – The ELECTRE methods. The role of maintainability to improve software performance”.</i>	2018
Fraunhofer research institute, Karlsruhe, Germany <i>Technical visit and meeting with the management of the institute to discuss about industry 4.0 and cutting-edge issues for the industrial reality.</i>	2018
Fraunhofer research institute, Karlsruhe, Germany <i>Attending the cycle of seminars on the following themes: “ASP.NET Core for building modern Internet application”, “Programming and C language” and “How to use Visual Studio 2018”.</i>	2018
El Carmen Spanish School, Valencia, Spain <i>Courses of Spanish language, levels B1, B2, C1 with final exams.</i>	2016-2017
Cork English College, Cork, Ireland <i>Course of English language, level C1 with final exam.</i>	2016
British Institutes Palermo, Palermo, Italy <i>Course of English language, level C1 with final exam.</i>	2015-2016
The ACS, Italian School of High Education, online training <i>Professional 40-hours course “Energy Manager” with final exam.</i>	2015
International House Bristol, Bristol, United Kingdom <i>Course of English language, level B2 with final exam.</i>	2015
International House Palermo, Palermo, Italy <i>Course of English language, levels A2 and B1 with final exam.</i>	2014-2015
Logos Società Cooperativa, Trapani, Italy <i>Professional 450-hours course with final exam and qualification of “Advanced CAD Designer”.</i>	2007-2008







PUBLICATION LIST

Journal papers (published)

1.  **Carpitella, S.**, Certa, A., Izquierdo, J., La Cascia, M. (2021) Multi-criteria decision-making approach for modular enterprise resource planning sorting problems. *Journal of Multi-Criteria Decision Analysis*, online, 1-14.
2.  Brentan, B., **Carpitella, S.**, Barros, D., Meirelles, G., Certa, A., Izquierdo, J. (2021) Water quality sensor placement: a multi-objective and multi-criteria approach. *Water Resources Management*, 35(1), 225-241.
3.  Brentan, B., **Carpitella, S.**, Izquierdo, J., Luvizotto E., Meirelles, G. (2021) District metered area design through multi-criteria and multi-objective optimization. *Mathematical Methods in the Applied Sciences*, online, 1-14.
4.  **Carpitella, S.**, Mzougui, I., Benítez, J., Carpitella, F., Certa, A., Izquierdo, J., La Cascia, M. (2021) A risk evaluation framework for the best maintenance strategy: the case of a marine salt manufacture firm. *Reliability Engineering & System Safety*, 205, 107265, 1-14.
5.  Aiello, G., Benítez J., **Carpitella, S.**, Certa, A., Enea, M., Izquierdo, J., La Cascia, M. (2020) A decision support system to assure high performance maintenance service. *Journal of Quality in Maintenance Engineering*, ahead-of-print, 1-20.
6.  Mzougui, I., **Carpitella, S.**, Certa, A., El Felsoufi, Z., Izquierdo, J. (2020) Assessing supply chain risks in the automotive industry through a modified MCDM-based FMECA. *Processes*, 8(5), 579, 1-22.
7.  **Carpitella, S.**, Del Olmo, J., Izquierdo, J., Husband, S., Boxall, J., Douterelo, I. (2020) Decision-making tools to manage the microbiology of drinking water distribution systems. *Water*, 12(5), 1247, 1-18.
8.  Benítez, J., **Carpitella, S.**, Certa, A., Izquierdo, J. (2020) Constrained consistency enforcement in AHP. *Applied Mathematics and Computation*, 380, 125273, 1-12.
9.  Francés, J., Brentan, B., **Carpitella, S.**, Izquierdo, J., Montalvo, I. (2020) Optimal Placement of Pressure Sensors Using Fuzzy DEMATEL-Based Sensor Influence. *Water*, 12(2), 493, 1-18.
10.  **Carpitella, S.**, Brentan, B., Montalvo, I., Izquierdo, J., Certa, A. (2019) Multi-criteria analysis applied to multi-objective optimal pump scheduling in water systems. *Water Science & Technology Water Supply*, 19(8), 2338-2346.
11.  Benítez, J., **Carpitella, S.**, Certa, A., Izquierdo, J. (2019) Management of uncertain pairwise comparisons in AHP through probabilistic concepts. *Applied Soft Computing*, 78, 274-285.
12.  Benítez, J., **Carpitella, S.**, Certa, A., Izquierdo, J. (2018) Characterisation of the consistent completion of AHP comparison matrices using graph theory. *Journal of Multi-Criteria Decision Analysis*, 26, 3-15.
13.  **Carpitella, S.**, Carpitella, F., Certa, A., Benítez, J., Izquierdo, J. (2018) Managing human factors to reduce organisational risk in industry. *Mathematical and Computational Applications*, 23(4), 67, 1-16.
14.  **Carpitella, S.**, Ocaña-Levario, S.J., Benítez, J., Certa, A., Izquierdo, J. (2018) A hybrid multi-criteria approach to GPR image mining applied to water supply system maintenance. *Journal of Applied Geophysics*, 159, 754-764.
15.  Benítez, J., **Carpitella, S.**, Certa, A., Ilaya-Ayza, A.E., Izquierdo, J. (2018) Consistent clustering of entries in large pairwise comparison matrices. *Journal of Computational and Applied Mathematics*, 343, 98-112.
16.  **Carpitella, S.**, Certa, A., Izquierdo, J., La Fata, CM. (2018) k-out-of-n systems: an exact formula for stationary availability and multi-objective configuration design based on mathematical programming and TOPSIS. *Journal of Computational and Applied Mathematics*, 330, 1007-1015.

17.  **Carpitella, S.**, Certa, A., Izquierdo, J., La Fata, C.M. (2018) A combined multi-criteria approach to support FMECA analyses: a real-world case. *Reliability Engineering & System Safety*, 169, 394-402.

Journal papers (ongoing and under review)

1.  Brentan, B., **Carpitella, S.**, Izquierdo, J., Montalvo, I. Water quality sensor placement in water supply systems, a multi-objective rule-based approach. Ready to be submitted to *Structural and Multidisciplinary Optimization*.
2.  Mzougui, I., **Carpitella, S.**, Izquierdo, J. Implementing suitable contingency strategies based on COVID-19 supply chain risk assessment. Ready to be submitted to *Mathematical Methods in the Applied Sciences*.
3.  Benítez, J., **Carpitella, S.**, Izquierdo, J. Efficient sampling of pairwise comparisons in decision-making. Submitted to *Journal of the Operational Research Society* (May 2021).
4.  **Carpitella, S.**, Mzougui, I., Izquierdo, J. Multi-criteria risk classification to enhance complex supply networks performance. Submitted to *International Journal of Management and Decision Making* (May 2021).
5.  **Carpitella, S.**, Inuiguchi, M., Kratochvíl, V., Pištěk, M. Multiple Criteria Decision Analysis without Consistency in Pairwise Comparisons. Submitted to *Computers & Industrial Engineering* (February 2021).
6.  **Carpitella, S.**, Izquierdo, J., Plajner, M., Vomlel, J. Bayesian network approach to integrate the human factor in FMECA-based risk evaluation. Submitted to *Risk Analysis* (December 2020).

International conference papers and oral presentations

1. De Anchieta, T.F.F., Santos S.A.R., Brentan, B., **Carpitella, S.**, Izquierdo, J. (2021) Managing expert knowledge in water network expansion project implementation. Proceedings of the 6th IFAC Hybrid Conference on Analysis and Control of Chaotic Systems CHAOS, Catania, Italy, September 27-29, under review.
2. **Carpitella, S.**, Inuiguchi, M., Kratochvíl, V., Pištěk, M. (2021) A novel approach to handle intransitive judgements in industrial control problems. Proceedings of the 13th International Conference on Integrated Modeling and Analysis in Applied Control and Automation, Krakow, Poland, September 15-17, under review.
3. Ahmed, U., **Carpitella, S.**, Certa, A. (2021) Managerial decision making for complex service systems optimisation. Proceedings of the 26th ISSAT International Conference on Reliability and Quality in Design, Miami, Florida, USA, August 5-7.
4. **Carpitella, S.**, Mzougui, I., Izquierdo, J. (2021) Fuzzy cognitive maps for knowledge-oriented human risk management in industry. Proceedings of the 26th ISSAT International Conference on Reliability and Quality in Design, Miami, Florida, USA, August 5-7.
5. **Carpitella, S.**, Certa, A., Izquierdo, J. (2021) Flexible negotiation process to adhere to human preferences; a case on work equipment risk assessment. Proceedings of the 26th ISSAT International Conference on Reliability and Quality in Design, Miami, Florida, USA, August 5-7.
6. Benítez, J., **Carpitella, S.**, Izquierdo, J. (2021) Improved pairwise comparison transitivity using strategically selected reduced information. Proceedings of the 23th Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 14-16.
7. Mzougui, I., **Carpitella, S.**, Izquierdo, J. (2021) Contingency plan selection under interdependent risks. Proceedings of the 23th Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 14-16.
8. Mzougui, I., **Carpitella, S.**, El Felsoufi, Z. (2021) Designing supplier selection strategies under COVID-19 constraints for industrial environments. Proceedings of the 31st CIRP Design Conference, Enschede, Netherlands, May 19-21.

9. **Carpitella, S.**, Certa, A., Clément, A., La Fata, C.M., Marmier, F. (2020) Improving the logistic process of orders dispatching through a multi-criteria decision-making perspective. Proceedings of the 25th Summer School “Francesco Turco”, Bergamo, Italy, September 9-11.
10. **Carpitella, S.**, Izquierdo, J., Plajner, M., Vomlel, J. (2020) Integrating the human factor in FMECA-based risk evaluation through Bayesian networks. Proceedings of the 22th Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 8-10, 24-29.
11. **Carpitella, S.**, Herrera, M., Certa, A., Izquierdo, J. (2019) Updating the OSPF routing protocol for communication networks by optimal decision-making over the k-shortest path algorithm. Proceedings of the 21th International Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 10-12, 118-123. (Oral presentation at the conference).
12. Brentan, B., **Carpitella, S.**, Izquierdo, J., Luvizotto, E., Meirelles, G. (2019) A multi-objective and multi-criteria approach for district metered area design: water operation and quality analysis. Proceedings of the 21th International Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 10-12, 110-117.
13. Francés-Chust, J., **Carpitella, S.**, Herrera, M., Izquierdo, J., Montalvo, I. (2019) Optimal placement of quality sensors in water distribution systems. Proceedings of the 21th International Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 10-12, 124-130.
14. Benítez, J., **Carpitella, S.**, Certa, A., Izquierdo, J. (2019) Sampling of pairwise comparisons in decision-making. Proceedings of the 21th International Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 10-12, 105-109.
15. **Carpitella, S.**, Certa, A., Izquierdo, J. (2018) DEMATEL-based consensual selection of suitable maintenance KPIs. Proceedings of the 24th ISSAT International Conference on Reliability and Quality in Design, Toronto, Canada, August 2-6, 270-274.
16. **Carpitella, S.**, Carpitella, F., Certa, A., Benítez, J., Izquierdo, J. (2018) Assessing organizational risk in industry by evaluating interdependencies among human factors through the DEMATEL methodology. Proceedings of the 20th International Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 16-18, 16-24. (Oral presentation at the conference).
17. **Carpitella, S.**, Brentan, B., Montalvo, I., Izquierdo, J., Certa, A. (2018) Multi-objective and multi-criteria analysis for optimal pump scheduling in water systems. Proceedings of the 13th International Hydroinformatics Conference HIC, Palermo, Italy, July 1-6, 3, 364-371. (Oral presentation at the conference).
18. **Carpitella, S.**, Certa, A., Enea, M. (2018) The ELECTRE I method to support the FMECA. Proceedings of the 16th IFAC Symposium on Information Control Problems in Manufacturing INCOM, Bergamo, Italy, June 11-13, 51(11), 459-464. (Oral presentation at the conference).
19. **Carpitella, S.**, Certa, A., Enea, M., Galante, G., Izquierdo, J., La Fata, C.M., Vella, F. (2017) Combined HACCP and TOPSIS-based approach to prioritize risks in the salmon manufacturing process: an applicative case. Proceedings of the 22th Summer School “Francesco Turco”, Palermo, Italy, September 13-15, 150-156.
20. Benítez, J., **Carpitella, S.**, Certa, A., Izquierdo, J., La Fata, C.M. (2017) Some consistency issues in multi-criteria decision making. Proceedings of the 22th Summer School “Francesco Turco”, Palermo, Italy, September 13-15, 411-418. (Oral presentation at the conference).
21. **Carpitella, S.**, Certa, A., Enea, M., Galante, G.M., Izquierdo, J., La Fata, C.M. (2017) Human Reliability Analysis to support the development of a software project. Proceedings of the 23th ISSAT International Conference on Reliability and Quality in Design, Chicago, Illinois, USA, August 4-6, 214-218.
22. **Carpitella, S.**, Ocana-Levario, S.J., Benítez, J., Certa, A., Enea, M., Izquierdo, J. (2017) The ELECTRE I method to optimise GPR data processing analyses for maintenance of water networks. Proceedings of the 23th ISSAT International Conference on Reliability and Quality in Design, Chicago, Illinois, USA, August 4-6, 6-10.
23. Benítez, J., **Carpitella, S.**, Certa, A., Ilaya-Ayza, A.E., Izquierdo, J. (2017) Some awkward issues on pairwise comparison matrices. Proceedings of the 19th International Conference on Mathematical Modelling in Engineering and Human Behaviour, Valencia, Spain, July 17-19, 43-48. (Oral presentation at the conference).
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2. Benítez, J., **Carpitella, S.**, Izquierdo, J. (2020) Ajuste y calibración, con la llegada de nuevos datos, de un modelo epidemiológico simple. [Link to the article](#).
3. Benítez, J., **Carpitella, S.**, Izquierdo, J. (2019) Esquema de derivación consistente de prioridades en un marco de consenso. [Link to the article](#).
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