Curriculum Vitae

Ioannis Dokas – Assistant Professor DUTh

June 2020

Personal Details

Surname: Dokas

Name: Ioannis

Birth Date: 31-01-1975

Address: DUTH, Polytechnic School, Civil Engineering Dept.
Vas. Campus Xanti-Kimmeria, Building B, Office A.4.6,
67100, Xanthi, Greece

Tel: +30 25410 79678

e-mail: idokas@civil.duth.gr

Current Position

July 2014 – up to now: Assistant Professor, Civil Engineering Dept, DUTH. Scientific Domain: **Safety and Performance of Civil Engineering Systems** (Appointment via the National Law: Γ/813/27-6-2014)

Research interests

1. Risk and hazard analyses
2. Accident Investigation
3. Early Warning Systems and Accident Prevention
4. Online Expert Systems
5. Crisis Management
6 Systems Theory and Systems Dynamics Modelling

Academic Preparation – Previous Work

Jan 2013 – June 2014: Civil Engineer (freelance)

Jan 2008 – Dec 2012: Research Fellow, Cork Constraint Computation Centre, Ireland
Principal Investigator - SCEWA Research Program (http://4c.ucc.ie/scewa/)
Purpose of the project: To define and develop innovative methods and tools to strengthen preventive risk management strategies in drinking water treatment plants in the Republic of Ireland.
The objectives of the project were to:
(A) Create processes/methods for the identification and justification of early warning signs to accidents
(B) Design and develop an on-line early warning system for drinking water treatment plants in the Republic of Ireland

Jan 2007 – Dec 2007: Post Doc Research, Cork Constraint Computation Centre, Ireland in the context of the EU funded research project CREEDS (http://4c.ucc.ie/creeds/) The purpose of my work in CREEDS was to organise a series of seminars on Knowledge Acquisition and Knowledge Representation methods and techniques for the researchers and the technical staff of the Cork Constraint Computing Center in Cork.

Jan 2005 - Dec 2006: Post Doc Research, Universität Paderborn - Institut für Informatik, Germany. My post doc research aimed to learn the state of the art models, methods, tools, and techniques in the domain of systems safety engineering and to produce relevant research publications.

Jan 2003 - Dec 2004: Worked as Civil Engineer under a Service Agreement to the Technical Company PROTEAS in Katerini, Greece.

Jan 1999 - Jan 2003: Employed, under contract, in 3 research projects, funded by TSMEDE (Codes: 677, 928, and 1064) in DUTH. The objective of my work was to create a web-based expert system for landfill management and operation and to identify and analyse the causes of accidents in solid waste management facilities.

Studies

1999 – 2004: Ph.D., Civil Engineering Department, Democritus University of Thrace, Xanthi Greece

1993-1998: Diploma in Civil Engineering, Democritus University of Thrace, Xanthi Greece

Certified Experience in Civil Engineering Projects

No. Manufacturers' Experience Register: 26341

Projects	Experience Level	Project	Experience Level
Road works	B	Construction Works	A
Hydraulic Works	B	Port Works	A

Teaching

Undergraduate

1. 2017-2018: Co-Teaching of the course "Web Programming and Internet Security," Civil Engineering Department DUTH
2. 2015-2016 up to date: Autonomous teaching of the course "Systems Safety Engineering", Civil Engineering Department DUTH
3. 2014-2015 up to date:
   a. Autonomous teaching of the course "Solid Waste Management", Civil Engineering Department DUTH
   b. Co-teaching the following courses: Geodesy I, Geodesy II, and Construction Equipment and Building Site Management, στο Τμήμα Πολ. Μηχανικών του ΔΠΘ

Postgraduate

1. 2017-2018: "MTS60 – Legislation and Technical Project Safety" as Associate Educational Personnel in H.O.U.
2. 2011-2012 up to date: Co-teaching up to 2015 and afterword's autonomous teaching of the course "Organizational Principles of Technical Systems" at the postgraduate programme "Systems Engineering Management"
3. 2015-2016: Autonomous teaching of the course "Project Management for Sustainable Development" at the postgraduate programme "Systems Engineering Management"
4. 2009 - 2011: Autonomous teaching of the course "Multimedia CS5009", Higher Diploma in Computer Science, Department of Computer Science, University College Cork

PhD Supervisor

1. 10-6-2020 up to date: Vagia Stamkopouou, General research field: Systems Dynamics Modelling, Civil Engineering Department DUTH

2. 23-1-2020 up to date: Euaggelos Mendonidis, General research field: Industrial geodesy and accidents, Civil Engineering Department DUTH
3. 27-6-2018 up to date: George Kafoutis, General research field: Crisis Management, Civil Engineering Department DUTH
4. 17-5-2017 up to date: Aggeliki Zacharaki, General research field: Systems Safety Engineering, Civil Engineering Department, DUTH
5. 8-2-2017 up to date: Eirini Fysentzidou, General research field: Systems Safety Engineering, Civil Engineering Department, DUTH
6. Maria Mikela Chachimihailidou: RiskSOAP: A Methodology for Measuring Systems' Capability of Being Self-Aware of Their Threats and Vulnerabilities, Civil Engineering Department, DUTH (Completed)
7. Franclin Foping: Software as a Service Deployment Model for Early Warning Systems, University College Cork (Completed)
8. Saed Imran: Domain Specific Modelling Language for Early Warning Systems, University College Cork (Completed)
9. John Feehan: Early Warning Signals in Water Treatment Plants: A Knowledge Modelling Approach, University College Cork (Completed)

MSc Thesis Supervisor

2019: Elpida Vasiliadou, Playground Safety. The Role of Maintenance, Hellenic Open University (Completed)

2019: Zacharias Tokaltidis, Recycling of Photovoltaic Pannels in Greece, Hellenic Open University (Completed)

2019: Dimitris Ioakimidis, Remote systems for personal protective equipment monitoring and technical projects progress, Hellenic Open University (Completed)

2019: Christos Vakouftis, Upgrade of airport runways. Coordination of stakeholders, task planning, risk analysis, performance issues, Hellenic Open University (Completed)

2018: Eustathios Eustathiadis, HAZOP Hazard Analysis Applied to a Machine Shop, DUTH, Systems Engineering Management Programme (Completed)

2018: Spiridon Kastanias, (2018), of the Institutional and Legal Framework for Safety and Health of Workers in Sweden and Greece a Comparative Assessment, Hellenic Open University (Completed)

2018 Euaggelos Mendonidis (2018), Occupational Accidents in Construction Sites: A GIS based Visualization Approach, Hellenic Open University (Completed)

2018 Eirini Fisentzidou (2018), An FMEA Hazard Analysis Applied to a Machine Shop, DUTH, Systems Engineering Management Programme (Completed)

2017: Fotis Somakos, Safety Perception of Social Gathering Events in Enclosed Spaces, DUTH, Systems Engineering Management Programme (Completed)

2015: Evangelia Raftopoulou, Sustainability Assessment of Two Companies with the VSM model, Systems Engineering Management Programme (Completed)

2015: Stefanos Tsionis, Application of the EWaSAP Method for the Identification of Early Warning Signs to Accidents in Engineering Systems, Systems Engineering Management Programme (Completed)

2010: Clair Tips, MSc Project Title: Crisis Management and Social Networking

Research Projects

1. Supporting the Concept of Early Warning Analysis, Grand No 2007-DRP-2-S5, Irish Environmental Protection Agency, Budget: **795,000 Euros**

2. Knowledge Based System for Operational Risk Assessment of Solid Waste Management Facilities, Greek Ministry of Education, Progrmme PYTHAGORAS II, In cooperation with prof. D., Ch., Panagiotakopulos, Budget: **50.000 Euros**.

Invention Declaration

I.M. Dokas, F. Foping, S. Imran, J. Feehan, "A Web Based Early Warning System For Water Treatment Plants", University College Cork, Ireland, IDF - UCC 10-52**, 2010**

Editorial Board Member in Scientific Journal

2020 up to date: Safety Science, Elsevier

Tactical Reviewer in Scientific Journals

2013 up to data: Safety Science, Elsevier

2008 up to date: Waste Management and Research, Sage

I also received invitation by the editors of the following journals to review submitted manuscripts.

1. Ergonomics (Taylor & Francis)
2. Artificial Intelligent Review (Springer)
3. Human & Ecological Risk Assessment (Taylor & Francis)
4. International Journal of Applied Systemic Studies (Interscience Publishers)
5. Cognition, Technology and Work (Springer)
6. International Journal of Water Resources and Environmental Engineering (Academic Journals)
7. Environmental Engineering and Management Journal (http://omicron.ch.tuiasi.ro/EEMJ/index.htm)
8. Advances in Civil Engineering (Hindawi)
9. Safety and Reliability (Taylor & Francis)

Organiser of International Conference

- ISCRAM - med 2017, The 4th Information Systems for Crisis Response and Management in Mediterranean Countries, Xanthi Greece – 18-20 October 2017

Guest Editor in Special Issue of Scientific Journal

- International Journal of Information Systems for Crisis Response and Management (IGI Global) Special Issue On: Information Systems for Crisis Response and Management in the Mediterranean Countries

Organizer Committee Member in International Conferences

- The 7th International Conference on Risk Analysis and Crisis Response, Athens Greece, 15-19 October 2019
- SafeEvros2016, New Technologies at the service of Civil Protection, Alexandroupolis Greece – 22-25 June 2016
- 4th International ICSC Symposium on Information Technologies in Environmental Engineering, Thessaloniki Greece, May 2009

PC Member of International Conferences

- 7th European STAMP Workshop 2019, Helsinki Finland, September 2019

- EANN 2019, 20th International Conference on Engineering Applications of Neural Networks, Crete Greece, 24-26 May 2019
- ICSC 2017, the 2nd Cross-industry Safety Conference (ICSC) Amsterdam 1-3 November 2017
- 5th European STAMP Workshop 2017, Reykjavik Iceland, September 2017
- 4th European STAMP Workshop 2016, Zurich University of Teacher Education (PHZH), Switzerland, 13 -15 September 2016
- SafeEvros2016, New Technologies at the service of Civil Protection, Alexandroupolis Greece – 22-25 June 2016
- 3rd European STAMP Workshop, October 4-6 Amsterdam, The Netherlands
- Fourth MIT STAMP/STPA Workshop, March 23-26 MIT, Cambridge, MA USA
- ISCRAM-med 2015: Second International Conference on Information Systems for Crisis Response And Management - Mediterranean Countries, Tunisia, May 23 2015
- 4th International ICSC Symposium on Information Technologies in Environmental Engineering, Thessaloniki Greece, May 2009

Organizer of Special Sessions in International Conferences

1. Data and Resilience: Opportunities and Challenges, 17th International Conference on Information Systems for Crisis Response and Management, Blacksburg, Virginia USA, Virginia Tech, May 24th, 2020
2. Early Warning and Alert Systems, 8th International Conference on Information Systems for Crisis Response and Management, Lisbon Portugal, May 8 -11, 2011
3. Advanced Information Technologies for Crisis and Disaster Management, 5th International Conference on Information Systems for Crisis Response and Management, Washington DC, USA May 4-7, 2008
4. Advanced Information Technologies for Crisis and Disaster Management, 4th International Conference on Information Systems for Crisis Response and Management, Delft the Netherlands, May 13-16, 2007

Reviewer in International Conferences

1. 14th International Conference on Information Systems for Crisis Response and Management ISCRAM 17, Albi, Occitanie Pyrenees – Mediterane, France, May 21-24
2. International Conference on Computational Science and Its Applications, Kyushu Sangyo University, Fukuoka, Japan, March 23-26, 2010
3. 6th International Conference on Information Systems for Crisis Response and Management ISCRAM 09, George Washington University, Göteborg, Sweden, May 10-13
4. 5th International Conference on Information Systems for Crisis Response and Management ISCRAM 08 George Washington University, Washington D.C., USA, May 4-7
5. 4th International Conference on Information Systems for Crisis Response and Management ISCRAM 07 Delft, The Netherlands, May 13-16
6. 2nd International Conference of the Hellenic Solid Waste Management Association, "From Waste Disposal to Resource and Energy Recovery", Athens, 3 and 4 February 2006

Workshop Organiser

13- 14 May 2019: Two day Seminar on «Occupational Health and Safety in Construction Sites" in cooperation with the consultant company "Management Force", Civil Engineering Department, DUTH, Xanthi, Greece

21 – June – 2016: Engineering Systems Safety. Systemic Methods and Tools, Hotel ELISSO, Xanthi, Greece

Distinctions

2019: *'Distinguished Services Award'* for outstanding support to the ISCRAM Community

2016: The journal paper "M. M. Chatzimichailidou, I. M. Dokas (2015), Introducing RiskSOAP to communicate the distributed situation awareness of a system about safety issues: an application to a robotic system, Ergonomics, 59 (3), 409-422", was selected by the Editors of the Scientific Journal "Ergonomics" as a candidate for the "Liberty Mutual Award" (http://explore.tandfonline.com/content/est/liberty-mutual-awards-2017)

2008: The journal paper "Fault tree analysis and fuzzy expert systems: Early warning and emergency response of landfill operations" was among the paper in the list of the "Top 25 hottest articles" (rank No 12) of the Journal Environmental Modelling and Software published by Elsevier for the period October – December 2008

2007: I was one of the three scientists who awarded with the STRIVE Programme 2007 – 2013, ERC Research Fellowships Scheme by the Irish Environmental Protection Agency.

2007: I was awarded with an EU Marie Currie Transfer of Knowledge Grand

2006: I received the Miltiades Empiricos Price, after an evaluation of my research work during the year 2005 by members of the Academy of Athens

2004: I was awarded with an EU Marie Currie Research Training Network Grand

2000: I received a price by the Technical Chamber of Greece for being among the 10 top students who graduated by the Civil Engineering Department of D.U.Th.

1997: I received a price by the city of Xanthi for my student project entitled Δήμο Ξάνθης για την εργασία μου "Sustainability Study of KTEL in Xanthi"

Invited Speaker at Seminars, Workshops and Conferences

2017 5ο Security Project, 26 - 27 May 2017 – Athens, Divani Caravel: «Collaboration Between Security Professionals and Universities: Benefits and Prospects»

2017 6th STAMP/STPA WORKSHOP at MIT, Boston, USA: "Towards a STAMP-Based Safety Plans Approach for Construction Projects"

2017 1st Hellenic Conference of Students in Civil Engineering Departments: "Accidents in Civil Engineering Systems: Methods and Tools"

2017 Academy - Structure of Lifelong Learning of the Region of Eastern Macedonia and Thrace Regional District of Komotini, "Accidents in our Life: Causes and Consequences"

2016: 35th Refinery Cooperation Conference on Health and Environmental Safety "STAMP: A Systemic Approach to Accidents and its Applications to the Oil and Gas Industry"

2015: Equipment Operators Workshop, Xanthi District "Safety Culture in Construction Workplaces"

2013: 2nd STAMP/STPA WORKSHOP at MIT, Boston, USA: EWaSAP: An Extension of STPA for the Identification of Early Warning Signs'

2012: The Intel Ireland Research Conference 2012, Dublin, Ireland: 'A SaaS Based Early Warning System for Water Treatment Plant Safety'

2012: First STAMP/STPA WORKSHOP at MIT, Boston, USA: 'EWaSAP: An Early Warning Sign Identification Approach Based on STPA'

2011: ISCRAM Summer School 2011, Tilburg, The Netherlands: 'Systems Safety and Early Warning Systems

2010: Irish EPA National Research Conference, Dublin Ireland: "Developing an Early Warning System for Drinking Water Treatment Plants"

2010: S4 ENVISA 2010 Colloquium on Spatio-Temporal Data Analysis, Cork Ireland: "The SCEWA Project: A Short Description"

2010: Dalle Molle Institute for Artificial Intelligence (IDSIA), Lugano, Switzerland: "Sociotechnical Early Warning Systems"

2009: HSE – Irish Health Service Executive, Population Health Water Group, Health Protection Surveillance Centre, 25-27 Middle Gardiner Street, Dublin Ireland: "Towards an Early Warning Safety Management System for Water Treatment Plants"

2009: IBM Innovation Centre Mulhuddart Dublin Ireland, "Early Warning Services for Complex Socio-Technical Systems"

2009: IBM Innovation Centre Mulhuddart Dublin Ireland: "Towards Development of an Early Warning Service for Water Treatment Plants"

2008: Tyndal Institute, Cork Ireland, "Early Warning Systems for Water Treatment Plants: Analysis and Design Issues"

2007: University College Galway, Ireland: "Knowledge Representation: A Brief Example from Solid Waste Management Operations"

2006: Cork Constraint Computation Centre, Cork Ireland: "Early Warning System in Solid Waste Management Operations"

2005: Institut für Informatik Universität Paderborn Germany: "Designing Web-based Expert Systems: A Case Study"

COST Actions Member

2009 – 2012: Living in Surveillance Societies (LiSS) (http://www.liss-cost.eu/)

2007-2008: Towards the MAturation of Information Technology USability Evaluation (MAUSE)

Publications

A. Ph.D. Thesis

1.   I. M. Dokas (2003), **LOMA: A Fuzzy Expert System in Landfill Operations**, PhD Thesis, Civil Engineering Department Democritus University of Thrace, Xanthi, Greece (in Greek).

B. Papers in Peer-Reviewed Journals

17. Kafoutis G., Dokas I.M., (**In press**), Improving disaster response plans with STECA. An application, **International Journal of Disaster Response and Emergency Management** (IJDREM).

16. Zacharaki A, Kostavelis I., Gasteratos A., Dokas I. M., (2020), Safety bounds in human-robot interaction: A survey, **Safety Science**, Volume 127, 104667, ISSN 0925-7535,

15. B. Bégaud, E. Daemen, I. Dokas, B.D. Edwards, J.M. Fishbein, H.E. Greenberg, A. Hochberg, H. Le Louet, J. Lyngvig, N. Mogles, K. Owen, C. Prendergast, M. Rejzek, D. Webb, M. Whalen, S. Whiteley (2017), A call to incorporate systems theory and human factors into the existing investigation of harm in clinical research involving healthcare products, **British Journal of Clinical Pharmacology**, (Forthcoming) (Impact Factor: 3.493)

14. M. M. Chatzimichailidou, N. Karanikas, I. M. Dokas (2016), Measuring Safety Through the Distance Between Systems States with RiskSOAP Indicator, **Journal of Safety Studies**, 2 (2), 0-5 (Impact Factor: Not Available)

13. M. M. Chatzimichailidou, I. M. Dokas (2016), RiskSOAP: On the Relationship Between Systems Safety and the Risk SA Provision Capability, **IEEE Systems**, vol.PP, no.99, 0-10 (Impact Factor: 2,114)

12. M. M. Chatzimichailidou, I. M. Dokas (2016), RiskSOAP: Introducing and applying a methodology of risk self-awareness in road tunnel safety, **Accident Analysis & Prevention,** 90, 118-127 (Impact Factor: 2,070)

11. M. M. Chatzimichailidou, I. M. Dokas (2015), Introducing RiskSOAP to Communicate the Distributed Situation Awareness of a System About Safety Issues: An Application to a Robotic System, **Ergonomics**, 59 (3), 409-422 (Impact Factor: 1,56)

10. M. M. Chatzimichailidou, N. Stanton, I. M. Dokas (2015), The Concept of Risk Situation Awareness Provision: Towards an Assessment of Risk Distributed Situation Awareness in Complex Socio-technical Systems, **Safety Science**, 79:126-138 (Impact Factor: 2,157)

9. I. M. Dokas, J. Feehan and S. Imran (2013), EWaSAP: An Early Warning Identification Approach Based on a Systemic Hazard Analysis, **Safety Science**, 58, pp 11-26 (Impact Factor: 2,157)

8. F. S. Foping, I. M. Dokas, J. Feehan, S. Imran (2010), An Improved Schema-Sharing Technique for a Software as a Service Application to Enhance Drinking Water Safety, **Journal of Information Security Research** (JISR), 1(1), pp 1-10 (Impact factor: Not Available)

7. S. Imran, F. S. Foping, J. Feehan, I. M. Dokas (2010), Domain Specific Modeling Language for Early Warning System: Using IDEF0 for Domain Analysis, **International Journal of Computer Science Issues**, Volume 7, Issue 5, pp 10-17 (Impact Factor: Not Available)

6. I. M. Dokas, D.A. Karras, D.C. Panagiotakopoulos (2009), Fault Tree Analysis and Fuzzy Expert Systems: Early Warning and Emergency Response of Landfill Operations, **Environmental Modelling & Software**, Vol 24 Issue 1, pp 8-25 http://dx.doi.org/10.1016/j.envsoft.2008.04.011 (Impact Factor: 4.207)

5. I. M. Dokas, D. A. Karras and D. C. Panagiotakopoulos (2008), An Efficient Fuzzy Expert System Architecture for Landfill Operation Reliability Management, **Journal of Intelligent Systems**, No 1/3, pp. 73-90 (Impact factor: 0,397)

4. I. Dokas, M. Statheropoulos and S. Karma (2007), Integration of Field Chemical Data in Initial Risk Assessment of Forest Fire Smoke, **Science of the Total Environment**, Vol 376, 1-3, pp 72-85. (Impact Factor: 3,976)

3. I. M. Dokas, D. C. Panagiotakopoulos (2006), A Knowledge Acquisition Process to Analyse Operational Problems in Solid Waste Management Facilities, **Waste Management and Research**, Vol 24, pp. 332-344. (Impact Factor: 1,338)

2. V. Aivaliotis, I. Dokas, M. Hatzigiannakou and D. Panagiotakopoulos (2004), Functional Relationships of Landfill and Landraise Capacity with Design and Operation Parameters, **Waste Management and Research**, Vol 22, pp. 283-290. (Impact Factor: 1,338)

1. D. Panagiotakopoulos and I. Dokas (2001), Design of Landfill Daily Cells, **Waste Management and Research**, Vol 19, No 4, pp. 332-341. (Impact Factor: 1,338)

C. Book Chapters

2. I. M. Dokas, J. Feehan, S. Fortier, F. Foping, S.Imran (2011), Towards Supporting State Agencies in Providing Early Warning Services: A Case Study from Ireland, **Comparative Emergency**

Management: Examining Global and Regional Responses to Disasters, (DeMond Miller and Jason Rivera Eds.), pp. 291-327. CRC Press

1. I. Dokas (2008) LOMA: A Web Based Expert System for Accident Prevention in Sanitary Landfills, **Neural Networks and Expert Systems: Concepts and Applications,** (Sameer A. Zodgekar, Eds.), ISBN 8131420973, ICFAI University Press

D. Editor of Conference Proceedings

1. Dokas, I.M., Bellamine-Ben Saoud, N., Dugdale, J., Díaz, P. (2017), Information Systems for Crisis Response and Management in Mediterranean Countries, Proceedings of the 4th International Conference, ISCRAM-med 2017, Xanthi, Greece, October 18-20, 2017, **Lecture Notes in Business Information Processing, Springer**

E. Papers in Peer-Reviewed International Conferences

28. Stavroula Charalampidou, Eleftherios Lygouras, Ioannis Dokas, Antonios Gasteratos, Aikaterini Zacharopoulou (2020) A Sociotechnical Approach to UAV Safety for Search and Rescue Missions, The **2020 International Conference on Unmanned Aircraft Systems ICUAS'20** September 1-4, 2020 Divani Caravel Hotel, Athens, Greece. (Accepted for oral presentation)

27. Apostolos Zeleskidis and Ioannis M. Dokas, Basil Papadopoulos (2019), A novel real-time safety level calculation approach based on STPA, In the Proceedings of the International Cross-Industry Safety Conference (ICSC) – International Symposium on Aircraft Technology, MRO and Operations (ISATECH) **ICSC-ISATECH 2019** Conference, 9-11 October 2019, Amsterdam. MATEC Web Conf. Volume 314, 2020

26. Apostolos Zeleskidis and Ioannis M. Dokas (2019), ' *A Fuzzy Extension to the Risk Situation Awareness Provision Indicator (RiskSOAP)*' **RACR-2019 International Conference**, 15-19 October, 2019, Athens, Greece

25. Jaziar Radianti, Ioannis Dokas, Kees Boersma, Nadia Saad Noori, Nabil Belbachir, Stefan Stieglitz (2019), *'Enhancing Disaster Response for Hazardous Materials Using Emerging Technologies: The Role of AI and a Research Agenda'*, In Proceedings of the **20th International Conference Engineering Applications of Neural Networks, EANN 2019**, Xersonisos, Crete, Greece, May 24-26, 2019, pp 368-376

24. Dokas Ioannis M., Apostolos Zeleskidis, Basil Papadopoulos (2018), *'Dynamic Determination and Calculation of the Safety Level in Major Hazard Accident Systems: A Proposed Mathematical Model'*, **SafeKozani 2018, 5th International Conference on Civil Protection & New Technologies,** Kozani Greece – 31 Oct -3 Nov 2018

23. Dokas Ioannis M. (2016), *'An Overview of the Systems Theoretic Early Warning Sign Identification Approach EWaSAP: Applications and Future Improvements'*, **SafeEvros2016, New Technologies at the service of Civil Protection**, Alexandroupolis Greece – 22-25 June 2016, pp 135-141, ISBN 978 - 960 - 89345 – 7- 3

22. Chatzimichailidou M. M., I, M. Dokas (2015), '*The Risk Situation Awareness Provision Capability and its Degradation in the Überlingen Accident Over Time*', **3rd European STAMP Workshop**, The Aviation Academy of the Amsterdam University of Applied Sciences, Amsterdam, The Netherlands, 4th – 6th October 2015, Procedia Engineering 12/2015; 128:44-53

21. Chatzimichailidou M. M., I, M. Dokas (2015), '*Assessing Distributed Situation Awareness in Socio-technical Systems with RiskSOAP*', **The Second International Conference on Information Systems for Crisis Response and Management in Mediterranean Countries (ISCRAM-med 2015)**, 28-30 October, Tunis, Tunisia pp 103-115

20. Chatzimichailidou Maria Mikela, Angelos Protopapas, Ioannis M. Dokas (2014), *'Seven Issues on Distributed Situation Awareness Measurement in Complex Socio-technical Systems'*, **In Procedings of the 5th International Conference of Complex Systems Design & Management 2014**, November 12-14, Paris, pp 105-117

19. Chatzimichailidou Maria Mikela, Robert Freund, Ioannis Dokas (2014), *'Distributed Situation Awareness as a "Middleware" Between the New Economic Sociology and Embedded Open Innovation'*, **In Proceedings of the 6th International Conference on Mass Customization and Personalization in Central Europe (MCP-CE 2014)**, September 24 – 26, 2014 Novi Sad, Serbia, pp 37 - 43

18. Fletcher R. and I.M. Dokas (2013), *'Leading Indicators in Aviation Operations'*, **31st Systems Safety Engineering Conference ISSC2013**, August 12-16, Boston Massachusetts, USA, Proceedings in CD

17. Foping F. and I.M. Dokas (2013), *'A SaaS-Based Early Warning Information Fusion System for Critical Infrastructure Safety'*, **ISCRAM2013: The 10th International Conference on Information Systems for Crisis Response and Management**, 12-15 May 2013 Baden-Baden, Germany, pp 156-165

16. Foping F. and I.M. Dokas (2012), *'A Web-Based Early Warning System for Water Treatment Plants Safety'*, **5th Water Contamination Emergencies Conference**, 19th to 21st November 2012, Muelheim an der Ruhr, Germany

15. Foping F. and I.M. Dokas (2011), 'Securing a Critical Web Application', **23rd European Conference Forum Bauinformatik**, University College Cork, 12 -14 September 2011, (http://zuse.ucc.ie/forumbau2011/papers/34.pdf) ISBN 978 - 1 - 9066 - 42 - 38

14. Foping F., I.M. Dokas, J. Feehan, S. Imran (2009) '*A New Hybrid Schema-Sharing Technique for Multitenant Applications*', **4th IEEE International Conference on Digital Information Management**, University of Michigan, 1-4 November, Proceedings in CD

13. Foping F., I.M. Dokas, J. Feehan, (2009) '*On Using Software as a Service to Deploy an Early Warning Service'*, In Bobby Granville, Zoran Majkic, Chunping Li (Eds.), **International Conference on Enterprise Information Systems and Web Technologies**, Orlando, FL, USA. ISBN: 978-1-60651-010-0, pp 161-168

12. Dokas I. M., R.J. Wallace, R. Marinescu, S. Imran and F. Foping (2009), '*Towards a Novel Early Warning Service for State Agencies: A Feasibility Study'*, In I.N. Athanasiadis et al. (Eds) Environmental Science and Engineering**, Information Technologies in Environmental Engineering (ITEE' 2009),** pp 162 - 175, ISBN: 978-3-540-88350-0

11. Janssen J. A. E. B. and I. M. Dokas (2008), '*Representing river system behaviour in UML to enhance development of DSS'*, **Proceedings iEMSs 2008: International Congress on Environmental Modelling and Software Integrating Sciences and Information Technology for Environmental Assessment and Decision Making** 4th Biennial Meeting of iEMSs, M. Sànchez-Marrè, J. Béjar, J. Comas, A. Rizzoli and G. Guariso (Eds.) International Environmental Modelling and Software Society: International Congress on Environmental Modelling and Software (iEMSs 2008), July 7-10, Barcelona, Spain, 2008, pp. 598-605. ISBN: 978-84-7653-074-0

10. Fortier S. and I. M. Dokas (2008), '*Setting the Specification Framework of an Early Warning System Using IDEF0 and Information Modeling'*, F. Fiedrich and B. Van de Walle eds., Proceedings of the **5th International Conference on Information Systems for Crisis Response and Management (ISCRAM'2008)**, Washington DC, USA, May 2008, pp 441-450

9. Dokas I.M. (2007), '*Ontology to Support Knowledge Representation and Risk Analysis for the Development of Early Warning System in Solid Waste Management Operations'*, **International Symposium on**

Environmental Software Systems (ISESS'2007), Crowne Plaza Hotel, Prague, Czech Republic May 22 - 25, 2007 (Proceedings in CD)

8. Dokas I., K. Kitis, Ch Dontis, D. Panagiotakopoulos, D. Karras (2007), *'Knowledge Acquisition and Risk Analysis in Material Recycling Facilities by a Virtual Team'*, **Information Technologies in Environmental Engineering (ITEE'2007)**, Carl von Ossietzky Universität Oldenburg, March 29 - 30, Germany, pp 333-341

7. Dokas I., C. Ntontis, K. Kitis, D. Panagiotakopoulos (2006), *'Web-based Early Warning System on SWM Facilities Risks: The Phase of Risk Analysis'*, **2nd International Conference of the Hellenic Solid Waste Management Association**, February 2 - 4 2006, Athens, Greece (Proceedings in CD)

6. Dokas I. M., D. A. Karras and D. C. Panagiotakopoulos (2005), *'Landfill Operation Reliability Management Based on Fuzzy Expert Systems'*, **2nd Indian International Conference on Artificial Intelligence (IICAI'2005)**, December 20 - 22, 2005, Pune, India, pp 1988-1997

5. Dokas I. M. (2005), *'Developing Web Sites for Web-Based Expert Systems: A Web Engineering Approach'*, **Information Technologies in Environmental Engineering (ITEE'2005)**, September 25 - 27 2005, Otto-von-Guericke-Universität Magdeburg, Germany, pp 202-217

4. Dokas I. M., D. A. Karras and D. C. Panagiotakopoulos (2002), *'A Fuzzy Expert System Application for Reliability Estimation of Landfill Operation'*, Proceedings, **ISWA World Environment Congress & Exhibition 2002**, July 8 – 12 2002, Istanbul, Turkey, Vol 2 pp 803-810

3. Dokas I. M., D. C. Panagiotakopoulos, K. Alivanis (2002), *'LOMA:A Fuzzy Expert System for Operational Problems Possibility Estimation in Landfills'*, **1st Conference of the Hellenic Solid Waste Management Association,** 28-2-2002 to 1-3-2002, Athens, Greece. (In Greek – Proceedings in CD)

2. Dokas I. M., D. A. Karras, and D.C. Panagiotakopoulos (2001), *'Fuzzy Logic Applications in Solid Waste Management'*, **7th Conference on Environmental Science and Technology**, September 3 – 6 2001. Syros, Greece, Vol I, pp. 157-165

1. Panagiotakopoulos D. and I. Dokas (1999), *'Minimizing Landfill Soil-to-Refuse Ratio Through Daily Cell Design'*, **6th Conference on Environmental Science and Technology**, 30 August – 2 September 1999, Samos, Greece, pp 274-282

F. Short Papers and Abstracts in Peer-Reviewed International Conferences

8. Eleftherios Lygouras, Ioannis Dokas, Antonios Gasteratos, Stavroula Charalabidou and Aikaterini Zacharopoulou (2019), STPA Analysis Applied on Different Operational Modes of the Same System: A Case Study on the Fully Autonomous Aerial Rescue System ROLFER , **7th European STAMP Workshop & Conference,** 18 - 20 September 2019, Helsinki

7. Vasileios Kokkinos, Apostolos Zeleskidis, Olympia Koumortzi, Ioannis M. Dokas, and Basil Papadopoulos, (2019), A Mathematical Model for Real-time Safety Level Calculation: An application, **7th European STAMP Workshop & Conference**, 18 - 20 September 2019, Helsinki

6. Sophia Trantza, Brian Edwards, Ioannis Dokas, Sherael Webley (2018), CAST analysis of UK pregnancies reported during/after isotretinoin administration. Proposal for application in a global safety study, **6th European STAMP Workshop & Conference**, 31 October-2 November 2018, Amsterdam

5. Lygouras Eletherios, Ioannis M. Dokas, Konstantions Andritsos, Konstantinos Tarchanidis and Antonios Gasteratos (2017), Identifying Hazardous Emerging Behaviors in Search and Rescue Missions With Drones: A Proposed Methodology, **The Forth International Conference on Information Systems for Crisis**

Response and Management in Mediterranean Countries (ISCRAM-med 2017), 18-20 October, Xanthi, Greece

4. Zacharaki Aggeliki, Ioannis Kostavelis and Ioannis M. Dokas (2017), Towards Developing Dependable Systems Suitable for Crisis Management Applications, **The Fourth International Conference on Information Systems for Crisis Response and Management in Mediterranean Countries (ISCRAM-med 2017)**, 18-20 October, Xanthi, Greece

3. Chatzimichailidou Maria Mikela, Stefanos Katsavounis and Ioannis M. Dokas (2015), A Measure of Systems Self-Awareness, **The 12th International ISCRAM Conference**, 24-27 May, Kristiansand, Norway

2. Chatzimichailidou Maria Mikela and Ioannis M. Dokas (2015), Comparing Sensors' Characteristics on a Robotic System: The EWaSAP Results Against Designers' Non-Theoretical Approaches**, Fourth MIT STAMP/STPA Workshop**, March 23-26 MIT, Cambridge, MA USA

1. Chatzimichailidou Maria Mikela, Stefanos Katsavounis and Ioannis M. Dokas (2015), Measuring the Situation Awareness Provision Capability in Complex Socio-Technical Systems with STAMP, **Fourth MIT STAMP/STPA Workshop, March 23-26 MIT**, Cambridge, MA USA

F. Technical Reports

4. Dokas I.M. (2009), Safety Approaches in Water Utilities and Systems Safety Engineering: A Comparison, **Cork Constraint Computation Centre Technical Report - TR 02-09-01-01**, Cork 2009

3. Dokas I.M. (2008), Early Warning Systems: Views and Application Domains, **A report submitted to the Irish Environmental Protection Agency in conformity with the specifications of the research project Supporting the Concept of Early Warning Analysis – SCEWA**, September 2008

2. Dokas I.M. (2008), On the Role of Knowledge Representation in Decision Support Systems, **CREEDS Report**, Deliverable in Conformity with the Specification of the Marie Currie Transfer of Project CREEDS, January 2008 (submitted to EU)

1. Dokas I. and A. Alapetite (2006), A Development Process Meta-Model For Web-Based Expert Systems: The Web Engineering Point of View, **Report Risø** – R-1570(EN). (http://www.risoe.dk/rispubl/SYS/ris-r-1570.htm)

G. Papers in Peer-Reviewed International Workshops

4. Imran S., I.M. Dokas, J. Feehan, F. Foping (2010), A New Application of Domain-Specific Modelling Towards Implementing an Early Warning Service, **Proceedings of MDA & MTDD 2010, 2nd International Workshop on Model-Driven Architecture and Modelling Theory-Driven Development in Conjunction with ENASE**, 22-24 July Greece

3. Dokas I. M., R. J. Wallace and T. E. Nordlander (2007), Fuzzy Fault Tree Representation and Maintenance based on Frames and Constraint Technologies: A Case Study, **Workshop on Knowledge Capture and Constraint Programming (KCAP 2007)**, October 28-31, Whistler BC, Canada (http://4c.ucc.ie/creeds/downloads/workshop/KCCP-2007%20Dokas-Nordlander-Wallace.pdf)

2. Wallace R. J., T. E. Nordlander, and I. M. Dokas (2007), Ontologies as Contexts for Constraint-Based Reasoning, **The Third International Workshop on Contexts and Ontologies: Representation and Reasoning (C&O:RR-2007)**, CONTEXT Workshop, August 21, Program, Roskilde University, Denmark, pp 76-77

1. Statheropoulos M., I. Dokas and S. Karma (2005), Risk assessment of forest fire smoke, using Cause-Problem-Symptom Analysis, **Forest Fire Net** Vol 4 pp 126-137, Special issue with the Proceedings of the

workshop: **"Air-quality monitoring in the field and personal protective equipment in big forest fire incidents: a state-of-the art and beyond"** Paris, 12-13 of December 2005

H. Poster Papers

5. Trantza Sophia, Edwards Brian, Dokas Ioannis, Webley Sherael (2018), *"Cast Analysis Of Uk Pregnancies Reported During/After Isotretinoin Administration. Proposal For Application In A Global Safety Study"*, **International Society of Pharmacovigilance, 18th Annual Meeting**, 11-14 November 2018 CICG, Geneva, Switzerland

4. Edwards Brian, Bernard Bégaud, Esther Daemen, Ioannis Dokas, Jonathan M. Fishbein, Howard Greenberg, et. all., (2017), *"A call to incorporate systems theory and human factors into the existing investigation of harm in clinical research involving healthcare products"*, **EUFEMED Conference**, 18th – 19th May 2017.

3. Imran S., I. M. Dokas, J. Feehan, F. Fopping (2010), *"Towards Domain-Specific Modeling Approach in Early Warning Systems"*, **7th International Conference on Information Systems for Crisis Response and Management**, Proceedings in CD, May 2-5 Seattle USA

2. Dokas I.M. and A. Alapetite (2006) *"A View on the Web Engineering Nature of Web-Based Expert Systems"*, **ICSOFT 2006 International Conference on Software and Data Technologies,** 11-14 September 2006, Setubal, Portugal

1. Dokas I. M. and D. C. Panagiotakopoulos (2005), *"A Methodology to Determine the Causes of Operational Problems in Solid Waste Management Facilities"*, **HELLECO 05 5th Environmental Technology International Conference and Exhibition**, 3 - 6 February 2005, Athens, Greece (In Greek - Proceedings in CD)

I. National (Greek) Conferences

4. Kafoutis G. and Dokas I.M. (2019), " Improving Natural and Technological Disaster Management Plans: Applying S.T.E.C.A. to forest fires evacuation plans ", **2nd Hellenic Conference on Health and Safety at Work**, 18 & 19 November, Athens Concert Hall, Athens Greece (In Greek)

3. I. M. Dokas, K. Yakinthos and A. Gasteratos (2016), "UAV Safety Requirements: Is a Systems Theoretic Approach Useful?, 4th 4th Aviation Conference **: Today's and Tomorrow's Air Transport**, 10-11 May, Athens, Greece

2. I. M. Dokas, D. A. Karras and D. C. Panagiotakopoulos (2001), *"Expert Systems Applications in Solid Waste Management"*, **14th Conference of the Hellenic Association of Operations Research**, Xanthi, Greece (In Greek)

1. I. Dokas, V. Aibaliotis and D. Panagiotakopoulos (1998), *"Optimization in Daily Landfill Cell Design"*, **12th Conference of the Hellenic Association of Operations Research**, Samos, Greece (In Greek)