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Chairs' Welcome

Welcome to the Smart Digital Futures 2019 (SDF-19) multi-theme conference, held at the Intercontinental Hotel, St Julian's, Malta, 17-19 June 2019.

SDF-19 is an amalgamation of six KES conferences: Agent and Multi-Agent Systems - Technology and Applications (KES-AMSTA-19), Intelligent Decision Technologies (KES-IDT-19), Intelligent Interactive Multimedia Systems and Services (KES-IIMSS-19), Innovation in Medicine and Healthcare (KES-InMed-19), Smart Education and e-Learning (KES-SEEL-19) and Smart Transportation Systems (KES-STS-19).

Although the conferences share a common venue, and social programme, and each one has its own chair and international programme committee. The best papers presented at the conference were published in several volumes of proceedings by Springer-Verlag. Delegates registered for SDF-19 may attend sessions from any of the conferences and mix with the communities of the others.

Smart Digital Futures was organised as part of the KES International conference portfolio. For over a decade the mission of KES International has been to provide a professional community, networking and publication opportunities for all those who work in knowledge-intensive subjects. At KES we are passionate about the dissemination, transfer, sharing and brokerage of knowledge. The KES community consists of several thousand experts, scientists, academics, engineers, students and practitioners who participate in KES activities. KES runs conferences in different countries of the world on leading edge topics including Intelligent Systems, Sustainability in Energy and Buildings, Innovation, Knowledge Transfer and Enterprise, and Digital Media. KES provides routes to publication, such as journals, book series, and online publications, both through its own media and in conjunction with major publishers. KES also provides knowledge transfer services and consultancy.

The aim of Smart Digital Futures was to bring together researchers working at the leading edge of developments in smart systems and intelligent technology theory and applications. This programme contains over approximately 240 papers, each selected after full peer review by members of the International Programme Committees of the conferences.

We thank the five keynote speakers for providing informative accounts of the latest research in their areas: Prof. Koichi Asakura, Daido University (title of talk 'Data Acquisition, Analysis, and Sharing for Evacuation in Natural Disasters'); Prof. Sheryl Brahmam, Missouri State University, USA (title of talk 'Building general-purpose (GP) ensemble systems with heterogeneous ensembles and deep learners'); Prof. Irek Czarnowski, Gdynia Maritime University, Poland (title of talk 'Data reduction for

machine learning and Big data’); Prof. Xiaobo Qu, Chalmers University of Technology, Sweden (title of talk ‘Future transport systems for smart urban mobility’); and Prof. Eiji Uchino, Yamaguchi University, Japan (title of talk ‘Soft computing-based intelligent diagnosis of arteriosclerosis - coronary arteries and retinal vessels’).

We thank the General Chairs and Programme Chairs of the SDF-19 conferences for their hard work and dedication. We appreciate the efforts of those organising and chairing special sessions, members of the International Programme Committees and reviewers and we thank them. We are grateful to authors for the papers they have contributed to the conference, and to delegates for their attendance and we give them our thanks. Finally we thank the conference administration for their organisational efforts, and the people of island of Malta for welcoming us.

R.J. Howlett and L.C. Jain

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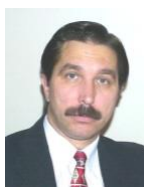
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Prof. Manuel Penedo	Center on Information and Communication Technologies (CITIC), Spain
Prof. Dorin Popescu	University of Craiova, Romania
Dra. Hilda Beatriz Ramirez Moreno	Universidad Autónoma de Baja California, Mexico

Name	Affiliation
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Dra. Esperanza Manrique Rojas	Universidad Autonoma de Baja California, Mexico
Dr. John Ronczka	SCOTTYNCC Independent Research Scientists, Australia
Prof. Yves Rybarczyk	Universidade de Las Américas, Portugal
Prof. Dr. Virgilijus Sakalauskas	Vilnius University, Lithuania
Assoc. Prof. Catalin Stoean	University of Craiova, Romania
Assoc. Prof. Ruxandra Stoean	University of Craiova, Romania
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Prof. Kazuyoshi Tagawa	Aichi University of Technology, Japan
Prof. Satoshi Tanaka	Ritsumeikan University, Japan
Prof. Athanasios V. Vasilakos	National Technical University of Athens, Greece
Prof. Junzo Watada	Universiti Teknologi Petronas, Malaysia
Prof. Yoshiyuki Yabuuchi	Shimonoseki City University, Japan
Prof. Shuichiro Yamamoto	Nagoya University, Japan
Prof. Hiroyuki Yoshida	Massachusetts General Hospital and Harvard Medical School, USA

SEEL-19

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STS-19

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Dr. Changfu Zou	Chalmers University of Technology, Sweden

Social Events

Poolside Drinks Reception

Sunday 16th June 2019

Join us for a welcome cocktail and light snack, a chance to register early for the conference, collect your programme and meet the conference team as we all gather in the stunning 5*



Intercontinental Hotel, Malta for a poolside drinks reception with beautiful sea views.



This event is open to all conference delegates and included in your conference fee.

Timings please see the website for details.

Social Excursion

Monday 17th June 2019

Valletta is Malta's capital City and a World Heritage site and is nothing short of an open-air museum!

Our trip is a guided walking tour in Valletta ending with local food of Pastizzi, local snacks and local beer/soft drinks. (Transport to and from Valetta from the conference venue will be provided.)



Valetta is a living experience of Baroque architecture, a monument donated by the Knights

of St John nearly five centuries ago and so much more. Throughout the years, Valletta has welcomed emperors, heads of state, artists and poets and is now the permanent seat of the Maltese government.

Dotted with quaint cafes and wine bars, the city is today one of Malta's main tourist attractions, hosting among others, the majestic St John's co-cathedral, the imposing bastions and a treasure of priceless paintings.

It also provides a stunning snapshot of Malta's Grand Harbour, often described as the most beautiful in the Mediterranean.

Our excursion includes amongst others, a visit to the Upper Barrakka Gardens, possessing unsurpassed views of the Grand Harbour and Three Cities, the Auberge de Castille which now houses the offices of the Prime Minister, have a look at the Grandmaster's Palace, and St John's Co-Cathedral. This is a gem of Baroque art and architecture built as the conventual church for the Knights of St. John. The Grand Masters and several knights donated gifts of high artistic value and made enormous contributions to enrich it with only the best works of art.

Price: €45 per person / timings please see the website for details.

Gala Dinner - Bacchus - Mdina by night!**Tuesday 18th June 2019**

Join us at the annual conference gala dinner at Bacchus Restaurant in the Old Mdina, Malta.

This restaurant is located in the ex-gunpowder store in the fortified walls of the ancient city of Mdina in Malta. The structure of the building, the massive walls and the arched vaulted ceilings make this a memorable visit. The varied and delicious haute cuisine combined with the soft and romantic atmosphere are further enhanced by the excellent service making this an ideal setting for a dinner.



Also, take this chance to see Mdina by night! The history of Mdina traces back more than 4000 years.

Lamp lit by night and referred to as "the silent city", Mdina is fascinating to visit for its timeless atmosphere as well as its cultural and religious treasures.

Mdina is one of Europe's finest examples of an ancient walled city and extraordinary in its mix of medieval and baroque architecture.

The evening also encourages social interaction and networking with your colleagues from around the globe! The conference gala dinner will take place on the evening of Tuesday 18th June for those with Full Registration or who have purchased a ticket. Additional dinner tickets can be purchased through your registration on line or at the registration desk.

Return transport will be provided for the Dinner.

Price: €80 per person / timings please see the website for details.

European Cooperation in Science and Technology (COST)

COST is an EU-funded programme which enables the creation of interdisciplinary research networks in Europe and beyond. It was created in 1971 and is currently supported by 38 Members and 1 Cooperating Member. Through its **funding of research networks** and with approximately **45.000** researchers and innovators with different expertise involved in COST Actions and widespread all over the world, COST contributes to the competitiveness of the European Research Area.

What makes COST different from other funding programmes is its **bottom-up approach**, its **flexibility** and its **openness to all kinds of scientific and technological horizons**: the research priorities, the investigation of new themes, the formulation of new questions and new approaches, are all defined by the research community working together, to which other stakeholders from the civil, political and industrial societies are invited to join. The selection procedure for the **COST Open Call** especially encourages the interdisciplinary themes.

COST is actively participating in Smart Digital Futures 2019 with a session showcasing three COST Actions spanning from 3-D organ printing (CA16119) to digital forensics (CA17124) and smart education – language learning with crowdsourcing techniques (CA16105). COST Action representatives will present the scientific activities and achievements of their Actions. The session will also give participants the opportunity to learn about the COST programme and how to obtain and benefit from COST funding.

COST speakers:

Federica Ortelli, Science Officer;

Janet Mifsud, CNC Malta; Lionel Nicolas, Action Chair CA16105;

Manuel Ojeda-Aciego, Action Working Group Leader CA17124;

Tiziana Brevini, Action Chair CA16119.

This session also encourages social interaction and networking time with the COST team.

Keynote Talks

Prof. Koichi Asakura

Daido University, Japan

Data Acquisition, Analysis, and Sharing for Evacuation in Natural Disasters

Abstract: Japan is known as an earthquake-prone country. Many local governments in Japan provide evacuation information in consideration of potential earthquakes, such as location information on shelters, seismic intensity, and so on. In order to achieve fast and effective evacuation, up-to-the-minute information on disaster areas must be provided to evacuees. In this talk, we present methods for supporting data acquisition, data analysis, and information sharing in disaster areas based on software and network technologies. We focus on evacuation for earthquakes in Japan. For data acquisition, we present a method for collecting positional information on immovable evacuees by technologies on mobile sensor networks and mobile ad-hoc networks. For data analysis, we present a method for constructing navigational maps for evacuees in which safe roads for evacuations are provided in real-time. Finally, for information sharing, we propose a communication method for sharing navigational maps. In disaster areas, infrastructure networks for mobile phones and the like might be unusable due to malfunction or heavy load. Thus, a hybrid communication method using both infrastructure and mobile ad-hoc networks is proposed.



Biography: Koichi Asakura received his Dr.Eng. degree in Information Engineering from Nagoya University in 2002. He is a Professor in the Department of Information Systems, School of Informatics, at Daido University, Japan. His research interests include distributed/parallel processing, mobile ad-hoc networks, disaster information sharing systems, and programming learning support systems. He is a member of ACM, KES International, the

Information Processing Society of Japan, and the Institute of Electronics, Information and Communication Engineers of Japan. He is also an associate editor of the International Journal of Knowledge and Web Intelligence.

Prof. Sheryl Brahn

Missouri State University, USA

Building general-purpose (GP) ensemble systems with heterogeneous ensembles and deep learners

Abstract: Until rather recently, the trend in machine learning (ML) has been primarily focused on building optimal classification systems for very specific and well-defined problems. Research centered on building generic ML systems robust enough to tackle diverse types of data and a large variety of different problems has been curtailed, in part, by Wolpert's famous "no free lunch" (NFL) theorem, which claims, in effect, that it is impossible to develop a stand-alone classifier that works well across each possible problem. In this address, I will describe some cutting-edge research by an international group (from the University of Padua, Università di Bologna, and Missouri State University) that is pushing against the NFL theorem. Our vision of an ideal GenP system is one that would work well straight out of the box, require little to no parameter tuning, yet would still perform competitively against (if not better than) less flexible systems that have been optimized for very specific problems and datasets. In this talk, I will provide a review of some of our recent successes and limitations building GenP systems (mostly medical) for computer vision classification. and present some new results produced for this conference.



Biography: Sheryl Brahn is a Professor and Daisy Portenier Loukes Research Fellow in the school of COB Computer Information Systems Department at Missouri State University. She is the Director/Founder of Missouri State University's infant COPE (Classification of Pain Expressions) project. Her interests focus on medical decision support systems, machine learning, bioinformatics, and biometrics. She has served as guest editor of several books and special issues on virtual reality and

rehabilitation, technologies for inclusive well-being, smart sensors, and computational systems for medicine. She has published extensively in such journals as Bioinformatics, Pattern Recognition, Artificial Intelligence in Medicine, Amino Acids, Journal of Theoretical Biology, Expert Systems with Applications, Decision Support Systems, NeuroComputing, PLoS One, and Interacting with Computers, as well as in many conferences devoted to human-computer interaction, machine learning, and artificial intelligence. More about Sheryl Brahn can be found here: <http://www.brahn.info>

Prof. Irek Czarnowski

Gdynia Maritime University, Poland

Data reduction for machine learning and Big data

Abstract: Since traditional techniques used for analytical processing are not fit to effectively deal with the massive datasets, searching for a new and better techniques, methods and approaches suitable for big data mining is a hot area for the machine learning community. In my talk I will consider data reduction as a technique allowing to reduce the dimensionality curse and to deal with large data sets and to classify instances belonging to big datasets. Data reduction techniques aim at decreasing the quality of information required to learn a good quality classifiers. The data reduction process aims at identifying and eliminating irrelevant and redundant information. A lot of research work confirms that data reduction through instance or attribute or instance and attribute can play a pivotal role in building robust learning model. In the big data era the task it is not trivial and much more complicated than normal-sized data analytics. In my talk I will provide an overview of selected example data reduction algorithms and which have been developed during my researches.



Biography: Ireneusz Czarnowski is a graduate of the Faculty of Electrical Engineering at Gdynia Maritime University in 1997. He gained the doctoral degree in the field of computer science in 2004 at Faculty of Computer Science and Management of Poznań University of Technology. In 2012, he earned a postdoctoral degree in the field of computer science in technical sciences at Wrocław University of Science and Technology. Since 1998 is associated with Gdynia Maritime University, currently is an professor of computer

science in the Department of Information Systems at Faculty of Entrepreneurship and Quality Science. Now, he is a Vice Rector for Scientific Research and Development at Gdynia Maritime University.

His main research interests are related to the use of artificial intelligence methods in decision support systems and data mining. His research activity is concerned with machine learning, data reduction for machine learning and data mining. His scientific work also focuses on research in the field of optimization methods and applications of agent systems. Within the field of his interest, he has published, as the author and co-author, more than 100 scientific works, including 15 which appeared in ISI Master Journal List, chapters in scientific monographs, three monographs and several other publications. He has been also the leader of ten research projects and took part in research in five other projects. He is also an editorial board member of the Journals of Knowledge-Based and Intelligent Engineering Systems as well as co-editor several special issues of international journals.

He has been serving as chair or co-chair of programme committee of above 10 international conferences, and served as PC member on more than 40 conferences during the last 3 years. He was co-organizer of several International Conferences and has been co-editor conference proceedings published by Springer and IEEE.

He is also a member of IEEE and, since 2016, he is the Secretary of the Polish branch of IEEE System, Man and Cybernetics and a member of other scientific associations.

Prof. Xiaobo Qu

Chalmers University of Technology, Sweden

Future transport systems for smart urban mobility

Abstract: Fully realising the fact that our urban mobility systems will be undergoing a revolutionary change, many nations have invested huge amount of money in this area for emerging technologies, notably connected and automated vehicles (CAVs). In this research, we will explore the adaptation between traffic flow dynamics and transport infrastructure by designing proper trajectory control mechanism. Two control paradigms are examined: decentralized control is more likely to lead to local optimum instead of system optimality, while the centralized control has questionable applicability to real world practices in real time. In this research, we propose a decentralized control framework that is able to reach near system optimality. In the control framework, we will first develop a real-time control framework that is able to deal with how a vehicle ought to take actions in an environment so as to maximize its long-term performance based on the obtained output in a centralized bi-level model. The algorithms of optimal control attempt to find a (control) strategy that is able to select the optimal actions (i.e. speeds/vehicle operational parameters). CAVs will firstly be trained in an offline environment to learn how they ought to behave based on the output from the centralized bi-level models. The training results will then be used in real-time decentralized control that is able to give a satisfactory output in real-time.



Biography: Xiaobo Qu is a Professor and Chair of urban mobility systems in the Department of Architecture and Civil Engineering, Chalmers University of Technology in Sweden. Throughout his academic career, he has been endeavoring to practically improve transport safety, efficiency, equity, and sustainability through traffic flow modelling, network optimization, and most recently emerging technologies. In particular, his research has been applied to improvement of emergency services, operations of electric

vehicles and connected automated vehicles, and management of vulnerable road users. He has authored or co-authored over 90 journal articles published at top tier journals in the area of transport engineering, and he is a recipient of many prestigious awards. His research has been supported by Australian Research Council Discovery Programme, Queensland Department of Transport and Main Roads, Sydney Trains, National Natural Science Foundation of China, Swedish Innovation Agency Vinnova, and European Union. In the past five years, as a principal investigator or co-principal investigator, he has secured research funding well above 5 million Euros from these funding agencies. Professor Qu is now an Associate Editor/Editorial Board Member for IEEE Trans on

Cybernetics, IEEE ITS Magazine, Journal of Transportation Engineering ASCE, Transportation Research Part A, etc.

Prof. Eiji Uchino

Yamaguchi University, Japan

Soft computing-based intelligent diagnosis of arteriosclerosis - coronary arteries and retinal vessels -

Abstract: Arteriosclerosis is a main cause of cardiac infarction and/or cerebral infarction. Many people in the world are suffering from those diseases. In this keynote, I will provide an overview of our recent studies on soft computing-based intelligent diagnosis of arteriosclerosis. Most causes of acute coronary syndromes (ACS) are the rupture of coronary plaque. Intravascular ultrasound (IVUS) method is one of the techniques to acquire information about atherosclerotic plaque, which enables characterization of coronary plaque. In order to assess a potential risk of plaque rupture, identification of plaque structure is important. The eye fundus is the only region where we can directly observe the blood vessels in the human body. By observing the state of the blood vessel on the eye fundus, medical doctors can diagnose the degree of arteriosclerosis of retinal blood vessel. The brain and the eye are embryologically the same organ, and thus the risk of arteriosclerosis of cerebrovascular vessels, can be estimated, which is our main purpose. The progress of arteriosclerosis can be predicted by a newly proposed objective measure of arteriosclerosis of vessel. In this talk, the prototype screening system to diagnose automatically the degree of arteriosclerosis of retinal vessel is introduced.



Biography: Eiji Uchino is a Professor of the Graduate School of Science and Technology for Innovation, Yamaguchi University, Japan. He is the Head of the Department of Physics and Informatics, Faculty of Science, and the Chair of the Division of Fundamental Sciences, Graduate School. He is also the Chairman of the Board of Directors at the Fuzzy Logic Systems Institute (FLSI) founded in 1990 under the authorization by Ministry of Education and Ministry of International Trade and Industry of Japan. He was a Visiting Professor with the Aachen

Institute of Technology (RWTH), Germany, with the University of Bristol, UK, and with Otago University, NZ. His research interests include human brain-based information processing system, AI-based signal and image processing, and their applications, e.g., to Healthcare Systems. He gave about 30+ invited talks at the international conferences including Plenary Talk, Panel Talk, Keynote and Distinguished Lecture. He received the best paper awards, distinguished technical awards, and other awards from many international conferences, journals and organizations. He served as a committee chair/member of 200+ international conferences, and as Member of Editorial Board, Board of Reviewers of academic journals. He is the author of 300+ published papers,

20+ book chapters, and has 20+ patent applications, and is the leader of 40+ projects funded by the Japan Society for the Promotion of Science (JSPS), etc. Professor Uchino is an Honorary Member of the Ukrainian Academy of Sciences since 2002.

Schedule – Sunday 16 June

Time: please see the website	Early Registration
	Drinks Reception Intercontinental Hotel

Schedule – Monday 17 June

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2	Breakout 7 Palm Suite 3
8.00- 9.15	Registration							
9.15- 9.30	Opening Ceremony Prof Robert J Howlett & Prof Lakhmi Jain							
9.30- 10.30	Keynote Speaker 1 Prof. Xiaobo Qu Chalmers University of Technology, Sweden Future transport systems for smart urban mobility Chair: TBC							
10.30- 11.00	Coffee							

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2	Breakout 7 Palm Suite 3
11.00-13.00	IDT 1 General Track Chair: Ireneusz Czarowski	SEEL 1 Welcome address & Smart Education Chair: Dr. Vladimir Uskov	STS 1 Keynote for STS/ Future Transport Chair: Xiaobo Qu	InMed 1 Advanced ICT for Medicine and Healthcare 1 Chair: Yen-Wei Chen	AMSTA 1 Agent Communication and Architectures Chair: Prof. Mario Kusek	IIMSS 1 General Track & Intelligent and Interactive Services Chair: Alfred Zimmermann & Rainer Schmidt	STS 2 Maritime Transport Chair: Professor Tingsong Wang	IDT 2 Digital Health, Distance Learning and Decision Support for eHealth (IS15) Chair: Ralf Seepold and Margarita Stankova
13.00-14.00	Lunch							
14.00-15.00	Keynote Speaker 2 Prof. Sheryl Brahnam Missouri State University, USA Building general-purpose (GP) ensemble systems with heterogeneous ensembles and deep learners Chair: TBC							
15.00-15.30	Coffee							

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2	Breakout 7 Palm Suite 3
15.30-17.30	IDT 3 Data Selection in Machine Learning (IS16) and Intelligent Data Processing and Software Paradigms (IS02) Chair: Ireneusz Czarnowski and Margarita Favorskaya	SEEL 2 Session Title: The First International Student Competition in Smart Education and e-Learning (SEEL) area Chair: Dr. Vladimir Uskov	IDT 4 Interdisciplinary Approaches in Data Science and Digital Transformation Practice (IS13) Chair: Ralf-Christian Harting and Ivan Lukovic	European Cooperation in Science and Technology (COST) Speakers: Federica Ortelli, Janet Mifsud, Lionel Nicolas, Manuel Ojeda-Aciego & Tiziana Brevini	AMSTA 2 Multi-Agent Systems Chair: Prof. Jessica Chen-Burger	InMed 2 Advanced ICT for Medicine and Healthcare 2 Chair: Xu Qiao	IIMSS 2 Real-Time Image and Video Processing in Industrial and IoT Applications using Big Data Analytics Chair: Alfred Zimmermann	STS 3 Traffic Flow Chair: Yang Yu
Time: please see the website	Social Trip Walking tour in Valletta							

Schedule – Tuesday 18 June

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2
8.30-9.30	Registration						
9.30-10.30	Keynote Speaker 3 Prof. Ireneusz Czarnowski Gdynia Maritime University, Poland Data reduction for machine learning and Big data Chair: TBC						
10.30-11.00	Coffee						

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2
11.00-13.00	IDT 5 Decision Techniques for Data Mining, Transportation and Project Management (IS01) and Decision Support Systems (IS11) Chair: Piotr Jędrzejowicz and Wojciech Froelich	SEEL 3 Smart e-Learning (Part 1) Chair: Dr. Blanka Klimova	SEEL 4 Smart Education: Systems and Technology Chair: Dr. Olivier Bonnaud	InMed 3 Advanced ICT for Medicine and Healthcare 3 Chair: Jingbing Li	AMSTA 3 Agents and MAS applied to Well-being and Health Chair: Dr Maria Rosario Baltazar Flores	IIMSS 3 Autonomous Systems Chair: Milan Simic	STS 4 Traffic Operations Chair: Jian Zhang
13.00-14.00	Lunch						
14.00-15.00	Keynote Speaker 4 Prof. Koichi Asakura Daido University, Japan Data Acquisition, Analysis, and Sharing for Evacuation in Natural Disasters Chair: TBC						
15.00-15.30	Coffee						

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2
15.30-17.30	IDT 6 Large-Scale Systems for Intelligent Decision Making and Knowledge Engineering (IS07) Chair: Sergey V. Zykov	SEEL 5 Smart e-Learning (Part 2) Chair: Dr. Haya Shamir	IDT 7 Intelligent Decision Support in Cybersecurity (IS05) Chair: Leslie F. Sikos	InMed 4 Biomedical Engineering, Trends, Research and Technologies Chair: Esperanza Manrique Rojas	AMSTA 4 Agent-based Modeling and Simulation Chair: Prof. Roman Šperka	SEEL 6 Smart Pedagogy Chair: Dr. Danguole Rutkauskiene	STS 5 Road Users Chair: Yang Yu
Meeting time: please see the website	Conference Gala Dinner Bacchus Restaurant in the Old Mdina						

Schedule – Wednesday 19 June

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2
9.00-9.30	Registration						
9.30-11.30	IDT 8 Decision Support Systems (IS11) Chair: Wojciech Froelich	SEEL 7 Smart Education - Case Studies and Research Chair: Dr. Petra Poulova	IDT 9 Decision Making Theory for Economics (IS03) Chair: Takao Ohya	InMed 5 Digital IT Architecture in Healthcare Chair: Yoshimasa Masuda	AMSTA 5 Business Informatics Chair: Prof. Hiroshi Takahashi & Prof. Setsuya Kurahashi	IDT 10 Intelligent Data Processing and Software Paradigms (IS02) Chair: Margarita Favorskaya and Mikhail Sergeev	SEEL 8 Mathematical Modelling of Smart Education and Economics of Smart University (Part 1) Chair: Dr. Natalia A. Serdyukova
11.30-12.00	Coffee						
12.00-13.00	Keynote Speaker 5 Prof. Eiji Uchino Yamaguchi University, Japan Soft computing-based intelligent diagnosis of arteriosclerosis - coronary arteries and retinal vessels - Chair: TBC						
13.00-14.00	Lunch						

	Plenary Room Cettina DeCesare 1 & 2	Breakout 1 Cettina DeCesare 3	Breakout 2 Jupiter	Breakout 3 Saturn 1	Breakout 4 Saturn 2	Breakout 5 Palm Suite 1	Breakout 6 Palm Suite 2
14.00-16.00	IDT 11 Signal Processing and Pattern Recognition for Decision Making Systems (IS10) Chair: Paolo Crippa	SEEL 10 Mathematical Modelling of Smart Education and Economics of Smart University (Part 2) Chair: Dr. Natalia A. Serdyukova	IIMSS 4 Innovative Information Systems for Advanced Knowledge Activity Chair: Koichi Asakura	InMed 6 Healthcare Support System Chair: Te-Min Chang	AMSTA 6 MAS in Transportation Systems Chair: Dr. Mahdi Zargayouna	SEEL 9 Students with Disabilities and Smart Education/University Chair: Dr. Jeffrey P. Bakken	IDT 12 Big data and knowledge-based health care management (IS12) Chair: Lindu Zhao
16.00-16.30	Coffee						
16.30	Closing Ceremony						

AMSTA Paper Presentations

AMSTA-1

Monday 17 June, 11.00-13.00

Saturn 2

AMSTA-1: Agent Communication and Architectures

Chair: Prof Mario Kusek

PROSE Paper No	Paper Title / Authors
ams19-009	Enforcing Social Semantic in FIPA-ACL using SPIN Gan Kim Soon, Patricia Anthony, Kim Chin On, and Abdul Razak Hamdan
ams19-010	An Agent-oriented Group Decision Architecture Liang Xiao
ams19-017	Context-Aware Service Orchestration in Smart Environments Renato Soic, Marin Vukovic, Pavle Skocir, and Gordan Jezic
ams19-018	A Proposal of Evacuation Support System with Redundancy by Using Multiple Mobile Agents Itsuki Tago, Naoto Suzuki, Tomofumi Matsuzawa, Munehiro Takimoto, and Yasushi Kambayashi
ams19-022	From Thing to Smart Thing: Towards An Architecture for Agent-Based Aml Systems Carlos Eduardo Pantoja, Jose Viterbo, and Amal El-Fallah Seghrouchni
ams19-028	Automatic Clustering of User Communities A System Architecture Matteo Cristani, Michele Manzato, Simone Scannapieco, and Amal El-Fallah

AMSTA-2
Monday 17 June, 15.30-17.30
Saturn 2

AMSTA-2: Multi-Agent Systems

Chair: Prof. Prof. Jessica Chen-Burger

PROSE Paper No	Paper Title / Authors
ams19-002	An Optimization Approach for Consensus in Multi-Agent Systems Carlos R.P. dos Santos Junior, Jose Reginaldo H Carvalho, and Heitor J. Savino
ams19-003	A Multi-agent Model for Cell Population Fernando Arroyo, Victor Mitrana, Andrei Paun, and Michaela Paun
ams19-016	Improving Water Allocation using Multi-Agent Negotiation Mechanisms Kitti Chiewchan, Patricia Anthony, K.C. Birendra, and Sandhya Samarasinghe
ams19-019	A Multi-Agent System with Self-Optimization for Automated Clustering (MASAC) Manuella Kadar, Maria Viorela Muntean, and Tudor Csabai
ams19-026	Web Literature, Authorship Attribution and Editorial workflow Ontologies Matteo Cristani, Francesco Oliveri, Claudio Tomazzoli, and Margherita Zorzi

AMSTA-3

Tuesday 18 June, 11.00-13.00

Saturn 2

AMSTA-3: Agents and MAS applied to Well-being and Health

Chair: Dr Maria Rosario Baltazar Flores

PROSE Paper No	Paper Title / Authors
ams19-032	Multiagent complex system for identifying characteristics and personality types and their relationship in the student motivation process Margarita Ramirez Ramirez, Felipe Lara Rosano, Ricardo Fernando Rosales Cisneros, Esperanza Manrique Rojas, Hilda Beatriz, Ramirez Moreno, and Gonzalo Maldonado Guzman
ams19-031	Towards a social simulator based on agents for management of the knowledge base for the strengthening of learning competences Consuelo Salgado, Ricardo Rosales, Felipe Lara-Rosano, Sergio Vazquez, and Arnulfo Alanis Garza
ams19-005	Use of Intelligent Agent through Low-Cost Brain-Computer-Interface to Analyze Attention and Meditation Levels by Gender Bladimir Serna, Rosario Baltazar, Pedro Cruz-Parada, Jorge Meza, Juan Manriquez, and Victor Zamudio
ams19-006	System development for automatic control using BCI Antonio Meza, Rosario Baltazar, Miguel Casillas, Victor Zamudio, Francisco Mosino, and Bladimir Serna
ams19-007	Medical diagnostic through a mobile application controlled by brain waves: ConsultApp Bladimir Serna, Rosario Baltazar, Miguel Casillas, Yesica Saavedra, Arnulfo Alanis, and Antonio Meza
ams19-008	A Hierarchical Agent Decision Support Model and Its Clinical Application Liang Xiao

AMSTA-4

Tuesday 18 June, 15.30-17.30

Saturn 2

AMSTA-4: Agent-based Modeling and Simulation

Chair: Prof. Roman Šperka

PROSE Paper No	Paper Title / Authors
ams19-023	Comparative Study of Bio-Inspired Algorithms Applied to Illumination Optimization in an Ambient Intelligent Environments Wendoly J. Gpe Romero-Rodriguez, Rosario Baltazar, Victor Zamudio, Miguel Casillas, and Arnulfo Alaniz
ams19-033	Towards a model of management processes to support or increase the competitiveness of a university professor Nora Osuna-Millan, Ricardo Rosales, Feilpe Lara-Rosano, and Arnulfo Alanis Garza
ams19-012	Messaged Multi-agent System as a Tool for Strengthening Innovative Capabilities of Business Models Michal Hala ska and Roman Šperka
ams19-001	Information Modelling of the Storage-Distribution System Robert Bucki and Petr Suchanek
ams19-004	JADE Modeling for Generic Microgrids Guillaume Guerard and Hugo Pousseur

AMSTA-5

Wednesday 19 June, 9:30-11.30

Saturn 2

AMSTA-5: Business Informatics

Chairs: Prof. Hiroshi Takahashi & Prof. Setsuya Kurahashi

PROSE Paper No	Paper Title / Authors
ams19-037	An Agent-based Infectious Disease Model of Rubella outbreaks Setsuya Kurahashi
ams19-036	Analysis of the Effect of Financial Regulation on Market Collapse Process in Financial Network Takamasa Kikuchi, Masaaki Kunigami, Takashi Yamada, Hiroshi Takahashi, and Takao Terano
ams19-038	Causal Analysis of the Effect on Performance of Start-ups from External Supporting Activities Hiroataka Yanada and Setsuya Kurahashi
ams19-039	Analysis of workstyle and self-learning to raise human capital Ryuichi Okumura and Hiroshi Deguchi
ams19-040	Study on Popularization of QR code settlement in Japan Tietie Chen and Yoko Ishino

AMSTA-6
Wednesday 19 June, 14.00-16.00
Saturn 2

AMSTA-6: MAS in Transportation Systems

Chair: Dr. Mahdi Zargayouna

PROSE Paper No	Paper Title / Authors
ams19-014	Modeling a Multi-Agent Self-Organizing Architecture in MATSim Youssef Inedjaren, Besma Zeddini, Mohamed Maachaoui, and Jean-Pierre Barbot
ams19-025	Coupling multi-agent and macroscopic simulatorsof traffic Xavier Boulet, Mahdi Zargayouna, Gerard Scemama, and Fabien Leurent
ams19-029	A Multi-Agent System for Real-time Ride-sharing in Congested Networks Negin Alisoltani, Mahdi Zargayouna, and Ludovic Leclercq
ams19-030	Dynamically configurable Multi-Agent Simulation for Crisis Management Fabien Badeig, Flavien Balbo, and Mahdi Zargayouna
ams19-043	Two layer approach: A modified Multi Agent System (MAS) as a network-independent adaptive framework for a distributed logistic network André Schäfer, Volkmar Schau, Marianne Mauch, and Wolfram Amme

IDT Paper Presentations

IDT-1

Monday 17 June, 11.00-13.00

Cettina DeCesare 1 & 2

IDT-1: General Track

Chair: Ireneusz Czarnowski

PROSE Paper No	Paper Title / Authors
idt19-012	Supporting Creation of FAQ Dataset for E-learning Chatbot Yasunobu Sumikawa, Masaaki Fujiyoshi, Hisashi Hatakeyama, Masahiro Nagai
idt19-045	Predicting Expected Profit in On-Going Peer-to-Peer Loans with Survival Analysis Based Profit Scoring Ajay Byanjankar, Markus Viljanen
idt19-050	On Developing a Framework for Knowledge-based Learning Indicator System in the Context of Learning Analytic Rami Hodrob, Ahmed Ewais, Mohammed Maree
idt19-053	Decision-making Support Using Nonmonotonic Probabilistic Reasoning Andrzej Szałas
idt19-062	Practical Application of the SIML Estimation of Covariance, Correlation and Hedging Ratio with High-Frequency Financial Data Hiroumi Misaki
idt19-046	Stimulation of Horizontally Polarized Transverse Waves with the Help of Electromagnetic-Acoustic Transducer Radda A. Iureva, Irina A. Tulkova, Alexey A. Margun, Sergey M. Vlasov, Artem S. Kremlev, Sergey D. Vasilkov, Andrei V. Volkov

IDT-2

Monday 17 June, 11.00-13.00

Palm Suite 3

IDT-2: IS05: Digital Health, Distance Learning and Decision Support for eHealth (IS15)

Chairs: Ralf Seepold and Margarita Stankova

PROSE Paper No	Paper Title / Authors
idt19-035	Building a Telemedicine System for Monitoring the Health Status and Supporting the Social Adaptation of Children with Autism Spectrum Disorders Georgy Lebedev, Herman Klimenko, Eduard Fartushniy, Igor Shaderkin, Pavel Kozhin, Dariya Galitskaya
idt19-037	Implementation of Digital Technologies in Pharmaceutical Products Lifecycle Konstantin Koshechkin, German Klimenko, Alexander Polikarpov
idt19-073	Home Hospital e-Health Centers for barrier-free and cross-border Telemedicine Ralf Seepold, Maksym Gaiduk, Juan Antonio Ortega, Massimo Conti, Simone Orcioni, Natividad Martínez Madrid
idt19-077	Data Driven Human Movement Assessment Danny Dressler, Pavlo Liapota, Welf Löwe
idt19-078	Attitudes to Telemedicine, and Willingness to Use in Young People Margarita Stankova, Polina Mihova
idt19-079	Posture Tracking Using a Machine Learning Algorithm for a Home AAL Environment Maksim Sandybekov, Clemens Grabow, Maksym Gaiduk, Ralf Seepold

IDT-3

Monday 17 June, 15.30-17.30

Cettina DeCesare 1 & 2

IDT-3: Data Selection in Machine Learning (IS16) and Intelligent Data Processing and Software Paradigms (IS02)

Chairs: Ireneusz Czarnowski and Margarita Favorskaya

PROSE Paper No	Paper Title / Authors
idt19-010	Text Classification using LDA-W2V Hybrid Algorithm Joanna Jedrzejowicz, Magdalena Zakrzewska
idt19-031	Smartphone-Based Drivers Context Recognition Md Ismail Hossen, Michael Goh, Tee Connie, Siong Hoe Lau
idt19-065	Towards an Automated Assessment of Musculoskeletal Insufficiencies Danny Dressler, Pavlo Liapota, Welf Löwe
idt19-007	Selecting Informative Samples for Animal Recognition in the Wildlife Margarita Favorskaya, Vladimir Buryachenko
idt19-019	Genetic Algorithm for Selecting Relevant Regions in Digital Watermarking Scheme for 2D/3D Medical Images Margarita Favorskaya, Eugenia Savchina

IDT-4

Monday 17 June, 15.30-17.30

Jupiter

IDT-4: Interdisciplinary Approaches in Data Science and Digital Transformation Practice (IS13)

Chairs: Ralf-Christian Harting and Ivan Lukovic

PROSE Paper No	Paper Title / Authors
idt19-013	Business AI Alignment Modeling Based on Enterprise Architecture Hironori Takeuchi, Shuichiro Yamamoto
idt19-034	Eye Tracking as a Method of Neuromarketing for Attention Research – an Empirical Analysis Using the Online Appointment Booking Platform from Mercedes-Benz Veit Etzold, Anika Braun, Tabea Wanner
idt19-052	A Concept of an Interactive Web-Based Machine Learning Tool for Individual Machine and Production Monitoring Marina Burdack, Manfred Rössle
idt19-055	Benefits of Agile Project Management in an Environment of Increasing Complexity – A Transaction Cost Analysis Raphael Kaim, Ralf-Christian Härting, Christopher Reichstein
idt19-057	Potential Benefits of Digital Business Models and Its Processes in the Financial and Insurance Industry Ralf-Christian Härting, Christopher Reichstein, Raffael Sochacki

IDT-5

Tuesday 18 June, 9.00-11.00

Cettina DeCesare 1 & 2

IDT-5: Decision Techniques for Data Mining, Transportation and Project Management (IS01) and Decision Support Systems (IS11)

Chairs: Piotr Jędrzejowicz and Wojciech Froelich

PROSE Paper No	Paper Title / Authors
idt19-042	Apache Spark as a Tool for Parallel Population-Based Optimization Piotr Jędrzejowicz, Izabela Wierzbowska
idt19-060	A GIS for Data Mining in Seismic Microzonation Studies Salvatore Grasso, Maria Rossella Massimino
idt19-064	Gene Expression Programming Classifier with Concept Drift Detection Based on Fishers Exact Test Joanna Jędrzejowicz, Piotr Jędrzejowicz
idt19-071	Experimental Evaluation of A-Teams Solving Resource Availability Cost Problem Piotr Jędrzejowicz, Ewa Ratajczak-Ropel
idt19-081	Mining Incomplete Data - A Comparison of Concept and New Global Probabilistic Approximations Patrick G. Clark, Jerzy W. Grzymala-Busse, Teresa Mroczek, Rafał Niemiec
idt19-017	Multiagent-based Decision Support Systems in Smart Microgrids Yamisleidy Salgueiro, Marco Rivera, Gonzalo Nápoles

IDT-6

Tuesday 18 June, 15:30 - 17:30

Cettina DeCesare 1 & 2

IDT-6: Large-Scale Systems for Intelligent Decision Making and Knowledge Engineering (IS07)

Chair: Sergey V. Zykov

PROSE Paper No	Paper Title / Authors
idt19-036	Regulatory Information Management Systems, as a Means for Ensuring the Pharmaceutical Data Continuity and Risk Management Konstantin Koshechkin, Georgiy Lebedev, Julia Tikhonova
idt19-047	DMRA-MCP: A Distributed Map Reduce Applications Deployments in a Multi-Clouds Platform Based on Cloud Broker Architecture Hamdi Hassen, Hajlaoui Nasreddine, Khemakhem Maher
idt19-049	Integral Assessment of Efficiency of Scientific Research in Scientific Institutions of Russian Ministry of Health Georgy Lebedev, Oleg Krylov, Andrey Lelyakov, Yuriy Mironov, Valeriy Tkachenko, Sergey Zykov
idt19-072	Functional Programming Patterns in JavaScript Alexander Sobolev, Sergey Zykov

IDT-7

Tuesday 18 June, 15:30 - 17:30

Jupiter

IDT-7: Intelligent Decision Support in Cybersecurity (IS05)

Chair: Leslie F. Sikos

PROSE Paper No	Paper Title / Authors
idt19-016	Measures to Design Secure Cyber-Physical Things Radda A. Iureva, Artem S. Kremlev, Alexey A. Margun, Sergey M. Vlasov, Andrei S. Timko
idt19-083	Intrusion Detection in Wireless Sensor Networks by an Ensemble of Artificial Neural Networks Tarek Batiha, Michal Prauzek, Pavel Krömer
idt19-086	Decision Support for Network Path Estimation via Automated Reasoning Dean Philp, Naomi Chan, Leslie F. Sikos
idt19-089	Knowledge Representation to Support Partially Automated Honeypot Analysis Based on Wireshark Packet Capture Files Leslie F. Sikos

IDT-8

Wednesday 19 June, 9:30 - 11:30

Cettina DeCesare 1 & 2

IDT-8: Decision Support Systems (IS11)

Chair: Wojciech Froelich

PROSE Paper No	Paper Title / Authors
idt19-001	Fuzzy Cognitive Modeling: Theoretical and Practical Considerations Gonzalo Nápoles, Jose L. Salmeron, Wojciech Froelich, Rafael Falcon, Maikel Leon Espinosa, Frank Vanhoenshoven, Rafael Bello, Koen Vanhoof
idt19-002	Fuzzy Cognitive Maps: a Business Intelligence Discussion Gonzalo Nápoles, Greg Van Houdt, Manal Laghmouch, Wouter Goossens, Quinten Moesen, Benoît Depaire
idt19-006	IVIFCM-TOPSIS for Bank Credit Risk Assessment Wojciech Froelich, Petr Hajek
idt19-011	Intelligent Diagnosis of Discrete-Event Systems with Preprocessing of Critical Scenarios Nicola Bertoglio, Gianfranco Lamperti, Marina Zanella
idt19-021	Modelling Loss Given Default in Peer-to-Peer Lending using Random Forests Monika Papoušková, Petr Hajek
idt19-023	Identifying Images with Ladders using Deep CNN Transfer Learning Gaurav Pandey, Arvind Baranwal, Alexander Semenov
idt19-080	Syntax and Semantics Based Decision Making The Case of Music Information Processing Władysław Homenda, Mariusz Rybnik

IDT-9

Wednesday 19 June, 9:30 - 11:30

Jupiter

IDT-9: Decision Making Theory for Economics (IS03)

Chair: Takao Ohya

PROSE Paper No	Paper Title / Authors
idt19-009	Risk-Sensitive Decision Making under Risk Constraints with Coherent Risk Measures Yuji Yoshida
idt19-029	Mutual Evaluation and Solution Method Kazutomo Nishizawa
idt19-044	Visualization of Criteria Priorities Using a Ternary Diagram Natsumi Oyamaguchi, Hiroyuki Tajima, Isamu Okada
idt19-051	Changes in Organizations Due to Management Mechanization (Case Studies of Life Insurance Companies in Japan) Shunei Norikumo
idt19-054	Naturality for Ranking from Pairwise Comparisons Takafumi Mizuno
idt19-059	Upper Level Processes and Projects Model-Building Marina Kholod, Yury Lyandau, Valery Maslennikov, Irina Kalinina, Nikolay Mrochkovskiy
idt19-063	SPCM with Harker Method for MDAHP including Hierarchical Criteria Takao Ohya

IDT-10

Wednesday 19 June, 9:30 - 11:30

Palm Suite 1

IDT-10: Intelligent Data Processing and Software Paradigms (IS02)

Chairs: Margarita Favorskaya and Mikhail Sergeev

PROSE Paper No	Paper Title / Authors
idt19-028	A Transport Coding Gain Estimation in the Conditions of Time Limitation for Maximum Acceptable Message Delay Evgenii Krouk, Anton Sergeev, Mikhail Afanasev
idt19-061	Modeling Customers Speed of Movement from POS and RFID-data Marina Kholod, Peter Golubtsov, Arthur Varlamov, Svyatoslav Filatov, Katsutoshi Yada
idt19-067	Discovering and Analyzing Binary Codes Based on Monocyclic Quasi-Orthogonal Matrices Alexander Sergeev, Vadim Nenashev, Anton Vostrikov, Alexander Shepeta, Daniil Kurtyanik
idt19-068	The Study of Generators of Orthogonal Pseudo-Random Sequences Yuriy Balonin, Leonid Abuzin, Alexander Sergeev, Vadim Nenashev
idt19-069	Portraits of Orthogonal Matrices as a Base for Discrete Textile Ornament Patterns Alexander Sergeev, Mikhail Sergeev, Anton Vostrikov, Daniil Kurtyanik
idt19-070	Training Sample Generation Software Anton Vostrikov, Stanislav Chernyshev

IDT-11

Wednesday 19 June, 14:00 - 16:00

Cettina DeCesare 1 & 2

IDT-11: Signal Processing and Pattern Recognition for Decision Making Systems (IS10)

Chair: Paolo Crippa

PROSE Paper No	Paper Title / Authors
idt19-022	Quality Improvement Through the Preventive Detection of Potentially Defective Products in the Automotive Industry by Means of Advanced Artificial Intelligence Techniques Marco Vannucci, Valentina Colla
idt19-038	An Efficient Non-Blind Steering Vector Estimation Technique For Robust Adaptive Beamforming With Multi-Stage Error Feedback Ghattas Akkad, Ali Mansour, Bachar ElHassan, Jalal Srar, Mohamad Najem, Frederic LeRoy
idt19-043	The P2P-Grid-Agent Distributed Platform: A Distributed and Dynamic Platform for Developing and Executing Large Scale Application based on Deep Learning Techniques Hamdi Hassen, Trifa Zied, Khemakhem Maher
idt19-075	Recognition of Daily Human Activities Using Accelerometer and sEMG Signals Giorgio Biagetti, Paolo Crippa, Laura Falaschetti, Simona Luzzi, Claudio Turchetti
idt19-076	Classification of Alzheimer's Disease from Structural Magnetic Resonance Imaging using Particle-Bernstein Polynomials Algorithm Giorgio Biagetti, Paolo Crippa, Laura Falaschetti, Simona Luzzi, Riccardo Santarelli, Claudio Turchetti

IDT-12
Wednesday 19 June, 14:00 - 16:00
Palm Suite 2

IDT12: Big data and knowledge-based health care management (IS12)
Chair: Lindu Zhao

PROSE Paper No	Paper Title / Authors
idt19-091	Managing returnable transport items in pharmaceutical supply chains with the consideration of carbon emissions Ms. Min Wang, Prof. Michael Herty, Prof. Lindu Zhao
idt19-092	Predictive Optimization Framework of Metapopulation Dynamic Models with Application in Optimal Cholera Outbreak Control Dr. Mu Du, Dr. Nan Kong, Dr. Aditya Sai
idt19-093	Local Robust Sparse Representation Based on Facial Symmetry for Face Recognition with Single Sample Per Person Mr. Cheng Su, Dr. Yongjie Chu, Prof. Lindu Zhao
idt19-095	Payment Mechanisms Incentives for Improving Prevention and Treatment in Chronic Diseases Mr. Shifu Pan, Professor Haiyan Wang
idt19-096	An IoT-enabled Encoding Scheme for the Quality Status of Returned Products in the Reverse Supply Chain Associate Professor Sijie Li, Ph.d Candidate You Shang
idt19-097	Parents' Acceptance toward Peripheral Intravenous Catheter in Pediatric Outpatient Infusion Care Associate Professor Min Zhou, Professor Kathryn S. Campy, Associate Professor Shujuan Qu, Professor Lindu Zhao

IIMSS Paper Presentations

IIMSS-1

Monday 17 June, 11.00-13.00

Palm Suite 1

IIMSS-1: General Track & ISO2 Intelligent and Interactive Services

Chairs: Alfred Zimmermann & Rainer Schmidt

PROSE Paper No	Paper Title / Authors
ims19-001	Form Feedback on the Web: A Comparison of Popup Alerts and In-Form Error Messages Knut Åge Hofseth, Lars Kristian Haga, Vegard Sørli, Frode Eika Sandnes
ims19-009	Towards Resilient Enterprise Architecture for Predictive Maintenance Marcel Boer, Marcus Friedrich, Mario Krämer, Philipp Noack, Jan Niclas Weiss, Alfred Zimmermann
ims19-006	Social Paradigms for Reducing Process Modelling Cost Rainer Schmidt, Michael Möhring, Kurt Sandkuhl, Alfred Zimmermann
ims19-004	Using Machine Learning and Visualization Tools to Monitor National Media Konstantin Belousov, Dmitry Baranov, Tatiana Galinskaia, Nikolai Ponomarev, Natalia Zelyanskaya
ims19-012	Modeling Visualization Controls for Digital Architecture and Governance Dierk Jugel, Christian M. Schweda, Alfred Zimmermann

IIMSS-2

Monday 17 June, 15.30-17.30

Palm Suite 2

IIMSS-2: IS03: Real-Time Image and Video Processing in Industrial and IoT Applications using Big Data Analytics

Chairs: Alfred Zimmermann

PROSE Paper No	Paper Title / Authors
ims19-013	Routing Protocol in the Industrial Internet of Things for Smart Factory Monitoring Abdellah Chehri, Gwanggil Jeon
ims19-011	The Industrial Internet of Things: Examining How the IIoT Will Improve the Predictive Maintenance Abdellah Chehri, Gwanggil Jeon
ims19-010	Low-Cost Localization and Tracking System with Wireless Sensor Networks in Snowy Environments Abdellah Chehri, Paul Fortier
ims19-008	Implementation of Block Chain Data Obfuscation Pavan Manjunath, Michael Herrmann, Hüseyin Sen

IIMSS-3

Tuesday 18 June, 11.00-13.00

Palm Suite 1

IIMSS-3: IS01: Autonomous Systems

Chair: Milan Simic

PROSE Paper No	Paper Title / Authors
ims19-024	Managing Transition to Autonomous Vehicles Using Bayesian Fuzzy Logic Milan Todorovic, Milan Simic
ims19-019	Seating Postures for Autonomous Driving Secondary Activities Sibashis Parida, Sai Mallavarapu, Sylvester Abanteriba, Matthias Franz, Wolfgang Gruener
ims19-017	New CAN Bus Line Coding Scheme Milan Simic, Maria Spichkova, Reza N. Jazar
ims19-016	Vehicle Dynamics Simulation Using Elliptical Combined-Slip Tire Model Sina Milani, Hormoz Marzbani, Ali Khazaei, Milan Simic, Reza N. Jazar
ims19-015	Elliptical Combined-Slip Tire Model in Vehicle Dynamics Sina Milani, Hormoz Marzbani, Ali Khazaei, Milan Simic, Reza N. Jazar
ims19-014	Towards Formal Specification of CAN Protocol Maria Spichkova, Milan Simic

IIMSS-4

Wednesday 19 June, 14.00-16.00

Jupiter

IIMSS-4: IS04: Innovative Information Systems for Advanced Knowledge Activity

Chair: Koichi Asakura

PROSE Paper No	Paper Title / Authors
ims19-026	Design of multi-channel access control scheme for overlapped bands Katsuhiro Naito
ims19-025	Artificial speech corpus in Japanese for anti-spoofing automatic speaker recognition Satoru Tsuge, Shingo Kuroiwa
ims19-022	A Construction Method of Pedestrian Road Networks for Agent-based Evacuation Simulation Koichi Asakura, Yuki Ikeya, Toyohide Watanabe
ims19-021	Proposal of indoor positioning scheme using ultrasonic signal by smartphone Shotaro Osaki, Katsuhiro Naito
ims19-020	Prototyping of automatic watering system for agriculture over Thread network Takahiro Nimura, Shuhei Isomura, Katsuhiro Naito
ims19-018	Design of end-to-end connection technology of microcomputer equipment using overlay network Shuhei Isomura, Takahiro Nimura, Katsuhiro Naito

InMed Paper Presentations

InMed-1

Monday 17 June, 11.00-13.00

Saturn 1

InMed-1: Advanced ICT for Medicine and Healthcare 1

Chair: Yen-Wei Chen

PROSE Paper No	Paper Title / Authors
imed19-011	Transfer Learning and Fusion Model for Classification of Epileptic PET Images Huiyan Jiang, Zhiqi Bai, Xiaoyu Duan, Feifei Gao, Xiaoqi Ma, Zhiguo Wang and Yen-Wei Chen
imed19-018	Multiphase Focal Liver Lesions Classification with Combined N-gram and BoVW Huimin Huang, Zhiyuan Ji, Lanfen Lin, Ziliang Liao, Qingqing Chen, Hongjie Hu, Qiaowei Zhang, Yutaro Iwamoto, Yen-Wei Chen, Ruofeng Tong, Jian Wu
imed19-038	Comparison of CNN Models with Different Plane Images and Their Combinations for Classification of Alzheimer's Disease Using PET Images Ryosuke Sato, Yutaro Iwamoto, Kook Cho, Do-young Kang and Yen-Wei Chen
imed19-039	Multimodal Behavioral Dataset of Depressive Symptoms in Chinese College Students-Preliminary Study Jia-Qing Liu, Yue Huang, Xin-Yin Huang, Xiao-Tong Xia, Xi-Xi Niu and Yen-Wei Chen
imed19-025	Deep Learning for Detecting Breast Cancer Metastases on WSI Kun Fan, Shibo Wen, and Zhuofu Deng
imed19-026	Advanced image processing algorithms for breast cancer decision support and information management system M. Inmaculada García, Karen López-Linares, Andrik Rampun, Bryan W.Scotney, Philip J. Morrow, Remi Salmon, Marc Garbey, Stefan Audersch, Marina Azpíroz, Juan A.Romero, Vicente Belloch, José M. Santabárbara, and Ivan Macia

InMed-2
Monday 17 June, 14.00-16.00
Palm Suite 1

InMed-2: Advanced ICT for Medicine and Healthcare 2
Chair: Xu Qiao

PROSE Paper No	Paper Title / Authors
imed19-035	Contour Lines to Assist Position Recognition of Slices in Transparent Stereoscopic Visualization of Medical Volume Data Ikuya Morimoto, Yuichi Sakano, Liang Li, Kyoko Hasegawa and Satoshi Tanaka
imed19-036	Fused Visualization and Feature Highlighting to Assist Depth Recognition in Transparent Stereoscopic Visualization Miwa Miyawaki, Daimon Aoi, Yuichi Sakano, Lopez-Gulliver, Kyoko Hasegawa, Liang Li, Hiroshi Ando, Satoshi Tanaka
imed19-002	Data Augmentation for Building an Ensemble of Convolutional Neural Networks Loris Nanni, Sheryl Brahnam, Gianluca Maguolo
imed19-024	A Sensor Platform for Non-Invasive Remote Monitoring of Older Adults in Real Time Mohamed Bennasar, Ciaran McCormick, Blaine Price, Daniel Gooch, Avelie Stuart, Vikram Mehta, Linda Clare, Amel Bennaceur, Jessica Cohen, Arosha Bandara, Mark Levine and Bashar Nuseibeh
imed19-046	An Automatic Grading Method of Liver Cirrhosis from Abdominal CT Images Xu Qiao, Yujie Nie and Yen-Wei Chen
imed19-047	Observation of 3D-Facial Morphological Change Using Kinect V2 and its Application for Computer Aided Diagnosis of Facial Swelling Tomoko Tateyama, Akifumi Ohno, Shimpei Matsumoto, Naoya Sawamoto

InMed-3

Tuesday 18 June, 11.00-13.00

Saturn 1

InMed-3: Advanced ICT for Medicine and Healthcare 3

Chair: Jingbing Li

PROSE Paper No	Paper Title / Authors
imed19-019	SWT-DCT Based Robust Watermarking for Medical Image Qianning DAI, Jingbing LI, Uzair Aslam Bhatti, Yen-Wei Chen, Jing Liu
imed19-022	Watermarking Algorithm for Encrypted Medical Image Based on DCT-DFRFT Yanlin LIU, Jingbing LI, Jing LIU, Uzair Aslam Bhatti, Yanwei CHEN, and Shihui Hu
imed19-023	Logistic Map and Contourlet Based Robust Zero-watermark for Medical Images Xiaoqi Wu, Jingbing Li, Uzair Aslam Bhatti, Yen-Wei Chen
imed19-027	FDCT and Perceptual Hash Based Watermarking Algorithm for Medical Images Jing Liu, Jingbing Li, Jixin Ma, Naveed Sadiq and Yang Ai
imed19-016	A NIRS Study of Different Colour Effects on Short Memory Tasks between Young and Elderly Subjects Muhammad Nur Adilin Mohd Anuardi and Atsuko K. Yamazaki
imed19-007	Biomechanical analysis of human gait with inertial sensors using neural networks Zhongkui Wang, Kousuke Kadoma and Shinichi Hirai

InMed-4

Tuesday 18 June, 15.30-17.30

Saturn 1

InMed-4: Biomedical Engineering, Trends, Research and Technologies

Chair: Esperanza Manrique Rojas

PROSE Paper No	Paper Title / Authors
imed19-010	Data Mining Electronic Health Records to Support Evidence-based Clinical Decisions Ma. Sheila A. Magboo and Andrei D. Coronel
imed19-028	Formalization of the Agent Based Model for the detection of behavior patterns in older adults who start using ICT Consuelo Salgado Soto, Ricardo Rosales Cisneros, Nora del Carmen Osuna Millan, Maricela Sevilla Caro
imed19-029	mHealth application for fast attention to people with cerebrovascular and cardiovascular urgencies Carlos Hurtado, Sergio Octavio Vazquez, Margarita Ramirez, Beatriz Ramirez and Esperanza Manrique
imed19-030	IoT In Medical Context: Applications, Diagnostics and Health Care Hilda Beatriz Ramirez Moreno, Margarita Ramírez Ramírez, Carlos Hurtado, Bogart Yail Marquez Lobato
imed19-033	Contributions of Machine Learning in the health area as support in the diagnosis and care of chronic diseases Dra. Esperanza Manrique Rojas, Dra. Hilda Beatriz Ramírez Moreno, Dra. Margarita Ramírez Ramirez, Dr. José Sergio Magdaleno Palencia
imed19-034	Big data and predictive health analysis Margarita Ramírez Ramírez, Esperanza Manrique Rojas, Sergio Octavio Vázquez Núñez, María de los Angeles Quezada

InMed-5

Wednesday 19 June, 9:30-11.30

Saturn 1

InMed-5: Digital IT Architecture in Healthcare

Chair: Yoshimasa Masuda

PROSE Paper No	Paper Title / Authors
imed19-008	Development of a prototype of a fast proximity authentication system for electronic medical record terminals based virtual desktop interface Kei Teramoto, Shigeki Kuwata, Masaki Mochida, Tatsuro Kawai, and Hiroshi Kondoh
imed19-040	ArchiMate Business Model Patterns to e-Healthcare Shuichiro Yamamoto, Qiang Zhi
imed19-042	Monetary and Health Benefits from Better Health Data: Estimating Lives and Dollars Saved from Universal Adoption of the Leapfrog Safety and Quality Standards Aung K. Lwin, M.S., Donald S. Shepard, Yoshimasa Masuda
imed19-043	Success Factors for Realizing Regional Comprehensive Care by EHR with Administrative Data Yoshiaki Fukami and Yoshimasa Masuda
imed19-044	Clinical Decision Support System with Electronic Health Record: Digitization of Research in Pharma Yoshimasa Masuda, Donald S. Shepard, Shuichiro Yamamoto, Tetsuya Toma
imed19-009	A Palliative Care Simulator and Visualization Framework Kalyani Selvarajah , Pooya Moradian Zadeh , Ziad Kobti , Kathryn Pfaff , and Mehdi Kargar

InMed-6

Wednesday 19 June, 14:00 - 16:00

Saturn 1

InMed-6: Healthcare Support System

Chair: Te-Min Chang

PROSE Paper No	Paper Title / Authors
imed19-001	Automatic Quantification of Breast Arterial Calcification on Mammographic Images Najim Mazidi, Carl Roobottom and Giovanni Masala
imed19-004	Designing pervasive social interaction mechanics for elderly players: a multicultural study case Luciano H O Santos, Kazuya Okamoto , Adriana S Cavalli ,Shusuke Hiragi , Goshiro Yamamoto , Osamu Sugiyama ,Carla D Castanho , Tomoki Aoyama , and Tomohiro Kuroda
imed19-005	Bringing Assistive Technology Innovation and Material Science together through Design Louise Moody, Nicola York, Gulay Ozkan, Andrew Cobley
imed19-014	Innovation for medical sensor data processing and evaluation Michal Kvet, Karol Matiasco
imed19-017	Intelligent Healthcare Website Design with Keyword Cues to Facilitate Online Health Information Search Te-Min Chang, Chih-Hsiang Lin, Ming-Fu Hsu, Hao-Yun Kao, and Sin-Jin Lin
imed19-021	Machine Learning Based Classification of Mental Disorders from Methylation Data Christopher Bartlett and Isabelle Bichindaritz

SEEL Paper Presentations

SEEL-1

Monday 17 June, 11.00-13.00

Cettina DeCesare 3

SEEL-1: Smart Education

Co-chairs: Dr. Jean-Pierre Gerval and Dr. Vladimir Uskov

PROSE Paper No	Paper Title / Authors
-	SEEL-2019: Welcome Address Vladimir L. Uskov
seel19-064	Smart University: A Validation of “Smartness Features—Main Components” Matrix by Real-World Examples and Best Practices from Universities Worldwide Vladimir L. Uskov, Jeffrey P. Bakken, Kaustubh Gayke, Divya Jose, Maria F. Uskova and Suma Sri Devaguptapu
seel19-050	Quantitative Follow-Up of MOOC Students Using Big Data Techniques Jean-Pierre Gerval and Matthieu Saumard
seel19-059	Classification of University Students Attending Computing Classes Using a Self-assessment Questionnaire Tadanari Taniguchi, Yukiko Maruyama, Daisaku Kurita and Makoto Tanaka
seel19-052	Smart Education in an Interconnected World: Virtual, Collaborative, Project-Based Courses to Teach Global Software Engineering Daniel Moritz Marutschke, Victor Kryssanov, Hapugahage Thilak Chaminda and Patricia Brockmann
seel19-034	Teaching Entrepreneurship and Innovation to University Students Geoffrey A. Wright

SEEL-2

Monday 17 June, 15.00-17.30

Cettina DeCesare 3

SEEL-2: Special Session Title: The First International Student Competition in Smart Education and e-Learning (SEEL) area

Chair: Dr. Vladimir Uskov

International Referees: Dr. Jean-Pierre Gerval, Dr. Marina V. Lapenok, Dr. Olivier Bonnaud, Dr. Bisma Allagui, Dr. Kai Li, Dr. Haya Shamir, Dr. Gudrun Görlitz, Dr. Yukiko Maruyama, Dr. Danguole Rutkauskiene, Dr. Petra Poulová, Dr. Natalia A. Serdyukova, Dr. Jeffrey P. Bakken, Dr. Chaiwat Waree, Dr. Marcel Pikhart, Dr. Patricia Behar, Dr. Larissa Zaitseva, Dr. Thu Thi Hong Nguyen, Dr. Heather N. Yates, Dr. Blanka Klímová, Dr. Geoffrey A. Wright

PROSE Paper No	Paper Title / Authors
seel19-008	Sampling and Analyzing Statistical Data to Predict the Performance of MOOC Svyatoslav A. Oreshin (on behalf of Lubov S. Lisitsyna and Svyatoslav A. Oreshin)
seel19-046	Smarter Education: Leveraging Stakeholder Inputs to Develop Work Ready Curricula Jessica Borg (on behalf of Jessica Borg, Christina M. Scott-Young and Michelle Turner)
seel19-031	An Engineering Educational Program Using “Twin Rotor MIMO System” Laboratory Platform Sergey Vrazhevsky (on behalf of Sergey Vrazhevsky, Artem Kremlev and Alexey Margun)
seel19-018	Overview of Recommendation Systems Selma Benkessirat (on behalf of Selma Benkessirat, Narhimène Boustia and Nachida Rezoug)
seel19-009	Machine Learning Approach of Predicting Learning Outcomes of MOOCs to Increase Its Performance Svyatoslav A. Oreshin (on behalf of Lubov S. Lisitsyna and Svyatoslav A. Oreshin)

SEEL-3

Tuesday 18 June, 11.00-13.00

Cettina DeCesare 3

SEEL-3: Smart e-Learning (Part 1)

Co-Chairs: Dr. Marina Lapenok and Dr. Patricia Behar

PROSE Paper No	Paper Title / Authors
seel19-014	The Methodology of Development of Electronic Educational Resources for Learning of General Scientific Disciplines in Non-native Language Marina V. Lapenok, Anna M. Lozinskaya, Lidia G. Shestakova, Ludmila V. Voronina, Petr V. Zuev and Olga M. Patrusheva
seel19-010	The Development of Classroom Research Skills of Online Lessons Usage of a Google Classroom Chaiwat Waree
seel19-013	Interculturality in Blended Learning: Challenges of Electronic Communication Marcel Pikhart
seel19-024	Construction of a Socio-affective Profile Model of Students in a Virtual Learning Environment Carla Barvinski, Gislaine Ferreira, Leticia Machado, Magali Longhi and Patricia Behar
seel19-011	A Development of Instructional Games for Education Students Chaiwat Waree
seel19-005	Teaching Culture and Literature of German-Speaking Countries with the Support of Virtual Learning Environment in Reflection and Self-reflection of Students of Management of Tourism—A Case Study Blanka Klímová and Ilona Semrádová

SEEL-4

Tuesday 18 June, 11:00 - 13:00

Jupiter

SEEL-4: Smart Education: Systems and Technology

Co-chairs: Dr. Olivier Bonnaud and Dr. Besma Allagui

PROSE Paper No	Paper Title / Authors
seel19-012	Mandatory Matching Between Microelectronics Industry and Higher Education in Engineering Toward a Digital Society Olivier Bonnaud
seel19-023	An Approach to Educational Data Mining Model Accuracy Improvement Using Histogram Discretization and Combining Classifiers into an Ensemble Gabrijela Dimić, Dejan Rančić, Olivera Pronić-Rančić and Danijela Milošević
seel19-033	Performance Evaluation for Four Types of Machine Learning Algorithms Using Educational Open Data Yuki Terawaki, Teruhiko Unoki, Toshiyasu Kato and Yasushi Kodama
seel19-067	Moving from Hardcopy to Online Submission with a Learning Analytics Enriched Rubric—LAe-R: Students' Perspective Besma Allagui
seel19-032	SEMOGRAPH Information System as a Platform for Network-Based Linguistic Research: A Case Study of Verbal Behavior of Social Network Users Dmitriy Baranov, Konstantin Belousov, Elena Erofeeva and Yuliya Leshchenko
seel19-004	Mobile Application as Appropriate Support for the Retention of New English Words and Phrases in English-Language Learning Blanka Klímová

SEEL-5

Tuesday 18 June, 15:30 - 17:30

Cettina DeCesare 3

SEEL-5: Smart e-Learning (Part 2)

Co-chairs: Dr. Haya Shamir and Dr. Gudrun Gorlitz

PROSE Paper No	Paper Title / Authors
seel19-049	Visualization of Learning Activities in Classroom Blended with E-learning System Kai Li
seel19-045	Dosage Effects of CAI on Literacy Skills Haya Shamir, Kathryn Feehan, David Pocklington and Erik Yoder
seel19-035	Smart e-Learning in the Preparation of Novice Pop Vocalists in the University Svetlana A. Konovalova, Nataliya G. Tagiltseva, Lada V. Matveeva, Anastasiya I. Suetina, Oksana A. Ovsyannikova and Sergey I. Mokrousov
seel19-038	Route Navigation System—An App-Based Learning Tool for Bus Drivers Hannes Walz and Gudrun Görlitz
seel19-041	Communication with Students in Smart e-Learning System Using LMS Moodle Leonid L. Khoroshko, Maxim A. Vikulin, Vladimir M. Kvashnin and Olga S. Kostykova
seel19-027	Randomized Controlled Trial of Kindergarten Students Using Literacy Technology Haya Shamir, Erik Yoder, Kathryn Feehan and David Pocklington

SEEL-6

Tuesday 18 June, 15:30 - 17:30

Palm Suite 1

SEEL-6: Smart Pedagogy

Co-chairs: Dr. Danguole Rutkauskiene and Dr. Larissa Zaitseva

PROSE Paper No	Paper Title / Authors
seel19-061	Smart Learning Objects for Online and Blended Learning Approach Danguole Rutkauskiene, Daina Gudoniene, Reda Bartkute and Greta Volodzkaite
seel19-019	Using Ontology Engineering to Design an Artificial Intelligence Course Tatiana A. Gavrilova and Liudmila Kokoulina
seel19-015	Development and Implementation of BIPV Courseware for Higher Education and Professionals Momir Tabakovic, Hubert Fechner, Joost van Leeuwen, Eelke Bontekoe, Wilfried van Sark, Atse Louwen, Sofia Arancon, Ingrid Weiss, George Georghiou, George Makrides, Maria Hadjipanayi, Eliza Loucaidou and Monica Ioannidou
seel19-030	Competency-Based Approach Teaching Software Engineering Larissa Zaitseva and Boriss Misnevs
seel19-060	Investigation into Parents' Impressions of Computer Programming with Comparisons Before and After a Programming Workshop Yukiko Maruyama

SEEL-7

Wednesday 19 June, 9:30 - 11:30

Cettina DeCesare 3

SEEL-7: Smart Education - Case Studies and Research

Co-Chairs: Dr. Heather Yates and Dr. Petra Poulova

PROSE Paper No	Paper Title / Authors
seel19-058	Upgrading How Technology Is Taught in Undergraduate Education, a Case Study Heather N. Yates, Sreemala Das Majumder and Mark H. Pruitt
seel19-039	Some Aspects of Students' Professional Competence Formation on the Basis of Implementation of Interdisciplinary Links Natalya Prokofyeva, Sabina Katalnikova and Viktorija Boltunova
seel19-053	Reflection of Students' Language Needs Analysis in the e-Course—Comparative Study Miloslava Cerna and Petra Poulova
seel19-036	Information Technology and Teaching Culture: Application in Classroom Thu Thi Hong Nguyen and Tri Minh Nguyen
seel19-040	The Impact of Feedback on the Structuring Process of Study Courses Natalya Prokofyeva, Marina Uhanova, Oksana Zavjalova and Viktorija Boltunova
seel19-056	Use of Mobile Devices—A Survey Study Petra Poulová, Blanka Klímová and Daniela Pulkrábková

SEEL-8

Wednesday 19 June, 9:30 - 11:30

Palm Suite 2

SEEL-8: Special Session IS03: Mathematical Modelling of Smart Education and Economics of Smart University (Part 1)

Organizer and Chair: Dr. Natalia A. Serdyukova

PROSE Paper No	Paper Title / Authors
seel19-002	Testing as a Feedback in a Smart University and as a Component of the Identification of Smart Systems Natalia A. Serdyukova, Vladimir I. Serdyukov and Sergey S. Neustroev
seel19-017	Smart University Development Evaluation Models Lyudmila V. Glukhova, Svetlana D. Syrotyuk, Anna A. Sherstobitova and Svetlana V. Pavlova
seel19-016	Modeling of Scientific Intercultural Communication of the Teaching Staff at Smart University Svetlana A. Gudkova, Tatiana S. Yakusheva, Anna A. Sherstobitova and Valentina I. Burenina
seel19-020	Modeling Smart Learning Processes Based on Educational Data Mining Tools Yana S. Mitrofanova, Anna A. Sherstobitova and Olga A. Filippova
seel19-026	Modeling the Assessment of Definition of a Smart University Infrastructure Development Level Yana S. Mitrofanova, Anna A. Sherstobitova and Olga A. Filippova
seel19-048	Smart University: Assessment Models for Resources and Economic Potential Leyla F. Berdnikova, Anna A. Sherstobitova, Olga V. Schnaider, Natalia O. Mikhalenok and Olga E. Medvedeva

SEEL-9

Wednesday 19 June, 14:00 - 16:00

Palm Suite 1

SEEL-9: Special Session IS01: Students with Disabilities and Smart Education/University

Organizer and Chair: Dr. Jeffrey P. Bakken

PROSE Paper No	Paper Title / Authors
seel19-066	Analysis and Classification of University Centers for Students with Disabilities Jeffrey P. Bakken, Nivee Varidireddy and Vladimir L. Uskov
seel19-037	Augmented Reality as a Higher Education Form for Students with Delimited Ability Eva Pajorová and Ladislav Hluchý
seel19-065	Smart University: Software/Hardware Systems for College Students with Severe Motion/Mobility Issues Jeffrey P. Bakken, Nivee Varidireddy and Vladimir L. Uskov
seel19-042	Design Guidelines for Serious Games Targeted to People with Autism Stavros Tsikinas and Stelios Xinogalos
seel19-044	Making Your Classroom Smart: Universal Design for Learning and Technology Carrie Anna Courtad
seel19-063	Text-to-Voice and Voice-to-Text Software Systems and Students with Disabilities: A Research Synthesis Jeffrey P. Bakken, Vladimir L. Uskov and Nivee Varidireddy

SEEL-10
Wednesday 19 June, 14:00 - 16:00
Cettina DeCesare 3

SEEL-10: Special Session IS03: Mathematical Modelling of Smart Education and Economics of Smart University (Part 2)
Organizer and Chair: Dr. Natalia A. Serdyukova

PROSE Paper No	Paper Title / Authors
seel19-021	Identification of Key Factors for a Development of Smart Organization Lyudmila V. Glukhova, Svetlana D. Syrotyuk, Anna A. Sherstobitova and Svetlana A. Gudkova
seel19-022	Application of Multivariate Statistical Methods for Assessment of Educational Competencies Olga A. Kuznetsova, Sabina S. Palferova and Anna A. Sherstobitova
seel19-025	Modeling, Selection, and Teaching Staff Training at Higher School Svetlana A. Gudkova, Tatiana S. Yakusheva, Anna A. Sherstobitova and Valentina I. Burenina
seel19-029	The Remote Process Support for Collaborative Work Anna A. Sherstobitova, Lyudmila V. Glukhova, Irina G. Sergeeva and Natalya Y. Tihanova

STS Paper Presentations

STS-1

Monday 17 June, 11.00-13.00

Jupiter

STS-1: Future Transport Solutions

Chair: Xiaobo Qu

PROSE Paper No	Paper Title / Authors
Keynote for STS19	Researches on decision optimization problems for port operations and maritime logistics Professor Lu Zhen, Shanghai University
sts19-021	Unsupervised deep learning to explore streetscape factors associated with urban cyclist safety Haifeng Zhao, University of Melbourne
sts19-027	Simulated CAVs Driving and Characteristics of the Mixed Traffic using Reinforcement Learning Method Yangzexi Liu, Tongji University
sts19-028	Data-driven disruption response planning for a Mass Rapid Transit system Chunling Luo, Singapore MIT Alliance
sts19-029	Traditional vs Budget Airlines - Comparison of Tickets Costs and Demands on the European Air Transportation Market Marina Kholod, Plekhanov Russian University of Economics

STS-2

Monday 17 June, 15.30-17.30

Palm Suite 2

STS-2: Maritime Transport

Chair: Prof Tingsong Wang

PROSE Paper No	Paper Title / Authors
sts19-002	Dynamic Pricing Model for Container Slot Allocation Considering Port Congestion Tingsong Wang, Wuhan University
sts19-012	Recoverable Robustness Considering Carbon Tax in Weekly Berth and Quay Crane Planning Qian Sun, Shanghai University
sts19-030	Blockchain Applications in Shipping, Transportation, Logistics, and Supply Chain Xiaobo Qu Chalmers University of Technology
sts19-015	Parcel Sorting Optimization in Double-Layer Automatic Sorting System Zeyi Tan, Shanghai University
sts19-031	Ship Inspection by Port State Control - Review of Current Research Shuaian Wang, Hong Kong PolyU
sts19-008	Study of data-driven methods for vessel anomaly detection based on AIS data Shuaian Wang, Hong Kong PolyU

STS-3

Tuesday 18 June, 11.00-13.00

Palm Suite 3

STS-3: Traffic Flow

Chair: Yang Yu

PROSE Paper No	Paper Title / Authors
sts19-003	Estimation Models for the Safety Level of Indoor Space Pedestrian Flows Zewen Wang, Southeast University
sts19-009	Estimation Method of Saturation Flow Rate for Shared Left-turn Lane at Signalized Intersection, Part I -:Methodology Ruru Tang, Harbin Institute of Technology
sts19-010	Estimation Method of Saturation Flow Rate for Shared left-turn Lane at Signalized Intersection, Part II: Case Study Ruru Tang, Harbin Institute of Technology
sts19-011	Safety on Italian Highways, impacts of the Highway Chauffeur system Dott Agriesti Serio Angelo Maria, Dipartimento di Design Milan, Italy
sts19-019	Towards eliminating overreacted vehicular maneuvers: Part I Model Development and Calibration
sts19-007	An algorithm for reducing vehicles' stop behind the bus pre-signals Mina Ghanbarikarekani, University of Technology Sydney

STS-4
Wednesday 19 June, 9:30-11.30
Palm Suite 2

STS-4: Traffic Operations

Chair: Jian Zhang

PROSE Paper No	Paper Title / Authors
sts19-018	The Influences of Preceding Vehicle Taillights on Macro Traffic Flow Jian Zhang, Beihang University
sts19-016	Identification of Factors Influencing Crash Severity for Electric Bicycle using non-dominated sorting genetic algorithm Cheng Xu, Zhejiang Police College
sts19-017	Traffic Signal Timing via parallel reinforcement learning Cheng Xu, Zhejiang Police College
sts19-020	Towards eliminating overreacted vehicular maneuvers: Part II Comparative Analyses
sts19-006	Station-level hourly bike demand prediction for dynamic repositioning in bike sharing systems Xinhua Hu, Southeast University
sts19-005	Data Completion of Ride-hailing Service Based on Tensor Factorization Xia Yan, Southeast University

STS-5

Wednesday 19 June, 14:00 - 16:00

Palm Suite 2

STS-5: Road Users

Chair: Yang Yu

PROSE Paper No	Paper Title / Authors
sts19-024	Friendliness Analysis for Bike Trips on Urban Roads Using Logistic Regression Model Huichan Li, Zhengzhou University
sts19-025	Change in Commuters? Trip Characteristics under Driving Restriction Policies Peng Zhao, Zhengzhou University
sts19-013	Research on Freeway Mainline Fuzzy Logic Control Based on Dynamic Traffic Evaluation Weiwei Qi, South China University of Technology
sts19-014	Time-domain and Frequency-domain Analysis of Driver's ECG Characteristics in Rainy Environment Weiwei Qi, South China University of Technology
sts19-022	On the impact of emergency incidents on the freeway: A Full Velocity Difference (FVD) Model based four-lane traffic dynamics simulation Yang Yu, University of Technology Sydney

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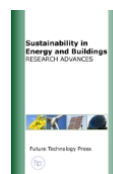
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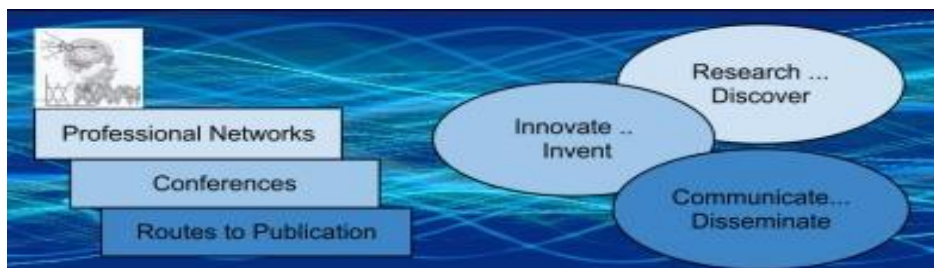
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PO Box 243
Selby
YO8 1DS
United Kingdom

Web Site: <http://www.kesinternational.org>

Email: enquiry@kesinternational.org

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