SoftCOM 2021 PRELIMINARY LIST OF PAPERS

S1: MACHINE LEARNING APPLICATIONS

1570733324	A Legendre Polynomial Neural Network and its Application in Predicting Data Center Temperature	Nikolaos Melissaris and George Tsekouras (University of the Aegean, Greece); Stamatis Chatzistamatis (International Hellenic University, Greece); John Tsimikas (University of the Aegean, Greece)
1570731849	Using feedforward neural networks for parameter modeling of a 4G link for unmanned aerial vehicles	Giancarlo Benincasa and Erich Leitgeb (Graz University of Technology, Austria); Klaus Kainrath (FH-Joanneum, Austria); Hristo Ivanov (Graz University of Technology, Austria)
1570742390	Football players detection using U-Net based fully convolutional network	Ivan Biliskov (Codeasy & University of Split, Croatia); Matko Saric, Mladen Russo and Maja Stella (University of Split, Croatia)
1570733316	Evaluation of VANET Datasets in context of an Intrusion Detection System	Fabio Goncalves and Joaquim H Macedo (University of Minho, Portugal); Alexandre Santos (University of Minho & Centro Algoritmi, Portugal)

S2: SIGNAL PROCESSING AND CODING

1570733256	An Online Platform for Testing and Evaluating Random Number Generators	Paweł Kubczak, Wiktor Woźniak, Jakub Nikonowicz, Łukasz Matuszewski and Mieczysław Jessa (Poznan University of Technology, Poland)
1570733294	A new accurate approximation of the Gaussian Q-Function with relative error less than 1 thousandth in a significant domain	Alessandro Soranzo, Francesca Vatta, Massimiliano Comisso, Giulia Buttazzoni and Fulvio Babich (University of Trieste, Italy)
1570737188	Software Implementation and Computational Complexity Analysis of Hamming Codes Polynomial Co-Decoding	Flavio Ellero, Gabriele Palese, Erika Tomat and Francesca Vatta (University of Trieste, Italy)
1570741424	Modified autoencoder structure for reducing BER performance	Khaled Ramdani (CEDRIC/LAETITIA Laboratory, CNAM, France); Hmaied Shaiek (CNAM, France); Daniel Roviras (Cnam, France)
1570737088	Seismic data recovery from a reduced set of measurements	Andjela Draganić (University of Montenegro, Faculty of Electrical Engineering, Montenegro); Irena Orović (Faculty of Electrical Engineering, University of Montenegro, Montenegro); Marko Beko (ULHT/UNINOVA & UNINOVA, Caparica, Portugal); Srdjan Stanković (Faculty of Electrical Engineering, University of Montenegro, Montenegro)
1570737563	A new perspective for rearrangeability of MINs	Fitz Gerald Cabangcla (Sapienza University of Rome, Italy); Daniele Izzi (University "La Sapienza", Italy); Annalisa Massini (Sapienza Università di Roma, Italy)
1570727428	The GR2 Algorithm for Subgraph Isomorphism. A Study from Parallelism to Quantum Computing	Gheorghica Radu-Iulian (Babeș-Bolyai University & Faculty of Mathematics and Computer Science, Romania)
1570720404	The GR3 Algorithm for Parallel Quantum Searching of Subgraph Isomorphism	Gheorghica Radu-Iulian (Babeș-Bolyai University & Faculty of Mathematics and Computer Science, Romania)

S3: 5G&B5G TECHNOLOGIES

1570727921	Edge Computing for Communication Service Providers: A review on the Architecture, Ownership and Governing models	Charles J Ferrari (Eötvös Loránd University, Hungary); Benedek Kovacs (BUTE, Hungary); Melinda Tóth and Zoltán Horváth (Eötvös Loránd University, Hungary); Anna Reale (ELTE Eötvös Loránd University, Hungary)
1570733295	Transmitter Receiver Antenna Selection for MIMO-NOMA System	Bircan Demiral (Başkent University, Turkey); Ozgur Ertug (Gazi University, Turkey)
1570741165	Massive MIMO-OFDM Performance Enhancement on 5G	Zainab Shawqi, Iraq and Subhi Rafeeq (Duhok Polytechnic University, Iraq); Siddeeq Yousif Ameen (Advisor & Duhok Polytechnic University, Iraq)
1570724896	Metamaterial Decoupling MIMO Antennas for 5G Communication	Linda Chouikhi and Chaker Essid (SERCOM Laboratory, Polytechnic School, University of Carthage, Tunisia); Hedi Sakli (EITA Consulting, France); M. Bassem Ben Salah (SERcom, Tunisia Polytechnic School, Carthage University, Tunisia)

S4: WIRELESS COMMUNICATIONS

1570740401	Effect of Epidemic Interference on the Performance of Digital Communication Systems	Marcelo S. Alencar (Federal University of Campina Grande & Institute for Advanced Studies in Communications, Brazil); Joel E. Cordeiro, Jr (Federal University of Bahia (UFBA), Brazil); Marina Yashina (State Technical University, Russia); Alexander Tatashev (Moscow Automobile and Road Construction State Technical University (MADI), Russia)
1570733475	Performance Evaluation of Heterogeneous Cellular Networks Using Stochastic Petri Nets	Zhiyi Zhu and Toshikazu Nishimura (Ritsumeikan University, Japan); Eiji Takimoto (Hiroshima Institute of Technology, Japan); Junjun Zheng (Ritsumeikan University, Japan)
1570737189	Impact of the Neighbor's Order on the Capacity of Millimeter-Wave Links with Poisson-Distributed Nodes in Line of Sight Conditions	Massimiliano Comisso, Francesca Vatta, Giulia Buttazzoni and Fulvio Babich (University of Trieste, Italy)
1570735136	GPU-supported Simulation and Determination of LCR for Multi-branch SC Receiver under the Effects of α-k-μ Fading and Weibull Co-Channel Interference	Suad Suljovic and Dragana Krstić (Faculty of Electronic Engineering, University of Niš, Serbia); Nenad Petrovic (University of Nis, Faculty of Electronic Engineering, Serbia); Zoran Popovic (Technical College of Vocational Studies, Zvecan, Serbia)

S5: OPTICAL COMMUNICATIONS

1570733414	Application of ML algorithms for prediction of the QoT in optical networks with imbalanced and incomplete data	Pawel Cichosz (Warsaw University of Technology, Poland); Stanislaw Kozdrowski (Warsaw University of Technology & Computer Science Institute, Poland); Sławomir Sujecki (Wroclaw University of Science and Technology, Poland)
1570733423	Modeling demands forecasts with probability distributions in DWDM optical networks	Maria Konieczka and Alicja Poturala (Warsaw University of Technology, Poland); Piotr Sliwka (Cardinal Stefan Wyszynski University in Warsaw, Poland); Sławomir Sujecki (Wroclaw University of Science and Technology, Poland); Stanislaw Kozdrowski (Warsaw University of

		Technology & Computer Science Institute, Poland)
1570732579	MANBo Project: Visually Dissecting the Bologna Metropolitan Area Network through Graphs	Gian Paolo Jesi, Andrea Odorizzi and Andrei Jizdan (Lepida ScpA, Italy); Gianluca Mazzini (LepidaSpA & UniFe, Italy)
1570732577	Exploit Company Knowledge from Graphs with Banda Calculus	Gian Paolo Jesi and Andrea Odorizzi (Lepida ScpA, Italy); Gianluca Mazzini (LepidaSpA & UniFe, Italy)
1570721287	Estimation of Cloud-induced Optical Attenuation over Near-Earth and Deep-space FSO Communication Systems	Hristo Ivanov, Pirmin Pezzei and Erich Leitgeb (Graz University of Technology, Austria)

S6: SOFTWARE DEVELOPMENT

1570741406	A Comparative Analysis of Agile Teamwork Quality Models	Manuel Silva and Arthur Freire (Intelligent Software Engineering Group, Brazil); Mirko Perkusich (Intelligent Software Engineering Group); Danyllo Albuquerque (Intelligent Software Engineering Group, Brazil); Kyller Costa Gorgônio, Hyggo Almeida and Angelo Perkusich (Federal University of Campina Grande, Brazil); Everton Guimaraes (Penn State University, USA)
1570737565	Function analysis of web services based on REST protocol with selected frameworks	Aneta Poniszewska-Maranda, Maciej Głowiński and Krzysztof Stępień (Lodz University of Technology, Poland)
1570739889	Game Engines Evaluation for Serious Game Development in Education	Siddeeq Yousif Ameen (Advisor & Duhok Polytechnic University, Iraq); Karzan Sharif (University of Human Development, Sulaymaniyah, Iraq)
1570741251	IllumiCore: Optimization Modeling and Implementation for Efficient VNF Placement	Leo Popokh (Hewlett Packard Enterprise (HPE) & Southern Methodist University (SMU), USA); Jing Su and Suku Nair (Southern Methodist University, USA); Eli Olinick (SMU, USA)

S7: VEHICULAR COMMUNICATIONS

1570736149	Wireless Vehicular Communication: C-ITS Field Measurements Using ITS-G5	Muhammad Naeem Tahir (Finnish Meteorological Institute (FMI) & University of Oulu, Center of Wireless Communication, Finland); Timo Sukuvaara (Finnish Meteorological Institute, Finland)
1570741405	OTFS Performance Over Different Measured Vehicular 60 GHz Millimeter-Wave Channels	Danilo Radovic and Christoph F Mecklenbräuker (TU Wien, Austria); Thomas Blazek (Silicon Austria Labs GmbH, Austria)
1570733126	Link failure anticipation in urban VANET Routing	Nour-El-Houda Sabilallah (Evolutionary Engineering and Distributed Information System Laboratory & Djilali Liabes University, Algeria); Sofiane Boukli Hacene (Université Djillali Liabès, Algeria)
1570733347	The Impact of Blocking Cars on Pathloss Within a Platoon: Measurements for 26 GHz Band	Pawel Kryszkiewicz, Adrian Kliks, Pawel Sroka and Michal Sybis (Poznan University of Technology, Poland)

SS1: SPECIAL SESSION ON QoS IN WIRED AND WIRELESS NETWORKS

1570733027	H.264/AVC and H.265/HEVC Codecs in the IP Environment: a comparison study of QoE, QoS and UX	Tadeus Uhl (Maritime University of Szczecin/Poland, Poland); Christian Hoppe (Nextragen Solutions GmbH, Germany); Janusz Henryk Klink (Wroclaw University of Science and Technology, Poland)
1570733433	Impact of 5G Network Performance on Augmented Reality Application QoE	Ante Mihaljević, Ana Kešelj and Adriana Lipovac (University of Dubrovnik, Croatia)
1570732655	Performance Models of a Multidomain IMS/NGN Service Stratum	Sylwester Kaczmarek (Gdansk University of Technology & Faculty ETI, Poland); Maciej Sac (Gdansk University of Technology & Faculty of Electronics, Telecommunications and Informatics, Poland)

SS2: SPECIAL SESSION ON AD HOC&SENSOR NETWORKS AND INTERNET OF THINGS

1570733306	Energy-Efficient User Clustering for UAV-enabled Wireless Networks Using EM Algorithm	Salim Janji and Adrian Kliks (Poznan University of Technology, Poland)
1570733350	Freemium Spectrum Sharing and Pricing	Łukasz Kułacz and Adrian Kliks (Poznan University of Technology, Poland)
1570737478	IoT device deployment for optimal wastewater network coverage	Arkadiusz Sikorski (Warsaw University of Technology, Poland); Stanislaw Kozdrowski (Warsaw University of Technology & Computer Science Institute, Poland); Fernando Solano (Warsaw University of Technology, Poland)
1570739210	Flash Programming Microcontrollers over the GSM Network	Lubomir Valeriev Bogdanov (Technical University - Sofia & Next Lab Ltd, Bulgaria); Hristo Mitrev (Next Lab Ltd, Bulgaria)
1570741340	A User Space Implementation of the AODVv2 Routing Protocol	Sergio Machado (Politechnic University of Catalonia, Spain); Israel Martin-Escalona (Universitat Politècnica de Catalunya (UPC), Spain); Enrica Zola (Universitat Politècnica de Catalunya & UPC BarcelonaTECH, Spain); Francisco Barcelo-Arroyo (Universitat Politecnica de Catalunya (UPC), Spain)
1570741256	Flood forecasting with BayesiSan approach	Abbassi Kamel (University Tunis El Manar, Tunisia); Hamadi Lirathni (Tunis el Manar Universiy, Tunisia); Mohamed hechmi Jeridi (University of Tunis El Manar (UTM) National Enginneering School of Tunis (ENIT), Tunisia); Tahar Ezzedine (Enit, Tunisia)

SS3: SMART ENVIRONMENTS AND IoT

1570733406	Acoustic analysis of various purposes rooms using measurements and simulations	Jurica Đerek, Marjan Sikora and Matija Pauković (FESB, University of Split, Croatia); Luka Kraljević (FESB University of Split, Croatia)
1570741420	IoT Technologies Offer New Potentials for People with Disabilities	Martina Antonic (University of Zagreb, Croatia)
1570737570	Smart City Concept using BI/BO Model for the Ticket System in Urban Transport	Lumbardha Hasimi, Aneta Poniszewska-Maranda and Tomasz Krym (Lodz University of Technology, Poland)
1570726311	DNN Architectures and Audio Representations Comparison for Emotional Speech Classification	Lukasz Smietanka and Tomasz Maka (West Pomeranian University of Technology, Szczecin, Poland)
1570737567	Current trends in IoT research	Luka Tomat (University of Ljubljana, Slovenia)

SS4: SPECIAL SESSION ON SECURITY AND DIGITAL FORENSICS

1570733091	Ranking Network Devices for Alarm Prioritisation: Intrusion Detection Case Study	Kristijan Vidović and Ivan Tomičić (University of Zagreb, Croatia); Karlo Slovenec and Miljenko Mikuc (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia); Ivona Brajdic (University of Zagreb, Croatia)
1570733437	Automatic CVSS-based vulnerability prioritization and response with context information	Michał Walkowski and Jacek Oko (Wroclaw University of Science and Technology, Poland); Maciej Krakowiak (DSecure, Poland); Sławomir Sujecki and Marcin Jaroszewski (Wroclaw University of Science and Technology, Poland)
1570741318	Cache Pollution Attack in the NDN Architecture: Impact and Analysis	Abdelhak Hidouri (Hatem Bettahar IResCoMath Research Unit, Tunisia); Mohamed Hadded (VEDECOM, France); Hajlaoui Nasreddine (University of Gabes, Tunisia); Haifa Touati (Faculty of Sciences of Gabes & Hatem Bettahar IResCoMath Research Unit, Tunisia); Paul Muhlethaler (INRIA, France)
1570735881	A Decentralized and Reliable Election-based Key Management Protocol for Communicating Things	Ramy Chemak (INSA Centre Val de Loire & Heudiasyc UMR CNRS 7253, France); Hicham Lakhlef (Université de Technologie de Compiègne, France); Abdelmadjid Bouabdallah (Universite de Technologie - Compiegne, France)
1570732823	Let's Create: Automated Certificate Management for End-users	Tobias Mueller and Adrian Michalek (Uni Hamburg, Germany)
1570741473	Ensuring data integrity using digital signature (ECDSA) in an IoT environment	Nadia Kammoun (High School of Communication (Supcom), Tunisia)

SS5: SPECIAL SESSION ON GREEN NETWORKING AND COMPUTING

1570737201	Experiments on energy optimization in smart residences	René Nolio Santa Cruz, Hugo Sampaio, Ricardo N Boing and Carlos Becker Westphall (Federal University of Santa Catarina, Brazil)
1570727724	Energy Harvesting by Optical Rectenna for RFID and IoT Applications	Chokri Baccouch (National Engineering School of Tunis, Tunisia); Chayma Bahhar (MACS Research Laboratory, National Engineering School of Gabes, Tunisia); Hedi Sakli (EITA Consulting, France)
1570741379	Hardware implementation of IDP and LINC methods using real power amplifiers	Khaled Tahkoubit (University of Sciences and Technology of Oran, Mohammed Boudiaf (USTO-MB) & Laboratory of Coding LACOSI, Algeria); Hmaied Shaiek and Christophe Alexandre (CNAM, France); Salim Faci and Daniel Roviras (Cnam, France); Adda Ali-Pacha (University of Science and Technology of Oran(USTO), Algeria)

SS6: ADVANCES IN DATA ANALYTICS

1570733086	Machine learning approach in fire risk estimation	Ivana Nizetic Kosovic and Diana Škurić Kuraži (Ericsson Nikola Tesla, Croatia)
1570737070	Machine Learning-Based Model Selection for Anomalous Wireless Link Detection	Gregor Cerar (Jozef Stefan Institute & Jožef Stefan International Postgraduate School, Slovenia); Halil Yetgin (Bitlis Eren University, Turkey & Jozef Stefan Institute, Slovenia); Carolina Fortuna (Jozef Stefan Institute, Slovenia)
1570736630	Runtime Metric Analysis In NoSQL Database Performance Benchmarking	Camelia Florina Andor (Babes-Bolyai University, Romania)
1570741208	Text Analysis of the Hybrid Digital Corpora	Hrvoje Karna, Anita Gudelj and Silvana Kokan (University of Split, Croatia)
1570733448	N-gram Based Croatian Language Network	Magdalena Simunec (University of Zagreb, Croatia); Renato Soic and Marin Vukovic (University of Zagreb Faculty of Electrical Engineering and Computing, Croatia)

SS7: SPECIAL SESSION ON ENVIRONMENTAL ELECTROMAGNETIC COMPATIBILITY (EEMC)

1570732827	Finding an Optimal Sample Size and Placement for Measurement of Relative Permittivity using a Microstrip Ring Resonator	Miroslav Joler (University of Rijeka, Croatia); Alex Noel Joseph Raj (Shantou University, China); Juraj Bartolić (University of Zagreb, Croatia)
1570732831	Relaxing the Variational Method-based Measurement Configuration for the Evaluation of Permittivity using a Microstrip Ring Resonator	Miroslav Joler (University of Rijeka, Croatia); Alex Noel Joseph Raj (Shantou University, China)
1570733286	Assessment of Transmitted Power Density due to Radiation from Dipole Antenna of Finite Length - Part I:	Dragan Poljak (University of Split, Croatia); Anna Šušnjara (University of Split & FESB, Croatia); Ana Džolić (FESB, Croatia)

	Theoretical background and current distribution	
1570733288	Assessment of Transmitted Power Density due to Radiation from Dipole Antenna of Finite Length - Part II: Transmitted field, volume power density and transmitted power density	Dragan Poljak (University of Split, Croatia); Anna Šušnjara (University of Split & FESB, Croatia); Ana Džolić (FESB, Croatia)
1570734289	A Note on the Calculation of the Power Flow along a Straight Thin Wire Scatterer Horizontally Located above a Lossy Ground	Dragan Poljak (University of Split, Croatia); Vicko Doric (University of Split, FESB, Croatia)
1570728997	Study on the Suitability of Numerical Integration at 5G Frequencies Using Unit Cube Test	Mario Cvetković (University of Split, Croatia); Dragan Poljak (University of Split, FESB, Croatia); Ante Lojić Kapetanović (University of Split, Croatia); Hrvoje Dodig (University of Split, Faculty of Maritime Studies & Naval Electronic Center, PCE, Croatia)

SS8: SPECIAL SESSION ON ADVANCED EDUCATIONAL TECHNOLOGIES

1570742454	Studio Based Learning of Instructional Design in an Online Environment	Matea Markić Vučić (SPARK School, Bosnia and Herzegovina); Slavomir Stankov (University of Split, Croatia)
1570732593	DWDM Network Laboratory Solution for Telecommunication Education Engineering	Sylwester Kaczmarek (Gdansk University of Technology & Faculty ETI, Poland); Magdalena Młynarczuk (Gdańsk University of Technology & Faculty ETI, Poland)
1570731309	Coding Training Proposal from Kindergarten to High School	Elisa Benetti (LepidaScpA, Italy); Gianluca Mazzini (LepidaSpA & UniFe, Italy)

SYM1: SYMPOSIUM ON ROBOTICS AND ICT ASSISTED WELLBEING

1570733336	A software toolbox for behavioral analysis in robot-assisted special education	Chris Lytridis (International Hellenic University, Greece); Vassilis G. Kaburlasos (International Hellenic University (IHU) & HUman-MAchines INteraction (HUMAIN) Lab, Greece); Christos Bazinas (International Hellenic University (IHU), Greece); George A Papakostas and Cristina I. Papadopoulou (International Hellenic University, Greece); Vasiliki Aliki Nikopoulou (Papageorgiou General Hospital, Greece)
1570733409	A Study on Text Classification for applications in Special Education	Lemonia Karathanasi (International Hellenic University, Greece); Vassilis G. Kaburlasos (International Hellenic University (IHU) & HUman-MAchines INteraction (HUMAIN) Lab, Greece); Christos Bazinas and Grigorios Iordanou (International Hellenic University (IHU), Greece)
1570737085	Multimodal Segmentation Neural Network to Determine the Cause of Damage to Grasslands	Maximilian Johenneken (Bonn-Rhein-Sieg University of Applied Sciences, Germany); Ahmad Drak (Hochschule Bonn-Rhein-Sieg, Germany); Rainer Herpers and Alexander Asteroth (Bonn-Rhein-Sieg University of Applied Sciences, Germany)
1570737542	Design of a Sensor System for a	Lyubomira Miteva (Sofia University, Bulgaria);

	Minimalistic Walking Robot with Two Degrees of Freedom	Ivan Chavdarov (Institut of Robitics, Bulgarian Academy of Sciences & Sofia University "St. Kliment Ohridski", FMI, Bulgaria); Kaloyan M Yovchev (Sofia University, Bulgaria); Bozhidar Naydenov (Dassault Systemes & Institut of Robitics, Bulgarian Academy of Sciences, Bulgaria)
1570737476	On Olive Groves Analysis using UAVs	Vladan Papic, Nediljko Bugarin and Josip Gugić (University of Split, Croatia)
1570741374	Augmented reality for an effient inspection of outfitting process in shipbuilding	Mario Miličević, Marin Stefan Vidović and Mirjana Bonkovic (University of Split, Croatia); Ana Kuzmanić Skelin (Faculty of Electrical Engineering, Croatia); Boris Ljubenkov (University of Split, Croatia); Ratko Mimica and Ivana Željković (Div Group, Split Shipyard, Croatia)
1570733397	Head Movements of 3D Virtual Head in HMI Systems using Rigid Elements	Maja Kocoń (West Pomeranian University of Technology, Szczecin, Poland)
1570733296	Towards Supervised Robot-assisted Physical Therapy after Hand Fractures	Ivan Hrabar and Bruno Čelan (University of Zagreb, Croatia); Dora Matić (University of Zagreb Faculty of EE&C, Croatia); Nikola Jerković and Zdenko Kovacic (University of Zagreb, Croatia)

P1: POSTERS / ABSTRACTS SESSION

1570740041	Multi-objective optimization in optical networks	Kacper Wnuk (Warsaw University of Technology, Poland); Stanislaw Kozdrowski (Warsaw University of Technology & Computer Science Institute, Poland)
1570740885	Conversion of CVSS Base Score from 2.0 to 3.1	Maciej Roman Nowak, Michał Walkowski and Sławomir Sujecki (Wroclaw University of Science and Technology, Poland)

PROFESSIONAL PROGRAM

WICT: 27th Workshop on Information and Communication Technologies

1570733364	Integration criteria of environmental data of two real projects: Sensornet and PAIoT network	Stefania Nanni (Lepida ScpA, Italy); Gianluca Mazzini (University of Ferrara and LepidaSpA, Italy)
1570741384	Communication parameter testing of remotely controlled unmanned aerial vehicles (UAV)	Mato Kovčalija (University of Zagreb, Croatia); Krešimir Malarić (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia)
1570733418	VR-Evacuation training for cruise-ships with a focus on people with disabilities	Yvonne Prinzellner, Pia Ferner, Alisa Simon and Sabrina Scheuer (Johanniter Österreich Ausbildung und Forschung Gemeinnützige GmbH, Austria); Georg Aumayr (Johanniter Österreich Ausbildung und Forschung gem. GmbH, Austria); Andreas Peer (MasterMind Development Gmbh, Austria)
1570757516	Requirement Elicitation Practice in Small-Scale Software Organizations in Pakistan	Maria Hanif and Qudsia Yousaf (University of Lahore, Islamabad, Pakistan); Itrat Fatima (COMSATS Institute of Information Technology, Islamabad, Pakistan); Maida Khalid and Maria Sagheer (University of Lahore, Islamabad, Pakistan)