



# Sinteza

Singidunum University International Scientific Conference

Sinteza 2017 Conference Programme

**April 21<sup>st</sup>, 2017**

Singidunum University

Kumodraška 261a (Boulevard Peka Dapčevića)



[sinteza.singidunum.ac.rs](http://sinteza.singidunum.ac.rs)



presents

## International Scientific Conference on Information Technology and Data Related Research, **SINTEZA 2017**

"SINTEZA 2017 provides an ideal platform for the exchange of information and dissemination of best practices, advancements in the state-of-the-art and technical improvements in the domain of ICT and e-business related research in today's ubiquitous and virtual environment. Rapid advances in information and communication technology (ICT) in recent decades have had a huge impact on numerous facets of everyday life and have created tremendous opportunities for economic, technological and social gains at a global scale. New technologies and scientific breakthroughs have altered the working and living environments making them safer, more convenient and more connected. As a key infrastructure of knowledge-based economies, ICT is a driving force for rapidly growing new sectors, including advanced computing and software development, business process outsourcing and various Internet services. The conference seeks submissions from academics, researchers, and industry professionals presenting novel research on all practical and theoretical aspects in the field of ICT and their applications in a range of business and research fields. The most innovative papers presented at this year's international scientific conference SINTEZA will be recommended for publication in Serbian Journal of Electrical Engineering (M24). The authors of the selected papers are obliged to submit an extended version of their paper that will be thoroughly reviewed in accordance with the criteria outlined by the editorial board of the journal. The papers that successfully undergo the review process shall appear in a regular issue of the journal."

April 21<sup>st</sup>, 2017  
Belgrade, Serbia



# Sinteza

Singidunum University International Scientific Conference

**April 21<sup>st</sup>, 2017**

**09:00 – 10:00** Registration & Welcome Refreshments

**10:00 – 10:40** Opening Ceremony

**Prof. Milovan Stanišić, Ph.D.**, Singidunum University, President

**Roberto Mignemi**, Omnitech, CEO

**Prof. Maarten De Vos, Ph.D.**, University of Oxford

**Prof. Mohammed Ismail, Ph.D.**, Wayne State University

**10:40 – 11:00** Poster Sessions & Networking Coffee Break

**11:00 – 12:30** Parallel Sessions / Part 1 of 2

**12:30 – 13:00** Poster Sessions & Networking Coffee Break

**13:00 – 15:00** Parallel Sessions / Part 2 of 2

**15:00 – 16:00** Lunch Break



# Sinteza

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## DATA SCIENCE SESSION

Part 1 of 2 / (11:00 - 12:30 h)

amphitheater 016 / Vladimir Matić

Title of the paper

Author(s)

Innovations in Digital Health, Oxford University, opening Data Science chapter talk	Maarten De Vos
How is Data Revolutionising healthcare	Aleksandar Petrović
Internet of Things at NXP	Miroslav Knežević
Brawas - EEG and wearable devices CEO, CFO mBrainTrain	Ivan Gligorijević, Bogdan Mijović
Effective Diagnosis of Heart Disease Presence Using Artificial Neural Networks	Cako Sandra, Njeguš Angelina, Matić Vladimir

## DATA SCIENCE SESSION

Part 2 of 2 / (13:00 - 15:00 h)

amphitheater 016 / Vladimir Matić

Title of the paper

Author(s)

Modeling Qualitative and Quantitative Knowledge in Health Informatics Temple University Philadelphia	Djordje Gligorijević
Genomics and Machine Learning San Francisco State University	Ljubomir Buturović
Data-Driven Clustering of P300 EEG Data Using Coupled Tensor Decompositions	Zink Rob, Hunyadi Borbála, De Vos Maarten, Van Huffel, Sabine
Predicting primary origin of Cancer Centre for Genomic Regulation	Hana Sušak
Automated analysis of product related data generated from PLM ontology	Ana Miličić
Prediction of hourly heating energy use for HVAC using feedforward neural networks	Aleksandra Sretenović



**INFORMATION SECURITY SESSION**    
Part 1 of 2 / (11:00 - 12:30 h)  
amphitheater 018 / Milan Milosavljević

Title of the paper	Author(s)
An Implementation of Ransomware Malicious Software in Python	Vujanić Bojan, Maček Nemanja, Adamović Saša
Blocking Tor - Insight approach	Stanojević Vladimir
Federated identities – risk management in digital economy	Trmušić Marko, Veinović Mladen
Protection of Computer Security through Criminal Law	Simović Miodrag, Jovašević Dragan
Social engineering attack method on ICT systems using USB stick	Kunjadić Goran, Savković Marina, Radović Suzana
Application of biometrics in automotive industry - Case study based on Iris recognition	Catović Edin, Adamović Saša

**INFORMATION SECURITY SESSION**    
Part 2 of 2 / (13:00 - 15:00 h)  
amphitheater 018 / Milan Milosavljević

Title of the paper	Author(s)
Using the Military Geographical Institute photogrammetric documentation archive data for scientific research - the necessity and importance of digitization	Bakrač Saša, Milonjić Zlatan, Djordjević Dejan, Srdić Zoran, Tatomirović Slaviša
Robustness of two-layered feedforward neural network	Sarevska Maja
Digital Image Watermarking Techniques and Biometrics Data Security: A Review	Tašić Jelena, Adamović Saša
Payment cards counterfeiting methods and PIN uncovering	Kunjadić Goran, Veinović Mladen, Milosavljević Milan
Financial characteristics of Serbian business entities listed on the "Black" list	Mizdraković Vule, Kostić Marija, Stanić Nenad

**INTERNET AND DEVELOPMENT PERSPECTIVES AND  **  
**ADVANCED COMPUTING AND CLOUD COMPUTING SESSION**

Part 1 of 2 / (11:00 - 12:30 h)

**amphitheater 001** / Aleksandar Jevremović

Title of the paper	Author(s)
Analyzing the potential mechanism for measurements most popular Open Source Web Content Management System	Viduka Dejan, Bašić Ana, Lavrnić Igor
Neural model for far-field 1D localization of mobile stochastic EM sources with partially correlated radiation	Stanković Zoran, Dončov Nebojša, Milovanović Ivan, Sarevska Maja, Milovanović Bratislav
Copyleft licenses and the development of intellectual property rights	Nikčević Ivan, Radović Ana
Sending File License Information through HTTP Headers	Tair Milan
The future of payments in the internet of things	Tomić Nenad, Todorović Violeta
Finansiranje internet kompanija: od Startup-a do izlaska na berzu	Jeremić Zoran, Đurić Luna
Cyber terrorism - A global threat to the social order	Spalević Žaklina, Ilić Miloš, Spalević Željko
Efekti intraneta na upravljanje odnosima s internom javnošću uslužnih organizacija	Stanković Jelena, Živković Radmila, Gajić Jelena, Brdar Ivana

**INTERNET AND DEVELOPMENT PERSPECTIVES AND  **  
**ADVANCED COMPUTING AND CLOUD COMPUTING SESSION**

Part 2 of 2 / (13:00 - 15:00 h)

**amphitheater 001** / Aleksandar Jevremović

Title of the paper	Author(s)
Internet kao glavni agens transformacije žanrovskih sadržaja medija	Kostadinović Maja
Data science as decision making support for creating successful crowd-funding campaigns: First lesson learned from Kickstarter	Stevanović Nikola
Sharing Economy - Disruptive internet based business models of the future	Jovanović Nevena, Dragana Buvac, Ivana Matić, Stefan Kocić
Necessity of the Internet of things and fog computing integration	Maksimović Mirjana
Grad Beograd kao primer dobre prakse u upotrebi modernih infomaciono - komunikacionih tehnologija u komunikaciji između građana i gradske vlasti	Milenković Miloš, Kekić Dalibor, Glavaš Darko
Wireless sensor networks integration into Internet of Things	Živković Miodrag, Živković Tamara
Complex networks analysis by spectral graph theory	Jovanović Nenad, Jovanović Zoran, Jevremović Aleksandar
Emulation Testbed for Dynamically Provisioned Optical Networks	Kolarov Aleksandar, Rauch Michael, Wilson Brian
Internet exchange points	Radovanović Stefan, Janičijević Stefan, Radovanović Dalibor, Šarac Marko

**INFORMATION TECHNOLOGY IN EDUCATION SESSION** 

Part 1 of 2 / (11:00 - 12:30 h)

amphitheater 015 / Ivana Kostić-Kovačević - Milan Čabarkapa



Title of the paper	Author(s)
Implementation of Data Mining analysis into the Lessons Learned System in primary education	Vasiljević Julijana, Vasiljević Dragan
Study of e-Learning Systems	Sadinov Stanimir, Kanev Jordan
IT support of Descriptive Geometry course for engineering students	Trifunović Aleksandar, Čičević Svetlana, Dragović Magdalena, Čučaković Aleksandar
Web application for supporting the entrance exam organization	Petrović Ana, Tomašević Violeta
Percepcija studenata o značaju obuke iz hotelskih informacionih sistema tokom studija	Ivkov Milan, Blešić Ivana, Božić Sanja
Virtual Networking Laboratory for education in computer science	Kanev Jordan, Sadinov Stanimir
Use of BBC Micro:bit in teaching technical and IT education	Stanojević Dragana, Randelović Branislav, Stanković Željko, Rosić Aleksandra

**INFORMATION TECHNOLOGY IN EDUCATION SESSION** 

Part 2 of 2 / (13:00 - 15:00 h)

amphitheater 015 / Ivana Kostić-Kovačević - Milan Čabarkapa

Title of the paper	Author(s)
The importance of Distance learning and the use of Moodle educational platform in education	Matijašević-Obradović Jelena, Dragoljović Joko, Babović Stefan
Potencijalne mogućnosti primene interneta stvari u obrazovanju	Radaković Duško, Cvetković Dragan, Radaković Zoran, Stanojković Srđan, Trajković Srđan
Obuka zaposlenih za primenu informacionih sistema kao faktor unapređenja poslovanja u ugostiteljstvu	Blešić Ivana, Ivkov Milan, Tošić Aljoša
Značaj internet prezentacije za razvoj vinskog turizma Banata (Srpski i rumunski Banat)	Grahovac Milica, Pivac Tatjana, Nedelcu Adrian
ADDIE model for development of e-courses	Driljača Dalibor, Latinović Branko, Stanković Željko, Cvetković Dragan
Determinisanje ključnih indikatora intelektualnog kapitala organizacije „koja uči“	Stanojković Srđan, Balaban Petra, Cvetković Dragan
Stvaranje inovativnih kompetencija kod studenata inženjersko-tehnološkog profila	Radaković Duško, Cvetković Dragan, Radaković Zoran
Content distribution in education support software	Marković Dušan, Tair Milan, Šarac Marko, Stamenković Dušan, Savanović Nikola

## ADVANCED ENGINEERING SYSTEMS AND ELECTRONIC COMMUNICATIONS

### AND DIGITAL BROADCASTING SYSTEMS SESSION

Part 1 of 2 / (11:00 - 12:30 h)

**amphitheater 004** / Marko Tanasković - Marina Marjanović

Title of the paper	Author(s)
Analysis of different edge detections algorithms through the bit-plane layers	Ivković Ratko, Petrović Mile, Milošević Ivana, Jakšić Branimir, Bojivić Risto
De-jitter Buffer Role in Improving VoIP Connection Quality – Examples from Practice	Lebl Aleksandar, Mileusnić Mladen, Mitić Dragan, Markov Žarko, Pavić Branislav
Comparison of TDD LTE and IEEE 802.11af Deployment in TWSS band	Vujić Dejan, Đukić Miroslav
Analiza ekonomskih aspekata primene 5G tehnologije	Stamenković Saša, Marjanović-Jakovljević Marina
Servisi plaćene televizije u sistemima digitalne zemaljske televizije u Evropi	Ilić Siniša, Jakšić Branimir, Bojanić Slobodan, Babić Ranko, Petrović Mile
Ispitivanje stava studenata prema sadržajima studijskog programa DBBT kao indikator trendova na tržištu rada u IT sektoru	Ranko Babić, Jakviš Branimir, Ilić Siniša, Petrović Mile
Visualization of horizontal positional accuracy assessment results for Digital topographic maps at scale 1:25000	Drobnjak Siniša, Banković Radoje, Bakrač Saša, Kostić Miodrag
Postupak sertifikacije bespilotnih vazduhoplova	Đurić Aleksandar, Vasiljević Dragan, Jovanović Miroslav, Kutnjak Dalibor, Vasiljević Julijana

## ADVANCED ENGINEERING SYSTEMS AND ELECTRONIC COMMUNICATIONS

### AND DIGITAL BROADCASTING SYSTEMS SESSION

Part 2 of 2 / (13:00 - 15:00 h)

**amphitheater 004** / Marko Tanasković - Marina Marjanović

Title of the paper	Author(s)
Optimization of the speaker recognition in noisy environments using a stochastic gradient descent	Nasef Ashrf, Marjanović-Jakovljević Marina, Njeguš Angelina
Simulation and analysis of car noise pollution in the territory of Kaunas University of applied science	Bikuvienė Ina, Juodkienė Vytautė
Multi-criteria Analysis in the Selection of Alternative Fuels for Vehicles	Nikolić Dragan, Popović Predrag, Dragutinović Siniša, Spajić Branko
Decisions based on a general premium principle in Cumulative Prospect Theory	Pap Endre, Simičević Ana, Mihailović Biljana, Štrboja Mirjana
Integration architecture for knowledge management systems	Dragan Savić, Djordjević-Boljanović Jelena
The effects of current trends at the factors of development Industry 4.0 and Factories of the Future (FoF)	Vuksanović Dragan, Vešić Jelena, Cvetković Dragan
Mehaničko-strukturna analiza zavarenog spoja mikrolegiranog čelika dobijenog samozaštitnom žicom	Prokić Cvetković Radica, Popović Olivera, Jovičić Radomir, Milošević Nenad, Cvetković Dragan
Primena modifikovanog električnog luka za zavarivanje korenog prolaza cevi od austenitnih nerđajućih čelika	Jovičić Radomir, Popović, Olivera, Prokić Cvetković Radica, Burzić Meri, Burzić Zijah
Hladna metalizacija	Maslarević Aleksandar, Bakić Gordana, Đukić Miloš, Rajičić Bratislav, Petrović Aleksandar



**E-COMMERCE SYSTEMS AND  
SOFTWARE AND INFORMATION ENGINEERING SESSION**



Part 1 of 2 / (11:00 - 12:30 h)

**amphitheater 110** / Tijana Radojević - Zora Konjović



Title of the paper	Author(s)
Crowdsourcing Model for Reducing Inappropriate Parking in Urban Areas	Uzelac Ana, Zdravković Stefan, Janković Slađana, Mladenović Snežana
Development of Traffic Geo-Application Based on Big Data Processing	Janković Slađana, Mladenović Snežana, Uzelac Ana, Zdravković Stefan, Aćimović Slaviša
Digitalni mediji u funkciji unapređenja kulturnog turizma	Radović Nikica, Stevanić Bojan, Stojanović Nenad, Radović Milan
RBHAS: A Simple Rule-Based Web Platform for Smart Home Automation	Segedinac Milan, Milaković Srđan, Konjović Zora
Multimedia systems for blind and impaired persons	Samčović Andreja, Čičević Svetlana
Upotrebe bespilotnih vazduhoplova u praćenju i proceni hemijskih situacija	Dalibor Kutnjak, Dragan Vasiljević, Aleksandar Đurić, Julijana Vasiljević
Višekriterijumski izbor dobavljača primenom AHP metodologije i softverskog paketa Expert Choose	Stojanović Milan, Popović Predrag, Milovanović Željko
Informacioni sistem za kontrolu letenja bespilotnih vazduhoplova	Vasiljević Dragan, Vasiljević Julijana, Đurić Aleksandar, Pavlović Ivan
Determinante neekonomičnosti zaposlenih u domovima zdravlja u Republici Srpskoj	Kresojević Bojan

**E-COMMERCE SYSTEMS AND  
SOFTWARE AND INFORMATION ENGINEERING SESSION**



Part 2 of 2 / (13:00 - 15:00 h)

**amphitheater 110** / Tijana Radojević - Zora Konjović

Title of the paper	Author(s)
Methodological framework on Entrepreneurial Orientation and Innovation in the public sector	Karyotakis Konstantinos, Moustakis Vassilis
Primena poslovne inteligencije u hotelijerstvu	Borovčanin Dušan, Čerović Slobodan, Knežević Miroslav
Poverenje potrošača u elektronskoj trgovini: oznaka poverenja (e-trustmark) u Republici Srbiji	Đurić Luna, Gligorić Maja
Lojalnost korisnika i moderatorska uloga pola na zadovoljstvo uslugom e-posrednika za kupovinu smeštaja	Mihajlović Nikola, Popesku Jovan
Ponašanje potrošača pri online grupnoj kupovini turističkih usluga	Đeri Lukrecija, Kovačević Nataša, Ivkov Milan, Šuleić Jelena
Rangiranje logističkih projekata na osnovu rizika primenom AHP metodologije	Stojanović Milan, Popović Predrag, Milovanović Željko
Razvoj zaposlenih: uloga IT u 360° povratnim informacijama	Đorđević Boljanović Jelena, Dobrijević Gordana, Đoković Filip
Spatio-Temporal Localization of Agricultural Machinery Operations	Vidaković Dragan, Malbaša Vuk, Konjović Zora, Obradović Đorđe, Pap Endre

## MODERN TECHNOLOGIES IN LANGUAGE TEACHING



Roundtable / (11:00 - 12:30 h)

amphitheater 112 / Marijana Prodanović

Title of the paper	Author(s)
Does Modern Language Teaching Necessarily Involve Modern Technologies: The Case of a Large, Multilevel EFL Group	Prodanović Marijana
Enhancing Learners' Autonomy Through Flipped Classes	Gavranović Valentina
Prednosti i mane elektronskog testiranja stranih jezika	Radić Branislavjević Marina, Milovanović Marina, Gagić Aleksandra
Pedagogical return on interactive whiteboards: teachers' beliefs	Janković Anita, Spasić-Stojković Milica, Spasić Dragana
Gamification in foreign language teaching: Do you Kahoot?	Veljković Michos Maja

## ITC WORKSHOP



Workshop / (11:00 - 12:30 h)

amphitheater 118 / Marko Šarac



## LUNCH BREAK

(15:00 - 16:00 h)

Restaurant "Jasmin"





# Sinteza

Singidunum University International Scientific Conference

## Scientific Committee

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- **Slobodan Unković**, Singidunum University, Serbia
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- **Yipeng Liu**, University of Electronic Science and Technology of China, China



# Sinteza

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