25. ТЕЛЕКОМУНИКАЦИОНИ ФОРУМ
25th TELECOMMUNICATIONS FORUM

ТЕЛФОР 2017
TELFOR 2017

ПРОГРАМ
PROGRAM

Београд, 21. и 22. новембар 2017. године
Belgrade, 21 and 22 November 2017

Сава центар
THE SAVA CENTER

WEB АПЛИКАЦИЈА И ЛОГИСТИЧКА ПОДРШКА

WEB Application and Logistic

ETF Beograd

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TIME TABLE
Jubilee 25th Telecommunications Forum TELFOR 2017

21st November,Tuesday
Morning

9:00 Start of registration - Registration desk, Sava Center , Main Hall

10:30 – 12:00 OPENING CEREMONY - Rooms 1/0 + 1A/0 + 1B/0

12:00 – 13:00 Welcome PartySava Center Restaurant

21st November, Tuesday
Afternoon

Room Time	3/1	4/1	5/1	6/1	2/0	3/0
14:30-16:45	PRS 1 1.1-1.8	Commercial Presentations 13:00	RC 1 3.1-3.8	SP 1 5.1-5.7	TN 1 2.1-2.7	
17:00-19:15	OC 1 10.1-10.3	AEM 1 6.1-6.7	RC 2 3.9-3.16		TN 2 2.8-2.15	

Room Time	1/0	1a/0	1б/0		Japan Salon/1	9a/0
14:30-16:45	14h IRITEL 15h ERICSSON 16h VIP 17h CWS	CS 1 4.1-4.6	STA 1 9.1-9.8			
17:00-19:15		CS 2 4.7-4.12	STA 2 9.9-9.15			

22nd November, Wednesday Morning

Room Time	3/1	4/1	5/1	6/1	2/0	3/0
8:30-10:45	AEL 1 7.1-7.7	AEM 2 6.8-6.14	RC 3 3.17-3.24	SP 2 5.8-5.13	TN 3 2.16-2.22	10h UBconnect
11:00-13:15	AEL 2 7.8-7.14	AEM 3 6.15-6.20		SP 3 5.14-5.19		11h Dunav Net

Room Time	1/0	1a/0	1б/0		Japan Salon/1	9b/0
8:30-10:45	10h ROAMING	CS 4 4.19-4.24	STA 3 9.16-9.23		STA 7 9.47-9.54	9h IEEE Seminar Kurt Richter
11:00-13:15	12h CISCO1 13h RATEL	CS 3 4.13-4.18	STA 4 9.24-9.31		STA8 9.55-9.61	

22nd November, Wednesday Afternoon

Room Time	3/1	4/1	5/1	6/1		3/0
14:30-16:45	AEL 3 7.15-7.21		MM 1 8.1-8.5	S 1 11.1-11,5		14h TELEKOM2 15h CISCO2 16h TERI2 17h Project Management
17:00-19:15	AEL 4 7.22-7.28		MM 2 8.6-810	S 2 11.6-11.12		

Room Time	1/0	1a/0	1б/0		Japan Salon/1	9a/0
14:30-16:45	14h TERI1 Eng 15h M:TEL MN		STA 5 9.32-9.38			
17:00-19:15			STA 6 9.39-9.46			16:00 IEEE S&M Section

(Please see detailed programs)

Section 1	Policy, Regulatory Aspects and Services in Communications	Room 3/1
Section 2	Telecommunications Networks	Room 2/0
Section 3	Radio Communications	Room 5/1
Section 4	Communications Systems	Room 1a/0
Section 5	Signal Processing	Room 6/1
Section 6	Applied Electromagnetics	Room 4/1
Section 7	Applied Electronics	Room 3/1
Section 8	Multimedia	Room 5/1
Section 9	Software Tools and Applications	Room 16/0, J.Salon1
Section 10	Optical Communication	Room 3/1
Section 11	Student Section	Room 6/1

- Room 1/0 – Special Sections: Leading international and domestic companies presentations
- Sava Center Main Hall - Exhibitions
- Room 9/0 – Public Relation, Meetings
- Room 9/0/left – IEEE Seminar

САТНИЦА
Телекомуникациони форум ТЕЛФОР 2017

21. новембар, уторак пре подне

9:00 Почетак регистрације учесника - регистрациони пулт, хол Сава центра

10:30 – 12:00 СВЕЧАНО ОТВАРАЊЕ - Сале 1 + 1а + 1б /0

12:00 – 13:00 Коктел добродошлице, ресторан Сава центра

21. новембар, уторак после подне

Сала Време	3/1	4/1	5/1	6/1	2/0	3/0
14:30-16:45	ПРУ 1 1.1-1.8	Комерцијалне презентације 13:00	РК 1 3.1-3.8	ОС 1 5.1-5.7	ТМ 1 2.1-2.7	
17:00-19:15	ОТ 1 10.1-10.3	ПЕМ 1 6.1-6.7	РК 2 3.9-3.16		ТМ 2 2.8-2.13	

Сала Време	1/0	1а/0	1б/0		Јапански салон	9/0/лево
14:30-16:45	14ч ИРИТЕЛ 15ч ERICSSON 16ч VIP 17č CWS	СПС 1 4.1-4.6	САА 1 9.1-9.8			
17:00-19:15		СПС 2 4.7-4.12	САА 2 9.9-9.15			

22. новембар, среда пре подне

Сала Време	3/1	4/1	5/1	6/1	2/0	3/0
8:30-10:45	ПЕЛ 1 7.1-7.7	ПЕМ 2 6.8-6.14	РК 3 3.17-3.24	ОС 2 5.8-5.13	ТМ 3 2.16-2.22	10ч UBconnect
11:00-13:15	ПЕЛ 2 7.8-7.14	ПЕМ 3 6.15-6.20		ОС 3 5.14-5.19		11ч Dunav Net

Сала Време	1/0	1а/0	1б/0		Јапански салон	9/0/лево
8:30-10:45	10ч ROAMING	СПС 4 4.19-4.24	САА 3 9.16-9.23		SAA 7 9.47-9.54	9h IEEE Seminar Kurt Richter
11:00-13:15	12ч CISCO1 13ч РАТЕЛ	СПС 3 4.13-4.18	САА 4 9.24-9.31		SAA 8 9.55-9.61	

22. новембар, среда после подне

Сала Време	3/1	4/1	5/1	6/1		3/0
14:30-16:45	PEL 3 7.15-7.21		MM 1 8.1-8.5	C 1 11.1-11.5		14ч TELEKOM2 15ч CISCO2 16ч ТЕРИ2 17ч Пројектант-ска секција
17:00-19:15	PEL 4 7.22-7.28		MM 2 8.6..8.10	C 2 11.6-11.12		

9

Сала Време	1/0	1а/0	1б/0		Japanski salon/1	9а/0
14:30-16:45	14 TERI Eng. 15 М:ТЕЛ ЦГ		CAA 5 9.32-9.38			
17:00-19:15			CAA 6 9.39-9.46			16:00 IEEE S&M Section

(Видети програме у наставку)

Секција 1	Политика,регулатива и услуге у телекомуникацијама	Сала 3/1
Секција 2	Телекомуникационе мреже	Сала 2/0
Секција 3	Радио-комуникације	Сала 5/1
Секција 4	Системи преноса сигнала	Сала 1а/0
Секција 5	Обрада сигнала	Сала 6/1
Секција 6	Примењена електромагнетика	Сале 4/1
Секција 7	Примењена електроника	Сала 3/1
Секција 8	Мултимедија	Сала 5/1
Секција 9	Софтверски алати и апликације	Сале 1б/0, Jap. salon/1
Секција 10	Оптичке телекомуникације	Сала 3/1
Секција 11	Студентска секција	Сала 6/1

- Сала 1/0 – Посебне секције водећих домаћих и интернационалних компанија и институција
- Централни хол Сава центра – Изложбе
- Сала 9/0 – Контакт сала, састанци
- Сала 9/0/лево – IEEE семинар,

TELFOR 2017

СВЕЧАНО ОТВАРАЊЕ - Opening Ceremony

Уторак 21.11.2017. године, 10:30 часова
Tuesday 21st November, 2017, 10:30 a.m.
Сава Центар, Сале 1+1А+1В /0 - ***The Sava Center, Rooms 1 +1A+1B /0***

ПЛЕНАРНА СЕДНИЦА - Plenary Session

Увод – Introduction

Поздравне речи - Welcome Messages

Признања – Recognitions

Излагања по позиву - Invited Presentations

Prof. Aleksandar Nešković, ETF Belgrade

"5G EVOLUCIJA (USTVARI REVOLUCIJA) NAŠEG ŽIVOTA"

Завршне речи – Conclusions

Председник Управног одбора – ***Chairman of the Steering Committee***
Проф. др Ђорђе Пауновић – ***Prof. Dr George Paunović***

Коктел добродошлице – Welcome Reception

Домаћин – ***Host***

Друштво за телекомуникације – ***Telecommunications Society***

COMPANIES EXHIBITORS AT THE EXHIBITION
ФИРМЕ ИЗЛАГАЧИ НА ИЗЛОЖБИ

	Firma/Organization	Lokacija/Location
1	IEEE Serbia&Montenegro	Registracioni pult
2	CIP NETWORKS	A1
3	IRITEL	A2
4	KOC Communications Ltd	A3
5	NORMANN Engineering GMBH	A4
6	VIKIMEDIJA Srbije	A5
7	AKADEMSKA МИСАО	A6
8	Institut za fiziku	Registracioni pult
9	MAKSNET Telekomunikacije	C1
10	INGRAM Micro doo	C2

COMMERCIAL PRESENTATIONS
КОМЕРЦИЈАЛНЕ ПРЕЗЕНТАЦИЈЕ

Компанија *Company*	Дан *Day of the week*	Датум *Date*	Време *Time*	Сала *Room*
GENEKO RB	Уторак/Tuesday	21.11.	13:00-13:45	4/1
Milan Uzelac: "Geneko High Speed celularni ruteri za profesionalne M2M aplikacije", Generalekonomik				
ADVA OPTICAL	Уторак/Tuesday	21.11.	14:00-14:45	4/1
"ADVA xWDN rešenja za sigurno povezivanja centara podataka sa primerima iz prakse"				
INGRAM Micro doo Belgrade	Уторак /Tuesday	21,.11.	15;:00-15;:45	4/1
Sebastian Opiela: " Cambium Networks Wreless Fabric"				

SPECIAL EVENTS PROGRAM
ПРОГРАМ ПОСЕБНИХ ДОГАЂАЈА

ROOM 1/0 **/ САЛА 1/0**

SPECIAL SECTIONS FOR COMPANIES
ПОСЕБНЕ СЕКЦИЈЕ КОМПАНИЈА

November 21, Tuesday afternoon / 21. Новембар, уторак после подне

14:00 -14:55

IRITEL - 50 ГОДИНА У ДИГИТАЛНИМ ТЕЛЕКОМУНИКАЦИЈАМА

I. Почетак рада и преглед резултата у области дигиталних телекомуникација, 1967-2017

1. **"1967: Прва електронска централа КАТС и први 24-канални PCM мултиплексер за пренос дигитализованог говора"**
2. **"1967-2017: Кратак преглед остварених резултата"**

II. IRITEL данас и сутра:

1. **"8 Tbit/s OTN/DWDM оптичка транспортна платформа OTP100G IRITEL"**
2. **"Савремена решења организације непрекидних напајања телекомуникационих система"**

15:00 - 15:55 **ERICSSON, Belgrade**

Topic/Тема: **Evolucija mobilnih mreža – put prema 5G i IoT**
Mobile Networks Evolution – journey towards 5G and IoT

Presenteri/Предавачи: **Igor Tomoć, Igor Simić**

Digitalna transformacija industrije, gradova, društva, po0stavlja i specifične zahteve u oblasti njihove mrežne povezanosti. Na njih se može odgovoriti samo evolucijom današnjih mobilnih mreža. Naša prezentaqcija ima za cilj da predstavi neke aspekte i izazove transformacije današnjih mobilnih mreža u pravcu 5G i Io.T.

16:00 - 16:55 **VIP**

Telecoms are facing a perfect storm due to increasing traffic, number and variety of devices, and complexity of services and architecture. Operators are challenged both in terms of customer experience and investments needed to secure services and network quality. We need to move not only from reactive to proactive problem resolution, but to predictive maintenance and network planning where just in time investments will be ensured.
Using machine learning and advanced analytics to correlate the relationships between different data sources from radio access network in order to detect, resolve, predict and prevent service disruptions will bring decisive competitive advantage to future operators.

Topic/Тема: **"Telco data analytics imperative and opportunity"**

Presenter/Предавач: **Natali Delić, VIP**

Topic/Тема: **"Things Solver"**

Topic/Тема: **"Optimization of Radio Access Network through machine learning and Advanced analytics"**

Presenter/Предавач: **Ђорђе Бегенишић, VIP**

November 22, Wednesday morning / 22. Новембар, среда пре подне

10:00-10:55 ROAMING Networks, Begrade

Topic/Тема: **„ Moderni Huawei Data Centri "**
Presenter/Предавачи:
Zoran Janovac, Aleksandar Veselinović, Sunčica Jovanović, ROAMING

Modernizacija Data centara I njihove infrastructure danas je strateški prioritet u ICT sektoru I kompavije moraju da odgovore novim izazovima.Moderni Data Centri pružaju veću efikasnost, poboljšavaju fleksibilnost I smanjuju ukupne troškove korišćenja.

AGENDA
- Privatew Cloud server I storage virtuelizacija
- Rešenja za menadžment kompletne ICT infrastructure
- Backup I Disaster Recovery rešenja
- SAN (Storage Area Network) konvergentna IT infrastruktura – server, storage-i i ...
- Virtual SAN rešenja
- Mreže Data centara

11:00-11:55 CLOUD WORLDWIDE SERVICES Madrid, Spain

Topic/Тема: **Converged recording and GDPR and MiFID II compliance**

- Regulatory GPRD and MiFID II compliance
- Converged and agnostic cloud platform
- Live Demo of pbx, sms and mobile recording

Presenter/Предавач: **Dušan Simić, CWS**

12:00-12:55 CISCO SYSTEMS 1, Belgrade

Topic/Тема:
Tehnologija mikroservica (kontejnera) u sadašnjem i budućem SP portfolio proizvoda;
Microservices (containers) technology in present and future SP products portfolio
Presenter/Предавач: **Đorđe Vulović, CISCO Systems**
Prezentacija će se baviti korišćenjem tehnologije mikroservisa (kontejnera) u raqzvoju proizvoda iz portfolio relevantnog za servis provajdere. Posle kratkog uvoda u tehnologiju, na primerima iz CISCO portfolio proizvoda biće pokazano kako se mikroservisi već koriste u određenim rešenjima I kako će ta tehnologija postati osnova za razvoj celokupnog portfolia.

13:00-13:55 RATEL

Topics/Теме:
a) Regulatorna agencija za elektronske komunikacije i poštanske usluge - RATEL
b) Projekti RATEL-a u oblasti nadzora i upravljanja bežičnim elektronskim komunikacijama
c1) Elektronske dozvole
c2) Izgradnja sistema za monitoring RF spektra
c3) Sistem za kontinualno merenje elektomagnetskog polja
c4) Bencmarking mreža operatora mobilne telefonije
Presenters/Предавачи:
Bojana Anđelić, Miloš Josipović, Aleksandar Borić, Maja Mitić

November 23, Wednesday afternoon / 23. Новембар, среда после подне

14:00-14:55 TERI Engineering 1, Belgrade

Topic/Тема: **"Oracle Communications Service & Network Orchestration Solution"**
Presenteri/Предавачи **Jelena Stojanović, TERI Eng. , Branislav Melioris, Oracle Comm.**

15:00-15:55 M:TEL Crna Gora

Topic/Тема: M:TEL – system mobilnog plaćanja
Presenter/Предавач **Vlada Lučić, M:TEL**

ROOM 3/0 / **SALA 3/0**

TECHNICAL AND INFORMATION PRESENTATIONS

November 22, Wednesday morning / 22. новембар, среда пре подне

10:00-10:55

UBconnect INT, Belgrade

Topic/Тема: **Implementacija modernih tehnologija na dalekom severu – norveški uspeh I izazovi**

Presenter/Предавач: **Dejan Čakarević, UBconnect INT**

11:00-13:00 DUNAV NET, Novi Sad

Building a Smart Society" – DunavNET

Topic/Тема: **IoF2020 - Internet of Food&Farm 2020, making precision farming a reality**
Presenter/Предавач **Davide Guarkiento**

The aim of project is to build a lasting innovation ecosystem that fosters the uptake of IoT technologies. For this purpose key stakeholders along the food value chain are involved in IoF2020 together with technology service providers, software companies and academic research institutions. Nineteen use-cases organised around five sectors (**arable**, **dairy**, **fruits**, **meat and vegetables**) develop, test and demonstrate IoT technologies in an operational farm environment all over Europe. The first results are expected in the first quarter of 2018. The presentation will include an overview of the objectives and the challenges of the project
the description of the innovative multi-actor approach and the success stories of three Use Cases.

Topic/Тема: **TagItSmart! - A Smart Tags driven service platform for enabling ecosystems of connected objects**
Presenter/Предавач **Dr Nenad Gligorić**

TagItSmart is H2020 project that has a goal to enable mass market products to join IoT world by combining functional ink technology, printed NFC, crowd sourced secure scanners and cloud based data analytics. Functional ink will be used to print QR codes with embedded ability to sense temperature, humidity, elapsed time etc. which combined with printed NFC will give not only the unique identity to each item, but also ability to understand the environment and the context of the item throughout the product lifetime. Smart phones and smart glasses based scanning, combined with appropriate incentives will facilitate involvement of consumers in the process giving them additional information and services related to the item they are using, while at the same time providing valuable information to the manufacturers about how their products are used. TagItSmart project is a part of the IoT European Platforms Initiative (IoT-EPI).

Topic/Тема: **WeLive - A new concept of public administration based on citizen co-created mobile urban services**
Presenter/Предавач **Dr Dejan Drajić**

WeLive is an EU H2020 funded project, addressing ICT-enabled open government – INSO1 topic, about a new concept of public administration based on citizen co-created mobile urban services. The project is conceived to transform the current approach towards e-government by providing a new open model oriented towards the design, production and deployment of public services based in the collaboration of a quadruple helix, i.e. research organizations, companies, public administrations and citizens. WeLive will provide a novel We-Government ecosystem of tools (Live) built on the Open Data, Open Services and Open Innovation paradigms that is easily deployable in different public administrations and which promotes co-innovation and co-creation of personalized public services through public-private partnership and the empowerment of all the stakeholders to actively take part in the value-chain of a municipality or a territory.

November 22, Wednesday afternoon / 22. новембар, среда после подне

14:00-14:55 TELEKOM SRBIJA 2

Topic/Тема: **Rešenja za savremeno poslovanje**
Presenter/Предавач: **Ivan Luković**

15:00-15:55 CISCO 2, Belgrade

Topic/Тема: **CISCO Sparc API, Bots & Integrations**
Presenter/Предавач**: Aleksdandar Vulović, CISCO**

16:00-16:55 TERI Engineering 2, Belgrade

Topic/Тема: **ECI Telecom Optical Software Defined Networks**

Presenter/Предавач **Nikola Vuković, TERI Engineering**

17:00-17 :55 Tehnička prezentacija

Topic/Тема: **Пракса пројектовања телекомуникационих мрежа и система у објектима**
Presenter/Предавач: **Mirjana Jarić-Ćirić, „ФТТХ“ удружење Србије**

EXHIBITION / ИЗЛОЖБА

THE SAVA CENTER MAIN HALL / Glavni hol SAVA CENTRA

IEEE SEMINAR

(recommended for students and young engineers)

Development of Presentation Skills

Trainer Dr. Kurt Richter
Emeritus Professor of Electrical Engineering
University of Technology Graz, Austria
IEEE Life Fellow

TELFOR 2017

Wednesday, November 22, 2017.

9:00 - 13:00h

Sava Center, Room 9/0/left

(free participation – registration recommended to office@telfor.org)

Language:	***English***
Time:	***approx. 4 hours***
Target Group:	***Engineering students and young engineers***
Participants:	***Optimum 30 participants***

Summary

In this seminar basic rules for oral presentations (part 1) and writing technical papers (part 2) will be discussed. Emphasis will be placed on papers for IEEE transactions and conferences. Recommendations will be given concerning this lecture of the manuscript as well as on the layout and the expected content in each part of it. It also will deal with language problems of authors for whom English is not their first language. This in particular may lead to often made errors and eventually to the rejection of the paper by the reviewers. Finally, the participants will be actively involved in drafting an abstract and/or an introduction.

Facilities: *Flipchart, (White or Blackboard), Computer -video projector, Internet access (when available)*

RSNOG
Grupa mrežnih
operatora Srbije

Treća RSNOG konferencija

23. novembar 2017, 13.30-17h

Hotel Hyatt Regency, Beograd

Program i besplatna registracija na

www.rsnog.rs

Konferenciju podržali

RNIDS
Registar nacionalnog
internet domena Srbije

RIPE NCC
RIPE NETWORK COORDINATION CENTRE

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mainstream
PREMIUM HOSTING

ПРОГРАМ АУТОРСКИХ СЕКЦИЈА
AUTHOR SECTIONS' PROGRAM

СЕКЦИЈА 1: ПОЛИТИКА, РЕГУЛАТИВА И УСЛУГЕ У ТЕЛЕКОМУНИКАЦИЈАМА (ПРУ)
TELECOMMUNICATIONS POLICY, REGULATORY ASPECTS AND SERVICES (PRS)

ПРУ 1 - Уторак, 21.11.2017. године у 14:30 - сала 3/1
PRS 1 - Tuesday, 21.11.2017, 14:30 – Hall 3/1

Председавајући: ВЛАДО ДЕЛИЋ и НАТАША ГОСПИЋ

Chairpersons: VLADO DELIĆ and NATAŠA GOSPIĆ

1.1. Athul Prasad, Zexian Li, Silke Holtmanns, Mikko Aleksi Uusitalo: **5G Micro-Operator Networks – A Key Enabler for New Verticals and Markets**

1.2. Maria A. Butakova, Andrey V. Chernov, Petr S. Shevchuk, Vladimir D. Verskun: **Complex Event Processing for Network Anomaly Detection in Digital Railway Communication Services**

1.3. Ilias K. Savvas, Costas Chaikalis, Fabrizio Messina, Dimitrios Tselios: **Understanding Customers' Behaviour of Telecommunication Companies Increasing the Efficiency of Clustering Techniques**

1.4. Stoyan A. Poryazov, Dmytro Progonov, Emiliya T. Saranova: **Quality of Telecommunications as a Composition of Qualities of Subservices, Including Security and Trusted Third Parties**

1.5. Gordana Kordić, Ivan Grgurević: **Identification of Factors Relevant for the Estimation of Smartphone Life Cycle**

1.6. Nataša Banović-Ćurguz, Dijana Ilišević: **Trendovi razvoja digitalnog društva prema 5G tehnologiji**

1.7. Dragan R. Mijić: **Predlog pristupa organizacionom upravljanju projektima u procesu digitalne transformacije**

1.8. Elvis Babačić, Zoran Veljović, Milica Pejanović-Đurišić: **Upravljanje radio-frekvencijskim spektrom u bežičnim IoT mrežama**

СЕКЦИЈА 2: ТЕЛЕКОМУНИКАЦИОНЕ МРЕЖЕ (ТМ)
TELECOMMUNICATIONS NETWORKS (TN)

21.11.2017. године у 14:30 - сала 2/0
TN 1 - Tuesday, 21.11.2017, 14:30 – Hall 2/0

Wireless communications - 1

Председавајући: МЛАДЕН КОПРИВИЦА / Chairperson: MLADEN KOPRIVICA

2.1. Nemanja Zdravković: **Outage Analysis of Industrial Wireless Networks: Efficient Protocols and Trade-offs,** ***Invited paper***

2.2. Boris Malčić, Gordana Gardašević, Slavko Šajić: **A New Algorithm for Energy-Efficient IEEE 802.11 Access Points**

2.3. Costas Chaikalis, Vassilis Markoulis, Ilias K. Savvas, Konstantinos E. Anagnostoru: **Reconfigurability and performance of mobile routing protocols for VANET applications**

2.4. Ljupka Vuchkovska, Kire Jakimoski: **Improvements in the Quality of Service during Vertical Handovers between WiMAX and WLAN**

2.5. Jose Vera Perez, David Todoli-Ferrandis, Javier Silvestre-Blanes, Salvador Santonja-Climent, Victor Sepere-Paya: **Path Quality Estimator for Wireless Sensor Networks fast deployment tool**

2.6. Uldis Grunde, Dainis Zagars: **LoPy as a Building Block for Internet of Things Marine Applications**

2.7. Radek Krejči, Ondřej Hujnak, Marek Švepeš: **Security Survey of the IoT Wireless Protocols**

ТМ 2 - Уторак, 21.11.2017. године у 17:00 - сала 2/0
TN 2 - Tuesday, 21.11.2017, 17:00 – Hall 2/0

Wireless communications - 2

Председавајући: ДЕЈАН ДРАЈИЋ / Chairperson: DEJAN DRAJIĆ

2.8. Seong –Jin Lim, Young-Sik Kim, Jae-Seon Jang: **Performance of the Atto cell in LTE networks**

2.9. Havva Esra Bilisik, Radosveta Sokullu: **A New Channel-Aware LTE-A Uplink Resource Allocation Scheduling Algorithm**

2.10. Sally R. Aldaeabool, Maysam F. Abbod: **Reducing Power Consumption by Dynamic BBUs-RRHs Allocation in C-RAN**

2.11. Grigor Y. Mihaylov, Teodor B. Iliev, Elena P. Ivanova, Ivaylo S. Stoyanov, Dimitar I. Radev: **Universal Multimedia Access and Network Coding – Working Together for Best User Multimedia Experience**

2.12. Sofia V. Timofeeva, Dmitrii M. Sarkisian, Andrei M. Sukhov, Sergey A. Zuev: **Greedy Forwarding for Hyperbolic Address in MANET**

2.13. Elena-Madalina Oproiu, Marius Iordache, Cristian Patachia, Catalin Costea, Ion Marghescu: **Development and Implementation of a Smart City Use Case in a 5G Mobile Network's Operator**

2.14. Ufuk Altun, Semiha Tedik, Güneş, Karabulut kurt: **A Testbed based Verification of Joint Communication and Computation Systems**

2.15. Tijana Devaja, Đorđe Novaković, Živko Bojović: **Praćenje HRV radi detektovanja stresa uz korišćenje RMSSD metode**

ТМ 3 - Среда, 22.11.2017. године у 8:30 - сала 2/0
TN 3 - Wednesday, 22.11.2017, 8:30 – Hall 2/0

Data communications

Председавајући: НЕНАД КРАЈНОВИЋ / Chairperson: NENAD KRAJNOVIĆ

2.16. Mohsin Masood, Mohamed Mostafa fouad, Ivan Glesk: **Proposing Bat Inspired Heuristic Algorithm for the Optimization of GMPLS Networks**

2.17. S. Tomović, I. Radusinović: **Traffic engineering approach to virtual-link provisioning in software-defined ISP networks**
2.18. Irina P. Bolodurina, Denis I. Parfenov: **Neural network model for optimize network work in the infrastructure of the virtual data center**
2.19. Nataša Maksić: **Two-Phase Load Balancing for Data Center Networks using OpenFlow**
2.20. Justas Poderys, Jose Soler: **Evaluating Application-Layer Traffic Optimization Cost Metrics for P2P Multimedia Streaming**
2.21. Milutin Aksić, Hasan Redžović, Aleksandra Smiljanić: **Application of huge pages to the netmap platform**
2.22. Bojan Majstorović, Maksim Vuleta, Boško Milić, Željko Bajić, Danijel Spasojević: **Primjena YANG modula za nadziranje i konfigurisanje mrežnih uređaja**

СЕКЦИЈА 3: РАДИО-КОМУНИКАЦИЈЕ (РК)
RADIO COMMUNICATIONS (RC)

РК 1 - Уторак, 21.11.2017. године у 14:30 – сала 5/1
RC 1 - Tuesday, 21.2017, 14:30 – Hall 5/1

Председавајући: ЂУРАЂ БУДИМИР и ЕНИС КОЧАН

Chairperson: ĐURAĐ BUDIMIR and ENIS KOČAN

3.1. Volkan Ozduran: **Leakage Rate Based Hybrid Untrustworthy Relay Selection with Channel Estimation Error**
3.2. Uroš Pešović, Slađana Đurašević, Peter Planinšič: **Carrier synchronization algorithm for software defined radio**
3.3. Duška Čoja, Nataša Nešković, Aleksandar Nešković: **Channel Impulse Response Estimation using Vector Network Analyzer**
3.4. Branko Bukvić, Milan M. Ilić: **Characterization of Nonlilnearities in a Class-J Power Amplifier**
3.5. A. K. Alexandrov, V. V. Monov: **Method for WSN clock synchronization based on optimized SLTP protocol**
3.6. Bojan Domazetović, Enis Kočan: **Packet Error Rate in IEEE 802.11ah use case scenarios**
3.7. Semih Ozdemir, Ertugrul Aksoy: **GPS Jamming Mitigation through Taguchi's Optimization Method**
3.8. Mladen Mileusnić, Predrag Petrović, Branislav Pavić, Verica Marinković-Nedelicki, Jovica Glišović, Aleksandar Lebl, Ivica Marjanović: **The Radio Jammer Against Remote Controlled Improvised Explosive Devices**

РК 2 – Уторак, 21.11.2017. године у 17:00 - сала 5/1
RC 2 - Tuesday, 21.11.2017, 17:00 – Hall 5/1

Председавајући: МАРИЈА МАЛНАР и МИРЈАНА СИМИЋ

Chairperson: MARIJA MALNAR and MIRJANA SIMIĆ

3.9. Alexandru Martian, Melania Dambeanu, Cristina Oprea, Calin Vladeanu, Ion Marghescu: **DVB-T2 Radio Coverage Analysis in Romania**

3.10. A. Fanan, N. G. Riley, M. Mehdawi, O. Alfahad: **Implementation of combined geolocation database and infrastructure sensing in TV bands using different spectrum devices**

3.11. André Faye, Joseph Diè Ndaw, Amadou Seïdou Maïga: **Two-dimensional DOA estimation based on a single Uniform linear array**

3.12. Marcin Kolakowski, Jozef Modelski: **First Path Component Power Based NLOS Mitigation in UWB Positioning System**

3.13. Vitomir Djaja-Josko, Marcin Kolakowski: **A new map based method for NLOS mitigation in the UWB indoor localization system**

3.14. Nenad J. Jevtić, Marija Z. Malnar: **The NS-3 simulator implementation of ETX metric within AODV protocol**

3.15. Biljana Risteska Stojkoska, Kire Trivodaliev: **Enabling Internet of Things for Smart Homes Through Fog Computing**

3.16. Dan Popescu, Loretta Ichim, Emilian Vlasceanu, Oana Chenaru: **Multi-Ground-Control System for Unmanned Aerial Vehicles**

РК 3 – Среда, 22.11.2017. године у 8:30 - сала 5/1

RC 3 - Wednesday, 22.11.2017, 8:30 – Hall 5/1

Председавајући: ВЕСНА БЛАГОЈЕВИЋ и ВАСА РАДОНИЋ

Chairperson: VESNA BLAGOJEVIĆ and VASA RADONIĆ

3.17. U. Urošević, Z. Veljović: **Poboljšanje celularnog pokrivanja preko UAV**

3.18. Tijana Bovan, Milan Čabarkapa, Nataša Nešković, Aleksandar Nešković, Đurađ Budimir: **Analiza neželjenih efekata u MIMO predajnicima sa više antenna**

3.19. Đorđe Lukić, Goran B. Marković, Dejan Drajić: **Zero-Forcing Beamforming algoritmi grupisanja korisnika u Massive MIMO sistemima**

3.20. Goran B. Marković, Mladen Koprivica, Nataša Nešković, Aleksandar Nešković, Igor Kuzle: **Analiza primene back-to-back rešenja pasivne relejne stanice za radio pokrivanje unutar zgrada**

3.21. Tamara Muškatirović-Zekić: **Analiza mogućnosti realizacije backhaul sistema sa velikom gustinom linkova u E-bandu**

3.22. Srđan D. Misailović, Tatjana V. Nikolić, Goran B. Marković: **Analiza hijerarhijskih multi-hop protokola rutiranja za bežične senzorske mreže**

3.23. Lazar Vukasović, Milan Manić, Milivoje Bulajić, Aleksandar Živković, Ištvan Pap: **Uticaj predajne snage na kvalitet komunikacije u mesh bežičnim mrežama**

3.24. Kristina Jovičić, Mladen Koprivica, Igor Kuzle, Nataša Nešković, Aleksandar Nešković: **Eksperimentalna analiza elektromagnetskog zračenja 802.11a/g WLAN uređaja**

СЕКЦИЈА 4: СИСТЕМИ ПРЕНОСА СИГНАЛА (СПС)
COMMUNICATIONS SYSTEMS (CS)

СПС 1 - Уторак, 21.11.2017. године у 14:30 - сала 1а/0
CS 1 - Tuesday, 21.11.2017, 14:30 – Hall 1a/0

Communications Systems I

Председавајући: ПЕТАР СПАЛЕВИЋ и НЕНАД МИЛОШЕВИЋ

Chairpersons: PETAR SPALEVIĆ and NENAD MILOŠEVIĆ

4.1. Zorica Nikolić, Milorad Tošić, Nenad Milošević, Valentina Nejković, Filip Jelenković: **Spectrum Coordination for Intelligent Wireless Internet of Things Networks, -** ***Invited paper***

4.2. Aleksandar Rakić, Ivan Popović, Ivann Petruševski, Đorđe Begenišić, Vlado Spajić, Miriam Rakić: **Key Aspects of Narrow Band Internet of Things Communication Technology Driving Future IoT Applications**

4.3. Seda Üstünbas, Ümit Aygölü: **Transmit Antenna Selection Based on Sum Rate and Fairness for Downlink NOMA**

4.4. Hakan Alakoca, Güneş, Karabulut Kurt, Cem Ayyildiz: **PHY Based Jamming Attacks against OFDM Systems: A Measurement Study**

4.5. Yonca Bayrakdar: **Energy Aware Underwater Routing: A Pool Experiment**

4.6. Milan Paripović: **Dvostrano neprekidno napajanje električnom energijom telekomunikacionog operatera**

СПС 2 - Уторак, 21.11.2017. године у 17:00 - сала 1а/0
CS 2 - Tuesday, 21.11.2017, 17:00 – Hall 1a/0

Communications Systems II

Председавајући: ПРЕДРАГ ИВАНИШ и ДЕЈАН ДРАЈИЋ

Chairpersons: PREDRAG IVANIŠ and DEJAN DRAJIĆ

4.7. Srđan Brkić, Predrag Ivaniš, Bane Vasić: **Hard-Decision Decoding of LDPC Codes Under Timing Errors: Overview and New Results -** ***Invited paper***

4.8. Aleksei Kharin, Igor Volkov, Evgeny Mirokhin, Konstantin Terekhov, Aleksei Dryakhlov, Konstantin Zavertkin, Aleksei Ovinnikov, Evgeny Likhobabin, Vladimir Vityazev: **Parallel LDPC Decoer Implementation on a Mobile GPU**

4.9. Igor Volkov, Aleksei Kharin, Aleksei Dryakhlov, Evgeny Mirokhin, Konstantin Terekhov, Konstantnin Zavertkin, Aleksei Ovinnikov, Evgeny Likhobabin, Vladimir Vityazev: **Flexible Parallel Implementation of LLR BP Decoding Simulation on Multicores Using OpenCL**

4.10. Jan Broulim, Vjaceslav Georgiev, Michael Holik, Jan Zich: **Improved Belief Propagation based on the Estimation Backtracking**

4.11. Petr S. Budyakov, Nikolay I. Chernov, Vladislav Ya. Yugai, Nikolay N. Prokopenko: **2 to 4 decoder based on current logic**

4.12. Jerzy Kolakowski, Vitomir Djaja-Josko: **UWB Positioning System for elderly persons tracking in IONIS AAL Platform**

СПС 3 - Среда, 22.11.2017. године у 11:00 - сала 1а/0
CS 3 - Wednesday, 22.11.2017, 11:00 – Hall 1a/0

Communications Systems III

Председавајући: HANNES TOEPFER и ЗОРАН ЧИЧА

Chairpersons: HANNES TOEPFER and ZORAN ČIČA

4.13. Frank Senf, Bojana Nikolić, Bojan Dimitrijević, Silvia Krug, Tino Hutschenreuther, Hannes Toepfer: **Towards Robust Communication-Based Object Monitoring Under Harsh Propagation Conditions** – ***Invited paper***

4.14. Marco Goetze, Rolf Peukert, Tino Hutschenreuther, Hannes Toepfer: **An Open Platform for Distributed Urban Noise Monitoring**

4.15. Una Kisić, Olivera Kadić, Siniša Marinković: **Serbian Remote Control of Airport's Weather Stations SRCAWSII**

4.16. Hrvoje Vojvodić, Miroslav Vujić, Pero Škorput: **Cooperative Architecture of Data Acquisition for Emission Reduction in Traffic**

4.17. Sergiu Nimara, Mihnea Nandra, Razvan Bogdan: **Low-Power Wireless Data Acquisition System**

4.18. Nenad Sikirica, Emanuela Malić, Ivan Rumora, Renato Filjar: **Exploitation of Google GNSS measurement API for risk assessment of GNSS applications**

СПС 4 - Среда, 22.11.2017. године у 8:30 - сала 1а/0
CS 4 - Wednesday, 22.11.2017, 8:30 – Hall 1a/0

Communications Systems IV

Председавајући: ГОРАН ЂОРЂЕВИЋ и ВЕСНА БЛАГОЈЕВИЋ

Chairpersons: GORAN ĐORĐEVIĆ and VESNA BLAGOJEVIĆ

4.19. Časlav M. Stefanović: **LCR of Amplify and Forward Wireless Relay Systems in General Alpha-Mu Fading Environment** – ***Invited paper***

4.20. Georgia D. Ntouni, Vasileios M. Kapinas, George K. Karagiannidis: **Optimization of the Detection Process Timing in Molecular Communication Systems with Flow**

4.21. Bogdan Pavković, Nataša Matić, Đorđe Glišić, Lazar Berbakov, Ištvan Pap: **Simple Detection of Networks Anomalies and Topology Control in ZigBee Networks**

4.22. Ivan Cvitić, Dragan Peraković, Marko Periša, Mario Musa: **Network Parameters Applicable in Detection of Infrastructure Level DDoS Attacks**

4.23. Ferhat Yarkin, Ibrahim Altunbas, Ertugrul Basar: **Two-way Space Shift Keying with Relay Selection**

4.24. Gerhard Scheepers, Reza Malekian, Dijana Capeska Bogatinoska, Biljana Risteska Stojkoska: **A low-power cost-effective flexible solar panel powered device for wireless livestock tracking**

СЕКЦИЈА 5: ОБРАДА СИГНАЛА (ОС)
SIGNAL PROCESSING (SP)

ОС 1 - Уторак, 21.11.2017. године у 14:30 - сала 6/1
SP 1 - Tuesday, 21.11.2017, 14:30 – Hall 6/1

Filtri, obrada slike, transformacije, A/D

Председавајући: ВЛАДИМИР ОСТОЈИЋ и ВЕЉКО ПАПИЋ

Chairpersons: VLADIMIR OSTOJIĆ and VELJKO PAPIĆ

5.1. Vladimir S. Ostojić, Đorđe S. Starčević, Vladimir S. Petrović: **Recursive radiography image denoisign**
5.2. Vladimir S. Ostojić, Đorđe S. Starčević, Vladimir S. Petrović: **Dual harmonic anti-scatter grid artefact removal for digital radiography**
5.3. Đorđe S. Starčević, Vladimir S. Ostojić, Vladimir S. Petrović: **Multiscale gradient based digital radiography image registration**
5.4. Marko Bošković, Tomislav B. Šekara, Milan R. Rapaić, Budimir Lutovac, Miloš Daković, Vidan Govedarica: **Novel Band-Pass and Notch filter with Dynamic Damping of Fractional Order**
5.5. Đorđe Babić: **Simpe efficient digital filters for specific applications: DC blockers**
5.6. S. Kushch, J. M. Corchado: **Formation of optimal Boolean functions for analog-digital conversion**
5.7. Radmila V. Gerov, Milica B. Naumović: **Diskretne aproksimacije kontinualnog sistema visokog reda primenom z- i delta transformacije**

ОС 2 - Среда, 22.11.2017. године у 8:30 - сала 6/1
SP 2 - Wednesday, 22.11.2017, 8:30 – Hall 6/1

Klasifikacija, optimizacija, primene

Председавајући: АНА ГАВРОВСКА и ДРАГАНА ШУМАРАЦ ПАВЛОВИЋ

Chairpersons: ANA GAVROVSKA and DRAGANA ŠUMARAC PAVLOVIĆ

5.8. Cosmin Danişor, Antonio Pauciullo, Gianfranco Fornaro, Mihai Datcu: **Optimization of NLLS Algorithm Using Matrix Algebra: Application on SAR Tomography**
5.9. Ljubica Cimeša, Nenad Popović, Nadica Miljković, Tomislav B. Šekara: **Heart rate detection Fractional Approach and Empirical Mode Decomposition**
5.10. Marija M. Novičić, Milica M. Janković, Goran S. Kvaščev, Mirjana B. Popović: **Classification of forearm movements based on kinematic parameters using artificial neural networks**
5.11. Jovan Galić, Dragana Šumarac Pavlović, Slobodan T. Jovičić, Branko Marković, Đorđe Grozdić: **Prepoznavanje bimodalnog govora bazirano na metodi potpornih vektora**
5.12. Andrija Mitrović, Slobodan Djukanović, Milutin Radonjić: **Implementation of Signal Classification Using Frequency Spectrum Features on the Raspberry Pi Platform**
5.13. Duško Lukač, Miljana Milić: **Artificial Neuronal Networks as a Tool for Optimization of the Power Yield of Photovoltaic Systems**

ОС 3 - Среда, 22.11.2017. године у 11:00 - сала 6/1
SP 3 - Wednesday, 22.11.2017, 11:00 – Hall 6/1

Primena u telekomunikacijama

Председавајући: RENAT ABDULLIN и ГОРАН МАРКОВИЋ

Chairpersons: RENAT ABDULLIN and GORAN MARKOVIĆ

5.14. Slaviša Tomić, Marko Beko, Milan Tuba, Nebojša Bačanin: **Target Localization in Adverske Indoor Environments**

5.15. Goran Antonijević, Slobodan Simić, Dimitrije Bujaković: **Improving the azimuth resolution of stripmap SAR image using Adaptive Weighted Norm Extrapolation**

5.16. Alexandros E. Paschos, Vasileios M. Kapinas, Georgia D. Ntouni, Leontios J. Hadjileontiadis, George K. Karagiannidis: **Dynamic Spectrum Sensing Through Accelerated Particle Swarm Optimization**

5.17. Rostislav I. Sokolov, Renat R. Abdullin: **Variance Shift Keying in Wideband Communication Systems**

5.18. Rostislav I. Sokolov, Renat R. Abdullin: **Research on Masking Properties of Gaussian Noise with Inconstant Variance**

5.19. Zoran Nikolovski, Biljana Risteska Stojkoska : **Data Compression for Energy Efficient IoT Solutions**

СЕКЦИЈА 6: ПРИМЕЊЕНА ЕЛЕКТРОМАГНЕТИКА (ПЕМ)
APPLIED ELECTROMAGNETICS (AEM)

ПЕМ 1 - Уторак, 21.11.2017. године у 17:00 - сала 4/1
AEM 1 - Tuesday, 21.11.2017, 17:00 – Hall 4/1

Председавајући: VASILY KOZHEVNIKOV / Chairpersons: VASILY KOZHEVNIKOV

6.1. Olcay Yigit, Korkut Yegin, Ibrahim Akkaya, Yavuz Ozturk: **Plasma Frequency Selective Surface for GNSS Applications**

6.2. Vasily Yu. Kozhevnikov, Andrey V. Kozyrev, Natalia S. Semeniuk: **The Electromagnetic Nature of "Anomalous" Runaway Electrons in Fast Gas Discharges**

6.3. Ege Güngör Önal, Adrian Keleşoğlu, Banu Saçli, Gökhan Cansiz, Sulayman Joof, Cemanur Aydinalp, Mehmet Çayören: **Kidney Stone Classification with Electromagnetic Properties: Preliminary Results**

6.4. Denis A. Letavin: **High-Pass Filter Consisting of Two L-Type Resonators and Two Interdigitated Capacitors**

6.5. Slobodan Bjelić, Zorica Bogićević, Nikola Milenković: **Analiza uticaja elemenata induktivnog karaktera na redukciju harmonika**

6.6. Victor A. Chechetkin, Alexey N. Korotkov, Vladislav M. Lapshanov: **PIFA antennas with a dielectric cover for GSM 900/1800 MHz and WiFi 2400 MHz**

6.7. Mehmet C. Özgönül, Mustafa Seçmen, Serdar Okuyucu: **Compact Printed Log Periodic Dipole Antenna with Second Order Semi-Circle Iteration**

ПЕМ 2 - Среда, 22.11.2017. године у 8:30 - сала 4/1
AEM 2 - Wednesday, 22.11.2017, 8:30 – Hall 4/1

Председавајући: GRIGORIOS P. ZOUROS/ Chairpersons: GRIGORIOS P. ZOUROS

6.8. Serap Kilinc Evran, Ozlem Coskun: **A Novel MIMO Antenna Design with AMC Reflector**
6.9. Grigorios P. Zouros, John A. Roumeliotis: **Resonances of Uniaxially Anisotropic Photonic Nanoresonators**
6.10. Olcay Yigit, Abdullah Balci, Radosveta Sokullu, Korkut Yegin: **A Novel Antenna for GPS and Iridium Satellite Phone Applications in M2M Communication**
6.11. Denis A. Letavin: **Study of substrate thickness influence on effectiveness of miniaturization, based on implementation of artificial transmission lines**
6.12. Yavuz Asci, Mustafa Pehlivan, Korkut Yegin: **Dual Cavity Ku-Band Antenna for SatCom Applications**
6.13. Nenad Marković, Slobodan Bjelić, Nenad Stanojević, Bojan Jovanović: **Optimizacija parametara izlaznog pasivnog filtra iz PWM invertora**
6.14. Ismail Dilman, Mehmet Nuri Akinci, Mehmet Çayören, Ibrahim Akduman: **Differential Microwave Imaging of the Stroke-affected Brain via Diffraction Tomography**

ПЕМ 3 - Среда, 22.11.2017. године у 11:00 - сала 4/1
AEM 3 - Wednesday, 22.11.2017, 11:00 – Hall 4/1

Председавајући: DENIS A. LETAVIN / Chairpersons: DENIS A. LETAVIN

6.15. Jordan Bozmarov, Guergana Bozmarova: **Efficient Design of Series-fed Linear Antenna Arrays with Ultralow Sidelobes**
6.16. Victor A. Chechetkin, Denis A. Letavin: **Miniaturized Microstrip Bandpass Filters with Resonators**
6.17. Hande Bodur, Sibel Ünaldi, Sibel Çimen, Gonca Çakir: **A Novel Reflectarray Antenna Combined with Double Layer FSS for RCS Reduction**
6.18. Slobodan Bjelić, Bojan Jovanović, Nenad Marković, Aleksandar Mitkić, Uroš Jakšić: **Simulacija rada i analiza filtara za stabilizaciju izlaznih napona invertora**
6.19. Mücahit Sarnik, Uğur Yalçin: **Uniform Diffracted Fields from Non-Conducting Cylindrical Surface by Modified Theory of Physical Optics**
6.20. Luka Lazović, Ana Jovanović, Vesna Rubežić: **Predlog dizajna antene za WiFi podvodne komunikacije**

СЕКЦИЈА 7: ПРИМЕЊЕНА ЕЛЕКТРОНИКА (ПЕЛ)
APPLIED ELECTRONICS (AEL)

ПЕЛ 1 - Среда, 22.11.2017. године у 8:30 - сала 3/1
AEL 1 - Wednesday, 22.11.2017, 8:30 – Hall 3/1

Projektovanje elektronskih kola/Electronic circuits design

Председавајући: ДУШАН ГРУЈИЋ / Chairperson: DUŠAN GRUJIĆ

7.1. Branko Bukvić, Milan M. Ilić: **Reconfigurable and Tunable Efficient Power Amplifiers for Transmitters in Telecommunication Devices** – ***Invited paper***

7.2. Nataša Samardžić: **Resistive Switching Effects in Nanomaterials Based Memristors** – ***Invited paper***

7.3. Charles Nwakanma Akwuruoha, Zhirun Hu: **64 to 70 GHz Microstrip Non-Foster Circuit Class-J GaAs pHEMT Power Amplifier**

7.4. Yuri V. ***Katunin***, Vladimir Ya. Stenin: **TCAD Simulation of Single-Event Transients in the 65-nm CMOS Element of Matching for a Content-Addressable Memory**

7.5. Vladimir Ya. Stenin, Artem V. Antonyuk, Pavel V. Stepanov, Yuri V. Katunin: **Design of the 65-nm CMOS Translation Lookaside Buffer on the Hardened Elements**

7.6. Nikolay N. Prokopenko, Oleg V. Dvornikov, Anna V. Bugakova: **Low-Temperature BiJFet Op-Amp with High Slew Rate**

7.7. Oleg V. Dvornikov, Valentine L. Dziatlau, Nikolay N. Prokopenko, Vladimir A. Tchekhovski, Anna V. Bukagova: **The Comparative Experimental Studies of the Volt-Ampere Characteristics of SiGe Transistors on Exposure to Fast Electrons and Gamma-Quanta**

ПЕЛ 2 - Среда, 22.11.2017. године у 11:00 - сала 3/1
AEL 2 - Wednesday, 22.11.2017, 11:00 – Hall 3/1

Projektovanje elektronskih sistema/Electronic Systems Design

Председавајући: НЕНАД ЈОВИЧИЋ и НЕНАД ЈЕВТИЋ

Chairpersons: NENAD JOVIČIĆ and NENAD JEVTIĆ

7.8. Bogdan Vukobratović, Rastislav Struharik: **Hardware Acceleration of Nonincremental Algorithms for the Induction of Decision Trees - *Invited paper***

7.9. Andrea Erdeljan, Bogdan Vukobratović, Rastislav Struharik: **IP Core for Efficient Zero-Run Length Compression of CNN Feature Maps**

7.10. Damjan Rakanović, Andrea Erdeljan, Vuk Vranjković, Bogdan Vukobratović, Predrag Teodorović, Rastislav Struharik: **Reducing off-chip memory traffic in Deep CNNs using Stick Buffer Cache**

7.11. Stefan Pijetlović, Miloš Subotić, Nebojša Pjevalica: **Improving FDTD Algorithm Performance using Block Floating-Point**

7.12. Strahinja M. Stančić, Jelena S. Popović-Božović, Milan M. Ponjavić: **HLS Efficiency in the Case of Image Moments Algorithm Implementation**

7.13. Marija P. Janković, Nenad S. Jovičić: **Design and Implementation of the Setup for Laser 3D Scanning**

7.14. Bogdan C. Florea: **Smartphone Input/Output Interface for IoT Applications**

ПЕЛ 3 - Среда, 22.11.2017. године у 14:30 - сала 3/1
AEL 3 - Wednesday, 22.11.2017, 14:30 – Hall 3/1

Elektronski sistemi i senzori/Electronic Systems and Sensors

Председавајући: ЗЛАТКО БУНДАЛО и ЛАЗАР САРАНОВАЦ

Chairpersons: ZLATKO BUNDALO i LAZAR SARANOVAC

7.15. Goran S. Savić, Milan D. Prokin, Vladimir M. Rajović, Dragana Z. Prokin: **Efficient Hardware Realization of Digital Image Decoder** – ***Invited paper***

7.16. Mirko Sajić, Dušanka Bundalo, Dražen Pašalić: **Digital Technologies in Transformation of Classical Retail Bank into Digital Bank**

7.17. Mirko Sajić, Dušanka Bundalo, Zlatko Bundalo, Dražen Pašalić: **Using Digital and Mobile Technologies for Increasing Efficiency of Financial Institutions**

7.18. Strahinja Janković, Lazar Saranovac: **Improving Energy Usage in Energy Harvesting Wireless Se nsor Nodes Using Weather Forecast**

7.19. Arnis Salmins, Janis Judvaitis, Rihards Balass, Krisjanis Nesenbergs: **Mobile wireless sensor network TestBed**

7.20. Didzis Lapsa, Rihard Balass, Janis Judvaitis, Krisjanis Nesenbergs: **Measurement of current consumption in a wireless sensor network TestBed**

7.21. Dumitru-Cristian Tranca, Alexandru Viorel Palacean, Andrei Cristian Mihu: **ZigBee based wireless Modbus Aggregator for Intelligent Industrial Facilities**

ПЕЛ 4 - Среда, 22.11.2017. године у 17:00 - сала 3/1

AEL 4 - Wednesday, 22.11.2017, 17:00 – Hall 3/1

Elektronski sistemi/Electronic Systems

Председавајући: ИВАН ПОПОВИЋ и МИЛАН ПОЊАВИЋ

Chairpersons: IVAN POPOVIĆ and MILAN PONJAVIĆ

7.22. Aleksandra Lekić, Dušan Stipanović: **Stable Switching Control of DC-DC Converters** – ***Invited paper***

7.23. Amel Toroman, Edin Mujčić: **Application of PLC SIEMENS SIMATIC S7-300 for controlling intelligent traffic lights**

7.24. Pavel Valenta, Václav Koucký, Jiři Hammerbauer: **Simultaneous Power Transfer and Information Transfer via Piezoelectric Transformer**

7.25. Szilárd Bulárka, Aurel Gontean: **Hybrid-loop Controled Solar Tracker for Hybrid Solar Energy Harvester**

7.26. Jan Široký, Richard Linhart: **Solar Storm Detecting by Integrated Magnetometer Based on Anisotropic Magnetoresistivity**

7.27. Jan Broulim, Michael Holik, Jan Zich: **Smart Single-Phase Battery Storage System**

7.28. Michael Holik, Jan Broulim, Vjaceslav Georgiev, Yesid Mora, Jan Zich: **Enhanced Timepix3 Chipboard for Operation in Vacuum and Back-side-pulse Spectroscopy**

СЕКЦИЈА 8: МУЛТИМЕДИЈА (ММ)
MULTIMEDIA (MM)

ММ 1 - Среда, 22.11.2017. године у 14:30 - сала 5/1

MM 1 - Wednesday, 22.11.2017, 14:30 – Hall 5/1

Softverska podrška i realizacija multimedijalnih sistema/

Software support and realizations of multimedijal systems

Председавајући: АНДРЕЈА САМЧОВИЋ и МИЛОРАД ПАСКАШ

Chairpersons: ANDREJA SAMČOVIĆ and MILORAD PASKAŠ

8.1. Milorad P. Paskaš, Branimir D. Reljin, Irini S. Reljin: **Assessment of Fractional Derivative Schemes for Enhancement of Chest Radiographs**

8.2. Milan S. Milivojević, Ana M. Gavrovska, Irini S. Reljin: **Poincare Diagram Based Analysis of Vital Signals**

8.3. Ana Gavrovska, Irini Reljin, Andreja Samčović, Milan Milivojević, Goran Zajić, Valery Starovoitov: **On Luminance Reduction in High Dynamic Range Synthetic Aperture Radar Images**

8.4. Dejan Bokan, Dragan Kukolj, Dragana Sandić-Stanković: **A No-reference Synthesized View Quality Assesment Using Statistical Features in Morphological Multiscale Domain**

8.5. Rade Maksimović, Jelena Kovačević, Sanja Čordašić: **Proširenje programske podrške audio – video prijemnika novije generacije**

ММ 2 - Среда, 22.11.2017. године у 17:00 - сала 5/1

MM 2 - Wednesday, 22.11.2017, 17:00 – Hall 5/1

Realizacija multimedijalnih sistema/

Realizations of multimedijal systems

Председавајући: ЈЕЛЕНА КОВАЧЕВИЋ и ДРАГАН КУКОЉ

Chairpersons: JELENA KOVAČEVIĆ and DRAGAN KUKOLJ

8.6. Andrej Popović, Jelena Kovačević, Dejan Bokan, Sanja Čordašić: **Optimization of audio surround virtualization module for ARM based processors**

8.7. Seilendria A. Hadiwardoyo: **An Overview of Multicast Routing Techniques for Group Communications Applications**

8.8. Ovidiu Sicoe, Mircea Popa: **Comparison metrics for the output of a mixed fixed point and floating point graphics pipeline**

8.9. Sergiu Nimara, Dorina Bianca Popa, Razvan Bogdan: **Automotive Instrument Cluster Screen Content Validation**

8.10. Miloš Ilić, Tihomir Anđelić, Ninoslav Žmukić, Milan Z. Bjelica: **Realizacija podrške za prikaz multimedijalnih elemenata na klaster ekranu vozila**

СЕКЦИЈА 9: СОФТВЕРСКИ АЛАТИ И АПЛИКАЦИЈЕ (САА)
SOFTWARE TOOLS AND APPLICATIONS (STA)

САА 1 – Уторак 21.11.2017. године у 14:30 - сала 1b/0

STA 1 – Thursday , 21.11.2017, 14:30 – Hall 1b/0

Softverski sistemi/Software Systems

Председавајући: БОЖИДАР РАДЕНКОВИЋ и ЖАРКО СТАНИСАВЉЕВИЋ

Chairpersons: BOŽIDAR RADENKOVIĆ and ŽARKO STANISAVLJEVIĆ

9.1 Marko S. Eremija, Nebojša R. Ilić, Miloš Cvetanović, Jelica Protić, and Zaharije Radivojević: **Identity Provider Deployment Based on Container Technology**

9.2 Marija Kerkez, Olivera Milutinović, Biljana Mladenović Vojinović: **Model for Risk Assessment in Information Technology and Services Environment**

9.3 Emir Ugljanin, Dragan H. Stojanović, Ejub Kajan, and Zakaria Maamar: **Initiating and Tracking Social Actions to Adapt and Improve Smart City's Business Processes**

9.4 Jovan Popović, Nenad Koa, Željko Marković, and Dragan Bojić: **The Influence of Non-functional Requirements in UCP Method on the Accuracy of Effort Estimates**

9.5 D. Tselios and P. Ipsilandis: **Telecommunication Projects Portfolio Scheduling using the IFM approach**

9.6 Tina Ranic and Marjan Gusev: **Comparison of Workflow Schedulers**

9.7 Kosa R. Nenadić, Milan M. Gavrić, and Vladimir I. Đurđević: **Validation of CIM Datasets Using SHACL**

9.8 Aldina Avdić, Dženan Avdić, Ulfeta Marovac, Ejub Kajan, and Adela Ljajić: **Koncept efikasnog parkiranja u pametnim gradovima**

САА 2 - Уторак, 21.11.2017. године у 17:00 - сала 1b/0

STA 2 - Tuesday, 21.11.2017, 17:00 – Hall 1b/0

Robotika, Telemedicina / Robotics, Telemedicine

Председавајући: КОСТА ЈОВАНОВИЋ и МАЈА ЛУТОВАЦ БАНДУКА

Chairpersons: KOSTA JOVANOVIĆ and MAJA LUTOVAC BANDUKA

9.9 Maja M. Lutovac Banduka: **Software System for Remote Robot Control and Monitoring based on Android Operating System and Wireless Communication - *Invited paper***

9.10 Stefan P. Gavrilović, Ivan G. Blažić, and Nenad S. Jovičić: **Rapid Programming of Embedded Autonomous Robots**

9.11 Marjan Gusev, Lidija Poposka, and Ema Guseva: **Applicability of the ECGalert Solution**

9.12 Era Ajdaraga and Marjan Gusev: **Analysis of Sampling Frequency and Resolution in ECG Signals**

9.13 A.M. Syskov, V.I. Borisov, and V.S. Kublanov: **Intelligent Multimodal User Interface for Telemedicine Application**

9.14 Vladimir S. Kublanov, Anna A. Petrenko, and Anna P. Kozhevnikova: **Biotechnical Multichannel Neuro-Electrostimulation System for Improving Cognitive Skills in the Learning Process**

9.15 Milan Manić, Lazar Vukasović, Dejan Mrvoš, and Ivan Rešetar: **Softverska podrška u realnom vremenu za upravljanje automatizovanim testiranjem mobilnih uređaja pomoću robotske ruke**

САА 3 - Среда, 22.11.2017. године у 8:30 - сала 1b/0

STA 3 - Wednesday, 22.11.2017, 8:30 – Hall 1b/0

Sistemi zasnovani na Android OS / Android Based Systems

Председавајући: ЗАХАРИЈЕ РАДИВОЈЕВИЋ и МАРИЈА ПУНТ

Chairpersons: ZAHARIJE RADIVOJEVIĆ and MARIJA PUNT

9.16 Lazar Berbakov, Franco Nicolás Tripi, Alberto Cuevas Abad, Javier Vázquez Gómez, and Bogdan Pavković: **Android Application for Collaborative Mapping in Emergency Situations**

9.17 Iasmina Gruicin and Mircea Popa: **Airify – A Mobile Solution for Monitoring Air Quality in Urban Areas**

9.18 Ervin Domazet, Marjan Gusev, and Ljupcho Antovski: **Design Specification of an ECG Mobile Application**

9.19 Dragan Čečavac, Miodrag Dinić, Aleksandar Marković, and Petar Jovanović: **Adapting UBIFS File System to Android Operating System Requirements**

9.20 Dobrivoj Jugović i Maja Lutovac Banduka: **Proširenje i integracija HLS programske podrške u Android bazirane sisteme**

9.21 Dimitrije Petrović, Marko Zeković i Nikola Vranić: **Jedno rešenje proširenja sistema za snimanje multimedijalnog sadržaja na Android baziranim uređajima**

9.22 Svetlana Kostadinović i Nikola Vranić: **Integracija digitalnog TV prijemnika na uređaje sa Android sistemom**

9.23 Marko Kostić, Nikola Vranić i Nemanja Nikolić: **Jedno rešenje bezbedne reprodukcije multimedijalnog sadržaja na Android baziranim sistemima**

САА 4 - Среда, 22.11.2017. године у 11:00 - сала 1b/0
STA 4 - Wednesday, 22.11.2017, 11:00 – Hall 1b/0

Baze podataka / Databases

Председавајући: МИЛОШ ЦВЕТАНОВИЋ и ДЕЈАН ДУНЂЕРСКИ

Chairperson: MILOŠ CVETANOVIĆ and DEJAN DUNĐERSKI

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9.28 Miloš G. Kabiljo, Rade G. Matić, Suzana R. Marković i Arsen M. Lončar: **Elektronska transformacija filijala banke**

9.29 Davor Šutić and Ervin Varga: **Apache Spark as Distributed Middleware for Power System Analysis**

9.30 Anka V. Kabović, Milenko M. Kabović, Slavica V. Boštjančič Rakas, and Valentina V. Timčenko: **Short-Term Wind Forecasting Based on Time Series Data for Dynamic Line Rating**

9.31 H. Mohamed, P. Lazaridis, U. Khan, and K. Mistry: **Partial Discharge Detection in smart grid Using Software Defined Radio**

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STA 5 – Wednesday, 22.11.2017, 14:30 – Hall 1b/0

Multimedijski i senzorski sistemi / Multimedia- and Sensor- Systems

Председавајући: БОРИСЛАВ ЂОРЂЕВИЋ и ДРАЖЕН ДРАШКОВИЋ

Chairperson: BORISLAV ĐORĐEVIĆ and DRAŽEN DRAŠKOVIĆ

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9.35 Dan L. Lacrămă, Florin Alexa, Florentina A. Pintea, and Paul G. Zinca: **Expert System for Infrared Heating Panel Optimization**

9.36 Sebastian Novak, Dejan Stefanović, Vukota Peković, and Nenad Soskić: **Implementation of a Sub-system for DIAL Verification within HbbTV Test Environment**

9.37 Darjan Ivić, Nikola Vranić i Maja Lutovac Banduka: **Implementacija D.I.A.L protokola na Android baziranim uređajima**

9.38 Tina Mastilović, Lazar Beloica, Ivana Jovančić i Nenad Šoškić: **Jedno rešenje implementacije video plejera sferičnog videa korišćenjem ffmpeg i openCV programske podrške**

САА 6 - Среда, 22.11.2017. године у 17:00 – сала 1b/0
STA 6 - Wednesday, 22.11.2017, 17:00 – Hall 1b/0

Algoritmi, analiza podataka / Algorithms, Data Analysis

Председавајући: МИЛУТИН РАДОЊИЋ и ЖИВОЈИН ШУШТРАН

Chairperson: MILUTIN RADONJIĆ and ŽIVOJIN ŠUŠTRAN

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9.44 Bedoor AlShebli, Armin Alibašić, Wei Lee Woon, and Davor Svetinović: **Kanban-Based Framework for Analysis of Heterogeneous Academic Data**

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STA 7 - Wednesday, 22.11.2017, 08:30 – Japanese hall/1

Podrška za arhitekture i hardverski sistemi / Hardware Systems and Architecture Support

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Chairperson: MIROSLAV POPOVIĆ and NENAD KOROLIJA

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9.49 Sarah Shihab Hamad, Ali Makki Sagheer, and Marwan Majeed Nayyef: **Design of Fully Homomorphic Encryption by Prime Modular Operation**

9.50 Veljko Milutinović, Nemanja Trifunović, Nenad Korolija, Jovan Popović, and Dragan Bojić: **Accelerating Program Execution Using Hybrid Control Flow and Dataflow Architectures – *Invited paper***

9.51 Boško Kragulj, Stefan Laza, Milena Milošević, and Gordana Velikić: **One Solution of Complex ADAS HW System Verification**

9.52 Marko Popović, Branislav Kordić, Miroslav Popović i Ilija Bašičević: **Napredni algoritam za raspoređivanje TM transakcija sa izbegavanjem konflikata**

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9.54 Goran Jakovljević, Lena Đokić i Petar Jovanović: **Razvoj optimizacionog prevodioca za ART za arhitekturu MIPS32**

САА 8 - Среда, 22.11.2017. године у 11:00 – Јапански салон/1
STA 8 - Wednesday, 22.11.2017, 11:00 – Japanese hall/1

Edukacioni sistemi / Educational Systems

Председавајући: МАРКО МИШИЋ и МАЈА ВУКАСОВИЋ

Chairperson: MARKO MIŠIĆ and MAJA VUKASOVIĆ

9.55 Marko J. Mišić, Jelica Ž. Protić, and Milo V. Tomašević: **Improving Source Code Plagiarism Detection: Lessons Learned - *Invited paper***

9.56 N. Trifunović, M. Kotlar, O. Andrić, P. Trifunović, S. Stojanović, M. Cvetanović, Z. Radivojević, M. Punt, N. Korolija, and V. Milutinović: **Experiences in the Teaching of a New Computing Paradigm: DataFlow Supercomputing**

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9.59 Maja Vukasović, Bogdana Veselinović i Žarko Stanisavljević: **Razvoj konfigurabilnog sistema za rad sa X509 sertifikatima**

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9.61 P. Sosnin: **Question-Answer Nets as a Valuable Source of Information in Designing the Software Intensive Systems**

СЕКЦИЈА 10: ОПТИЧКЕ ТЕЛЕКОМУНИКАЦИЈЕ (ОТ)
OPTICAL COMMUNICATIONS (OC)

ОТ 1 – Уторак 21.11.2017. године у 17:00 - сала 3/1
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Председавајући: ДЕЈАН ГВОЗДИЋ

Chairpersons: DEJAN GVOZDIĆ

10.1. Mostafa H. Ahfayd, Zohaib A. Farhat, martin J. N. Sibley, Peter J. Mather, P. I. Lazaridis: Visible light communication based system using high power LED and dicode pulse position modulation technique

10.2 Khaled G. Taha, Martin J. N. Sibley, Peter J. Mather: **Analytical Expressions for Tuned Feedback Front End Baseband Optical Receiver**

10.3. Mohamed Abuhelala, Md Shakil Ahmad, Mustafa Ibrahim, Ivan Glesk: **Investigation on Temporal Skewing among O-CDMA Code Carriers under Fiber Temperature Variations**

10:4 Ana Joza, Jovan Bajić, Nikola Laković, Branislav Batinić, Vladimir Milosavljević, Živorad Mihajlović, Vladimir Rajs: **Simultaneous Characrerization of Bidirectional Coupler and Semicouductor Photodecetors Spectral Propertiees**

СЕКЦИЈА 11: СТУДЕНТСКА СЕКЦИЈА (С)
STUDENT PAPERS (S)

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S1 - Wednesday, 22.11.2017, 14:30 – Hall 6/1

Радови на енглеском језику

Председавајућа: ЈЕЛЕНА ЋЕРТИЋ / Chairperson: JELENA ĆERTIĆ

11.1. Ferenc Nándor Janky: **A Flexible Architecture for Protocol Implementations within FPGAs**
11.2. Phiona Nabukenya: **Efficient Handoff Mechanism for Mobile Radio Receiver under DAB/FM co-existence**
11.3. Stefan Tešanović, Predrag Mitrović: **Development of the Game Hangman in Assembly Programming Language**
11.4. Josipović Ksenija, Karličić Mihajlo: **Battleship game in x86 assembly language**
11.5. Gavrić Luka, Jelisijević Ana: **CONNECT 4 Board Game in Assembly Programming Language for x86 Processor Family**

С1 - Среда, 22.11.2017. године у 17:00 - сала 6/1
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Радови на српском језику

Председавајућа: МИЛКА ПОТРЕБИЋ / Chairperson: MILKA POTREBIĆ

11.6. Milica S. Bulatović, Kristina R. Đorđević, Aneta T. Kartali, Andriana B. Takić, Dejana V. Vuković: **Vision sistem za upravljanje kursorom na računaru**
11.7. Miloš B. Živković, Jelena A. Božičković, Tamara V. Delić: **Analiza varijabilnosti srčanog ritma izazvana originalnim vizuelnim stimulusima**
11.8. Maja P. Pantić, Adrijana M. Ilić, Vukašin M. Stanojević: **Aplikacija za upravljanje robotskim sistemima pomoću govora**
11.9. Jovan B. Janković, Aneta T. Kartali, Mateja S. Rašković, Ana M. Stanišić, Dejana V. Vuković: **Aplikacija za upravljanje kretanjem špric-pumpe i merenje brzine fluida u mikrofluidnom sistemu**
11.10. Igor Medenica: **Jedno rešenje za prenos audio-video podataka preko p2p protokola**
11.11. Srđan A. Milojević: **Beskontaktno upravljani jeftini robotski sistemi**
11.12. Andrej Lojdi: **Jedno rešenje implementacije konvolucione neuronske mreže u OpenCL-u na ugrađenom procesoru**

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4.1. Zorica Nikolić, Milorad Tošić, Nenad Milošević, Valentina Nejković, Filip Jelenković: **Spectrum Coordination for Intelligent Wireless Internet of Things Networks, -** ***Invited paper***

4.7. Srđan Brkić, Predrag Ivaniš, Bane Vasić: **Hard-Decision Decoding of LDPC Codes Under Timing Errors: Overview and New Results -** ***Invited paper***

4.13. Frank Senf, Bojana Nikolić, Bojan Dimitrijević, Silvia Krug, Tino Hutschenreuther, Hannes Toepfer: **Towards Robust Communication-Based Object Monitoring Under Harsh**

4.19. Časlav M. Stefanović: **LCR of Amplify and Forward Wireless Relay Systems in General Alpha-Mu Fading Environment** – ***Invited paper***

7.1. Branko Bukvić, Milan M. Ilić: **Reconfigurable and Tunable Efficient Power Amplifiers for Transmitters in Telecommunication Devices** – ***Invited paper***

7.2. Nataša Samardžić: **Resistive Switching Effects in Nanomaterials Based Memristors** – ***Invited paper***

7.8. Bogdan Vukobratović, Rastislav Struharik: **Hardware Acceleration of Nonincremental Algorithms for the Induction of Decision Trees -** ***Invited paper***

7.15. Goran S. Savić, Milan D. Prokin, Vladimir M. Rajović, Dragana Z. Prokin: **Efficient Hardware Realization of Digital Image Decoder** – ***Invited paper***

7.22. Aleksandra Lekić, Dušan Stipanović: **Stable Switching Control of DC-DC Converters** – ***Invited paper***

9.24 Maja M. Lutovac Banduka: **Software System for Remote Robot Control and Monitoring based on Android Operating System and Wireless Communication -** ***Invited paper***

9.50 Veljko Milutinović, Nemanja Trifunović, Nenad Korolija, Jovan Popović, and Dragan Bojić: **Accelerating Program Execution Using Hybrid Control Flow and Dataflow Architectures –** ***Invited paper***

9.55 Marko J. Mišić, Jelica Ž. Protić, and Milo V. Tomašević: **Improving Source Code Plagiarism Detection: Lessons Learned -** ***Invited paper***

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