

**24. ТЕЛЕКОМУНИКАЦИОНИ ФОРУМ**  
***24<sup>th</sup> TELECOMMUNICATIONS FORUM***

# **ТЕЛФОР 2016**

## ***TELFOR 2016***



### **ПРОГРАМ**

### **PROGRAM**

**Београд, 22. и 23. новембар 2016. године**  
***Belgrade, 22 and 23 November 2016***

**Сава центар**  
***THE SAVA CENTER***

**WEB АПЛИКАЦИЈА И ЛОГИСТИЧКА ПОДРШКА**

*WEB Application and Logistic*

**ETF Beograd**

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# **TIME TABLE**

## **Telecommunications Forum TELFOR 2016**

### **22<sup>nd</sup> November.Tuesday Morning**

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

**10:30 – 12:00 OPENING CEREMONY - Rooms 1 + 1a + 16 /0**

**12:00 – 13:00 Welcome Party - Sava Center Restaurant**

### **22<sup>nd</sup> November, Tuesday Afternoon**

| Room Time   | 3/1               | 4/1                      | 5/1              | 6/1               | 2/0                               | 3/0              |
|-------------|-------------------|--------------------------|------------------|-------------------|-----------------------------------|------------------|
| 14:30-16:45 | PRS 1<br>1.1-1.5  | Commercial Presentations | RC 1<br>3.1-3.6  | AEM 1<br>6..1-6.6 | TN 1<br>2.1-2.7                   | MM 1<br>8.1-8.7  |
| 17:00-19:15 | PRS 2<br>1.6-1.10 | AEM 2<br>6.7-6.12        | RC 2<br>3.7-3.11 | SP 1<br>5.1-5.7   | Spec. Section<br>WSN<br>SS 1-SS 5 | MM 2<br>8.8-8.12 |

| Room Time   | 1/0                   | 1a/0             | 16/0              |  | Japan Salon/1          | 9a/0                                                      |
|-------------|-----------------------|------------------|-------------------|--|------------------------|-----------------------------------------------------------|
| 14:30-16:45 | 14h NOKIA,<br>15h VIP | CS 1<br>4.1-4.8  | STA 1<br>9.1-9.7  |  | <b>NEUREL<br/>2016</b> | <b>15h<br/>EPLA N<br/>Workshop<br/>Dr Duško<br/>Lukač</b> |
| 17:00-19:15 |                       | CS 2<br>4.9-4.14 | STA 2<br>9.8-9.15 |  |                        |                                                           |

### **23<sup>rd</sup> November, Wednesday Morning**

| Room Time   | 3/1               | 4/1                | 5/1               | 6/1               | 2/0               | 3/0               |
|-------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| 8:30-10:45  | AEL 1<br>7.1-7.7  | AEM 3<br>6.13-6.17 | RC 3<br>3.12-3.17 | SP 2<br>5.9-5.15  | TN 3<br>2.16-2.22 | MM 3<br>8.13-8.19 |
| 11:00-13:15 | AEL 2<br>7.8-7.14 | AEM 4<br>6.18-6.22 | RC 4<br>3.18-3.24 | SP 3<br>5.16-5.23 | AEM 1<br>6.1-6.7  |                   |

| Room Time   | 1/0                                                                       | 1a/0              | 16/0               |  | Japan Salon/1          | 9a/0                                        |
|-------------|---------------------------------------------------------------------------|-------------------|--------------------|--|------------------------|---------------------------------------------|
| 8:30-10:45  | 9h IIBIS Instr<br>10h ROAMING<br>11h TELEKOM<br>12h VLATACOM<br>13h RATEL | CS 3<br>4.17-4.24 | STA 3<br>9.16-9.22 |  | <b>NEUREL<br/>2016</b> | <b>9h IEEE<br/>Seminar<br/>Kurt Richter</b> |
| 11:00-13:15 |                                                                           |                   | STA 4<br>9.23-9.30 |  |                        |                                             |

## 23<sup>rd</sup> November, Wednesday Afternoon

| Room Time   | 3/1               | 4/1                | 5/1               | 6/1               |  | 3/0                                               |
|-------------|-------------------|--------------------|-------------------|-------------------|--|---------------------------------------------------|
| 14:30-16:45 | S 1<br>11.1-11.5  | AEM 5<br>6.23-6.29 | OC 1<br>10.1-10.8 | SP 4<br>5.21-5.27 |  | 14:h ITU<br>15h TELEKOM<br>16h Project Management |
| 17:00-19:15 | S 2<br>11.6-11.11 | AEM 6<br>6.30-6.35 |                   | SP 5<br>5.28-5.34 |  |                                                   |

| Room Time   | 1/0                                           | 1a/0 | 16/0               | Japan Salon/1                                                   |  |  |
|-------------|-----------------------------------------------|------|--------------------|-----------------------------------------------------------------|--|--|
| 14:30-16:45 | 14h TERI Eng<br>15h M:TEL MN<br>16h Min TTtel |      | STA 5<br>9.31-9.38 | 14-00h<br>IEEE Serbia &<br>Montenegro<br>Section<br>ANNIVERSARY |  |  |
| 17:00-19:15 |                                               |      | STA 6<br>9.39-9.45 |                                                                 |  |  |

*(Please see detailed programs)*

**Special Section**     **WSN - Wireless Sensor Networks ...**

|            |                                                           |
|------------|-----------------------------------------------------------|
| Section 1  | Policy, Regulatory Aspects and Services in Communications |
| Section 2  | Telecommunications Networks                               |
| Section 3  | Radio Communications                                      |
| Section 4  | Communications Systems                                    |
| Section 5  | Signal Processing                                         |
| Section 6  | Applied Electromagnetics                                  |
| Section 7  | Applied Electronics                                       |
| Section 8  | Multimedia                                                |
| Section 9  | Software Tools and Applications                           |
| Section 10 | Optical Communication                                     |
| Section 11 | Student Section                                           |

**Room 2/0**

Room 3/1  
Room 2/0  
Room 5/1  
Room 1a/0  
Room 6/1  
Room 6/1, 4/1  
Room 3/1  
Room 3/0  
Room 16/0, 1a/0  
Room 5/1  
Room 3/1

- 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, EPLAN Tutorial

# **САТНИЦА**

## **Телекомуникациони форум ТЕЛФОР 2016**

### **22. новембар, уторак пре подне**

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

**10:30 – 12:00 СВЕЧАНО ОТВАРАЊЕ - Сале 1 + 1а + 16 /0**

**12:00 – 13:00 Коктел добродошлице, Ресторан Сава центра**

### **22. новембар, уторак после подне**

| Сала<br>Време | 3/1               | 4/1                          | 5/1              | 6/1              | 2/0                               | 3/0              |
|---------------|-------------------|------------------------------|------------------|------------------|-----------------------------------|------------------|
| 14:30-16:45   | ПРУ 1<br>1.1-1.5  | Комерцијалне<br>презентације | РК 1<br>3.1-3.6  | ПЕМ 1<br>6.1-6.6 | ТМ 1<br>2.1-2.7                   | ММ 1<br>8.1-8.7  |
| 17:00-19:15   | ПРУ 2<br>1.6-1.10 | ПЕМ 2<br>6.7-6.12            | РК 2<br>3.7-3.11 | ОС 1<br>5.1-5.7  | Спец. Секција<br>WSN<br>SS 1-SS 5 | ММ 2<br>8.8-8.12 |

| Сала<br>Време | 1/0                | 1а/0              | 16/0              |  | Јапански<br>салон       | 9/0/лево                                     |
|---------------|--------------------|-------------------|-------------------|--|-------------------------|----------------------------------------------|
| 14:30-16:45   | 14 NOKIA<br>15 VIP | СПС 1<br>4.1-4.8  | САА 1<br>9.1-9.7  |  | <b>НЕУРЕЈИ<br/>2016</b> | 15<br>EPLAN<br>Workshop<br>Dr Duško<br>Lukač |
| 17:00-19:15   |                    | СПС 2<br>4.9-4.16 | САА 2<br>9.8-9.15 |  |                         |                                              |

### **23. новембар, среда пре подне**

| Сала<br>Време | 3/1               | 4/1                | 5/1               | 6/1               | 2/0               | 3/0               |
|---------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| 8:30-10:45    | ПЕЛ 1<br>7.1-7.8  | ПЕМ 3<br>6.13-6.17 | РК 3<br>3.12-3.17 | ОС 2<br>5.8-5.14  | ТМ 2<br>2.8-2.15  | ММ 3<br>8.13-8.19 |
| 11:00-13:15   | ПЕЛ 2<br>7.9-7.15 | ПЕМ 4<br>6.18-6.22 | РК 4<br>3.18-3.24 | ОС 3<br>5.15-5.20 | ТМ 3<br>2.16-2.22 |                   |

| Сала<br>Време | 1/0                                                                   | 1а/0               | 16/0               |  | Јапански<br>салон       | 9/0/лево                          |
|---------------|-----------------------------------------------------------------------|--------------------|--------------------|--|-------------------------|-----------------------------------|
| 8:30-10:45    | 9 IBIS INSTR<br>10 ROAMING N<br>11 ТЕЛЕКОМ<br>12 VLATACOM<br>13 РАТЕЛ | СПС 3<br>4.17-4.24 | САА 3<br>9.16-9.22 |  | <b>НЕУРЕЈИ<br/>2016</b> | 9 IEEE<br>Seminar<br>Kurt Richter |
| 11:00-13:15   |                                                                       |                    | САА 4<br>9.23-9.30 |  |                         |                                   |

## 23. новембар, среда после подне

| Сала<br>Време | 3/1               | 4/1                | 5/1               | 6/1               |  | 3/0                       |
|---------------|-------------------|--------------------|-------------------|-------------------|--|---------------------------|
| 14:30-16:45   | С 1<br>11.1-11.5  | ПЕМ 5<br>6.23-6.29 | ОТ 1<br>10.1-10.8 | ОС 4<br>5.21-5.27 |  | 14 ИТУ<br>15 ТЕЛЕКОМ      |
| 17:00-19:15   | С 2<br>11.6-11.11 | ПЕМ 6<br>6.30-6.35 |                   | ОС 5<br>5.28-5.34 |  | 16 Пројектант-ска секција |

| Сала<br>Време | 1/0                                           | 1а/0 | 1б/0               | Јапански<br>салон/1                                      |  |  |
|---------------|-----------------------------------------------|------|--------------------|----------------------------------------------------------|--|--|
| 14:30-16:45   | 14 TERI Engin.<br>15 М:ТЕЛ ЦГ<br>16 Min TTTeI |      | CAA 5<br>9.31-9.38 | 14:00<br>Прослава IEEE<br>Section Serbia<br>& Montenegro |  |  |
| 17:00-19:15   |                                               |      | CAA 6<br>9.39-9.45 |                                                          |  |  |

(Видети програме у наставку)

|                  |                                                    |               |
|------------------|----------------------------------------------------|---------------|
| Специјална секц. | WSN - Wireless Sensor Networks ...                 | Сала 2/0      |
| 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 6/1, 4/1 |
| Секција 7        | Примењена електроника                              | Сала 3/1      |
| Секција 8        | Мултимедија                                        | Сала 3/0      |
| Секција 9        | Софтверски алати и апликације                      | Сала 1б/0     |
| Секција 10       | Оптичке телекомуникације                           | Сала 5.1      |
| Секција 11       | Студентска секција                                 | Сала 3.1      |

- 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, EPLAN туториал

# **TELFOR 2016**

## **СВЕЧАНО ОТВАРАЊЕ - Opening Ceremony**

Уторак 22.11.2016. године, 10:30 часова

*Tuesday 22<sup>th</sup> November, 2016, 10:30 a.m.*

Сава Центар, Сале 1+1a+1b / *The Sava Center, Rooms 1+1a+1b*

## **ПЛЕНАРНА СЕДНИЦА - Plenary Session**

### **Увод – Introduction**

### **Поздравне речи - Welcome Messages**

### **Признања – Recognitions**

### **Излагања по позиву - Invited Presentations**

*Aslam Azfar, Director Customer Business Transformation*

*NOKIA, BELL LABS*

**"THE FUTURE X NETWORK"**

*Massimiliano Mannelli, Senior Director of Product Management &*

*Portofolio Strategy*

*ROHDE & SCHWARZ*

**„UNDERSTANDING AND TACKLING VIDEO QUALITY  
CHALLENGES IN MOBILE NETWORKS“**

*Milena Matić, Strategy and Marketing Manager Ericsson Serbia,*

*Macedonia, Montenegro and Albania*

*ERICSSON*

**„DIGITAL TRANSFORMATION IN THE NETWORKED SOCIETY“**

### **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                              |
|---|----------------------------------|------------------------------------------------|
|   | IEEE SERBIA & MONTENEGRO SECTION | Registracioni pult<br><i>Registration Desk</i> |
| 1 | CIP NETWORKS                     | A1                                             |
| 2 | IRITEL                           | A2                                             |
| 3 | AKADEMSKA MISAO                  | A3                                             |
| 4 | IBA                              | A4                                             |
| 5 | JURATECH SYSTEMS                 | A5                                             |
| 6 | NORMANN                          | A6                                             |

## **COMMERCIAL PRESENTATIONS**

### **КОМЕРЦИЈАЛНЕ ПРЕЗЕНТАЦИЈЕ**

| Компанија<br><i>Company</i> | Дан<br><i>Day of the week</i> | Датум<br><i>Date</i> | Време<br><i>Time</i> | Сала<br><i>Room</i> |
|-----------------------------|-------------------------------|----------------------|----------------------|---------------------|
| IRITEL a.d. BEOGRAD         | Уторак/Tuesday                | 22.11.               | 13:00-13:45          | 4/1                 |

*OTN/DWDM OPTIČKA TRANSPORTNA PLATFORMA OTP100G IRITEL*  
*NOVA GENERACIJA SDNU*

- *Objedinjeni mrežni pristup različitim grupa korisnika*

*OTN/DWDM OPTICAL TRANSPORT PLATFORM OTP100G IRITEL*  
*NEW GENERATION SDNU*

- *Unified network access for different user groups*

|                       |                |        |             |     |
|-----------------------|----------------|--------|-------------|-----|
| TERI Engin. / RED HAT | Уторак/Tuesday | 22.11. | 14:00-14:45 | 4/1 |
|-----------------------|----------------|--------|-------------|-----|

Aleksandar Žigić, TERI Engineering

Mirosław Pawłowski, Andrzej Kowalczyk, Red Hat

**OPEN SOURCE OFFERING FOR ENTERPRISE AND DIGITAL TRANSFORMATION**

## **ПРОГРАМ ПОСЕБНИХ ДОГАЂАЈА**

**ROOM 1/0 / САЛА 1/0**

### **SPECIAL SECTIONS FOR COMPANIES** **ПОСЕБНЕ СЕКЦИЈЕ КОМПАНИЈА**

**November 22, Tuesday afternoon / 22. Новембар, уторак после подне**

**14:00-14:55 NOKIA**

*Topic/Тема:* „**The Future X Network**”

*Presenter/Предавач:* **Aslam Azfar, NOKIA**

We are at the dawn of an era in networking that has the potential to define a new phase of human existence. This era will be shaped by the digitization and connection of everything and everyone with the goal of automating much of life, effectively creating time by maximizing the efficiency of everything we do and augmenting our intelligence with knowledge that expedites and optimizes decision-making and everyday routines and processes.

**The Future X Network:** How Nokia Bell Labs sees this future of networking unfolding and the key technological breakthroughs needed at both the architectural and systems levels. Major changes, the network and systems innovation required to realize the technological revolution will be the essential product of this new digital future.

*Topic/Тема:* „**Security in broadband networks**”

*Presenter/Предавач:* **German Peinado, NOKIA**

With increasing amounts of sensitive personal and business information now stored on smartphones, laptops, PCs, tablets etc. security has become an important aspect of consumers' relationships with their operator and an increasingly important driver for retention. As consumers become more aware of potential security threats, they are seeking additional security services. Expanding customers' current security protection, by offering guidance or additional security services, is one way for operators to help improve the overall customer experience and reduce likelihood to churn.

**15:00- 15:55 VIP**

*Topic/Тема:* „**Capacity extension in new generation bmobile broadband network**”

*Presenter/Предавач:* **Žarko Dašić, Tadej Pibernik, VIP Mobile**

Available capacities and spectrum, Carrier aggregation trial results, Deployment of carrier aggregation in Simobil, Slovenia, Challenges in deployment of carrier aggregation, Carrier aggregation and indoor coverage

**November 23, Wednesday morning / 23. Новембар, среда пре подне**

**9:00-9:55 IBIS INSTRUMENTS**

*Topic/Тема:* „**Spark Based Machine Learning with Ibis Performance Insights Big Data Solution**”

*Presenter/Предавач:* **Bojan Pavlović, Senior Consultant, IBIS Instruments**

Tesla cars autopilot, iPhone Siri speech recognition, Facebook face recognition. Ever wondered how these magical things work? Did you hear about elevator maintenance company which achieved zero outages in a year? Or for NBA trainer who decided to choose worse shooter instead of better one for same price, and this was good decision? Answer on all these questions is Machine Learning – key aspect of success for these companies.

Ibis Instruments will present how Machine Learning is used in Telecommunications industry, with focus on Spark based Machine Learning within Ibis Performance Insights Big data solution. Benefits for CSP providers, practical challenges and success stories will be discussed during the presentation.

#### **10:00-10:55 ROAMING NETWORKS**

*Topic/Тема:* **"Javna komercijalna WiFi mreža MTEL, Crna Gora"**

*Dizajn i realizacija mreže u turističkoj regiji.*

*Tehnički aspekti, projektni izazovi i komercijalizacija.*

**"Public commercial WiFi network of MTEL, Montenegro"**

*Design and implementation of the network in the tourist region.*

*Technical aspects, project challenges and commercialization.*

*Presenter/Предавач:* **Vladimir Milošević, Business Development Manager.**

*Topic/Тема:* **"Virtualizacija storidža Data Centara Javnog preduzeća "Elektroprivreda Srbije"**

*Izazovi, dizajn rešenja, ključ u ruke i rezultati projekta*

**Virtualizaion of Data Centers storages in Public Enterprise "Elektroprivreda Srbije"**

*Challenges, Turnkey Solution Design and Project Results*

*Presenter/Предавач:* **Vesna Vilotijević, Business Development Manager**

#### **11:00-11:55 TELEKOM SRBIJA**

*Topic/Тема:* **„Projekat ALL IP transformacije fiksne mreže Telekoma Srbija**

*Presenter/Предавач:* **Mr Nemanja Ognjanović, direktor sektora za planiranje mreža i servisa, Direkcija za tehniku, Telekom Srbija**

#### **12:00-12:55 VLATACOM**

*Topic/Тема:* **"Integrirani informacioni sistemi posebne namene"**

*Presenter/Predavač:* **Dr Boško Božilović, VLATACOM**

#### **13:00-13:55 RATEL**

*Topic/Тема:* **"Tržište elektronskih telekomunikacija i potencijali za investicije"**

*Presenter/Predavač:* **Dr Vladica Tintor, RATEL**

**November 23, Wednesday afternoon / 23. Ноембар, среда после подне**

#### **14:00-14:55 TERI Engineering/ Oracle Communications**

*Topic/Тема:* **"NFV, Cloud and beyond"**

*Presenters/Predavači:* **Jelena Stojanović, TERI Engineering  
Mile Maksan, Oracle Communications**

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

*Topic/Тема:* **"Strategija razvoja LTE kompanije M:TEL"**

*Presenter/Predavač:* **Vladimir Lučić, M:TEL**

#### **16:00-16:55 Ministarstvo trgovine, turizma i telekomunikacija**

**ROUND TABLE / OKRUGLI STO**

*Topic/Тема:* **"Serbian National Broadband Program"**

*Moderatoris* **Milan Dobrijević, Ministry of Trade, Turism and Telecommunication  
Irin Reljin, Ministri of Trade, Turism and Telecommunications  
Vladica Tintor, Regulatory Agency for Electronic Com. & Postal Services**

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

**TECHNICAL AND INFORMATION PRESENTATIONS**  
**ТЕХНИЧКЕ И ИНФОРМАЦИОНЕ ПРЕЗЕНТАЦИЈЕ**

*November 23, Wednesday afternoon / 23. Новембар, sreda posle podne*

**14:30-14:55 Друштво за телекомуникације**

*Topic/Тема: Јубилеј 150 година од учлањења Србије у ITU - Међународну телекомуникациону унију*

*Presenter/Предавач: Момчило Симић*

**15:00-15:55 TELEKOM SRBIJA**

*Topic/Тема: Cloud Data Centar*

*Presenter/Предавач: Velibor Kokanović, TELEKOM Srbija*

**16:00-16 :55 Tehnička prezentacija**

*Topic/Тема: Пракса пројектовања телекомуникационих мрежа и система у објектима*

*Presenter/Предавач: Mirjana Jarić-Ćirić*

**EXHIBITION/ ИЗЛОЖБА**

***PTT „Serbia“, PTT Museum / ПТТ „Србија“, Музеј ПТТ***

***„NIKOLA TESLA I TELEKOMUNIKACIJE“***

***„NIKOLA TESLA AND TELECOMMUNICATIONS“***

***THE SAVA CENTER MAIN HALL / Главни хол САВА ЦЕНТРА***

## **IEEE SEMINAR**

(recommended for students and young engineers)

### **Development of Leadership Skills**

***Trainer Dr. Kurt Richter***

*Emeritus Professor of Electrical Engineering  
University of Technology Graz, Austria*

**TELFOR 2016**

**Wednesday, November 23, 2016.**

**9:00 - 13:00h**

**Sava Center, Room 9/0/left**

**(free participation – registration  
recommended to [office@telfor.org](mailto:office@telfor.org))**

**Language:** *English*

**Time:** *approx. 4 hours*

**Target Group:** *Engineering students and young engineers*

**Participants:** *Optimum 30 participants*

**Objectives:** *The seminar is an introduction into the principles of Leadership skills and comprises topics as leading of groups and teams. A considerable part of the workshop deals with meeting management, conflict styles, conflict management and dealing with difficult people and integration a group.*

**Content:** *The structure of the workshop is interactive where tests and group work combined with discussion and presentation of results have high priority to frontal lecturing. The workshop is modular structured in comprising 8 topics:*

1. Introduction into Leadership
2. Leadership Skills and Attributes of a Leader
3. Leader versus Manager – A Comparison
4. Body Language
5. Engineering Ethics
6. Personal Interactive Skills
7. Meeting Management
8. Conflict Management

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

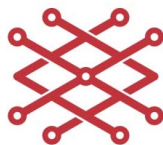
**Docent Dr Duško Lukač**

## **TUTORIAL**

**o primjeni EPLAN P8 sistema ([www.eplan.de](http://www.eplan.de))**

**Tuesday 22.11.2016. 15:00h, Room 9/0/left  
(free participation, recommended registration to  
office@telfor.org)**

**Уторак 22.11.2016., 15:00, соба 9/0/лево  
(слободан приступ, због ограниченог броја места  
на рачунарима препоручује се  
регистрација на office@telfor.org)**



**RSNOG**

Grupa mrežnih  
operatora Srbije

## **Druga RSNOG konferencija**

22. novembar 2016, 14-18h

Hotel Crowne Plaza, sala Mediteran

Program i besplatna registracija na

**[www.rsnog.rs](http://www.rsnog.rs)**

Konferenciju podržali



**RNIDS**  
Registar nacionalnog  
internet domena Srbije



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTRE

**interxion™**



**mainstream**  
PREMIUM HOSTING

# ПРОГРАМ АУТОРСКИХ СЕКЦИЈА

## AUTHOR SECTIONS' PROGRAM

### SPECIAL SECTION

#### ADVANCED WSNs (Wireless Sensor Networks) FOR AGRICULTURAL AND ENVIRONMENTAL APPLICATIONS (WSN)

**WSN - Уторак, 22.11.2016. године у 17:00 - сала 2/0**  
WSN - Tuesday, 22.11.2016, 17:00 – Hall 2/0

Председавајући: ROLF KRAEMER и ЗОРАН СТАМЕНКОВИЋ

Chairperson: ROLF KRAEMER and ZORAN STAMENKOVIĆ

- SS.1. Rolf Kraemer: **Wireless Sensor Networks for Use in Agriculture: "Challenges and Potential Solutions" – *Invited presentation***
- SS.2. Zoran Stamenković, S. Randjić, I. Santamaria, U. Pešović, G. Panić, S. Tanasković: **Advanced Wireless Sensor Nodes and Networks for Agricultural Applications – *Invited paper***
- SS.3. Diego Mendez, Sergio Diaz, Rolf Kraemer: **Wireless Technologies for Pollution Monitoring in large Cities and Rural Areas**
- SS.4. Mitar Simić, Goran M. Stojanović, Libu Manjakkal, Krzysztof Zaraska: **Multi-Sensor System for Remote Environmental (Air and Water) Quality Monitoring**
- SS.5. Krzysztof Piotrowski, Anna Sojka-Piotrowska, Zoran Stamenković, Rolf Kraemer: **IHPNode Platform as a Base for Precision Farming and Remote Diagnosis in Agriculture**

### СЕКЦИЈА 1: ПОЛИТИКА, РЕГУЛАТИВА И УСЛУГЕ У ТЕЛЕКОМУНИКАЦИЈАМА (ПРУ)

#### TELECOMMUNICATIONS POLICY, REGULATORY ASPECTS AND SERVICES (PRS)

**ПРУ 1 - Уторак, 22.11.2016. године у 14:30 - сала 3/1**  
PRS 1 - Tuesday, 22.11.2016, 14:30 – Hall 3/1

**Telecommunications Policy, Regulatory Aspects and Services**

Председавајући: НАТАША ГОСПИЋ и ВЛАДИЦА ТИНТОР

Chairpersons: NATAŠA GOSPIĆ and VLADICA TINTOR

- 1.1. Čedomir Vasić, Dejan Rančić: **Relocation of resources in road transportation based on the use of data from the GPS based systems – *Invited paper***
- 1.2. Andrey V. Chernov, Maria A. Butakova, Vladimir D. Vereskun, Oleg O. Kartashov: **Situation Awareness Service based on Mobile Platforms for Multilevel Intelligent Control System in Railway Transport**



- 1.3. Tatiana V. Atanasova, Stoyan A. Poryazov, Emiliya T. Saranova: **Problems with quality enabling of information functions composition in smart buildings**
- 1.4. Y. Guclu, N. Gozuacik, A. Gul: **Implementing Subscriber-Wide INAP Service in VoIP Switch**
- 1.5. Kemal Hajdarević, Pat Allen, Mario Spremić: **Proactive Security Metrics for Bring Your Own Device (BYOD) in ISO 27001 Supported Environments**

**ПРУ 2 - Уторак, 22.11.2016. године у 17:00 - сала 3/1**

PRS 2 - Tuesday, 22.11.2016, 17:00 – Hall 3/1

**Telecommunications Policy, Regulatory Aspects and Services**

**Председавајући: МИЛИЦА ПЕЈАНОВИЋ-ЂУРИШИЋ и ВЛАДО ДЕЛИЋ**

**Chairpersons: MILICA PEJANOVIĆ-DJURIŠIĆ and VLADO DELIĆ**

- 1.6. Aleksandar Valjarević, Hein Venter, Ranko Petrović: **ISO/IEC 27043:2015 – Role and application**
- 1.7. Zlata Radak, Vesna Radonjić Đogatović: **Customized charging option for business customers**
- 1.8. Adnan Gabela: **Potencijal novih zona poslovanja za telekom operatore u regionu**
- 1.9. Nataša Banović-Ćurguz, Dijana Ilišević: **Evolucija metrika u savremenom telekomunikacionom okruženju**
- 1.10. Asanović S. Marko, Gospić M. Nataša: **Primjena preporuka za Green IT u lokalnim samoupravama**

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

**ТМ 1 - Уторак, 22.11.2016. године у 14:30 - сала 2/0**

TN 1 - Tuesday, 22.11.2016, 14:30 – Hall 2/0

**Председавајући: ГОРАН МАРКОВИЋ и НЕНАД КРАЈНОВИЋ**

**Chairperson: GORAN MARKOVIĆ and NENAD KRAJNOVIĆ**

- 2.1. Nenad Krajnović: **Network topologies for achieving maximal all-terminal network availability – *Invited paper***
- 2.2. Igor Trpevski, Ljupco Kocarev: **Greedy Reduction of Navigation Time in Random Search processes**
- 2.3. Mladen Veletić, Ilanko Balasingham: **The Neural Communication Network: A Brief Review on Neuromodeling and Neuroengineering**
- 2.4. Evgeny S. Sagatov, Daria V. Samoilova, Andrei M. Sukhov, Nikita I. Vinogradov: **Composite distribution for one-way packet delay in the global network**
- 2.5. Hasan Redžović, Aleksandra Smiljanić, Bogdan Savić: **Performance Evaluation of Software Routers with VPN Features**
- 2.6. Stojan Kitanov, Toni Janevski: **State of the Art: Fog Computing for 5G Networks**

- 2.7. Stoyan Poryazov, Emiliya Saranova: **User-oriented, Overall Traffic and Time Efficiency Indicators in Telecommunications**

**TM 2 - Среда, 23.11.2016. године у 8:30 - сала 2/0**

**TN 2 - Wednesday, 23.11.2016, 8:30 – Hall 2/0**

**Председавајући: АЛЕКСАНДРА СМИЉАНИЋ и ЗОРАН ЧИЧА**

**Chairperson: ALEKSANDRA SMILJANIĆ and ZORAN ČIČA**

- 2.8. Nemanja M. Ninković, Mirjana D. Stojanović: **Novel Approaches to Intradomain and Interdomain Quality of Service Enhancement – *Invited paper***
- 2.9. Srđan Durković, Zoran Čiča: **Birkhoff-von Neumann Switch with Deflection Based Load Balancing**
- 2.10. Mihailo Vesović, Aleksandra Smiljanić, Milo Tomašević: **Speeding Up IP Lookup Procedure in Software Routers by Means of Parallelization**
- 2.11. Y. Urgun, A. Kavak: **SDN/NFV-based QoS Mechanism for Cellular Core Networks**
- 2.12. Seong-Jin Lim, Jaeho Chung, Jae-Seon Jang: **Uplink Scheduling Algorithm for Capacity Enhancement in LTE**
- 2.13. Pegah Nikookar-Hamedani, Ehsan Soleimani-Nasab: **Physical Layer Security in the Presence of the Eavesdroppers in Cooperative Networks**
- 2.14. Dunja Grčić Pukšec: **Transforming telco service and resource provisioning**
- 2.15. Nenad Veselinović, Marijana Milovanović, Biljana Vasiljević, Saša Denić: **Napredne funkcionalnosti nove magistralne OTN/DWDM mreže Telekom Srbija**

**TM 3 - Среда, 23.11.2016. године у 11:00 - сала 2/0**

**TN 3 - Wednesday, 23.11.2016, 11:00 – Hall 2/0**

**Председавајући: ДЕЈАН ДРАЈИЋ и МИЛАН БЈЕЛИЦА**

**Chairperson: DEJAN DRAJIĆ and MILAN BJELICA**

- 2.16. Vladimir Matić: **Using of post selection delay for evaluation of mixed communication network traffic properties – *Invited presentation***
- 2.17. A. Ali Al-Dahoud, B. Mohamed Fezari, C. Fatma Zohra Belhouchet, D. Thamer A. Al-Rawashdeh: **Remote Monitoring System for Solar Power Panels Using Intelligent Sensors Network**
- 2.18. S. Tomović, I. Radusinović: **Allocation algorithm for handling multiple applications in software-defined WSN**
- 2.19. Nicholas S. Samaras: **Using Basic MANET Routing Algorithms for Data Dissemination in Vehicular Ad Hoc Networks (VANETs)**
- 2.20. Maryam Abbaspour-Asadollah, Ehsan Soleimani-Nasab: **Performance Analysis of Dual-Hop Fixed-Gain AF Relaying Systems in Wireless Body Area Networks over Gamma Fading Channels**
- 2.21. Saad A. Alharthi, Princy A. Johnson: **HT2HL: Hybrid Threshold Sensitive Two-Level Heterogeneous LEACH Routing Protocol for Wireless Sensor Networks**

- 2.22. Dragos Enache, Oana Chenaru, Dan Popescu: **Performance and Load Analysis for Remote Plant Connectivity Using GSM Communication**

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

**РК 1 - Уторак, 22.11.2016. године у 14:30 – сала 5/1**  
RC 1 - Tuesday, 22.11.2016, 14:30 – Hall 5/1

**Председавајући: НАТАША НЕШКОВИЋ и НИКОЛА ТОМАШЕВИЋ**

**Chairperson: NATAŠA NEŠKOVIĆ and NIKOLA TOMAŠEVIĆ**

- 3.1. Mladen Koprivica: **Improving the Efficiency of Methods for Measurement of Electric Field Strength in the Vicinity of Public Mobile System Base Stations – *Invited paper***
- 3.2. Volkan Ozduran, Ehsan Soleimani-Nasab, B. Siddik Yarman: **Sum-Rate Opportunistic Relay Selection Method for a Dual-Hop Multiple Half/Full-Duplex Bi-directional Wireless Relaying Networks**
- 3.3. Cetin Kurnaz, Begum Korunur Engiz, Zafer Emre Albayrak: **Determination of TV White Space Spectrum Availability in Samsun Turkey**
- 3.4. Bojan Domazetović, Enis Kočan, Albena Mihovska: **Performance evaluation of IEEE 802.11ah systems**
- 3.5. A. M. Fanan, N. Riley, M. Mehdawi, M. Ammar: **Comparison of Propagation Models with Real Measurements Around Hull, UK**
- 3.6. Vlado Spajić, Djordje Begenišić, Dušan Savković: **Intra eNB UL CoMP: Concepts, Performance and Field Trial Results**

**РК 2 – Уторак, 22.11.2016. године у 17:00 - сала 5/1**  
RC 2 - Tuesday, 22.11.2016, 17:00 – Hall 5/1

**Председавајући: МИРЈАНА СИМИЋ и НЕНАД МИЛОШЕВИЋ**

**Chairperson: MIRJANA SIMIĆ and NENAD MILOŠEVIĆ**

- 3.7. Vitomir Djaja-Josko, Jerzy Kolakowski: **Application of Kalman Filter for positioning precision improvement in UWB localization system**
- 3.8. Maja Rosić, Mirjana Simić, Petar Lukić: **TDOA approach for target localization based on improved genetic algorithm**
- 3.9. George Suciu, Marius Vochin, Alexandru Vulpe, Octavian Fratu: **Vehicular Mobile Data Collection Platform to Support the Development of Intelligent Transportation Systems**
- 3.10. M. Mehdawi, N. G. Riley, A. Fanan, M. Ammar: **Influence of Antenna Selection on Spectrum Occupancy Measurements in the Context of Cognitive Radio**
- 3.11. Uglješa Urošević, Zoran Veljović: **Distributed MIMO solutions for Peer-to-Peer Communications in Future Wireless Systems**

**ПК 3 – Среда, 23.11.2016. године у 8:30 - сала 5/1**

**RC 3 - Wednesday, 23.11.2016, 8:30 – Hall 5/1**

**Председавајући: ГОРАН МАРКОВИЋ и ЂУРАЂ БУДИМИР**

**Chairperson: GORAN MARKOVIĆ and DJURADJ BUDIMIR**

- 3.12. Renat R. Abdullin, Rostislav I. Sokolov: **Experimental Research into Leaky-Wave Antenna Based on Layered Rectangular Waveguide with Transverse Slots**
- 3.13. Nuri Saydam, Korkut Yeğin: **Ku Band Amplifier Design for Satcom Systems**
- 3.14. Dragan Gecan, Morten Olavsbraten, Karl Martin Gjertsen: **Investigation of the Gate Bias Voltage Influence on Linearity Performance of the ET and AET 10 W GaN HEMT PAs**
- 3.15. Milenko Milicevic, Branislava Milinkovic, Jelena Radic, Radivoje Djuric: **Digitally controlled attenuator**
- 3.16. Yu. N. Parshin, P. A. Kaznacheev: **Testing of Channel Coefficients of MIMO Communication System in the Presence of Interferences Complex**
- 3.17. Yu. N. Parshin, V. I. Kudryashov: **Wiener Filtering of Channel Coefficients in MIMO Communication System with Mobile Objects**

**ПК 4 – Среда, 23.11.2016. године у 11:00 - сала 5/1**

**RC 4 - Wednesday, 23.11.2016, 11:00 – Hall 5/1**

**Председавајући: МАРИЈА МАЛНАР и ВЛАДИМИР КРСТИЋ**

**Chairperson: MARIJA MALNAR and VLADIMIR KRSTIĆ**

- 3.18. Srdjan D. Misailović, Goran B. Marković: **Multihop hijerarhijski protokol rutiranja za bežične senzorske mreže većih dimezija u uslovima neidealne konektivnosti**
- 3.19. Tijana Pajkić, Milan Čabarkapa, Nataša Nešković, Đurađ Budimir: **Uporodna analiza karakteristika 4G i 5G signala na fizičkom sloju**
- 3.20. Goran B. Marković: **Centralizovana dvostepena klasifikacija signala po tipu modulacije primenom mreže senzora**
- 3.21. Selena Vukotić, Desimir Vučić: **Združena detekcija i klasifikacija OFDM/QAM, OFDM/OQAM i SC-FDMA signala na bazi cikličnih obeležja**
- 3.22. Danilo V. Obradović, Goran B. Marković, Ivan P. Pokrajac: **Analiza mogućnosti primene morfoloških operacija u procesu segmentacije spectra za potrebe radio-goniometrije**
- 3.23. Đorđe Lukić, Mladen Koprivica, Nataša Nešković, Aleksandar Nešković: **Eksperimentalna analiza performansi 2G/3G/4G javne mobilne mreže**
- 3.24. Slavko Petrović, Čedomir Marković, Milan Šunjevarić: **Upravljanje nulama dijagrama usmjerenosti zračenja antenskog niza u uslovima elektronskog ometanja**

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

**СПС 1 - Уторак, 22.11.2016. године у 14:30 - сала 1а/0**

**CS 1 - Tuesday, 22.11.2016, 14:30 – Hall 1a/0**

**Председавајући: ПРЕДРАГ ИВАНИШ и ДЕЈАН ДРАЈИЋ**

**Chairpersons: PREDRAG IVANIŠ and DEJAN DRAJIĆ**

- 4.1. Alexandru Amarica, Oana Boncalo: **Cost effective FPGA implementation for Hard Decision LDPC decoders**
- 4.2. Jan Broulim, Sima Davarzani, Vjaceslav Georgiev, Jan Zich: **Genetic Optimization of a Short Block Length LDPC Code Accelerated by Distributed Algorithms**
- 4.3. Evgeny Likhobabin, Vladimir Vityazev: **Error Floor Reduction for LDPC Codes Using Self-Correction Technique**
- 4.4. Ludek Dudacek, Ivo Vertat: **Multidimensional Parity Check codes with short block lengths**
- 4.5. Dino-Solar Nikolić, Marija Trifunović, Predrag Milićević, Predrag Milosav, Miroslav Perić: **Methodology for Used Cryptographic Key Verification in Multi Gbit/s Encryption Systems**
- 4.6. Mikhail D. Prokhorov, Danil D. Kulminskiy, Vladimir I. Ponomarenko: **Secure Communication Schemes using Chaotic Synchronization of Time-Delay Systems**
- 4.7. Dragan Gecan, Morten Olavsbraten, Karl Martin Gjertsen: **Comprehensive Investigation of a Dynamic Gate Biasing Technique for Linearity Improvement Based on Measurement of a 10 W GaN HEMT**
- 4.8. Stefan Matlak, Razvan Bogdan: **Reducing Energy Consumption in Home Automation based on STM32F407 Microcontroller**

**СПС 2 - Уторак, 22.11.2016. године у 17:00 - сала 1а/0**

**CS 2 - Tuesday, 22.11.2016, 17:00 – Hall 1a/0**

**Председавајући: ПЕТАР СПАЛЕВИЋ и НЕНАД МИЛОШЕВИЋ**

**Chairpersons: PETAR SPALEVIĆ and NENAD MILOŠEVIĆ**

- 4.9. Bojan P. Prlinčević, Petar Ć. Spalević: **Performances of the image transmission over FSO channel in the last-mile connection – *Invited paper***
- 4.10. Mohammadreza Babaei, Ertugrul Basar, Ümit Aygölü: **A Cooperative Spectrum Sharing Protocol Using STBC-SM at Secondary User**
- 4.11. Amir Eslami, Saeid Karamzadeh: **Double Threshold Maximum to Minimum Eigen-value Spectrum Sensing Proposal and Performance Analysis**
- 4.12. Sepideh Javadi, Ehsan Soleimani-Nasab: **Two-Way Interference-Limited AF Relaying with Wireless Power Transfer**
- 4.13. Rida Khan, Ibrahim Altunbas, Gunes Karabulut Kurt: **Enhanced XOR Network Coding Scheme with OFDM for Two-Way Relay Networks**
- 4.14. Azad Karataş, Berna Özbek, Ilker Sönmez, Sidika Bengür: **Load Based Cell Selection Algorithm for Tetra based Professional Mobile Radio**
- 4.15. Živorad Mihajlović, Aleksandar Milankov, Lazar Živković, Miloš Tolić: **Implementation of Wireless M-Bus Concentrator/Gateway for Remote Reading of Smart Gas Meters**
- 4.16. Milica I. Petković, Goran T. Djordjević, Predrag N. Ivaniš: **Partial Relay Selection with Variable Gain Relays and Outdated CSI in Mixed RF/FSO System**

**СПС 3 - Среда, 23.11.2016. године у 8:30 - сала 1а/0**

**CS 3 - Wednesday, 23.11.2016, 8:30 – Hall 1a/0**

**Председавајући: ГОРАН ЂОРЂЕВИЋ и ЗОРАН ЧИЧА**

**Chairpersons: GORAN ĐORĐEVIĆ and ZORAN ČIČA**

- 4.17. Zoran Čiča: **Pipelined Implementation of Camellia Encryption Algorithm**
- 4.18. Hrvoje Vojvodić, Sadko Mandžuka, Miroslav Vujić: **The use of Cooperative Intelligent Transport Systems for Vehicle Emission Charging**
- 4.19. Zdenko Kljaić, Andrea Lučić, Krešimir Vidović: **Benefits of Utilisation of GPS Error Mitigation Models for Intelligent Transport Systems**
- 4.20. Cristian Perra: **A Framework for the Development of Sustainable Urban Mobility Applications**
- 4.21. Petr Burian: **Communication Stack for Generic Embedded Modular Control System**
- 4.22. Daniel Sarb, Razvan Bogdan: **Wireless Motor Control in Automotive Industry**
- 4.23. Dragan Peraković, Marko Periša, Ivan Cvitić, Siniša Husnjak: **Artificial Neuron Network Implementation in Detection and Classification of DDoS Traffic**
- 4.24. Miladin Sandić, Aleksandar Bilbija, Ivan Velikić: **Analiza integracije različitih klasa saobraćaja u mixed-critical mrežama**

## СЕКЦИЈА 5: ОБРАДА СИГНАЛА (OC) SIGNAL PROCESSING (SP)

**OC 1 - Уторак, 22.11.2016. године у 17:00 - сала 6/1**  
SP 1 - Tuesday, 22.11.2016, 17:00 – Hall 6/1

**Председавајући: БРАНИМИР РЕЉИН и DAN POPESCU**

**Chairpersons: BRANIMIR RELJIN and DAN POPESCU**

- 5.1. Jelena Krmar, Veljko Papić: **Adaptation of integrodifferential operator using statistical characteristics of the iris texture**
- 5.2. Miloš Brajović, Irena Orović, Srdjan Stanković: **The Optimization of the Hermite transform: Application Perspectives and 2D Generalization**
- 5.3. Rostislav I. Sokolov, Renat R. Abdullin: **Nonlinear JPG Image Filtering at Stage of Preprocessing**
- 5.4. Francesca Murgia, Daniele Giusto: **A Comparison of Raw Light Field Lossless Data Compression Algorithms**
- 5.5. Nataša S. Živić, Obaid Ur-Rehman: **Soft Authentication Techniques for Images**
- 5.6. Andrada Sumalan, Dan Popescu, Loretta Ichim: **Flooded area detection using UAV images**

**OC 2 - Среда, 23.11.2016. године у 8:30 - сала 6/1**  
SP 2 - Wednesday, 23.11.2016, 8:30 – Hall 6/1

**Председавајући: АНА ГАВРОВСКА и МИЛИЦА ЈАНКОВИЋ**

**Chairpersons: ANA GAVROVSKA and MILICA JANKOVIĆ**

- 5.8. Branka Stojanović, Oge Marques, Aleksandar Nešković, Snežana Puzović: **Fingerprint ROI Segmentation Based on Deep Learning**
- 5.9. Vladislava Bobić, Stevica Graovac: **Development, implementation and evaluation of new eye tracking methodology**

- 5.10. Đorđe S. Starčević, Vladimir S. Ostojić, Vladimir S. Petrović: **Automatic Evaluation of Collimation Field Rotation Angle in Digital Radiographic Images**
- 5.11. Đorđe S. Starčević, Vladimir S. Ostojić, Vladimir S. Petrović: **An Open-source Digital Diagnostic Radiography Image Annotation Software**
- 5.12. Vladimir S. Ostojić, Đorđe S. Starčević, Vladimir S. Petrović: **Low-value Laplacian Pyramid Coefficient Prediction for Faster Radiography Image Processing**
- 5.13. Milorad M. Vujković, Vladimir M. Rajović, Nenad S. Jovičić: **Ten axis MEMS as a position sensor**
- 5.14. Velibor Škobić, Uroš Marić, Stefan Tomić, Ivan Rešetar: **Real Time Video Freezing Detection Implementation on FPGA**

**ОС 3 - Среда, 23.11.2016. године у 11:00 - сала 6/1**  
 SP 3 - Wednesday, 23.11.2016, 11:00 – Hall 6/1

**Председавајући: ALEXANDROS TZALLAS и ДРАГАНА ШУМАРАЦ ПАВЛОВИЋ**

**Chairpersons: ALEXANDROS TZALLAS and DRAGANA ŠUMARAC PAVLOVIĆ**

- 5.15. Ružica B. Bilibajkić: **Recognition of articulatory-acoustic deviations in pathological speech – *Invited paper***
- 5.16. Tijana Delić, Milan Sečujski: **Sinteza govora na srpskom jeziku zasnovana na veštačkim neuralnim mrežama**
- 5.17. Marjan Gusev, Aleksandar Ristovski, Ana Guseva: **Distribution of premature heartbeats**
- 5.18. Alexandros T. Tzallas, Ioannis Tsoulos, Markos G. Tsipouras, Nikolaos Giannakeas, Iosif Androulidakis, Elena Zaitseva: **Classification of EEG signals using feature creation produced by grammatical evolution**
- 5.19. Nives Kaprocki, Jelena Kovačević, Robert Pečkai Kovač, Miroslav Malko: **DSP implementation of the surround speaker virtualizer for sound bar systems**
- 5.20. Nikša Jakovljević, Dragiša Mišković, Željen Trpovski: **Evaluation of Noise Estimation Algorithms Based on Minimum Statistics and Signal to Noise Ratio**

**ОС 4 - Среда, 23.11.2016. године у 14:30 - сала 6/1**  
 SP 4 - Wednesday, 23.11.2016, 14:30 – Hall 6/1

**Председавајући: RAMIRO ROBLES и ВЕЉКО ПАПИЋ**

**Chairpersons: RAMIRO ROBLES and VELJKO PAPIĆ**

- 5.21. Zvonko Radosavljević, Branko Kovačević: **Integrated Track Splitting-Component Merging History for Efficient Target Tracking - *Invited presentation***
- 5.22. Ahmed Deiaa, Bassant Abdelhamid, Amr El-Keyi, Salwa Elramly: **Mitigation of Both Doubly Selective Channels and Phase Noise Effects in OFDM Systems**
- 5.23. Ramiro Robles, Eduardo Tovar, Mauricio Lara, Aldo Orozco, Desmond C. McLemon, Mounir Ghogho: **Network Diversity Multiple Access in Rayleigh Fading Correlated Channels with Imperfect Channel and Collision Multiplicity Estimation**
- 5.24. Mohamad Hossein Refan, Adel Dameshghi, Mehrnoosh Kamarzarrin: **GDOP Factor Classification by Implementation of CMACNN Method for Low Cost GPS Receivers**

- 5.25. Cristian Stanciu, Mihnea Udrea, Cristian Anghel: **Improved Regularization for a Low-Complexity RLS Algorithm**
- 5.26. Nawfal Al-Zubaidi R-Smith, Lubomir Brančik: **Convergence Acceleration Techniques for Proposed Numerical Inverse Laplace Transform Method**
- 5.27. Paul B. Nikishkin, Sergey V. Vityazev, Igor V. Subbotin, Aleksei V. Kharin, Vladimir V. Vityazev: **Sub-band OFDM Implementation on Multicore DSP**

**ОС 5 - Среда, 23.11.2016. године у 17:00 - сала 6/1**  
**SP 5 - Wednesday, 23.11.2016, 17:00 – Hall 6/1**

**Председавајући: МИЛОШ ДАКОВИЋ и ГОРАН МАРКОВИЋ**

**Chairpersons: MILOŠ ĐAKOVIĆ and GORAN MARKOVIĆ**

- 5.28. Dimitrije M. Bujaković, Željko M. Đurović, Milenko S. Andrić, Boban P. Bondžulić, Slobodan M. Simić: **Expert System Based on Hidden Markov Models for Recognition of Radar Targets – *Invited paper***
- 5.29. Nikola Stojković, Dejan Nikolić, Bojan Džolić, Nikola Tošić, Vladimir Orlić, Nikola Lekić, Branislav M. Todorović: **An Implementation of Tracking Algorithm for Over-The-Horizon Surface Wave Radar**
- 5.30. Veljko N. Nikolić, Vera V. Marković: **Determining the DOA of Received Signal Using RBFNN Trained with Simulated Data**
- 5.31. Slaviša Tomić, Marko Beko, Rui Dinis, Milan Tuba, Nebojša Bačanin: **An Efficient WLS Estimator for Target Localization in Wireless Sensor Networks**
- 5.32. Miloš Brajović, Andjela Draganić, Irena Orlović, Srdjan Stanković: **FHSS signal sparsification in the Hermite transform domain**
- 5.33. Slobodan Djukanović, Tomo Popović, Andrija Mitrović: **Precise sinusoid frequency estimation based on parabolic interpolation**
- 5.34. Miloš Đaković, Isidora Stanković, Joachim Ender, Ljubiša Stanković: **Sample Selection Strategy in DFT based Compressive Sensing**

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

**ПЕМ 1 - Уторак, 22.11.2016. године у 14:30 - сала 6/1**  
**AEM 1 - Tuesday, 22.11.2016, 14:30 – Hall 6/1**

### **Antenna 1**

**Председавајући: NASER OJAROUDI PARCHIN и GERALD ARTNER**

**Chairpersons: NASER OJAROUDI PARCHIN and GERALD ARTNER**

- 6.1. Yavuz Aşçi, Mustafa Pehlivan, Korkut Yeğin: **Wideband, High Gain Aperture Coupled Ku-Band Antenna for SatCom**
- 6.2. Naser Ojaroudi Parchin, Ming Shen, Gert Frolund Pedersen: **FR4-PCB Wide-Band Antenna Array for the Future Mobile Communications**



- 6.3. Faznaz Ahmadvard, Seyed Ali Razavi: **Backlobe Suppressed H-plane Ridge Gap Waveguide (RGW) Horn Antenna**
- 6.4. Miloš Subotić, Laszlo Palfi, Nebojša U. Pjevalica: **Efficient Antenna Modeling Method for Microwave Tomography**
- 6.5. Olcay Yiğit, Yavuz Aşçı, İsmail Şişman, , Korkut Yeğin: **Beam Switched Antenna Design for Jamming Mitigation of GPS Receivers**
- 6.6. Luka Lazović, Ana Jovanović, Budimir Lutovac, Vesna Rubežić: **Primjena teorije grafova za dizajniranje rekonfigurabilnih fraktalnih antenna**

**ПЕМ 2 - Уторак, 22.11.2016. године у 17:00 - сала 4/1**

AEM 2 - Tuesday, 22.11.2016, 17:00 – Hall 4/1

### **Antenna 2**

**Председавајући: АНА ЈОВАНОВИЋ и KORKUT YEĞİN**

**Chairpersons: ANA JOVANOVIĆ and KORKUT YEĞİN**

- 6.7. Vojislav Milošević, Branka Jokanović, Olga Boric-Lubecke, Victor Lubecke: **Key Millimeter Wave Technologies for 5G – *Invited presentation***
- 6.8. Naser Ojaroudi Parchin, Ming Shen, Gert Frolund Pedersen: **MIMO Monopole Antenna Design with Improved Isolation for 5G WiFi Applications**
- 6.9. Gerald Artner, Robert Langwieser, Christoph F. Mecklenbräuker: **A MID Dipole Antenna in LDS Technology**
- 6.10. Mustafa Pehlivan, Korkut Yeğin, Yavuz Aşçı: **Design of 1-18 GHz Parabolic Reflector Antenna with LPDA Feed**
- 6.11. Samineh Sarbazi Golazari, Nasrin Amiri, Farrokh Hojjat Kashani: **Design, Simulation and Measurement of Loop Plasma Antenna in UHF Band**
- 6.12. Naser Ojaroudi Parchin, Ming Shen, Gert Frolund Pedersen: **MM-Wave Reconfigurable Dipole Antenna with SRs for Cognitive Cellular Networks**

**ПЕМ 3 - Среда, 23.11.2016. године у 8:30 - сала 4/1**

AEM 3 - Wednesday, 23.11.2016, 8:30 – Hall 4/1

### **Computational electromagnetics 1**

**Председавајући: МИЛАН М. ИЛИЋ и СЛОБОДАН В. САВИЋ**

**Chairpersons: MILAN M. ILIĆ and SLOBODAN V. SAVIĆ**

- 6.13. Grigorios P. Zouros: **Alternative Orthogonal Vector Basis Functions for Solving Volume Integral Equations in Electromagnetic Theory – *Invited paper***
- 6.14. Jovana Perović, Dragan Olčan: **The Excess Attenuation of Electric Field in the Presence of Deciduous Trees**
- 6.15. Hülya Öztürk, Korkut Yeğin: **Electromagnetic Scattering from PEC Wedge in Lossy Medium due to Point Current Source**
- 6.16. Velibor Pjevalica, Nebojša Pjevalica, Nenad Petrović, Nikola Teslić: **A Novel Simulation Approach for Measuring of DC Voltage Offset Influence on Magnetizing Current Even Harmonics in the Power Transformer by Using Dither**

- 6.17. Eduard Plavec, Mladen Vidović: **Genetic Algorithm Based Plunger Shape Optimization of DC Solenoid Electromagnetic Actuator**

**ПЕМ 4 - Среда, 23.11.2016. године у 11:00 - сала 4/1**

**AEM 4 - Wednesday, 23.11.2016, 11:00 – Hall 4/1**

**Computational electromagnetics 2**

**Председавајући: GRIGORIOS P. ZOUROS и ДРАГАН ОЉАН**

**Chairpersons: GRIGORIOS P. ZOUROS and DRAGAN OLCAN**

- 6.18. Slobodan V. Savić, Milan M. Ilić: **Curved Continuously Inhomogeneous and Anisotropic Higher Order Finite Elements for Accurate Large-Domain Electromagnetic Modeling – *Invited paper***
- 6.19. Milivoje F. Miletić: **Comparison of four MoM Formulations when Solving Electrostatic Problems where Rotational Symmetry is Exploited**
- 6.20. Georgios D. Kolezas, Grigorios P. Zouros: **Electromagnetic Scattering by a Conducting sphere with Anisotropic Coating**
- 6.21. Danka Antić, Gorana Mijatović, Nikola Djurić, Giuseppe Mazzarella: **The COMSOL Support for Analysis of Inductors with Variable Geometry**
- 6.22. Vasily Yu. Kozhevnikov, Andrey V. Kozyrev, Natalia S. Semeniuk: **Kinetic Modelling of the One-dimensional Planar Virtual Cathode Oscillator**

**ПЕМ 5 - Среда, 23.11.2016. године у 14:30 - сала 4/1**

**AEM 5 - Wednesday, 23.11.2016, 14:30 – Hall 4/1**

**Microwave technique**

**Председавајући: DIANA V. SEMENIKHINA и НИКОЛА ЂУРИЋ**

**Chairpersons: DIANA V. SEMENIKHINA and NIKOLA DJURIĆ**

- 6.23. Slobodan Bjelić, Nenad Marković, Igor Bjelić, Zorica Bogičević, Uroš Jakšić, Bojan Jovanović: **Detektovanje inverzne komponente struje pomoću projektovanog filtra struje 100 Hz**
- 6.24. Diana V. Semenikhina, Nikolay I. Chikov, Andrey I. Semenikhin, Nikolay N. Gorbatenko: **Experimental Studies of Nonlinear Metasurface with Metamaterial Substrate**
- 6.25. Veljko Crnadak, Siniša Tasić: **Improved VHF Quadrature Hybrid Coupler**
- 6.26. Yury V. Yukhanov, Tatiana Yu. Privalova: **Synthesis of Impedance Reflection Type Polarizer**
- 6.27. N. Djurić, D. Kljajić: **An Approach for the Design of Chemical Reactors under Microwave Irradiation**
- 6.28. Denis A. Letavin, Yuriy E. Mitelman, Victor A. Chechetkin: **The Substrate Factor in the Miniaturization Efficiency of the Microstrip Branch-Line Couplers**
- 6.29. N. Djurić, J. Bjelica: **Resonant Cavity as Microwave Exposure System for Biological Materials**

**ПЕМ 6 - Среда, 23.11.2016. године у 17:00 - сала 4/1**

**AEM 6 - Wednesday, 23.11.2016, 17:00 – Hall 4/1**

**Electromagnetic compatibility**

**Председавајући: НЕБОЈША С. ДОНЧОВ и МАРЈАН БЛАГОЈЕВИЋ**

**Chairpersons: NEBOJŠA S. DONČOV and MARJAN BLAGOJEVIĆ**

- 6.30. Marjan Blagojević, Dragan Mančić: **The system for magnetic field mapping based on the integrated 3D Hall sensor – *Invited paper***
- 6.31. O. Kundacina, V. Vincan, D. Antic, D. Kljajic, K. Kasas-Lazetic: **The ABM 8057 Utilization for SEMONT's EMF Monitoring in a Closed Room**
- 6.32. J. Bjelica, G. Mijatović, D. Kljajić, A. Fanti: **The Inductors with Adjustable Surface Area for Energy Harvesting Utilization**
- 6.33. Nataša J. Nešić, Nebojša S. Dončov, Johannes A. Russer, Bratislav D. Milovanovic: **Electromagnetic Field Coupling with Two Monopole Antennas inside a Protective Enclosure with Apertures**
- 6.34. Andrejs Prucevs, Janis Semenjako, Tatjana Solovjova: **New Shape Induction Loop for Small and Medium-Size Rooms**
- 6.35. G. Nedic, N. Djuric, D. Kljajic, M. Milutinov, S. Josic: **The Exposure Assessment to Communication Equipment of High-power Substation**

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

**ПЕЛ 1 - Среда, 23.11.2016. године у 8:30 - сала 3/1**  
AEL 1 - Wednesday, 23.11.2016, 8:30 – Hall 3/1

*Projektovanje elektronskih kola / Electronic circuits design*

Председавајући: ДУШАН ГРУЈИЋ и ВЛАДИМИР СТЕНИН

Chairperson: DUŠAN GRUJIĆ and VLADIMIR STENIN

- 7.1. Vladimir Ya. Stenin, Artem V. Antonyuk: **Design of the 65-nm CMOS Comparison Element for a Content-Addressable Memory and Simulation of Single-Event Transients**
- 7.2. Yuri V. Katunin, Vladimir Ya. Stenin, Artem V. Antonyuk: **Design of Logical Elements with Single-Event Compensation for the 28-nm CMOS Decoders**
- 7.3. Damjan Rakanović, Rastislav Struharik: **IP Core for AES256 and TDES algorithms with AXI Interface**
- 7.4. Vladimir D. Čatić, Natalija M. Lukić, Iva M. Salom, Vukašin P. Ristić, Milenko M. Kabović, Nikola M. Nenadić: **An Automated Environment for Hardware Testing Using PXI Instrumentation and LabVIEW Software**
- 7.5. Jan Moldaschl, Mohamed Darwish: **An Ultra Flat Profile Natural Interleaved Power Factor Corrector with Advanced Power Management**
- 7.6. Darshan Shetty, Vijaya Sankara Rao Pasupureddi, Johannes Sturm: **A 2.4 GHz, 1 dB Noise Figure Common-Gate LNA for WLAN Frontend**
- 7.7. Saeed Olyaei, Masood Sherafat: **Investigation of target speed effect on nonlinearity error caused by non-ideal PBS in DTLMI**

**ПЕЛ 2 - Среда, 23.11.2016. године у 11:00 - сала 3/1**  
AEL 2 - Wednesday, 23.11.2016, 11:00 – Hall 3/1

*Elektronski sistemi / Electronic Systems*

Председавајући: ИВАН ПОПОВИЋ и ЗЛАТКО БУНДАЛО

Chairpersons: IVAN POPOVIĆ and ZLATKO BUNDALO

- 7.9. Vladimir Rajs, Živorad Mihajlović, Vladimir Milosavljević, Josif Tomić, Miloš Živanov: **Methods of environmental monitoring parameters based on smart measurement systems, - Invited Presentation**
- 7.10. Jan Zich, Jan Broulim: **Wireless Unit for Environmental Monitoring**
- 7.11. Trifun Savić, Milutin Radonjić: **Proposal of Solution for Automated Irrigation System**
- 7.12. Ondřej Lufinka: **Multiple-Point Ultrasonic Distance Measurement and Communication with Simulations**
- 7.13. Marko Milovanović, Ivan T. Popović, Aleksandar Ž. Rakić: **Run-Time Reconfigurable Middleware in Device Net Architecture**
- 7.14. Zlatko Bundalo, Adnan Ramakić, Dušanka Bundalo: **Application and User Data Protection Using Smartphone**
- 7.15. Sadko Mandžuka, Martin Gregurić, Zdenko Kljaić: **Kooperativno okruženje za infrastrukturu e-mobilnosti**

## СЕКЦИЈА 8: МУЛТИМЕДИЈА (MM) MULTIMEDIA (MM)

**MM 1 - Уторак, 22.11.2016. године у 14:30 - сала 3/0**  
**MM 1 - Tuesday, 22.11.2016, 14:30 – Hall 3/0**

**Председавајући: АНДРИЈА САМЧОВИЋ и ГОРАН ЗАЈИЋ**

**Chairpersons: ANDRIJA SAMČOVIĆ and GORAN ZAJIĆ**

- 8.1. Yeter Şekertekin, Özkan Atan: **An Image Encryption Algotihm Using Ikeda and Henon Chaotic Maps**
- 8.2. Cristian Perra: **On the Quality Evaluation of Lossy Compressed Light Fiels**
- 8.3. Francesca Murgia, Daniele Giusto: **Low Cost Plenoptic Camera for 3D Modelling**
- 8.4. Ira Tuba, Eva Tuba, Marko Beko: **Digital Image Forgery Detection Based on Shadow Texture Features**
- 8.5. Pouya Ahmadvand, Payam Ahmadvand, Reza Ebrahimpour: **How popular CNNs Perform in Real Applications of Face Recognition**
- 8.6. Aleksandar Stojak, Eva Tuba, Milan Tuba: **Framework for Abnormality Detection in Magnetic Resonance Brain Images**
- 8.7. Marina Nikolić, Eva Tuba, Milan Tuba: **Edge Detection in Medical Ultrasound Images Using Adjusted Canny Edge Detection Algorithm**

**MM 2 - Уторак, 22.11.2016. године у 17:00 - сала 3/0**  
**MM 2 - Tuesday, 22.11.2016, 17:00 – Hall 3/0**

**Председавајући: ДРАГАНА ШУМАРАЦ ПАВЛОВИЋ и МИЛОШ БЈЕЛИЋ**

**Chairpersons: DRAGANA ŠUMARAC PAVLOVIĆ and MILOŠ BJELIĆ**

- 8.8. Draško Mašović: **Towards the Improved Prediction of Airborne Sound Insulation in Buildings - Invited paper**

- 8.9. Dragan M. Ristić: **Karakterizacija teksture impulsnog odziva prostorija primenom multifraktalne analize - *Invited paper***
- 8.10. Iva Salom: **Analysis of Acoustical Characteristics of a Church Bell Sound - *Invited paper***
- 8.11. Nikola Petrović, Miloš Bjelić, Jelena Čertić, Miodrag Stanojević, Dragana Šumarac Pavlović: **Analyses of decimation filter stopband attenuation influence on subjective quality of audio signals**
- 8.12. Miodrag Dinić, Aleksandar Rikalo, Aleksandar Marković, Petar Jovanović: **Optimizacija održavanja asocijativnog bafera jedinice za upravljanje memorijom u Android emulatoru za arhitekturu MIPS**

**ММ 3 - Среда, 23.11.2016. године у 8:30 - сала 3/0**  
**ММ 3 - Wednesday, 23.11.2016, 8:30 – Hall 3/0**

**Председавајући: АНА ГАВРОВСКА и АМЕЛА ЗЕКОВИЋ**

**Chairpersons: ANA GAVROVSKA i AMELA ZEKOVIĆ**

- 8.13. Amela Zeković, Irini Reljin: **Multifractal and Inverse Multifractal Characterization of 3D Video Formats - *Invited paper***
- 8.14. Dejan R. Marković, Ana M. Gavrovska, Irini S. Reljin: **4K Video Traffic Analysis using Seasonal Autoregressive Model for Traffic Prediction**
- 8.15. Ilija Popadić, Branislav Todorović: **Image fusion based on the multi-exposed images**
- 8.16. Nemanja Fimić, Ilija Bašičević: **Software architecture for supporting FCC in DVB-S/C/T set top boxes**
- 8.17. Tijana Srejić, Miloš Ilić, Milena Milošević: **Realizacija mehanizma za isporuku događaja u aplikativnom okruženju vozila**
- 8.18. Nenad Šoškić, Laslo Benarik, Ilija Bašičević: **Jedno rešenje propagiranja EPG podataka na digitalnom televizijskom prijemniku**
- 8.19. Nemanja Djekić, Miloš Janković, Nebojša Pjevalica: **USB-om kontrolisan relejni prekidač**

## **СЕКЦИЈА 9: СОФТВЕРСКИ АЛАТИ И АПЛИКАЦИЈЕ (СAA) SOFTWARE TOOLS AND APPLICATIONS (STA)**

**СAA 1 – Уторак 22.11.2016. године у 14:30 - сала 16/0**  
**STA 1 – Thursday, 22.11.2016, 14:30 – Hall 1b/0**

**Digitalni sistemi/Digital Systems**

**Председавајући: БОРИСЛАВ ЂОРЂЕВИЋ и ЗАХАРИЈЕ РАДИВОЈЕВИЋ**

**Chairpersons: BORISLAV ĐORĐEVIĆ and ZAHARIJE RADIVOJEVIĆ**

- 9.1. Mirela Simonović, Vojin Živojnović, Lazar Saranovac: **An Approach to Modeling Clock Tree of a Complex System-on-Chip**
- 9.2. Petr S. Budyakov, Nikolay I. Chernov, Vladislav Ya. Yugai, Nikolay N. Prokopenko: **Logic Functions Representation and Synthesis of k-valued Digital Circuits in Linear Algebra**
- 9.3. Konstantin O. Petrosyants, Igor A. Kharitonov, Ekaterina I. Batarueva: **Simulation of CMOS IC's Waveforms Distortions in PCB Traces with Account for Radiation Effects**

- 9.4. Miodrag Živković, Nemanja Jovanović: **NFC TraceCase**
- 9.5. Djordje Pešić, Borislav Đorđević, Valentina Timčenko: **Competition of Virtualized Ext4, Xfs and Btrfs Filesystems Under Type-2 Hypervisor**
- 9.6. Novica Janković, Marko Barjaktarović, Milica Janković, Đorđe Čantrak: **First Steps in New Affordable PIV Measurements**
- 9.7. Ivo Marković, Marko Nešović, Mile Davidović: **Jedno rešenje testiranja set-top boks hardvera na fabričkoj liniji**

**CAA 2 - Уторак, 22.11.2016. године у 17:00 - сала 16/0**

STA 2 - Tuesday, 22.11.2016, 17:00 – Hall 1b/0

**Baze podataka i upravljanje znanjem / Database Systems and Knowledge Management**

**Председавајући: БОЖИДАР РАДЕНКОВИЋ и МИЛОШ ЦВЕТАНОВИЋ**

**Chairpersons: BOŽIDAR RADENKOVIĆ and MILOŠ CVETANOVIĆ**

- 9.8. Francesca Murgia, Daniele Giusto: **A Database for Evaluating the Quality of Experience in Light Field Applications**
- 9.9. Đulaga Hadžić, Nermin Sarajlić, Jasmin Malkić: **Different Similarity Measures to Identify Duplicate Records in Relational Databases**
- 9.10. Petar Spalević, Emir Pećanin, Siniša Ilić, Mladen Veinović, Stefan Panić: **Automatization of the ETL Process on the Isolated Small Scale Database System**
- 9.11. Kosa R. Nenadić, Milan M. Gavrić: **Enhancing CIM with Linked Data Capability**
- 9.12. Guma Abdulkhader Lakshen, Sanja Vraneš, Valentina Janev: **Big Data and Quality: A Literature Review**
- 9.13. Aleksandar J. Petkovski, Biljana L. Risteska Stojkoska, Kire V. Trivodaliev, Slobodan A. Kalajdziski: **Analysis of Churn Prediction: A Case Study on Telecommunication Services in Macedonia**
- 9.14. Ana Guseva, Marjan Gusev, Ivan Chorbev: **iKnow Usability: A Case Study**
- 9.15. Pero Skorput, Miroslav Vujić, Darko Bokulić: **Upravljanje znanjem u domeni inteligentnih transportnih sustava**

**CAA 3 - Среда, 23.11.2016. године у 8:30 - сала 16/0**

STA 3 - Wednesday, 23.11.2016, 8:30 – Hall 1b/0

**Sistemi upravljanja i neuralne mreže / Control Systems and Neural Networks**

**Председавајући: НЕНАД ГРБАНОВИЋ и ЖАРКО СТАНИСАВЉЕВИЋ**

**Chairpersons: NENAD GRBANOVIĆ and ŽARKO STANISAVLJEVIĆ**

- 9.16. Roland Szabo: **Lynxmotion AL5 Type Robotic Arm Control with Color Detection on FPGA Running Linux OS**
- 9.17. Catalin Simion, Giorgia Geampalia, Oana Chenaru, Gheorghe Florea: **Solutions for the Implementation of Remote Plant Supervision**
- 9.18. Aleksandra Simić, Ognjen Kocić, Milan Z. Bjelica, Tomislav Maruna: **Driver Monitoring Algorithm for Advanced Driver Assistance Systems**
- 9.19. Lucian Todorovici, Razvan Bogdan: **Studying Thermal Behavior of Buildings and Vehicles by Means of a Mobile Thermographic System**

- 9.20. Ognjen Kocić, Aleksandra Simić, Milan Z. Bjelica, Tomislav Maruna: **Optimization of Driver Monitoring ADAS Algorithm for Heterogeneous Platform**
- 9.21. Tuponja Boris, Šuković Goran: **Evolving Neural Network to Play Game**
- 9.22. Ioannis G. Tsoulos, Alexandros T. Tzallas, Dimitrios G. Tsalikakis, Nikolaos Giannakeas, Markos Tsipouras, Iosif Androulidakis, Elena Zaitseva: **NeuralGenesis: a Software for Distributed Neural Network Training**

**CAA 4 - Среда, 23.11.2016. године у 11:00 - сала 16/0**

STA 4 - Wednesday, 23.11.2016, 11:00 – Hall 1b/0

**Softverska podrška posebne namene / Special-purpose Software Support**

**Председавајући: МИРОСЛАВ ПОПОВИЋ и СОФИЈА ПУРИЋ**

**Chairperson: MIROSLAV POPOVIĆ and SOFIJA PURIĆ**

- 9.23. Marija Punt: **Human-computer Interaction in an Integrated Environment combining digital TV, mobile devices and Internet - *Invited paper***
- 9.24. Marko Krnjetin, Nenad Četić: **Scripting framework for graphical configuration tool for embedded devices**
- 9.25. Slavko Žitnik, Marko Janković, Klemen Petrovčič, Marko Bajec: **Architecture of Standard-based, Interoperable and Extensible IoT Platform**
- 9.26. Stevan Šandi, Božo Krstajić, Tomo Popović: **pyPMU – Open Source Python Package for Synchrophasor Data Transfer**
- 9.27. Marko Rajinac, Momčilo Krunić, Ivan Považan, Jelena Kovačević: **An Eclipse plugin for preserving and reloading debug session, in domain of DSP application development**
- 9.28. Petar Žica, Nikola Vranić: **Jedno rešenje programske sprege ulaznih uređaja i Android platforme sa primerom integracije Nunchuk uređaja**
- 9.29. Stefan Bosnić, Sebastijan Novak: **The development of hybrid mobile applications with Apache Cordova**
- 9.30. Goran Vukov, Marko Kovačević, Branimir Kovačević, Tomislav Maruna: **Jedna realizacija čuvanja podataka o događajima u vozilu u Androidu operativnom sistemu**

**CAA 5 – Среда, 23.11.2016. године у 14:30 - сала 16/0**

STA 5 – Wednesday, 23.11.2016, 14:30 – Hall 1b/0

**Softverski sistemi / Software Systems**

**Председавајући: СИНИША РАНЂИЋ и ДРАЖЕН ДРАШКОВИЋ**

**Chairperson: SINIŠA RANDIĆ and DRAŽEN DRAŠKOVIĆ**

- 9.46. Nebojša Đorđević, Dejan Rančić, Petar Spalević: **Development of a Methodology for Evaluating the Quality in Use of WebGIS applications - *Invited presentation***
- 9.31. Dražen Drašković, Vidor Gencel, Slavko Žitnik, Marko Bajec, Boško Nikolić: **A software agent for social networks using natural language processing techniques**
- 9.32. Sanja Delčev, Maja Vukasović, Dražen Drašković, Dimitrije Radojević, Marko Janković, Marko Bajec, Boško Nikolić: **Veb sistem za polaganje testova znanja iz Inteligentnih sistema**
- 9.34. Vuk Batanović, Boško Nikolić: **Sentiment Classification of Documents in Serbian: The Effects of Morphological Normalization**

- 9.35. Stefan Pijetlović, Petar Jovanović, Nikola Teslić, Slobodan Prljević: **An Approach to Software Development Tools Unification**
- 9.36. Goran P. Šimić, Stefan T. Pantić, Aleksandar D. Jevremović: **Framework for Improving Web Based e-Learning Interactivity**
- 9.37. Dijana R. Vuković, Igor M. Dujlović: **Facebook Messenger Bots and Their Application for Business**
- 9.38. Zoran Nešić, Leon Ljubić, Miroslav Radojičić, Jasmina Vesić Vasović: **Some Considerations on Improvement of Parking Service Information System**

**CAA 6 - Среда, 23.11.2016. године у 17:00 – сала 16/0**  
**STA 6 - Wednesday, 23.11.2016, 17:00 – Hall 1b/0**

**Vizuelizacija i paralelizacija / Visualisation and Parallelization**

**Председавајући: МИРОСЛАВ ЛУТОВАЦ и МАРКО МИШИЋ**

**Chairperson: MIROSLAV LUTOVAC and MARKO MIŠIĆ**

- 9.39. Miroslav Lutovac: **Graphical User Interface for Electrical Engineering Systems using Wolfram Language**
- 9.40. Goran Velkoski, Marjan Gusev, Sasko Ristov: **Analysis of Interactive Image Technologies**
- 9.41. Cristian Perra: **Light Field Image Compression Based on Preprocessing and High Efficiency Coding**
- 9.42. Marko J. Mišić, Dušan V. Nikolov, Jelica Ž. Protić, Milo V. Tomašević: **Paralelizacija GST algoritama za detekciju sličnosti u programskom kodu**
- 9.43. A. Ristovski, M. Gusev, S. Ristov: **Nested Parallelism Concepts of Ray Tracing Algorithms and Multithreading API Performance Analysis**
- 9.44. Slavica V. Boštjančič Rakas, Mirjana D. Stojanović: **A Policy-Based Approach to E2E Service Negotiation via Third Party Agent**
- 9.45. Igor Bjelić, Zorica Bogičević, Slobodan Bjelić, Nenad Marković, Bojan Jovanović: **Simulation of daylight in order to protect the sustainability of old architectural structures cultural heritage in the environment**

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

**ОТ1 - Среда, 23.11.2016. године у 14:30 - сала 5/1**  
**ОТ1 - Wednesday, 23.11.2016, 14:30 – Hall 5/1**

**Председавајући: ДЕЈАН М. ГВОЗДИЋ и ЈАСНА В. ЦРЊАНСКИ**

**Chairpersons: DEJAN M. GVOZDIĆ and JASNA V. CRNJANSKI**

- 10.1. Marko M. Krstić, Jasna V. Crnjanski, Angelina R. Totović, Dejan M. Gvozdić: **Injection-Locked Fabry-Pérot Laser Diodes for All-Optical Flip-Flops - *Invited paper***
- 10.2. Nebojša Stojanović, Fotini Karinou, Cristian Prodaniuc, Zhang Qiang: **Timing Recovery in High-Speed PAM-4 Transmission Systems**
- 10.3. Dimitris Uzunidis, Chris Matrakidis, Alexandros Stavdas: **Simplified FWM Model for Flexible-Grid Optical Systems**



- 10.4. Dimitris Uzunidis, Chris Matrakidis, Alexandros Stavdas: **Application of a Simplified FWM Expression in Mixed-Fiber Links**
- 10.5. Behnam Asharafzadeh, Ehsan Soleimani-Nasab, Mehdi Kamandar: **Outage Analysis of Mixed RF/FSO Cooperative Systems with Multiple Antennas and Apertures**
- 10.6. Behnam Asharafzadeh, Ehsan Soleimani-Nasab: **Performance Analysis of mixed DGG and Generalized Nakagami-m Dual-Hop FSO/RF Transmission Systems**
- 10.7. Jakup Ratkoceri, Ahmed Samir, Boštjan Batagelj: **Seven-Core Optical Fiber in a Passive Optical Access Network**
- 10.8. Nemanja N. Miljković, Aleksandar D. Stojanović, Petar S. Matavulj: **Physical model for B92-QKD authentication based on analogy with optical chaotic systems**

## СЕКЦИЈА 11: СТУДЕНТСКА СЕКЦИЈА (C) STUDENT PAPERS (S)

**C1 - Среда, 23.11.2016. године у 14:30 - сала 3/1**  
S1 - Wednesday, 23.11.2016., 14:30 – Hall 3/1

### Software Tools and Applications, Signal Processing, Communications Systems

Председавајућа: ЈЕЛЕНА ЋЕРТИЋ

Chairperson: JELENA ČERTIĆ

- 11.1. Ana Z. Bogdanović, Andrija Z. Gajić: **Labview aplikacija za upravljanje Lego Mindstorms robotom pomoću Microsoft Kinecta**
- 11.2. Vojislav B. Gligorovski, Božidar V. Mitrović, Marta D. Milovanović: **Upravljanje Lego Mindstorms robotom pomoću Leap motion senzora**
- 11.3. Nenad M. Stojanović: **Uticaj Rajsovog fedinga na kvalitet slike pri prenosu u okviru WMSN**
- 11.4. Aleksandar Lazić: **Modelovanje RPO-OFDM modulatora u VLC sistemima**
- 11.5. Nada Janković: **Razvoj sistema za elektronsko glasanje i implementacija korišćenjem Laravel tehnologije**

**C2 - Среда, 23.11.2016. године у 17:00 - сала 3/1**  
S2 - Wednesday, 23.11.2016, 17:00 – Hall 3/1

### Radio Communications, Applied Electromagnetics

Председавајућа: МИЛКА ПОТРЕБИЋ

Chairperson: MILKA POTREBIĆ

- 11.6. Magdalena Čakarević: **Analysis and calculation of user's location in indoor and outdoor environment**
- 11.7. Milena Matić: **Practical implementation of location services in Bluetooth Low Energy systems**

- 11.8. Denis A. Letavin: **Compact double-frequency microstrip coupler**
- 11.9. Denis A. Letavin: **Miniature band-pass filter on microstrip resonators**
- 11.10. Miloš Đ. Čapin: **Mikrotalasni rekonfigurabilni filter propusnik niskih učestanosti ili opsega učestanosti**
- 11.11. Ivo Marković: **Implementacija rekonfigurabilnog filtra propusnika – nepropusnika opsega učestanosti korišćenjem memristora**

**РАДОВИ И ПРЕДАВАЊА ПО ПОЗИВУ  
INVITED PAPERS AND PRESENTATIONS**

- SS.1. Rolf Kraemer: **Wireless Sensor Networks for Use in Agriculture: "Challenges and Potential Solutions" – *Invited presentation***
- SS.2. Zoran Stamenković, S. Randjić, I. Santamaria, U. Pešović, G. Panić, S. Tanasković: **Advanced Wireless Sensor Nodes and Networks for Agricultural Applications - *Invited paper***
- 1.1. Čedomir Vasić, Dejan Rančić: **Relocation of resources in road transportation based on the use of data from the GPS based systems - *Invited paper***
- 2.1. Nenad Krajnović: **Network topologies for achieving maximal all-terminal network availability – *Invited paper***
- 2.8. Nemanja M. Ninković, Mirjana D. Stojanović: **Novel Approaches to Intradomain and Interdomain Quality of Service Enhancement – *Invited paper***
- 2.16. Vladimir Matić: **Using of post selection delay for evaluation of mixed communication network traffic properties – *Invited presentation***
- 3.1. Mladen Koprivica: **Improving the Efficiency of Methods for Measurement of Electric Field Strength in the Vicinity of Public Mobile System Base Stations – *Invited paper***
- 4.9. Bojan P. Prlinčević, Petar Ć. Spalević: **Performances of the image transmission over FSO channel in the last-mile connection – *Invited paper***
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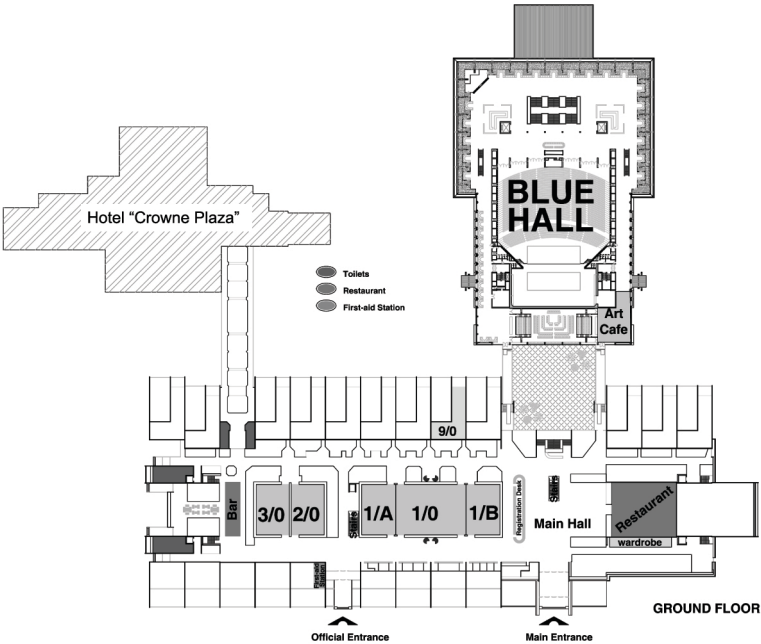
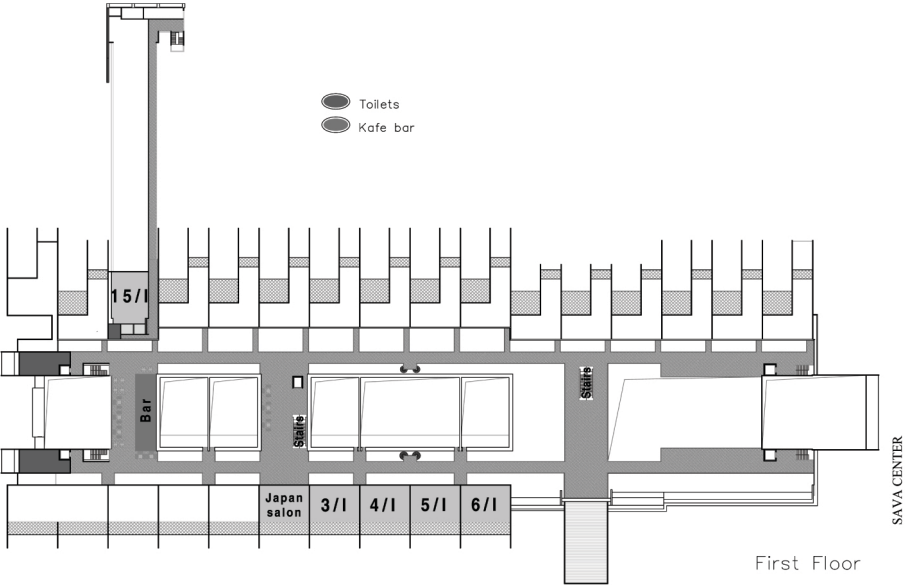
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