

JOINT CONFERENCE SCHEDULE

SPECOM 2014		DOGS 2014	
Sunday, October 5th			
<i>Conference Hall</i> 18:00-20:00 Welcome party			
Monday, October 6th			
<i>Conference Hall</i> 08:30-09:00 Registration			
<i>Congress Room</i> 09:00-09:30 Opening ceremony - A. Ronzhin, R. Potapova and V. Delić			
<i>Congress Room</i> 09:30-10:30 Keynote lecture 1 - A. Petrovsky			
<i>Congress Room</i> 10:30-11:30 Signal processing and feature extraction - S. Jovičić			
<i>Conference Hall</i> 11:30-12:00 Coffee break			
<i>Room II</i> 12:00-14:00 Speech recognition and understanding - M. Železný		<i>Room I</i> 12:00-14:00 Signal processing - Z. Perić	
<i>Titov salon</i> 14:00-15:30 Lunch			
<i>Room II</i> 15:30-17:30 Speech security systems - R. Potapova		<i>Room I</i> 15:30-17:30 Speech signal processing - N. Jakovljević	
17:30-20:00 Novi Sad and Petrovaradin Fortress Tour			
Tuesday, October 7th			
<i>Congress Room</i> 09:30-10:30 Keynote lecture 2 - A. Breen			
<i>Congress Room</i> 10:30-11:30 Spoken dialogue systems - M. Gnjatović			
<i>Conference Hall</i> 11:30-12:00 Coffee break			
<i>Room II</i> 12:00-14:00 Speech synthesis - M. Sečujski		<i>Room I</i> 12:00-14:00 Image signal processing - V. Crnojević	
<i>Titov salon</i> 14:00-15:30 Lunch			
<i>Room II</i> 15:30-17:30 Spoken language processing - I. Kraljevski		<i>Room I</i> 15:30-17:30 Bio-medical signal processing - D. Bajić	
<i>Conference Hall</i> 17:30-19:30 Poster I - N. Tomashenko			
20:00-23:00 Conference dinner			
Wednesday, October 8th			
<i>Congress Room</i> 09:30-10:30 Keynote lecture 3 - G. Németh			
<i>Congress Room</i> 10:30-11:30 Audio-visual speech processing - A. Karpov			
<i>Conference Hall</i> 11:30-12:00 Coffee break			
<i>Conference Hall</i> 12:00-14:00 Poster II - A. Ronzhin		<i>Room I</i> 12:00-14:00 Speech prosody (SP2 project) - P. Garner	
<i>Titov salon</i> 14:00-15:30 Lunch			
15:30-20:00 Excursion: Sr. Karlovci, monasteries Krušedol and Hopovo, wine maker Kovačević			
Thursday, October, 9th			
<i>Congress Room</i> 09:30-12:00 Round table "Development and applications of speech technologies" - V. Delić			
<i>Congress Room</i> 12:00-12:30 Closing ceremony - A. Ronzhin and R. Potapova			
13:30-20:00 Belgrade tour (including the museum "Nikola Tesla")			

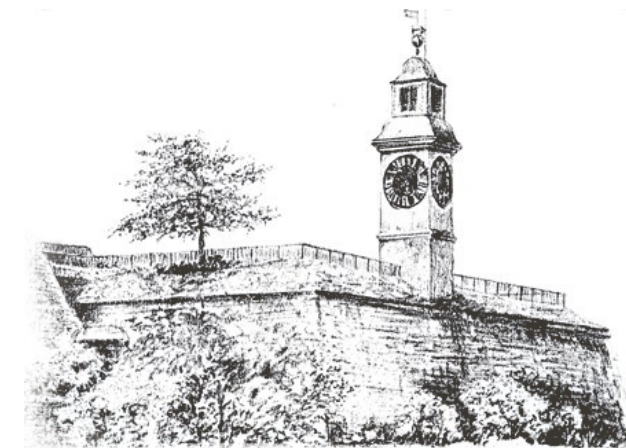
16th International Conference
on Speech and Computer



co-located with 10th Conference
on Digital Speech and Image Processing

DOGS
2014

Conference Programme



October 5th-9th, 2014
Hotel Park, Novi Sad, Serbia

Sunday, October 5th18:00-20:00 **Welcome party****Monday, October 6th**8:30-9:00 **Registration**9:00-9:30 **Opening ceremony**9:30-10:30 **Instantaneous harmonic analysis: techniques and applications to speech signal processing** – Alexander Petrovsky and Elias Azarov10:30-11:30 **Signal processing and feature extraction**

10:30-10:50 State level control for acoustic model training – German Chernykh, Maxim Korenevsky, Kirill Levin, Irina Ponomareva, and Natalia Tomashenko

10:50-11:10 Phrase-final lengthening in Russian: pre-boundary or pre-pausal? – Tatiana Kachkovskaia

11:10-11:30 HTK-based recognition of whispered speech – Jovan Galić, Slobodan T. Jovičić, Đorđe Grozdić, and Branko Marković

11:30-12:00 **Coffee break**12:00-14:00 **Speech recognition and understanding**

12:00-12:20 Convolutional neural network for refinement of speaker adaptation transformation – Zbyněk Zajíc, Jan Zelinka, Jan Vaněk, and Luděk Müller

12:20-12:40 Study of morphological factors of factored language models for Russian ASR – Irina Kipyatkova and Alexey Karpov

12:40-13:00 Robust multi-band ASR using deep neural nets and spectro-temporal features – György Kovács, László Tóth, and Tamás Grósz

13:00-13:20 A sequence training method for deep rectifier neural networks in speech recognition – Tamás Grósz, Gábor Gosztolya, and László Tóth

13:20-13:40 On a hybrid NN/HMM speech recognition system with a RNN-based language model – Daniel Soutner, Jan Zelinka, and Luděk Müller

13:40-14:00 Modeling of process dynamics by sequence of homogenous semantic networks on the base of text corpus sequence analysis – Alexander A. Kharlamov, Tatyana V. Yermolenko, and Andrey A. Zhonin

14:00-15:30 **Lunch**15:30-17:30 **Speech security systems**

15:30-15:50 Associative mechanism of foreign spoken language perception (forensic phonetic aspect) – Rodmonga Potapova and Vsevolod Potapov

15:50-16:10 Impact of emotional speech to automatic speaker recognition: experiments on GEES speech database – Ivan Jokić, Stevan Jokić, Vlado Delić, and Zoran Perić

16:10-16:30 Speaker detection using phoneme specific hidden Markov models – Edvin Pakoci, Nikša Jakovljević, Branislav Popović, Dragiša Mišković, and Darko Pekar

16:30-16:50 Vulnerability of voice verification systems to spoofing attacks by TTS voices based on automatically labeled telephone speech – Vadim Shchemelinin, Mariia Topchina, and Konstantin Simonchik

16:50-17:10 On the possibility of the Skype channel speaker identification (on the basis of acoustic parameters) – Rodmonga Potapova, Arkadij Sobakin, and Aleksej Maslov

17:10-17:30 Exploiting non-negative matrix factorization with linear constraints in noise-robust speaker identification – Nikolay Lyubimov, Marina Nastasenko, Mikhail Kotov, and Danila Doroshin

17:30-20:00 **Novi Sad and Petrovaradin fortress tour****Tuesday, October 7th**9:30-10:30 **Creating expressive TTS voices for conversation agent applications** – Andrew Breen10:30-11:30 **Spoken dialogue systems**

10:30-10:50 Automatic post-editing method using translation knowledge based on intuitive common parts continuum for statistical machine translation – Hiroshi Echizen'ya, Kenji Araki, Yuzu Uchida, and Eduard Hovy

10:50-11:10 Semantic entity detection in the spoken air traffic control data – Jan Švec and Luboš Šmídl

11:10-11:30 On principles of annotated databases of the semantic field "aggression" – Rodmonga Potapova and Liliya Komalova

11:30-12:00 **Coffee break**12:00-14:00 **Speech synthesis**

12:00-12:20 Dramatic piece reader and its evaluation by the blind and sighted assessors – Milan Rusko, Marián Trnka, Sakhia Darjaa, and Marian Ritomský

12:20-12:40 Improving speech synthesis quality for voices created from an audiobook database – Pavel Chistikov, Dmitriy Zakharov, and Andrey Talanov

12:40-13:00 Quality assessment of HMM-based speech synthesis using acoustical vowel analysis – Marvin Coto-Jiménez, John Goddard-Close, and Fabiola M. Martínez-Licona

13:00-13:20 Quality improvements of zero-concatenation-cost chain based unit selection – Jiří Kala and Jindřich Matoušek

13:20-13:40 A comparison of two prosody modelling approaches for Sesotho and Serbian – Lehlohonolo Mohasi, Milan Sečujski, Robert Mak, and Thomas Niesler

13:40-14:00 Using random forests for prosodic break prediction based on automatic speech labeling – Olga Khomitsevich, Pavel Chistikov, and Dmitriy Zakharov

14:00-15:30 **Lunch**15:30-17:30 **Spoken language processing**

15:30-15:50 A neural network keyword search system for telephone speech – Kevin Kilgour and Alex Waibel

15:50-16:10 Annotation and personality: individual differences in sentence boundary detection – Anton Stepikhov and Anastassia Loukina

16:10-16:30 Filled pauses and lengthenings detection based on the acoustic features for the spontaneous Russian speech – Vasilisa Verkhodanova and Vladimir Shapranov

16:30-16:50 First experiments with relevant documents selection for blind relevance feedback in spoken document retrieval – Lucie Skorkovská

16:50-17:10 Analysis and synthesis of glottalization phenomena in German-accented English – Ivan Kraljevski, Maria Paola Bissiri, Guntram Streacha, and Rüdiger Hoffmann

17:10-17:30 Speech rhythmic patterns of the Slavic languages – Vsevolod Potapov

17:30-19:30 **Posters I**

A dependency treebank for Serbian: initial experiments – Bojana Jakovljević, Aleksandar Kovačević, Milan Sečujski, and Maja Marković

A note on feature extraction based on Kanade-Shi-Tomasi procedure and Kalman filters – Tatjana Grbić, Aleksandar Jovanović, Slavica Medić, and Aleksandar Perović

A robust SVM/GMM classifier for speaker verification – Zoran Ćirović and Nataša Ćirović

Automatic alignment of phonetic transcriptions for Russian – Daniil Kocharov

Controlling the uncertainty area in the real time LVCSR application – Nickolay Merkin, Ivan Medennikov, Aleksei Romanenko, and Alexander Ztvornitskiy

Estimating stochasticity of acoustic signals – Sergei Aleinik and Oleg Kudashev

F0 declination patterns in Russian – Daniil Kocharov, Pavel Skrelin, and Nina Volskaya

New method of speech signals adaptive features construction based on the wavelet-like transform and support vector machines – Alexander Soroka, Pavel Kovalets, and Igor Kheidorov

Proportional-integral-derivative control of automatic speech recognition speed – Alexander Ztvornitskiy, Aleksei Romanenko, and Maxim Korenevsky

Simplified simultaneous perturbation stochastic approximation for the optimization of free decoding parameters – Aleksei Romanenko, Alexander Ztvornitskiy, and Ivan Medennikov

Speaking rate estimation based on deep neural networks – Natalia Tomashenko and Yuri Khokhlov

20:00-23:00 **Conference dinner****Wednesday, October 8th**9:30-10:30 **Gaps to bridge in speech technology** – Géza Németh10:30-11:30 **Audio-visual speech processing**

10:30-10:50 How speech technologies can help people with disabilities – Vlado Delić, Milan Sečujski, Nataša Vujnović Sedlar, Dragiša Mišković, Robert Mak, and Milana Bojanić

10:50-11:10 A Framework for recording audio-visual speech corpora with a microphone and a high-speed camera – Alexey Karpov, Irina Kipyatkova, and Miloš Železný

11:10-11:30 Extraction of features for lip-reading using autoencoders – Karel Paleček

11:30-12:00 **Coffee break**12:00-14:00 **Posters II**

Algorithms for acceleration of image processing at automatic registration of meeting participants – Alexander Ronzhin, Irina Vatamaniuk, Andrey Ronzhin, and Miloš Železný

Automatic stop list generation for clustering recognition results of call center recordings – Svetlana Popova, Tatiana Krivosheeva, and Maxim Korenevsky

Blur estimation methods for system of audiovisual monitoring of meeting participants – Irina Vatamaniuk, Andrey Ronzhin, and Alexander Ronzhin

Corpus-based regiolect studies: Kazan Region – Kamil Galiullin, Azaliya Gizatullina, Elena Gorobets, Guzel Karimullina, Rezeda Karimullina, and Denis Martyanov

Crowdsourcing interactive technology for natural-technical objects integrated monitoring – Andrejs Romanovs, Boris V. Sokolov, Arnis Lektavers, Semyon Potryasaev, and Viacheslav Shkodyrev

«INFANT.MAVS» – multimedia model for infants cognitive and emotional development study – Elena Lyakso, Aleksei Grigorev, Anna Kurazova, and Elena Ogorodnikova

Influence of agent behaviour on human-virtual agent body interaction – Igor Stanković, Branislav Popović, and Florian Focone

Human resources management in conditions of operators' psychophysiological state changes – Oleg Basov, Angelina Basova, and Maksim Nosov

Parametric representation of Kazakh gestural speech – Saule Kudubayeva and Gulmira Yermagambetova

Personified voice interaction software in billing systems – Daria A. Suranova and Roman V. Meshcheryakov

Structural model and behavior scenarios of information navigation mobile robot – Maria Prischeva and Victor Budkov

The use of speech technology in computer assisted language learning systems – Ekaterina Krasnova and Elena Bulgakova

14:00-15:30 **Lunch**15:30-20:00 **Excursion: Sr. Karlovci, monasteries Krušedol and Hopovo, wine maker Kovačević****Thursday, October 9th**10:00-12:00 **Round table (Development and applications of speech technologies)**12:00-12:30 **Closing ceremony (SPECOM and DOGS)**13:00-18:00 **Belgrade tour (including museum Nikola Tesla)**