

20th International Conference on Speech and Computer
3rd International Conference on Interactive Collaborative Robotics

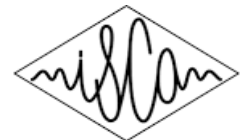
SPECOM 2018 and ICR 2018

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Joint Conference Programme

18-22 September 2018

Leipzig, Germany



SPECOM and ICR History

- 20th SPECOM-2018 and 3rd ICR-2018, Leipzig, Germany
- 19th SPECOM-2017 and 2nd ICR-2017, Hatfield, United Kingdom
- 18th SPECOM-2016 and 1st ICR-2016, Budapest, Hungary
- 17th SPECOM-2015, Athens, Greece
- 16th SPECOM-2014, Novi Sad, Serbia
- 15th SPECOM-2013, Pilsen, Czech Republic
- 14th SPECOM-2011, Kazan, Russia
- 13th SPECOM-2009, St. Petersburg, Russia
- 12th SPECOM-2007, Moscow, Russia
- 11th SPECOM-2006, St. Petersburg, Russia
- 10th SPECOM-2005, Patras, Greece
- 9th SPECOM-2004, St. Petersburg, Russia
- 8th SPECOM-2003, Moscow, Russia
- 7th SPECOM-2002, St. Petersburg, Russia
- 6th SPECOM-2001, Moscow, Russia
- 5th SPECOM-2000, St. Petersburg, Russia
- 4th SPECOM-1999, Moscow, Russia
- 3rd SPECOM-1998, St. Petersburg, Russia
- 2nd SPECOM-1997, Cluj-Napoca, Romania
- 1st SPECOM-1996, St. Petersburg, Russia

Contact

HfTL – Leipzig University of Telecommunications

(Hochschule für Telekommunikation Leipzig)

SPECOM & ICR 2018 Conference Office

Gustav-Freytag-Str. 43-45

04277 Leipzig

GERMANY

Email: specom@hft-leipzig.de

Phone: +49 341 3062-224

Organisers

The SPECOM and ICR conferences are organized by

- Leipzig University of Telecommunications (HfT Leipzig, Germany) and
- St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS, Russia)

in cooperation with

- Moscow State Linguistic University (MSLU, Moscow, Russia)
- Munich University of Technology (TUM, Munich, Germany)
- Tomsk State University of Control Systems and Radioelectronics (TUSUR, Tomsk, Russia)
- Otto von Guericke University Magdeburg (OVGU, Magdeburg, Germany)
- International Speech Communication Association (ISCA) and
- Institute of Education and Science Management Leipzig (IBWM).

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Special Sessions Committees

Special Session 1: Positioning and Power Relations in Conversations

Vered Silber-Varod (OMILab, The Open University of Israel)
Benjamin Weiss (TU Berlin, Germany)
Anat Lerner (The Open University of Israel)
Omri Allouche (Gong.io, San Mateo CA and Herzliya Israel)
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Special Session 2: Advanced Cognitive Models for Human-Machine and Human-Robot Interaction

Matthias Wolff (BTU Cottbus-Senftenberg, Germany)
Eduardo Mizraji (Universidad de la República Uruguay, Montevideo, Uruguay)
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Programme at a Glance

Tuesday – 18 September 2018	
16:00-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)

Wednesday – 19 September 2018	
08:00-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)
08:30-09:00	Opening & Award Ceremony with music and greeting of Vice President (Lecture hall N001-H)
09:00-10:00	Keynote 1: Sebastian Möller “Quality Engineering of Speech & Language Services” (N001)
10:00-10:30	1 st Coffee break
10:30-12:30	Special Session #SPC1: Positioning and Power Relations in Conversations (Lecture hall N001-H) Oral Session #ICR1: Robot Control and Behaviour (Seminar room N002-S)
12:30-14:00	Lunch break – Mensa & Cafeteria Academica, Karl-Liebknecht-Str. 145, 04277 Leipzig
14:00-16:00	Oral #SPC2: Computat. Paralinguistics (N001) Poster #ICR2: Control & Behaviour N002/Foyer
16:00-16:30	2 nd Coffee break
16:30-18:00	Poster #SPC3: ASR and Corpora (N001 & Foyer) Era.Net HARMONIC Project Kickoff (N002) Show & Tell of partner companies (Foyer)
18:15-22:00	Welcome Reception with barbecue in university’s courtyard, Gustav-Freytag-Str. 43, 04277 Leipzig

Thursday – 20 September 2018	
08:30-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)
09:00-10:00	Keynote 2: Tanja Schultz “Advances in Biosignal-based Spoken Communication” (N001)
10:00-10:30	1 st Coffee break
10:30-12:30	Oral #SPC4: Speech Synthesis/Technology N001 Oral #ICR3: Collaborative Robotics (N002)
12:30-14:00	Lunch break – Mensa & Cafeteria Academica, Karl-Liebknecht-Str. 145, 04277 Leipzig
14:00-16:00	Oral #SPC5: ASR and Corpora (N001) Poster #ICR4: Collabor. Robotics (N002/Foyer)
16:00-16:20	2 nd Coffee break
16:20-18:00	Oral #SPC6: Speaker Identification & Diar. N001 Poster #SPC7: Linguistics & Pros. (N002/Foyer) Show & Tell of partner companies (Foyer)
19:00-23:00	Gala Dinner in the Gohlis Palace & Garden – Gohliser Schlösschen (Poetenweg 26, 04155 Leipzig)

Friday – 21 September 2018	
08:30-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)
09:00-10:00	Keynote 3: Dongheui Lee “Robot Learning through Physical Interaction & Human Guidance”(N001)
10:00-10:30	1 st Coffee break
10:30-12:30	Keynote 4: Eduardo Mizraji “Improving Neural Models of Language with Input-Output Tensor Contexts” (N001) followed by Special Bridge Session #SPC-ICR “Advanced Cognitive Models for Human-Machine and Human-Robot Interaction”
12:30-14:00	Lunch break – Mensa & Cafeteria Academica, Karl-Liebknecht-Str. 145, 04277 Leipzig
14:00-16:00	Oral #SPC8: Natural Language Processing (N001) Poster #ICR5: HR Interaction (N002/Foyer)
16:00-16:20	2 nd Coffee break
16:20-18:00	Oral #SPC9: Multimodality (N001) Poster #SPC10: NLP & Acoustics (N002/Foyer) Show & Tell of partner companies (Foyer)
18:00-18:20	Closing Ceremony & SPECOM-ICR 2019 presentation in Lecture hall N001-H
ca. 19:30	Old town tour & Come together (start: Mendebrunnen fountain, Augustusplatz 15, 04109 Leipzig)

Saturday – 22 September 2018	
08:00-20:00	History, Landscapes & Wine Tour through Free State of Saxony (Bus starts at conference venue.)

Detailed Programme

Tuesday – 18 September 2018	
16:00-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)
Wednesday – 19 September 2018	
08:00-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)
08:30-09:00	Opening & Award Ceremony with music and greeting of Vice President (Lecture hall N001)
09:00-10:00	Keynote 1: Sebastian Möller “Quality Engineering of Speech and Language Services” (N001) <i>Chair: Oliver Jokisch</i>
10:00-10:30	1 st Coffee break in foyer
10:30-12:30	Special Session #SPC1: Positioning and Power Relations in Conversations (N001) <i>Chair: Vered Silber-Varod</i>
10:30-10:50	Studying Mutual Phonetic Influence with a Web-Based Spoken Dialogue System (<i>Eran Raveh, Ingmar Steiner, Iona Gessinger, Bernd Möbius</i>)
10:50-11:10	The Influence of the Interlocutor's Gender on the Speaker's Role Identification (<i>Anat Lerner, Oren Miara, Sarit Malayev, Vered Silber-Varod</i>)
11:10-11:30	You Sound Like Your Counterpart: Interpersonal Speech Analysis (<i>Jing Han, Maximilian Schmitt, Björn Schuller</i>)
11:30-11:50	Prosodic Plot of dialogues: A Conceptual Framework to Trace Speakers' Role (<i>Vered Silber-Varod, Anat Lerner, Oliver Jokisch</i>)
11:50-12:10	Choosing a Dialogue System's Modality in Order to Minimize User's Workload (<i>Adam Chýlek, Luboš Šmídl, Jakub Nedvěď</i>)
12:10-12:30	Panel discussion (<i>all presenters with audience</i>)
12:30-14:00	Lunch break – Mensa & Cafeteria Academica, Karl-Liebknecht-Str. 145, 04277 Leipzig
14:00-16:00	Oral #SPC2: Computational Paralinguistics (N001) – <i>Chair: Rüdiger Hoffmann</i>
14:00-14:20	Selecting Features for Automatic Screening for Dementia based on Speech (<i>Jochen Weiner, Tanja Schultz</i>)
14:20-14:40	How Good is Your Model 'Really'? On 'Wildness' of the In-the-wild Speech-based Affect Recognisers (<i>Vedhas Pandit, Maximilian Schmitt, Nicholas Cummins, Franz Graf, Lucas Paletta, Björn Schuller</i>)
14:40-15:00	Utilizing Psychoacoustic Modeling to Improve Speech-based Emotion Recognition (<i>Ingo Siegert, Alicia Lotz, Olga Egorow, Susann Wolff</i>)
15:00-15:20	Speech Synthesizing Simultaneous Emotion-Related States (<i>Felix Burkhardt, Benjamin Weiss</i>)
15:20-15:40	Context Modeling for Cross-corpus Dimensional Acoustic Emotion Recognition: Challenges & Mixup (<i>Dmitrii Fedotov, Heysem Kaya, Alexey Karpov</i>)
15:40-16:00	Improving Emotion Recognition Performance by Random-Forest-Based Feature Selection (<i>Olga Egorow, Ingo Siegert, Andreas Wendemuth</i>)
16:00-16:30	2 nd Coffee break in foyer
	Oral Session #ICR1: Robot Control and Behaviour (N002) <i>Chair: Andrey Ronzhin</i>
	The Dynamic Model of Operator-Exoskeleton Interact. (<i>Valery Gradetsky, Ivan Ermolov, Maxim Knyazkov, Eugeny Semenov, Artem Sukhanov</i>)
	A Decentralized Data Replication Approach for the Reconfigurable Robotic Information and Control Systems (<i>Eduard Melnik, Anna Klimenko</i>)
	Automatic Synthesis Gait Scenarios for Reconfigurable Modular Robots Walking Platform Configuration (<i>S. Manko, E. Shestakov</i>)
	Structural Analysis and Animated Simulation of Biotechn. Position-Velocity Control System of a Robot-Manip. (<i>E. Rostova, N. Rostov, B. Sokolov</i>)
	Current Control in the Drives of Dexterous Robot Grippers (<i>Vladimir Serebrennyj, Andrej Boshlyakov, Alexander Ogorodnik</i>)
	Comparing Fiducial Markers Performance for a Task of a Humanoid Robot Self-Calibration of Manipulators: a Pilot Experimental Study (<i>K. Shabalina, A. Sagitov, M. Svinin, Evgeni Magid</i>)
	Poster #ICR2: Robot Control/Behavior (Foyer) with poster rally (2 min) N002 – <i>Chair: Tilo Strutz</i>
	P01. The Influence of Various Factors on the Control of the Exoskeleton (<i>V. Gradetsky, I. Ermolov, M. Knyazkov, E. Semenov, A. Sukhanov</i>)
	P02. The Model of Autonomous Unmanned Underwater Vehicles Interaction for Collaborative Missions (<i>I. Kozhemyakin, I. Putintsev, V. Ryzhov, N. Semenov, M. Chemodanov</i>)
	P03. Cognitive Components of Human Activity in the Process of Monitoring a Heterogen. Group of Autonomous Mobile Robots on the Lunar Surface (<i>B. Kryuchkov, V. Usov, D. Ivanko, I. Kagirov</i>)
	P04. About One Approach to Robot Control System Simulation (<i>E. Larkin, A. Bogomolov, A. Privalov, M. Antonov</i>)
	P05. Design and Operation Principles of the Magnetomechanical Connector of the Module of the Mobile Autonomous Reconfigurable System (<i>N. Pavliuk, K. Krestovnikov, D. Pykhov, V. Budkov</i>)

Wednesday – 19 September 2018		
16:30-18:00	Show & Tell ASM Solutions Ltd., voice INTER connect GmbH, Linguwerk GmbH (Foyer) Poster #SPC3: Speech Recognition, Corpora and Annotation (Foyer) Start with poster rally (each 1 min.) in N001 – <i>Chair: Yuri Matveev</i>	Era.Net HARMONIC Kickoff (N002) – <i>Chair: A. Ronzhin</i>
	<p>P01. Exploring End-to-End Techniques for Low-Resource Speech Recognition (<i>V. Bataev, M. Korenevsky, I. Medennikov, A. Zatvornitskiy</i>)</p> <p>P02. Improving Russian LVCSR Using Deep Neural Networks for Acoustic and Language Modeling (<i>I. Kipyatkova</i>)</p> <p>P03. End-to-end speech recognition in Russian (<i>N. Markovnikov, I. Kipyatkova, E. Lyakso</i>)</p> <p>P04. A Comparison of Language Model Training Techniques in a Contin. Speech Recognition System for Serbian (<i>B. Popović, E. Pakoci, D. Pekar</i>)</p> <p>P05. Automatic Phonetic Segmentation and Pronunciation Detection with Various Approaches of Acoustic Modeling (<i>P. Mizera, P. Pollak</i>)</p> <p>P06. Detecting Section Boundaries in Medical Dictations: Toward Real-time Conversion of Medical Dictations to Clinical Reports (<i>N. Sadoughi, G. Finley, E. Edwards, A. Robinson, M. Korenevsky, M. Brenndoerfer, N. Axtmann, M. Miller, D. Suendermann-Oeft</i>)</p> <p>P07. Algorithms for Automatic Accentuation and Transcription of Russian Texts in Speech Recognition Systems (<i>O. Yakovenko, I. Bondarenko, M. Borovikova, D. Vodolazsky</i>)</p> <p>P08. Multilevel Annotation in the Corpus for Parsing Russian Spontaneous Speech (<i>L. Kovriguina, I. Shilin, A. Putintseva, A. Shipilo</i>)</p> <p>P09. First Insight into the Processing of the Lang. Consulting Center Data (<i>Z. Zajic, L. Zajicova, J. Psutka, P. Salajka, J. Novotny, A. Prazák, L. Müller</i>)</p> <p>P10. Recurrent DNNs and its Ensembles on the TIMIT Phone Recognition Task (<i>J. Vanek, J. Michalek, J. Psutka</i>)</p> <p>P11. Towards Network Simplification for Low-cost Devices by Removing Synapses (<i>M. Bulín, L. Šmídl, J. Švec</i>)</p> <p>P12. An Approach to Automatic Summarization of Television Programs (<i>M. Canora, F. García-Granada, E. Sanchis, E. Segarra</i>)</p>	<p>16:30 Project introduction</p> <p>16:35-16:55 Trends in Develop. of UAV-UGV Coop. Approaches in Precision Agriculture (<i>V. Quyen, M. Rakovic, V. Delić A. Ronzhin</i>)</p> <p>16:55-17:15 Robust Webcam-Based Hand Detect. for Initialis. of Hand-Gesture Communication (<i>T. Strutz, A. Leipnitz, B. Senkel</i>)</p> <p>17:15-17:35 Toward More Expressive Speech Commun. in Human-Robot Interaction (<i>V. Delić, B. Borovac, M. Gnjatovic, J. Tasevski, D. Miskovic, D. Pekar, M. Secujski</i>)</p> <p>17:35-17:55 Consensus-based Localization of Devices with Unknown Transmitting Power (<i>N. Guzey, H. Mehmet Guzey</i>)</p> <p>17:55-18:00 Conclusions</p>
18:15-22:00	Welcome Reception with barbecue in university's courtyard, Gustav-Freytag-Str. 43, 04277 Leipzig	

Thursday – 20 September 2018		
08:30-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)	
09:00-10:00	Keynote 2: <i>Tanja Schultz</i> “Advances in Biosignal-based Spoken Communication” (N001) <i>Chair: Alexey Karpov</i>	
10:00-10:30	1 st Coffee break in foyer	
10:30-12:30	Oral #SPC4: Speech Synthesis, Quality and Technology (N001) – <i>Chair: Sebastian Möller</i>	Oral #ICR3: Collaborative Robotics (N002) <i>Chair: Roman Meshcheryakov</i>
10:30-10:50	From Kratzenstein to the Soviet Vocoder: Some Results of a Historic Research Project in Speech Technology (<i>Rüdiger Hoffmann, Peter Birkholz, Falk Gabriel, Rainer Jäckel</i>)	Multi-Agent Robotic Systems in Collaborative Robotics (<i>Sergey Vorotnikov, Konstantin Ermishin, Anaid Nazarova, Arkady Yuschenko</i>)
10:50-11:10	Towards Improving the Intelligibility of Black-Box Speech Synthesizers in Noise (<i>Thomas Manzini, Alan Black</i>)	Modelling Characteristics of Human-Robot Interact. in an Exoskeleton System with Elastic Elements (<i>Sergey Jatsun, S. Savin, Andrey Yatsun</i>)
11:10-11:30	Adding Personality to Neutral Speech Synthesis Voices (<i>Christopher Buchanan, Matthew Aylett, David Braude</i>)	Safety-Related Risks and Opportunities of Key Design-Aspects for Industrial Hum.-Rob. Collab. (<i>L. Kaiser, A. Schlotzhauer, M. Brandstotter</i>)
11:30-11:50	On the Contribution of Articulatory Features to Speech Synthesis (<i>Martin Matura, Markéta Jůzová, Jindřich Matoušek</i>)	Providing Availability of Smart Space Services by Means of Incoming Data Control Methods (<i>D. Levonevskiy, I. Vatamaniuk, A. Saveliev</i>)

Thursday – 20 September 2018		
11:50-12:10	First Steps Towards Hybrid Speech Synthesis in Czech TTS System ARTIC (<i>Daniel Tihelka, Zdeněk Hanzlíček, Markéta Jůzová, Jindřich Matoušek</i>)	Sparse 3D Point-Cloud Map Upsampling and Noise Removal as a vSLAM Post-Proc. Step: Experim. Evaluation (<i>A. Bokovoy, K. Yakovlev</i>)
12:10-12:30	A Continuous Vocoder using Sinusoidal Model for Statistical Parametric Speech Synthesis (<i>Mohammed Salah Al-Radhi, Tamás Gábor Csapó, Géza Németh</i>)	Path Finding for the Coalition of Co-operative Agents Acting in the Environment with Destructible Obstacles (<i>Anton Andreychuk, Konstantin Yakovlev</i>)
12:30-14:00	Lunch break – Mensa & Cafeteria Academica, Karl-Liebknecht-Str. 145, 04277 Leipzig	
14:00-16:00	Oral #SPC5: Speech Recognition and Corpora (N001) – Chair: Tanja Schultz	Poster #ICR4: Collaborative Robotics (Foyer) Chair: Evgeni Magid
14:00-14:20	Semi-Supervised Acoustic Model Retraining for Medical ASR (<i>Greg Finley, Erik Edwards, W. Salloum, A. Robinson, N. Sadoughi, N. Axtmann, M. Korenevsky, M. Brenndoerfer, M. Miller, David Suendermann-Oeft</i>)	Start with poster rally (each 2 min.) in N002 P01. Proactive Localization System Concept for Users of Cyber-Physical Space (<i>Anton Saveliev, Dmitrii Malov, Alexander Edemskii, Nikita Pavliuk</i>)
14:20-14:40	TED-LIUM 3: Twice as Much Data and Corpus Repartition for Experiments on Speaker Adaptation (<i>François Hernandez, Vincent Nguyen, S. Ghannay, N. Tomashenko, Yannick Estève</i>)	P02. Swarm Robotics: Remarks on Terminology and Classification (<i>Aufar Zakiev, Tatyana Tsoy, Evgeni Magid</i>)
14:40-15:00	A Perceptually Inspired Data Augmentation Method for Noise Robust CNN Acoustic Models (<i>Laszlo Toth, György Kovács, Dirk Van Compernelle</i>)	P03. Task and Spatial Planning by the Cognitive Agent with Human-Like Knowledge Representation (<i>Ermek Aitygulov, Gleb Kiselev, Aleksandr Panov</i>)
15:00-15:20	Semi-Supervised Training of DNN-Based Acoustic Model for ATC Speech Recognition (<i>Lubos Smidl, Jan Svec, Ales Prazák, Jan Trmal</i>)	P04. Cloud Robotic Platform on Basis of Fog Computing Approach (<i>Aleksandr Chueshev, Olga Melekhova, Roman Meshcheryakov</i>)
15:20-15:40	Building Real-Time Speech Recognition without CMVN (<i>Thai Son Nguyen, Matthias Sperber, Sebastian Stüker, Alex Waibel</i>)	P05. Hybrid Force/Position Control of a Collaborative Parallel Robot using Adaptive Neural Network (<i>S. Zabihifar, A. Yuschenko</i>)
15:40-16:00	Investigating Word Segmentation Techniques for German Using Finite-State Transducers (<i>Gabor Pinter, Mira Schielke, Rico Petrick</i>)	
16:00-16:20	2 nd Coffee break in foyer	
16:20-18:00	Show & Tell ASM Solutions Ltd., voice INTER connect GmbH, Linguwerk GmbH (Foyer)	
16:20-18:00	Oral #SPC6: Speaker Identification & Diarization (N001) – Chair: Andreas Wendemuth	Poster #SPC7: Linguistics, Prosody and Speech Quality (Foyer) – Chair: Ingo Siegert
16:20-16:40	Lightweight Embeddings for Speaker Verification (<i>Maxim Tkachenko, Alexander Yamshinin, Mikhail Kotov, Marina Nastasenko</i>)	Start with poster rally (each 1 min.) in N002 P01. Main Determinants of the Acmeologic Personality Profiling (<i>R. Potapova, V. Potapov</i>)
16:40-17:00	Speaker Diarization: A Top-Down Approach using Syllabic Phonology (<i>E. Edwards, A. Robinson N. Sadoughi, G. Finley, M. Korenevsky, N. Axtmann M. Brenndoerfer, M. Miller, D. Suendermann-Oeft</i>)	P02. The Prosody of Discourse Makers alors and et in French. A Corpus-Based Study on Multiple Speaking Styles (<i>G. Christodoulides</i>)
17:00-17:20	Investigating Language Variability on the Performance of Speaker Verification Systems (<i>Amir Vaheb, Ali Janalizadeh Choobasti, Mortazavi Najafabadi, Saeid Safavi</i>)	P03. Sociolinguistic Variability of Predic. Groups in Colloquial Russian Speech (<i>A. Naumova</i>)
17:20-17:40	LSTM Neural Network for Speaker Change Detection in Telephone Conversation (<i>Marek Hruz, Miroslav Hlaváč</i>)	P04. Functional Mapping of Inner Speech Areas: A Preliminary Study With Portuguese Speakers (<i>C. Ferreira, B. Direito, A. Sayal, M. Simões, I. Cadório, P. Martins, M. Lousada, D. Figueiredo, M. Castelo-Branco, A. Teixeira</i>)
17:40-18:00	A Free Synthetic Corpus for Speaker Diarization Research (<i>E. Edwards, M. Brenndoerfer, A. Robinson, N. Sadoughi, G. Finley, M. Korenevsky, N. Axtmann, M. Miller, D. Suendermann-Oeft</i>)	P05. Word-initial Consonant Lengthening in Stressed and Unstressed Syllables in Russian (<i>T. Kachkovskaia, M. Nurislamova</i>) P06. Phoneme Duration Prediction for Kazakh Language (<i>A. Kaliyev, S. Rybin, Y. Matveev</i>)

Thursday – 20 September 2018	
	<p>Posters #SPC7 – continuation in Foyer foyer:</p> <p>P07. On the Stability of Some Idiolectal Features (<i>T. Litvinova, P. Seredin, O. Litvinova, T. Dankova, O. Zagorovskaya</i>)</p> <p>P08. Speech Features of Adults with Autism Spectrum Disorders and Mental Retardation (<i>E. Lyakso, O. Frolova, A. Grigorev, V. Gorodnyi, A. Nikolaev, Y. Matveev</i>)</p> <p>P09. Labialization of Unstressed Vowels in Russian: Phonetic and Perceptual Evidence (<i>D. Kocharov, V. Evdokimova, K. Evgrafova, M. Morskovatykh</i>)</p> <p>P10. QuARTCS: A Tool Enabling End-to-Any Speech Quality Assessment of WebRTC-based Calls (<i>M. Meszaros, F. Trojahn, M. Maruschke, O. Jokisch</i>)</p> <p>P11. Choice of Signal Short-Term Energy Parameter for Assessing Speech Intelligibility in the Process of Speech Rehabilitation (<i>D. Novokhrestova, E. Kostyuchenko, R. Meshcheryakov</i>)</p> <p>P12. A Prototype of the Software System for Study, Training and Analysis of Speech Intonation (<i>B. Lobanov, V. Zhitko, V. Zahariev</i>)</p>
19:00-23:00	<p>Gala Dinner in the Gohlis Palace & Garden – Gohliser Schlösschen, built 1756 (Address: Poetenweg 26, 04155 Leipzig, south entrance to the palace garden)</p>

Friday – 21 September 2018	
08:30-18:00	Registration – HTWK “Nieper-Bau”, Karl-Liebknecht-Str. 134, 04277 Leipzig (Foyer, ground floor)
09:00-10:00	Keynote 3: Dongheui Lee “Robot Learning through Physical Interaction and Human Guidance” (Lecture hall N001-H) – <i>Chair: Gerhard Rigoll</i>
10:00-10:30	1 st Coffee break in foyer
10:30-12:30	Special Bridge Session #SPC-ICR: Advanced Cognitive Models for Human-Machine and Human-Robot Interaction incl. invited keynote (N001) – <i>Chairs: Matthias Wolff and Peter beim Graben</i>
10:30-11:30	Keynote 4: Eduardo Mizraji “Improving Neural Models of Language with Input-Output Tensor Contexts”
11:30-11:50	Task and Spatial Planning by the Cognitive Agent with Human-like Knowledge Representation (<i>Ermek Aitygulov, Gleb Kiselev, Aleksandr Panov</i>)
11:50-12:10	A Cognitive User Interface for a Multi-Modal Human-Machine Interaction (<i>Constanze Tschöpe, Frank Duckhorn, Markus Huber, Werner Meyer, Matthias Wolff</i>)
12:10-12:30	A Fock Space Toolbox and Some Applications in Computational Cognition (<i>Matthias Wolff, Günther Wirsching, Markus Huber, Peter beim Graben, Ronald Römer, Ingo Schmitt</i>)
12:30-14:00	Lunch break – Mensa & Cafeteria Academica, Karl-Liebknecht-Str. 145, 04277 Leipzig
14:00-16:00	<p>Oral #SPC8: Natural Language Processing N001 <i>Chairs: Rodmonga Potapova & Liliya Komalova</i></p> <p>Poster #ICR5: Human-Robot Interaction (Foyer) incl. poster rally in N002 – <i>Chair: V. Delić</i></p>
14:00-14:20	<p>Towards a Description of Pragmatic Markers in Russian Everyday Speech (<i>Natalia Bogdanova-Beglarian, Tatiana Sherstinova, Olga Blinova, Gregory Martynenko, Ekaterina Baeva</i>)</p> <p>P01. Improvements in 3D Hand Pose Estimation using Synthetic Data (<i>J. Kanis, D. Ryumin, Z. Krnoul</i>)</p>
14:20-14:40	<p>Evaluating Novel Features for Aggressive Language Detection (<i>Tina Schuh, Stephan Dreiseitl</i>)</p> <p>P02. Ontology-based Human-Robot Interaction: an Approach and Case Study on Adaptive Remote Control Interface (<i>A. Kashevnik, D. Kalyazina, V. Parfenov, A. Shabaev, O. Baraniuc, I. Lashkov, M. Khagai</i>)</p>
14:40-15:00	<p>Perceptual-Auditory Evaluation of Aggressive Speech Behavior: Gender Aspect – on the Basis of Russian and Spanish Languages (<i>Rodmonga Potapova, Liliya Komalova, Vsevolod Potapov</i>)</p> <p>P03. Sign Language Numeral Gestures Recognition using Convolutional Neural Network (<i>Ivan Gruber, Dmitry Ryumin, Marek Hruz, Alexey Karpov</i>)</p>
15:00-15:20	<p>Coherence Understanding through Cohesion Markers: The Case of Child Spoken Language (<i>Polina Eismont, Vladislav Metelyagin, Elena Riekhakaynen</i>)</p> <p>P04. Fast Frontier Detection Approach in Consecutive Grid Maps (<i>P. Neduchal, M. Flidr, M. Zelezny</i>)</p>

Friday – 21 September 2018	
	Oral #SPC8 – continuation in N001:
15:20-15:40	Speech Interaction in “Mother - Child” Dyads with 4-7 Years Old Typically Developing Children and Children with Autism Spectrum Disorders (<i>Elena Lyakso, Olga Frolova</i>)
15:40-16:00	The Benefit of Document Embedding in Unsupervised Document Classification (<i>Jaromír Novotný, Pavel Ircing</i>)
16:00-16:20	2 nd Coffee break in foyer
	Show & Tell <i>ASM Solutions Ltd., voice INTER connect GmbH, Linguwerk GmbH</i> (Foyer)
16:20-18:00	Oral #SPC9: Multimodality (N001) <i>Chairs: Miloš Železný & Albert Ali Salah</i>
	Poster #SPC10: Natural Language Processing & Acoustic Modeling – <i>Chairs: Tatiana Shevchenko and Masashi Unoki</i>
16:20-16:40	LipsID using 3D Convolutional Neural Network (<i>Miroslav Hlaváč, Ivan Gruber, Miloš Železný, Alexey Karpov</i>)
	In Foyer – start with poster rally (each 1 min.) in N002
16:40-17:00	Gaze, Prosody and Semantics. Relevance of Various Multimodal Signals to Addressee Detection in Human-Human-Computer Conversations (<i>Oleg Akhiamov, Vasily Palkov</i>)
	P01. Quantitative Data on POS Distribution in the Beginnings and the Ends of Utterances in Everyday Russian Speech (<i>T. Sherstinova</i>)
	P02. A Comparative Survey of Authorship Attribution on Short Arabic Texts (<i>S. Ouamour, H. Sayoud</i>)
	P03. Personality, Working Memory Capacity and Expert Manual Annotation of German Spontaneous Speech (<i>A. Stepikhov, A. Loukina</i>)
17:00-17:20	Optimized Active Learning Strategy for Audiovisual Speaker Recognition (<i>Stamatis Karlos, Konstantinos Kaleris, Nikos Fazakis, Vasileios G. Kanas, Sotiris Kotsiantis</i>)
	P04. On the Comparison of Different Phrase Boundary Detection Approaches Trained on Czech TTS Speech Corpora (<i>M. Jůzová</i>)
17:20-17:40	RAMAS: Russian Multimodal Corpus of Dyadic Interaction for Affective Computing (<i>Olga Perepelkina, Evdokia Kazimirova, Maria Konstantinova</i>)
	P05. Correction of Formal Prosodic Structures in Czech Corpora Using Legendre Polynomials (<i>M. Matura, M. Jůzová</i>)
	P06. Corpus Data on Adult Life-Long Trajectory of Prosody Development in American English, with Special Reference to Middle Age (<i>T. Shevchenko, T. Sokoreva</i>)
17:40-18:00	Designing Advanced Geometric Features for Automatic Russian Visual Speech Recognition (<i>Denis Ivanko, Dmitry Ryumin, Alexandr Axyonov, Miloš Železný</i>)
	P07. Generation of Synthetic Images of Full-text Documents (<i>L. Bureš, P. Neduchal, M. Hlaváč, M. Hruz</i>)
	P08. Context-Aware Generation of Personalized Audio Tours: Approach & Evaluation (<i>N. Shilov, A. Kashevnik, S. Mikhailov</i>)
	P09. Comparative Analysis of Classif. Methods for Automatic Deception Detection in Speech (<i>A. Velichko, V. Budkov, I. Kagirov, A. Karpov</i>)
	P10. Using Dual-element Microphone Arrays for Automatic Keyword Recogn. (<i>M. Stolbov, M. Tatarnikova, Q. Trong The</i>)
	P11. Noise Suppression Method Based on Modulation Spectrum Analysis (<i>T. Isoyama, M. Unoki</i>)
	P12. Far Field Speech Enhancement at low SNR in Presence of Nonstationary Noise Based on Spectral Masking and MVDR Beamforming (<i>S. Astapov, A. Lavrentyev, E. Shuranov</i>)
18:00-18:20	Closing Ceremony & SPECOM-ICR 2019 presentation in Lecture hall N001-H
ca. 19:30	Old town tour & Come together (Mendebrunnen fountain, Augustusplatz 15, 04109 Leipzig)
Saturday – 22 September 2018	
08:00-20:00	History, Landscapes & Wine Tour through Free State of Saxony (Bus starts at conference venue.)

Venue

Conference Sessions

The joint SPECOM and ICR conferences will be held in the **Nieper Building of the HTWK University (lecture halls N001-H and N002-S)** in Karl-Liebnecht-Street 134, 04277 Leipzig, Germany at the Leipzig South Campus, on which both universities, HfTL and HTWK, are located.

Catering

All coffee breaks will be in the conference foyer, and the **lunches are provided at the Mensa & Cafeteria Academica**, Karl Liebnecht Str. 145, 04277 Leipzig (HTWK Lipsius Building, 50 m across the road). There is a choice of four main dishes including meat, fish, vegetarian/vegan cuisine and pasta.

Network Connectivity / Internet

After a successful connection with the wireless network Eduinfo please open your browser (Chrome, IE etc.) to get on the university's web portal. Select the correct event from the list, enter the password and accept the terms of use ("Nutzungsbedingungen"). The connection procedure is required once per day.

Name of the wireless network:	Eduinfo
Event name ("Veranstaltung"):	SPECOM-ICR-2018
Password ("Passwort"):	66166-2018

IP addressing and DNS shall be automatic (DHCP). Due to security considerations only following protocols are available: **http(s), pop3(s), imap(s), smtps, vpn** and **ssh**. The network access via Eduinfo is available from 18 to 21 September 2018. Alternatively you can use the Eduroam network at Nieper-Bau if you have the according account.

Social Events

Welcome Reception

All conference participants are invited to join the Welcome Reception with barbecue, which will be held in the university's courtyard of HfTL, Gustav-Freytag-Street 43-45, 04277 Leipzig, **on Wednesday, 19 September 2018**. The reception ticket is included in each participant or an according guest registration.

Gala Dinner

All conference participants are welcome to participate in the Gala Dinner that will be held **on Thursday, 20 September 2018** at the **Gohlis Palace & Garden – Gohliser Schlösschen** (Poetenweg 26, 04155 Leipzig). The dinner ticket is included in each participant or an according guest registration.

Old Town Tour and Casual Gathering

Conference participants, who are not tired after 20 sessions and keynotes or who did not explore Leipzig yet, are invited to join our small old town tour **on Friday, 21 September, 2018**. We will meet 19h30 at the historical fountain **"Mendebrunnen" in the central square** Augustusplatz 15, 04109 Leipzig (in front of the concert house "Gewandhaus"). We will stroll around the historical centre of Leipzig, shaking out our legs and afterwards invade a nice restaurant to have dinner and some more beers eventually. (The gathering is based on self-payment.)

Day Tour – "History, Landscapes & Wine"

Conference participants and accompanying persons are invited to join the bus tour **on Saturday, 22 September 2018 from 08h00 till 20h00** through some beautiful landscapes and historical spots including the Elbe Sandstone Mountains around the national park "Saxon Switzerland" and a lunch break with local dishes. Later the bus will stop at the Pillnitz Water Palace and in the historical centre of Dresden, followed by a coffee break in Radebeul and a wine tasting in the Saxon State Winery "Wackerbarth Palace". **Tickets can be ordered through the electronic registration system** (79 € or late/on-site 89 €).

Organisers



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