

Lecture Notes in Artificial Intelligence 4188

Edited by J. G. Carbonell and J. Siekmann

Subseries of Lecture Notes in Computer Science

Petr Sojka Ivan Kopeček
Karel Pala (Eds.)

Text, Speech and Dialogue

9th International Conference, TSD 2006
Brno, Czech Republic, September 11-15, 2006
Proceedings



Springer

Series Editors

Jaime G. Carbonell, Carnegie Mellon University, Pittsburgh, PA, USA
Jörg Siekmann, University of Saarland, Saarbrücken, Germany

Volume Editors

Petr Sojka
Masaryk University
Faculty of Informatics
Department of Computer Graphics and Design
Botanická 68a, 602 00 Brno, Czech Republic
E-mail: sojka@informatics.muni.cz

Ivan Kopeček
Karel Pala
Masaryk University
Faculty of Informatics
Department of Information Technologies
Botanická 68a, 602 00 Brno, Czech Republic
E-mail: {kopecek,pala}@informatics.muni.cz

Library of Congress Control Number: 2006931937

CR Subject Classification (1998): I.2.7, I.2, H.3, H.4, I.7

LNCS Sublibrary: SL 7 – Artificial Intelligence

ISSN	0302-9743
ISBN-10	3-540-39090-1 Springer Berlin Heidelberg New York
ISBN-13	978-3-540-39090-9 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

Springer is a part of Springer Science+Business Media
springer.com

© Springer-Verlag Berlin Heidelberg 2006
Printed in Germany

Typesetting: Camera-ready by Petr Sojka from source files by respective authors,
data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper SPIN: 11846406 06/3142 5 4 3 2 1 0

Preface

The annual Text, Speech and Dialogue Conference (TSD), which originated in 1998, is now coming to the end of its first decade. During this time almost 400 authors from 36 countries have contributed to the proceedings. TSD constitutes a recognized forum for the presentation and discussion of state-of-the-art technology and recent achievements in the field of natural language processing. It has become an interdisciplinary forum, interweaving the themes of speech technology and language processing. The conference attracts researchers not only from Central and Eastern Europe but also from other parts of the world. Indeed, one of its goals has always been to bring together NLP researchers with different interests from different parts of the world and to promote their mutual cooperation.

This volume contains the proceedings of the Ninth TSD Conference, held in Brno, Czech Republic in September 2006. Following the review process, 87 papers were accepted out of 175 submitted, an acceptance rate of 49.7%. The number of the submissions this year was the highest so far. We would like to thank all the authors for the efforts they put into their submissions and the members of the Program Committee and reviewers who did a wonderful job helping us to select the most appropriate papers. We are also grateful to the invited speakers for their contribution. Their talks provided insight into important issues, applications and techniques related to the conference topics.

Special thanks are due to the members of the Local Organizing Committee for their tireless effort in organizing the conference. Dagmar Janoušková and Dana Komárková carried the main administrative burden and contributed in many other ways to the preparation of the conference. The $\text{\TeX}$ pertise of Petr Sojka resulted in the production of the volume that you are holding in your hands.

We hope that you benefitted from the event and that you also enjoyed the social program prepared by the Organizing Committee.

July 2006

Ivan Kopeček, Karel Pala

Organization

TSD 2006 was organized by the Faculty of Informatics, Masaryk University, in cooperation with the Faculty of Applied Sciences, University of West Bohemia in Plzeň. The conference Webpage is located at <http://www.tsdconferences.org/tsd2006/>

Program Committee

Jelinek, Frederick (USA), <i>General Chair</i>	Nöth, Elmar (Germany)
Hermansky, Hynek (USA), <i>Executive Chair</i>	Ney, Hermann (Germany)
Agirre, Eneko (Spain)	Oliva, Karel (Austria)
Baudoin, Geneviève (France)	Pala, Karel (Czech Republic)
Černocký, Jan (Czech Republic)	Pavesić, Nikola (Slovenia)
Ferencz, Attila (Romania)	Petkevič, Vladimír (Czech Republic)
Gelbukh, Alexander (Mexico)	Psutka, Josef (Czech Republic)
Guthrie, Louise, (UK)	Pustejovsky, James (USA)
Hajičová, Eva (Czech Republic)	Rothkrantz, Leon (The Netherlands)
Hlaváčová, Jaroslava (Czech Republic)	Schukat-Talamazzini, E. Günter (Germany)
Hovy, Eduard (USA)	Skrelin, Pavel (Russia)
Kopeček, Ivan (Czech Republic)	Smrž Pavel (Czech Republic)
Krauwer, Steven (The Netherlands)	Vintsiuk, Taras (Ukraine)
Kunzmann Siegfried (Germany)	Wilks, Yorick (UK)
Matoušek, Václav (Czech Republic)	Zakharov, Victor (Russia)

Referees

Iñaki Alegria, Ben Allison, Lukáš Burget, Oliver Bender, Jan Bungeroth, Pavel Cenek, Thomas Deselaers, Nerea Ezeiza, Nestor Garay-Vitoria, Christian Gollan, Mark A. Greenwood, František Grezl, David Guthrie, Sasa Hasan, Georg Heigold, Aleš Horák, Sanaz Jabbari, Sergej Krylov, Arantza Díaz de Ilarraza, Jonas Löf, David Martinez, Pavel Matejka, Arne Mauser, Brian Mitchell, Olga Mitrofanova, Yoshihiko Nitta, Ilya Oparin, Nino Perek, Christian Plahl, Joe Polifroni, German Rigau, Pavel Rychlý, Kepa Sarasola, Petr Sojka, Daniel Stein, Igor Szöke, Zygmunt Vetulani, David Vilar.

Organizing Committee

Dana Hlaváčková (*administrative contact*), Aleš Horák, Dagmar Janoušková (*Accounting*), Dana Komárková (*Secretary*), Ivan Kopeček (*Co-chair*), Karel Pala (*Co-chair*), Adam Rambousek (*Web system*), Pavel Rychlý, Petr Sojka (*Proceedings*).

Supported by:

International Speech Communication Association, South Moravia Gas Company.

Table of Contents

I Invited Papers

Learning by Reading: An Experiment in Text Analysis	3
<i>Eduard Hovy (ISI, University of Southern California, USA)</i>	
Depth of Feelings: Alternatives for Modeling Affect in User Models	13
<i>Eva Hudlicka (Psychometrix Associates, Blacksburg, USA)</i>	

II Text

The Lexico-Semantic Annotation of PDT	21
<i>Eduard Bejček, Petra Möllerová, Pavel Straňák (Charles University, Prague, Czech Republic)</i>	
Czech Verbs of Communication and the Extraction of Their Frames	29
<i>Václava Benešová, Ondřej Bojar (Charles University, Prague, Czech Republic)</i>	
Featuring of Sex-Dependent Nouns in Databases Oriented to European Languages	37
<i>Igor A. Bolshakov (National Polytechnic Institute, Mexico City, Mexico), Sofia N. Galicia-Haro (National Autonomous University of Mexico (UNAM), Mexico City, Mexico)</i>	
On the Behaviors of SVM and Some Older Algorithms in Binary Text Classification Tasks	45
<i>Fabrice Colas (Leiden University, The Netherlands), Pavel Brazdil (University of Porto, Portugal)</i>	
A Knowledge Based Strategy for Recognising Textual Entailment	53
<i>Óscar Ferrández, Rafael M. Terol, Rafael Muñoz, Patricio Martínez-Barco, Manuel Palomar (University of Alicante, Spain)</i>	
Paragraph-Level Alignment of an English-Spanish Parallel Corpus of Fiction Texts Using Bilingual Dictionaries*	61
<i>Alexander Gelbukh, Grigori Sidorov, José Ángel Vera-Félix</i>	
Some Methods of Describing Discontinuity in Polish and Their Cost-Effectiveness	69
<i>Filip Graliński (Adam Mickiewicz University, Poznań, Poland)</i>	

Exploitation of the VerbaLex Verb Valency Lexicon in the Syntactic Analysis of Czech	79
<i>Dana Hlaváčková, Aleš Horák, Vladimír Kadlec (Masaryk University, Brno, Czech Republic)</i>	
Hungarian-English Machine Translation Using GenPar	87
<i>András Hóczá, András Kocsor (University of Szeged, Hungary)</i>	
Combining Czech Dependency Parsers	95
<i>Tomáš Holan and Zdeněk Žabokrtský (Charles University, Prague, Czech Republic)</i>	
Processing Korean Numeral Classifier Constructions in a Typed Feature Structure Grammar	103
<i>Jong-Bok Kim (Kyung Hee University, Seoul, Korea), Jaehyung Yang (Kangnam University, Korea)</i>	
Parsing Head Internal and External Relative Clause Constructions in Korean	111
<i>Jong-Bok Kim (Kyung Hee University, Seoul, Korea)</i>	
A Hybrid Model for Extracting Transliteration Equivalents from Parallel Corpora	119
<i>Jong-Hoon Oh (NICT, Republic of Korea), Key-Sun Choi (KAIST, Republic of Korea), Hitoshi Isahara (NICT, Republic of Korea)</i>	
Sentence Compression Using Statistical Information About Dependency Path Length	127
<i>Kiwamu Yamagata, Satoshi Fukutomi, Kazuyuki Takagi, Kazuhiko Ozeki (The University of Electro-Communications, Tokyo, Japan)</i>	
Transformation-Based Tectogrammatical Analysis of Czech	135
<i>Václav Klimeš (Charles University, Prague, Czech Republic)</i>	
The Effect of Semantic Knowledge Expansion to Textual Entailment Recognition	143
<i>Zornitsa Kozareva, Sonia Vázquez and Andrés Montoyo (Alicante University, Spain)</i>	
Segmentation of Complex Sentences	151
<i>Vladislav Kuboň, Markéta Lopatková, Martin Plátek (Charles University, Prague, Czech Republic), Patrice Pognan (CERTAL INALCO, Paris, France)</i>	
Enhanced Centroid-Based Classification Technique by Filtering Outliers	159
<i>Kwangcheol Shin, Ajith Abraham, SangYong Han (Chung-Ang University, Seoul, Korea)</i>	

Multilingual News Document Clustering: Two Algorithms Based on Cognate Named Entities	165
<i>Soto Montalvo (URJC, Spain), Raquel Martínez (UNED, Spain), Arantza Casillas (UPV-EHU, Spain), Víctor Fresno (URJC, Spain)</i>	
A Study of the Influence of PoS Tagging on WSD	173
<i>Lorenza Moreno-Monteagudo, Rubén Izquierdo-Beviá, Patricio Martínez-Barco, Armando Suárez (Universidad de Alicante, Spain)</i>	
Annotation of Temporal Relations Within a Discourse	181
<i>Petr Němec (Charles University, Prague, Czech Republic)</i>	
Applying RST Relations to Semantic Search	189
<i>Nguyen Thanh Tri, Akira Shimazu, Le Cuong Anh, Nguyen Minh Le (JAIST, Ishikawa, Japan)</i>	
Data-Driven Part-of-Speech Tagging of Kiswahili	197
<i>Guy De Pauw (University of Antwerp, Belgium), Gilles-Maurice de Schryver (Ghent University, Belgium), Peter W. Wagacha (University of Nairobi, Kenya)</i>	
Hand-Written and Automatically Extracted Rules for Polish Tagger	205
<i>Maciej Piasecki (Wrocław University of Technology, Poland)</i>	
Effective Architecture of the Polish Tagger	213
<i>Maciej Piasecki, Grzegorz Godlewski (Wrocław University of Technology, Poland)</i>	
Synthesis of Czech Sentences from Tectogrammatical Trees	221
<i>Jan Ptáček, Zdeněk Žabokrtský (Charles University, Prague, Czech Republic)</i>	
ASeMatch: A Semantic Matching Method	229
<i>Sandra Roger (University of Alicante, Spain & University of Comahue, Argentina), Augustina Buccella (University of Comahue, Argentina), Alejandra Cechich (University of Comahue, Argentina), Manuel Sanz Palomar (University of Alicante, Spain)</i>	
Extensive Study on Automatic Verb Sense Disambiguation in Czech	237
<i>Jiří Semecký, Petr Podveský (UFAL MFF UK, Czech Republic)</i>	
Semantic Representation of Events: Building a Semantic Primes Component	245
<i>Milena Slavcheva (Bulgarian Academy of Sciences, Sofia, Bulgaria)</i>	
Cascaded Grammatical Relation-Driven Parsing Using Support Vector Machines	253
<i>Songwook Lee (Dongseo University, Busan, Korea)</i>	

Building Korean Classifier Ontology Based on Korean WordNet	261
<i>Soonhee Hwang, Youngim Jung, Aesun Yoon, Hyuk-Chul Kwon (Pusan National University, Busan, South Korea)</i>	
Exploiting the Translation Context for Multilingual WSD	269
<i>Lucia Specia, Maria das Graças Volpe Nunes (Universidade de São Paulo, Brazil)</i>	
Post-annotation Checking of Prague Dependency Treebank 2.0 Data	277
<i>Jan Štěpánek (ÚFAL UK Prague, Czech Republic)</i>	
Language Modelling with Dynamic Syntax	285
<i>David Tugwell (University of St Andrews, Scotland, UK)</i>	
Using Word Sequences for Text Summarization	293
<i>Esau Villatoro-Tello, Luis Villaseñor-Pineda, Manuel Montes-y-Gómez (National Institute of Astrophysics, Optics and Electronics, Mexico)</i>	
Exploration of Coreference Resolution: The ACE Entity Detection and Recognition Task	301
<i>Ying Chen, Kadri Hacioglu (University of Colorado at Boulder, USA)</i>	
Parsing with Oracle	309
<i>Michal Žemlička (Charles University, Prague, Czech Republic)</i>	

III Speech

Evaluating Language Models Within a Predictive Framework: An Analysis of Ranking Distributions	319
<i>Pierre Alain, Olivier Boëffard, Nelly Barbot (Université de Rennes 1, France)</i>	
Another Look at the Data Sparsity Problem	327
<i>Ben Allison, David Guthrie, Louise Guthrie (University of Sheffield, UK)</i>	
Syllable-Based Recognition Unit to Reduce Error Rate for Korean Phones, Syllables and Characters	335
<i>Bong-Wan Kim, Yongnam Um, Yong-Ju Lee (Wonkwang University, Korea)</i>	
Recognizing Connected Digit Strings Using Neural Networks	343
<i>Lukasz Brocki, Danijel Koržinek, Krzysztof Marasek (Polish-Japanese Institute of Information Technology, Warsaw, Poland)</i>	

Indexing and Search Methods for Spoken Documents	351
<i>Lukáš Burget, Jan Černocký, Michal Fapšo, Martin Karafiát, Pavel Matějka, Petr Schwarz, Pavel Smrž, Igor Szöke (Brno University of Technology, Czech Republic)</i>	
Analysis of HMM Temporal Evolution for Automatic Speech Recognition and Verification	359
<i>Marta Casar, José A.R. Fonollosa (Universitat Politècnica de Catalunya, Barcelona, Spain)</i>	
Corpus-Based Unit Selection TTS for Hungarian	367
<i>Márk Fék, Péter Pesti, Géza Németh, Csaba Zainkó, Gábor Olaszy (Budapest University of Technology and Economics, Hungary)</i>	
Automated Mark Up of Affective Information in English Texts	375
<i>Virginia Francisco, Pablo Gervás (Universidad Complutense de Madrid, Spain)</i>	
First Steps Towards New Czech Voice Conversion System	383
<i>Zdeněk Hanzlíček, Jindřich Matoušek (University of West Bohemia, Plzeň, Czech Republic)</i>	
Are Morphosyntactic Taggers Suitable to Improve Automatic Transcription?	391
<i>Stéphane Huet, Guillaume Gravier, Pascale Sébillot (IRISA, France)</i>	
Fast Speaker Adaptation Using Multi-stream Based Eigenvoice in Noisy Environments	399
<i>Hwa Jeon Song, Hyung Soon Kim (Pusan National University, Korea)</i>	
Phonetic Question Generation Using Misrecognition	407
<i>Supphanat Kanokphara, Julie Carson-Berndsen (University College Dublin, Ireland)</i>	
Speech Driven Facial Animation Using HMMs in Basque	415
<i>Maidier Lehr (University of the Basque Country, Spain), Andoni Arruti (VICOMTech Research Centre, Donostia - San Sebastián, Spain), Amalia Ortiz, David Oyarzun, Michael Obach (University of the Basque Country, Spain)</i>	
Comparing B-Spline and Spline Models for F0 Modelling	423
<i>Damien Lolive, Nelly Barbot, Olivier Boëffard (University of Rennes 1, France)</i>	
Environmental Adaptation with a Small Data Set of the Target Domain	431
<i>Andreas Maier, Tino Haderlein, Elmar Nöth (University of Erlangen Nürnberg, Germany)</i>	

Current State of Czech Text-to-Speech System ARTIC.....	439
<i>Jindřich Matoušek, Daniel Tihelka, Jan Romportl (University of West Bohemia, Pilsen, Czech Republic)</i>	
Automatic Korean Phoneme Generation Via Input-Text Preprocessing and Disambiguation	447
<i>Mi-young Kang, Sung-won Jung, Hyuk-Chul Kwon, Aesun Yoon (Pusan National University, Busan, South Korea)</i>	
Robust Speech Detection Based on Phoneme Recognition Features	455
<i>France Mihelič, Janez Žibert (University of Ljubljana, Slovenia)</i>	
Composite Decision by Bayesian Inference in Distant-Talking Speech Recognition	463
<i>Mikyong Ji, Sungtak Kim, Hoirin Kim (Information and Communications University, Daejeon, Korea)</i>	
Speech Coding Based on Spectral Dynamics	471
<i>Petr Motlíček (IDIAP, Switzerland & Brno University of Technology, Czech Republic), Hynek Hermansky (IDIAP, Switzerland & Brno University of Technology, Czech Republic & EPFL, Switzerland), Harinath Garudadri, Naveen Srinivasamurthy (Qualcomm Inc., San Diego, USA)</i>	
Detecting Broad Phonemic Class Boundaries from Greek Speech in Noise Environments	479
<i>Iosif Mporas, Panagiotis Zervas, Nikos Fakotakis (University of Patras, Greece)</i>	
A System for Information Retrieval from Large Records of Czech Spoken Data	485
<i>Jan Nouza, Jindřich Ždánský, Petr Červa, Jan Kolorenč (TU Liberec, Czech Republic)</i>	
A Structure of Expert System for Speaker Verification	493
<i>Aleš Padrta, Jan Vaněk (University of West Bohemia in Pilsen, Czech Republic)</i>	
Automatic Online Subtitling of the Czech Parliament Meetings	501
<i>Aleš Pražák, J. V. Psutka, Jan Hoidekr, Jakub Kanis, Luděk Müller, Josef Psutka (University of West Bohemia in Pilsen, Czech Republic)</i>	
Character Identity Expression in Vocal Performance of Traditional Puppeteers	509
<i>Milan Rusko, Juraj Hamar (Comenius University, Bratislava, Slovakia)</i>	
A Dissonant Frequency Filtering for Enhanced Clarity of Husky Voice Signals	517
<i>Sangki Kang, Yongserk Kim (Samsung Electronics Co., Korea)</i>	

Post-processing of Automatic Segmentation of Speech Using Dynamic Programming.....	523
<i>Marcin Szymański, Stefan Grochowski (Poznań University of Technology, Poland)</i>	
Diphones vs. Triphones in Czech Unit Selection TTS	531
<i>Daniel Tihelka, Jindřich Matoušek (University of West Bohemia in Pilsen, Czech Republic)</i>	
Silence/Speech Detection Method Based on Set of Decision Graphs.....	539
<i>Jan Trmal, Jan Zelinka, Jan Vaněk, Luděk Müller (University of West Bohemia in Pilsen, Czech Republic)</i>	
Prosodic Cues for Automatic Phrase Boundary Detection in ASR	547
<i>Klára Vicsi, György Szaszák (Budapest University for Technology and Economics, Hungary)</i>	
Dynamic Bayesian Networks for Language Modeling.....	555
<i>Pascal Wiggers, Leon J. M. Rothkrantz (Delft University of Technology, The Netherlands)</i>	

IV Dialogue

Feature Subset Selection Based on Evolutionary Algorithms for Automatic Emotion Recognition in Spoken Spanish and Standard Basque Language	565
<i>Aitor Álvarez, Idoia Cearreta, Juan Miguel López, Andoni Arruti, Elena Lazkano, Basilio Sierra, Nestor Garay (University of the Basque Country, Spain)</i>	
Two-Dimensional Visual Language Grammar	573
<i>Siska Fitrianie, Leon J.M. Rothkrantz (Delft University of Technology, The Netherlands)</i>	
Are You Looking at Me, Are You Talking with Me: Multimodal Classification of the Focus of Attention	581
<i>Christian Hacker (University of Erlangen-Nuremberg, Germany), Anton Batliner (University of Erlangen-Nuremberg, Germany), Elmar Nöth (University of Erlangen-Nuremberg, Germany)</i>	
Visualization of Voice Disorders Using the Sammon Transform.....	589
<i>Tino Haderlein, Dominik Zorn, Stefan Steidl, Elmar Nöth (University of Erlangen-Nuremberg, Germany), Makoto Shozakai (Asahi Kasei Corp.), Maria Schuster (University of Erlangen-Nuremberg, Germany)</i>	

Task Switching in Audio Based Systems	597
<i>Melanie Hartmann, Dirk Schnelle (Darmstadt University of Technology, Germany)</i>	
Use of Negative Examples in Training the HVS Semantic Model	605
<i>Filip Jurčiček, Jan Švec, Jiří Zahradil, Libor Jelínek (University of West Bohemia in Pilsen, Czech Republic)</i>	
Czech-Sign Speech Corpus for Semantic Based Machine Translation	613
<i>Jakub Kanis (University of West Bohemia), Jiří Zahradil (SpeechTech), Filip Jurčiček (University of West Bohemia), Luděk Müller (University of West Bohemia)</i>	
Processing of Requests in Estonian Institutional Dialogues: Corpus Analysis	621
<i>Mare Koit, Maret Valdisoo, Olga Gerassimenko (University of Tartu, Estonia), Tiit Hennoste (University of Helsinki, Finland and University of Tartu, Estonia), Riina Kasterpalu, Andriela Rääbis, Krista Strandson (University of Tartu, Estonia)</i>	
Using Prosody for Automatic Sentence Segmentation of Multi-party Meetings	629
<i>Jáchym Kolář (ICSI, Berkeley, USA and University of West Bohemia in Pilsen, Czech Republic), Elizabeth Shriberg (ICSI, Berkeley, USA and SRI International, Menlo Park, USA), Yang Liu (ICSI, Berkeley, USA and University of Texas at Dallas, USA)</i>	
Simple Method of Determining the Voice Similarity and Stability by Analyzing a Set of Very Short Sounds	637
<i>Konrad Lukaszewicz, Matti Karjalainen (Helsinki University of Technology, Finland)</i>	
Visualization of Prosodic Knowledge Using Corpus Driven MEMOInt Intonation Modelling	645
<i>David Escudero Mancebo, Valentín Cardeñoso-Payo (University of Valladolid, Spain)</i>	
Automatic Annotation of Dialogues Using n -Grams	653
<i>Carlos D. Martínez-Hinarejos (Universidad Politécnica de Valencia, Spain)</i>	
PPChecker: Plagiarism Pattern Checker in Document Copy Detection ...	661
<i>NamOh Kang (Chung-Ang University, South Korea), Alexander Gelbukh (National Polytechnic Institute, Mexico), SangYong Han (Chung-Ang University, South Korea)</i>	

Segmental Duration Modelling in Turkish	669
<i>Özlem Öztürk (Dokuz Eylül University, Izmir, Turkey), Tolga Çiloğlu (Middle East Technical University, Ankara, Turkey)</i>	
A Pattern-Based Methodology for Multimodal Interaction Design	677
<i>Andreas Ratzka, Christian Wolff (University of Regensburg Germany)</i>	
A Pattern Learning Approach to Question Answering Within the Ephyra Framework	687
<i>Nico Schlaefer, Petra Gieselmann (University Karlsruhe, Germany), Thomas Schaaf, Alex Waibel (Carnegie Mellon University, Pittsburgh, USA)</i>	
Explicative Document Reading Controlled by Non-speech Audio Gestures	695
<i>Adam J. Sporka (Czech Technical University in Prague, Czech Republic), Pavel Žikovský (Academy of Performing Arts in Prague, Czech Republic), Pavel Slavík (Czech Technical University in Prague, Czech Republic)</i>	
Hybrid Neural Network Design and Implementation on FPGA for Infant Cry Recognition	703
<i>I. Suaste-Rivas, A. Díaz-Méndez, C.A. Reyes-García (Instituto Nacional de Astrofísica Óptica y Electrónica, México), O.F. Reyes-Galaviz (Instituto Tecnológico de Apizaco, México)</i>	
Speech and Sound Use in a Remote Monitoring System for Health Care	711
<i>Michel Vacher, Jean-François Serignat, Stéphane Chaillol, Dan Istrate, Vladimir Popescu (CLIPS-IMAG, Grenoble, France)</i>	
Author Index	719