

# **2007 IEEE Pacific Rim Conference on Communications, Computers and Signal Processing**

**Victoria, Canada  
22-24 August 2007**

**Volume 1 of 2**



**IEEE Catalog Number:** CFP07PRC-PRT  
**ISBN 10:** 1-4244-1189-0  
**ISBN 13:** 978-1-4244-1189-4

# Table of Contents

<b>Biologically-Based Signal Processing Chips with Emphasis on Telecommunication Defect Tracking and Reliability Estimation .....</b>	<b>1</b>
<i>Hoda S. Abdel-Aty-Zohdy</i>	
<b>Topology Aggregation in PNNI Networks Part I: Link Aggregation.....</b>	<b>8</b>
<i>Wai Sum Lai, Layli Amiri, Michael Ball, Douglas Jones, Eric Rosenberg, Michael Ungar</i>	
<b>A Framework for Opportunistic Allocation of Wireless Resources.....</b>	<b>12</b>
<i>Yun Hou, Kin K. Leung</i>	
<b>Topology Aggregation in PNNI Networks Part II: Node Aggregation .....</b>	<b>17</b>
<i>Wai Sum Lai</i>	
<b>A Multipath Flow Routing Approach for Increasing Throughput in the Internet .....</b>	<b>21</b>
<i>Brian L. Mark, Shidong Zhang</i>	
<b>Analysis of Multiple Trees on Path Discovery for Beacon-Based Routing Protocols .....</b>	<b>25</b>
<i>Baruch Awerbuch, David Holmer, Herbert Rubens, Robert G. Cole</i>	
<b>An efficient evolutionary algorithm for multiobjective optimization problems.....</b>	<b>30</b>
<i>Wei-Mei Chen, Wei-Ting Lee</i>	
<b>Ontology-Driven Development of Intelligent Educational Systems .....</b>	<b>34</b>
<i>Gordon Deline, Fuhua Lin, Dunwei Wen, Dragan Gasevic, Kinshuk</i>	
<b>A Transformation from RDF Documents and Schemas to Relational Databases.....</b>	<b>38</b>
<i>Wajee Teswanich, Suphamit Chittayasothon</i>	
<b>A Clustering Algorithm for Short Documents Based On Concept Similarity.....</b>	<b>42</b>
<i>Jing Peng, Dong-qing Yang, Jian-wei Wang, Meng-qing Wu, Jun-gang Wang</i>	
<b>A Novel Reduction Method Based On Attributes Similarity In Chinese Traditional Medicine Prescriptions .....</b>	<b>46</b>
<i>Jing Peng, Dong-qing Yang, Xiao-ling Xu, Chang-jie Tang, Jing Zhang</i>	
<b>An Improved Multiscale Normal-Mesh-Based Image Coder .....</b>	<b>50</b>
<i>Di Xu, Michael D. Adams</i>	
<b>LOSSLESS COMPRESSION OF ERROR DIFFUSED IMAGES BY CODING MULTI-LEVEL IMAGES HAVING LEAST ENTROPY .....</b>	<b>54</b>
<i>Fumitaka Ono, Makoto Kitamura</i>	
<b>Lossless Compression of Mammographic Images by Chronological Sifting of Prediction Errors.....</b>	<b>58</b>
<i>A. Neekabadi, S. Samavi, N. Karimi, E. Nasr-Esfahani, S. A. Razavi, S. Shirani</i>	
<b>Efficient Fractal Image Coding Using Adaptive Domain Pool Reduction Technique .....</b>	<b>62</b>
<i>Said El-Khamy, Mohamed Khedr, Ahmad Al-Kabbany</i>	
<b>Robust Wireless Image Communications Using Combined SPIHT/OFDM Technique.....</b>	<b>66</b>
<i>Onsy Abdelaleem, Mohamed Khedr, Maha Sharkas, A. Almaghrabi</i>	
<b>Wireless Ad-hoc Networks Using Cooperative Diversity-based Routing in Fading Channel.....</b>	<b>70</b>
<i>Nam-Soo Kim, Beongku An, Do-Hyeon Kim, Ye Hoon Lee</i>	
<b>Analysis of the Channel Access Mechanism in IEEE 802.11 Wireless Local Area Networks.....</b>	<b>74</b>
<i>Hossam Fattah</i>	
<b>A Framework for Evaluating Video Transmission over Wireless Ad Hoc Networks.....</b>	<b>78</b>
<i>Marwa Abdel-Hady, Rabab Ward</i>	
<b>Bounds for Lifetime Maximization with Multiple Sinks in Wireless Sensor Networks .....</b>	<b>82</b>
<i>Vahid Shah-Mansouri, Vincent W.S. Wong</i>	
<b>Experimental Study of an Online Game over Wireless Networks.....</b>	<b>86</b>
<i>Kui Wu, Yang Cao, Bo Sun, Yang Xiao</i>	

# Table of Contents

<b>A comparison of Nakagami and Ricean phase difference distributions .....</b>	<b>90</b>
<i>Chantri Polprasert, James A. Ritcey</i>	
<b>On the Sum-Capacity of Pilot-Assisted CDMA over Fast Varying Channels.....</b>	<b>94</b>
<i>Rasit Tutgun, Emre Aktas</i>	
<b>Energy Efficient Modulation Design for Wireless Sensor Networks.....</b>	<b>98</b>
<i>Xiao Liang, Wei Li, T. Aaron Gulliver</i>	
<b>Simple and Exact Closed-Form Expressions for the Expectation of the Linn-Peleg M-PSK Lock Detector .....</b>	<b>102</b>
<i>Yair Linn</i>	
<b>Optimizing Pipelines of Trigonometric Functions for FPGAs.....</b>	<b>105</b>
<i>Hossein Ajorloo, Hamid Ebrahimi, Hamid Sarbazi-Azad</i>	
<b>Design &amp; Implementation of the Interface of a Hardware/Software Co-Designed Virtual Machine.....</b>	<b>109</b>
<i>Adam J. Baker, Kenneth B. Kent</i>	
<b>The Impact of the Register Update Unit Size on Multipath Execution.....</b>	<b>113</b>
<i>Chao-Chin Wu, Kuan-Chou Lai, En-Hao Liu, Jin-Yuan Chen</i>	
<b>A Built-in Application Control Module for SAGE .....</b>	<b>117</b>
<i>Seiki Kuwabara, Kohei Ichikawa, Susumu Date, Shinji Shimojo</i>	
<b>Branch Prediction and Power Reduction Techniques in the Clustered Loop Buffer VLIW Architecture .....</b>	<b>121</b>
<i>Pavithra Dankanikote, Jin Hwan Park, Yul Chu</i>	
<b>Pulsed ACK: Improving Robustness of TCP for Asymmetric Bandwidth.....</b>	<b>125</b>
<i>Daigo Tanaka, Kiyoshi Oguchi, Hiroshi Shigeno</i>	
<b>Investigating high-speed transport protocol flows on 10-gigabit testbed JGNII -with monitoring the Linux kernel internally- .....</b>	<b>129</b>
<i>Kazumi Kumazoe, Masato Tsuru, Yuji Oie</i>	
<b>A Novel Local Timestamp Based Adaptive Clock Method FOR TDM over Ethernet .....</b>	<b>133</b>
<i>Jin-you Dai, Shao-hua Yu</i>	
<b>Analytical modeling of a Multistage Interconnection Network with Buffered a×a Switches under Hot-spot Environment.....</b>	<b>137</b>
<i>Jung-Yoon Kim, Tae-Zi Shin, Myung-Kook Yang</i>	
<b>A Grid Computing System using Low Resource Compact Computers .....</b>	<b>141</b>
<i>Takehiko Demiya, Tomoki Yoshihisa, Masanori Kanazawa</i>	
<b>Resource Management and Monitoring in Agent Teamwork Grid Computing Middleware.....</b>	<b>145</b>
<i>Munehiro Fukuda, Cuong Ngo, Enoch Mak, Jun Morisaki</i>	
<b>A Java Implementation of MPI-I/O-Oriented Random Access File Class in AgentTeamwork Grid Computing Middleware .....</b>	<b>149</b>
<i>Joshua Phillips, Munehiro Fukuda, Jumpei Miyachi</i>	
<b>Reduction of Feedback Overload by Exploiting Adaptive Channel in OFDMA systems .....</b>	<b>153</b>
<i>Satoru Iijima, Rui Zhou, Iwao Sasase</i>	
<b>Variable Step Closed-Loop Power Control in Cellular Wireless CDMA Systems under Multipath Fading .....</b>	<b>157</b>
<i>Hamed Saghaei, Abbas Ali Lotfi Neyestanak</i>	
<b>A Reservation-Based Multiple Access Protocol for OFDMA Networks with Adaptive Backoff Strategy.....</b>	<b>161</b>
<i>Yousry Abdel-Hamid, Fayed Gebali, T. Aaron Gulliver</i>	
<b>A Turbo SDMA Receiver for Strongly Nonlinearly Distorted MC-CDMA Signals .....</b>	<b>166</b>
<i>Paulo Silva, Rui Dinis</i>	
<b>Turbo Detection for the Uplink of CP-Assisted DS-CDMA Systems.....</b>	<b>170</b>
<i>Rui Dinis, Paulo Silva</i>	

# Table of Contents

<b>Turbo Multi-Packet Detection: An Efficient Technique to Deal with Collisions .....</b>	<b>174</b>
<i>R. Dinis, M. Serrazina, P. Carvalho</i>	
<b>QoS In Weather Impacted Satellite Networks .....</b>	<b>178</b>
<i>Kamal Harb, Anand Srinivasan, Changcheng Huang, Brian Cheng</i>	
<b>LOCALLY OPTIMAL DETECTION FOR WEAK SPREAD SPECTRUM SIGNAL IN THE PRESENCE OF POWERFUL NARROWBAND M-ARY ASK INTERFERENCE .....</b>	<b>182</b>
<i>S. Mohammad SaberAli, Hamidreza Amindavar</i>	
<b>Adaptive Equalization of Space-Time Coded MC-CDMA Systems.....</b>	<b>186</b>
<i>Aditya Trivedi, Matadeen Bansal</i>	
<b>EM Based Semi-Blind Beamforming Algorithm in MIMO-OFDM Systems .....</b>	<b>190</b>
<i>H. Zamiri-Jafarian, S. Bokharaiee-Najafee, S. Pasupathy</i>	
<b>Soft Decision Iterative V-BLAST with Detection of All Symbols at the Last Stage by Changing Detection Order in Hybrid STBC.....</b>	<b>194</b>
<i>Akihiro Okazaki, Masahiro Fujikawa, Kazuhiko Hasegawa, Iwao Sasase</i>	
<b>Improved Implementation of a Reed-Muller Spectra Based Reversible Synthesis Algorithm.....</b>	<b>198</b>
<i>Jing Zhong, Jon C. Muzio</i>	
<b>ESOP-based Toffoli Gate Cascade Generation.....</b>	<b>202</b>
<i>K. Fazel, M. A. Thornton, J. E. Rice</i>	
<b>Modified Geffe Test Pattern Generator for Built-in Self-test .....</b>	<b>206</b>
<i>Dandan Qi, Jon C. Muzio</i>	
<b>Fault Localization and Full Error Correction in Radix2 Signed Digit-Based Adders .....</b>	<b>210</b>
<i>Seyyed Roohollah Alavi, Karim Faez</i>	
<b>A Survey of Connection-Chains Detection Techniques .....</b>	<b>215</b>
<i>Ahmad Almulhem, Issa Traore</i>	
<b>Intrusion Detection Using a PCB and IP address .....</b>	<b>219</b>
<i>Jang Su Park, Byoungchul Ahn, Haengrae Cho</i>	
<b>Performance Analysis of IP Traceback Systems with Serial and Parallel Control Schemes .....</b>	<b>223</b>
<i>Keisuke Takemori, Shoichi Endo</i>	
<b>Detection of HTTP-GET .ood Attack Based on Analysis of Page Access Behavior .....</b>	<b>228</b>
<i>Takeshi Yatagai, Takamasa Isohara, Iwao Sasase</i>	
<b>Rejecting Spam during SMTP Sessions .....</b>	<b>232</b>
<i>Muhammad N. Marsono, M. Watheq El-Kharashi, Fayed Gebali</i>	
<b>The Impact of Google Hacking on Identity and Application Fraud .....</b>	<b>236</b>
<i>Amany Abdelhalim, Issa Traore</i>	
<b>Identifying Topics by using Word Distribution .....</b>	<b>241</b>
<i>Motoi Nakayama, Takao Miura</i>	
<b>Estimating The Date of Blog Authors by CRF.....</b>	<b>245</b>
<i>Masataka Izumi, Takao Miura, Isamu Shioya</i>	
<b>Identifying Text Objects Based on Expansion .....</b>	<b>249</b>
<i>Kohta Ohkubo, Takao Miura</i>	
<b>An Adaptive User-Genre-Item Model for Collaborative Filtering.....</b>	<b>253</b>
<i>Jin-Min Yang, Kin Fun Li</i>	
<b>A Feedback Method of Improving the Performance of a Document Vector Space Developed on a Feature Extraction Model .....</b>	<b>259</b>
<i>Kosuke Takano, Chen Xing, Keisuke Masuda</i>	

# Table of Contents

<b>Domain Dependent Word Segmentation Based on Conditional Random Fields .....</b>	<b>264</b>
<i>Takuya Fukuda, Masataka Izumi, Takao Miura</i>	
<b>Feature Point Correspondence of Stereo Images by Monogenic Phase .....</b>	<b>268</b>
<i>Kunio Takaya</i>	
<b>Pipelined Orientation Estimation in Fingerprint Images.....</b>	<b>272</b>
<i>E. Alibeigi, S. Samavi, Z. Rahmani, S. Shirani</i>	
<b>Face Recognition Using Multiscale Gabor Wavelet.....</b>	<b>276</b>
<i>Lin Huang, Wenjing Zhang</i>	
<b>Person Recognition Using Features of Still Face Images and Text-independent Speeches .....</b>	<b>280</b>
<i>Lin Huang, Hanqi Zhuang, Wenjing Zhang</i>	
<b>Optical Flow in Dynamic Graph Cuts .....</b>	<b>284</b>
<i>Nurul Arif Setiawan, Dhi Aurrahman, Chil Woo Lee</i>	
<b>Steganalysis of Pixel-Value Differencing Steganographic Method.....</b>	<b>288</b>
<i>Vajiheh Sabeti, Shadrokh Samavi, Mojtaba Mahdavi, Shahram Shirani</i>	
<b>A PAPR Reduction Method using Constraint Code in Multicode CDMA System .....</b>	<b>292</b>
<i>Heung-Gyo Ryu, Sang-Kyun Kim, Seung-Eun Lee, Cheng-Xiang Wang</i>	
<b>A Side Information Embedded PTS Scheme in the OFDM Communication System.....</b>	<b>296</b>
<i>Heung-Gyo Ryu, Seon-Ae Kim, Cheng-Xiang Wang</i>	
<b>A Low Complexity SLM-Based Radix FFT Method for PAPR Reduction in OFDM Systems .....</b>	<b>300</b>
<i>Abolfazl Ghassemi, T. Aaron Gulliver</i>	
<b>B-complementary Sequences and Peak-to-Mean Envelope Power Ratio Reduction in OFDM.....</b>	<b>304</b>
<i>Wen Chen, Chintha Tellambura</i>	
<b>Avoiding PAPR degradation in Convolutional Coded OFDM Signals .....</b>	<b>308</b>
<i>Emma Frontana, Ivan Fair</i>	
<b>Partial Transmit Sequences for Peak-to-Average Power Ratio Reduction of OFDM with Space-Time/Frequency Coding.....</b>	<b>312</b>
<i>Trung Thanh Nguyen, Lutz Lampe</i>	
<b>On the Performance of Time-Hopping PPAM UWB Multiple Access Communications Over Nakagami-m Fading Channels .....</b>	<b>316</b>
<i>Hao Zhang, T. Aaron Gulliver</i>	
<b>On the Capacity of Non-Orthogonal Pulse Position Modulation for Time-Hopping UWB Communications .....</b>	<b>321</b>
<i>Hao Zhang, Wei Li, T. Aaron Gulliver</i>	
<b>WiMAX Interference to MB-OFDM UWB Systems .....</b>	<b>325</b>
<i>Chris Snow, Lutz Lampe, Robert Schober</i>	
<b>Acquisition Techniques at Symbol Sampling Rate for UWB Communications.....</b>	<b>329</b>
<i>Xia Cheng, Anh Dinh</i>	
<b>LDPC Codes for High Data Rate Multiband OFDM Systems over 1Gbps .....</b>	<b>334</b>
<i>Daisuke Abematsu, Tomoaki Ohtsuki, Tsuyoshi Kashima, Sigit P. W. Jarot</i>	
<b>Effect of Imperfect Channel Estimation on the Performance of UWB-IR with Frequency-Domain Equalization (FDE) and Cyclic Prefix (CP) Reconstruction .....</b>	<b>338</b>
<i>Shintaro Yoshida, Tomoaki Ohtsuki</i>	
<b>A New Dynamic Routing Algorithm for Networks-on-Chips .....</b>	<b>342</b>
<i>Mohamed M. Sabry, M. Watheq El-Kharashi, Hassan Shehata Bedor</i>	
<b>An Efficient Power-Aware Scheduling Algorithm in Real Time System.....</b>	<b>346</b>
<i>Hyekseong Kweon, Younggu Do, Jaejeong Lee, Byoungchul Ahn</i>	

# Table of Contents

<b>On-Chip Hardware Support for Similarity Measures .....</b>	<b>350</b>
<i>Darshika G. Perera, Kin Fun Li</i>	
<b>High Level Fixed Point VLSI Design with Automated Clock Gating .....</b>	<b>355</b>
<i>Nainesh Agarwal, Nikitas Dimopoulos</i>	
<b>A Structural Architecture for HW Packet Processing .....</b>	<b>359</b>
<i>Harald Widiger, Stephan Kubisch, Dirk Timmermann</i>	
<b>Development of a Co-Design Learning Environment.....</b>	<b>363</b>
<i>Shawn F. McGinn, Kenneth B. Kent</i>	
<b>Optimal LSP selection method in MPLS networks .....</b>	<b>367</b>
<i>Shin-ichi Kurabayashi, Shigehiro Tsumura</i>	
<b>Sorting AR*-tree: Further Improving the Performance of Partially-dimensional Range Queries.....</b>	<b>371</b>
<i>Yaokai Feng, Kunihiko Kaneko, Akifumi Makinouchi</i>	
<b>Generalized Cover-Free Families for Topology-Transparent Channel Assignment .....</b>	<b>375</b>
<i>Charles J. Colbourn, Peter J. Dukes, Violet R. Syrotiuk</i>	
<b>A Dynamic Layer Management Scheme for a Superpeer Ring with a Loosely-Consistent DHT.....</b>	<b>379</b>
<i>Saeyoung Han, Sungyong Park</i>	
<b>A Latency-Estimation Method for Software-Based MPEG-4 Video Streaming Systems using Gigabit Ethernet .....</b>	<b>383</b>
<i>Yasuyuki Miura, Michiaki Katsumoto</i>	
<b>HCI(Human Computer Interaction) Using Multi-touch Tabletop Display.....</b>	<b>387</b>
<i>Jangwoon Kim, Jewan Park, Hyung Kwan, Kim Chilwoo Lee</i>	
<b>A Design and Implementation of Low Power Management for Personal Multimedia Systems .....</b>	<b>391</b>
<i>Jaejeong Lee, Byoungchul Ahn, Dong Ha Lee, Sang Heon Lee</i>	
<b>An Automatic Creation Method of the Query Vector for the Semantic Associative Search Corresponding to the Impression of Sound of Arbitrary Words .....</b>	<b>395</b>
<i>Hidegori Homma, Takafumi Nakanishi, Takashi Kitagawa</i>	
<b>Speech Activity Detection with Lip Movement Image Signals .....</b>	<b>399</b>
<i>Soo-jong Lee, Jun Park, Eung-kyeu Kim</i>	
<b>Hardware-software co-design of G729 voice encoder using Virtex-II Pro FPGA .....</b>	<b>403</b>
<i>Sara Najafzadeh, M. Reza Ghajar, Afsaneh Nassery, Behjat Forouzandeh</i>	
<b>Evaluation of Optimum Multi-Channel Implementation of CS-ACELP Codec on TMS320C6205 .....</b>	<b>406</b>
<i>Sara Najafzadeh, M. Reza Ghajar, Afsaneh Nassery, Behjat Forouzandeh</i>	
<b>Difference Closeness Function for Eye Array .....</b>	<b>409</b>
<i>Hedayat Alghassi, Shahram Tafazoli, Peter Lawrence</i>	
<b>Mobile User Tracking Algorithm via Velocity Estimation for Microcellular Urban Environment.....</b>	<b>413</b>
<i>A. Kohansal, N. Mirmotahary, H. Zamiri-Jafarian, M. M. Mirsalehi</i>	
<b>Downlink Beamforming Under Individual SINR and Per Antenna Power Constraints.....</b>	<b>418</b>
<i>Yakup K. Yazarel, Defne Aktas</i>	
<b>A new routing protocol for reducing the probability of route breakage in Mobile Ad-hoc Networks.....</b>	<b>422</b>
<i>S. Kalhor, M. Anisi, A. T. Haghigiat</i>	
<b>Line Coding for Clock Recovery With Minimal Filtering .....</b>	<b>426</b>
<i>Zuojian Song, Yoshitaka Takasaki</i>	
<b>A Bandwidth Ef.cient Constant Envelope Modulation with Reed-Solomon Coding.....</b>	<b>430</b>
<i>Douglas J. Hermes, Frank E. Kragh</i>	

# Table of Contents

<b>Implementation of a Flexible Encoder for Structured Low-Density Parity-Check Codes.....</b>	<b>434</b>
<i>Sunitha Kopparthi, Don M. Gruenbacher</i>	
<b>On Construction of Concatenated Low-Density Generator Matrix Codes .....</b>	<b>438</b>
<i>Yusuke Kumano, Tomoaki Ohtsuki</i>	
<b>A Basic Study of a File Delivery Scheduling in a Hop by Hop File Delivery System on One Link Model.....</b>	<b>442</b>
<i>Hiromi Tsurumi, Takamichi Miyata, Katsunori Yamaoka, Yoshinori Sakai</i>	
<b>Delivery of Guaranteed Rate Internet Traffic with Very Low Delay Jitter .....</b>	<b>446</b>
<i>Ted H. Szymanski, Dave Gilbert</i>	
<b>Multicast Video-on-Demand Service in an Enterprise Network with Client-Assisted Patching .....</b>	<b>452</b>
<i>S. M. Farhad, M. M. Akbar</i>	
<b>A Window Flow Control Method for Volume Data Transfer to Achieve Throughput Close to Reserved Bandwidth in Diffserv AF Networks.....</b>	<b>456</b>
<i>Naoto Ikeda, Masaaki Noro, Ken-ichi Baba, Shinji Shimojo</i>	
<b>Degree-Constrained ALM Tree Construction Algorithm for Heterogeneous Access Environment .....</b>	<b>460</b>
<i>E. Takahashi, T. Osuga, K. Taniguchi, N. Wakamiya</i>	
<b>OMCPs: Optimized Middleware for a Contentbased Publish/Subscribe Architecture .....</b>	<b>464</b>
<i>Antonio-Javier Garcia-Sanchez, Felipe Garcia-Sanchez, P. Pavon-Marino, Joan Garcia-Haro</i>	
<b>Leveraging Conceptual Models of Trust in Automated Systems to Promote 'Appropriate Trust' in Autonomic Systems.....</b>	<b>469</b>
<i>Qin Zhu, Dylan Dawson, Priyanka Agrawal, Hausi A. Müller</i>	
<b>An Architecture and Performance of Maestro3 Cluster Network .....</b>	<b>473</b>
<i>Hajime Kurabayashi, Koji Yasuda, Keiichi Aoki, Koichi Wada, Masaaki Ono</i>	
<b>A Framework for Meta-Scheduling WSRF-based Services .....</b>	<b>477</b>
<i>Kohei Ichikawa, Susumu Date, Shinji Shimojo</i>	
<b>A Code Transformation Method For Strong Migration Mobile Agent .....</b>	<b>481</b>
<i>Yasuki Sakurai, Masatoshi Takubo, Fumiaki Kato, Munenori Kai</i>	
<b>An Effective Termination Criterion for the Rudin-Osher-Fatemi Algorithm for Image Restoration .....</b>	<b>485</b>
<i>Haoran Zhang, Wu-Sheng Lu</i>	
<b>Restoration of Corrupted Region and Segmentation .....</b>	<b>489</b>
<i>Jonghyun Park, Nguyen Dinh Toan, Gueesang Lee</i>	
<b>Image Resolution Conversion Based on an Edge-Adaptive Interpolation Kernel.....</b>	<b>493</b>
<i>Takashi Mori, Keisuke Kameyama, Yasuhiro Ohmiya, Jia Lee, Kazuo Toraichi</i>	
<b>Patch Map for Fast Texture Synthesis.....</b>	<b>497</b>
<i>Guo Fenrong, Qi Dongxu, Xiong Changzhen, Zou Jiancheng</i>	
<b>Multi-domain-based Automatic Image Representation Using Semantic Tolerance Relation Models .....</b>	<b>501</b>
<i>Ying Dai</i>	
<b>Fractional Sampling OFDM/OQAM-IOTA on Multipath Channel with Long Delay Spread .....</b>	<b>506</b>
<i>Tsubasa Tamura, Yukitoshi Sanada</i>	
<b>OFDM Interference Suppression for DS/SS Systems using Complex FIR Filter .....</b>	<b>510</b>
<i>Yuki Shimizu, Yukitoshi Sanada</i>	
<b>A Cost Minimization Algorithm for a Multiuser OFDM Cognitive Radio System.....</b>	<b>514</b>
<i>Tao Qin, Cyril Leung</i>	
<b>An Iterative Decision Feedback Algorithm using the Cholesky Update for OFDM with Fast Fading .....</b>	<b>518</b>
<i>Ping Wan, Michael McGuire</i>	

# Table of Contents

<b>Performance of Equal Power Subchannel Loading in Multiuser OFDM systems.....</b>	<b>522</b>
<i>Yonghong Zhang, Cyril Leung</i>	
<b>When Can Interleaving Be Avoided for Reed-Solomon Coded Binary Markov Channels?.....</b>	<b>526</b>
<i>Haider Al-Lawati, Fady Alajaji, Cecilio Pimentel</i>	
<b>A Graph Approach to the Structural Analysis of Simplified Convolutional Self-Doubly-Orthogonal Codes .....</b>	<b>530</b>
<i>Yu-Cheng He, David Haccoun, Christian Cardinal</i>	
<b>Four Intuitive Messages for LDPC Codes .....</b>	<b>534</b>
<i>Young Gil Kim, Norman C. Beaulieu</i>	
<b>Improved Iterative Bit Flipping Decoding Algorithms for LDPC Convolutional Codes .....</b>	<b>537</b>
<i>Xin Sheng Zhou, Bruce F. Cockburn, Stephen Bates</i>	
<b>Packet Scheduling Algorithm with Modified Time-Utility Function to Improve NRT Throughput in OFDMA System.....</b>	<b>541</b>
<i>Yusuke Shimizu, Rui Zhou, Iwao Sasase</i>	
<b>A Hybrid Broadcast Scheduling for Mobile Data Broadcasting with Return Channels.....</b>	<b>545</b>
<i>Sujeong Choi, Sang Hyuk Kang, Yoon Goo Nam</i>	
<b>Multi-Flow Merging Gain in Scheduling for Flow-Based Wireless Networks .....</b>	<b>549</b>
<i>Chi En Huang, Cyril Leung</i>	
<b>Effect of traffic conditions on scheduling algorithms in a cross-layer downlink model .....</b>	<b>553</b>
<i>Deepali Arora</i>	
<b>A Weighted-Selective Scheduling Scheme in an Open Software Radio Environment.....</b>	<b>557</b>
<i>Kan Zheng, Gang Li, Lin Huang</i>	
<b>Multiple Description Coding Of Video Using Phase Scrambling .....</b>	<b>561</b>
<i>Seyed Parsa Hojjat, Sina Fazelpour, Shahram Shirani</i>	
<b>H.264 Intra Frame Coding and JPEG 2000-based Predictive Multiple Description Image Coding.....</b>	<b>565</b>
<i>Jing Wang, Jie Liang</i>	
<b>Frame-Accurate Video Cropping in Compressed MPEG Domain .....</b>	<b>569</b>
<i>M. Rehan, P. Agathoklis</i>	
<b>Medical Image Segmentation Using a Geometric Active Contour Model Based on Level Set Method .....</b>	<b>573</b>
<i>Myung Eun Lee, Soon Young Park, Wan Hyun Cho, Soo Hyung Kim</i>	
<b>Pectoral Muscle Segmentation on Digital Mammograms by Nonlinear Diffusion Filtering.....</b>	<b>577</b>
<i>H. Mirzaalian, M. R. Ahmadzadeh, S. Sadri</i>	
<b>Speckle Suppression in Medical Ultrasound Images Using Two Dimensional GARCH Model .....</b>	<b>581</b>
<i>Maryam Amirmazlaghani, Hamidreza Amindavar</i>	
<b>Optimizing Reconstruction Resolution for Weak-phase Object in Lensless Holographic Imaging .....</b>	<b>585</b>
<i>Jun Wan, Adekunle A. Adeyemi, Thomas E. Darcie</i>	
<b>An Improved Calibration Algorithm for ITS Based On Vision .....</b>	<b>589</b>
<i>Fuqiang Liu, Jing Wang, Lian Guo, Xinhong Wang</i>	
<b>Groupwise Recursive Channel Estimation for Space-Frequency Block Coded OFDM Systems in Doubly Selective Fading Channels.....</b>	<b>593</b>
<i>Siva D. Muruganathan, Tung X. Lai, Abu B. Sesay</i>	
<b>Performance of Pilot Symbol Assisted Channel Estimation Techniques for Uplink MC-CDMA Systems using MMSE Receiver.....</b>	<b>597</b>
<i>Aditya Trivedi, Rekha Gupta</i>	
<b>Joint Time Domain Channel and Channel Length Estimation for OFDM System .....</b>	<b>601</b>
<i>Min Jia, Zhen-Yong Wang, Xue-Mai Gu</i>	

## Table of Contents

<b>A Novel Timing and Frequency Synchronization Based on Symmetrical &amp; Conjugate Prefix in OFDM System.....</b>	<b>605</b>
<i>Hewei Yu</i>	
<b>AVERAGE ALIASING ERROR FOR GENERAL PREFILTERING BASED ON SHIFT INVARIANT SPACES.....</b>	<b>609</b>
<i>Wen Chen</i>	
<b>Mixed-mode Implementation of Particle Filters .....</b>	<b>613</b>
<i>Rajbabu Velmurugan, Shyam Subramanian, Volkan Cevher, James H. McClellan, David V. Anderson</i>	
<b>A Comparative Study on Wearable Sensors for Signal Processing on the North Indian Tabla.....</b>	<b>617</b>
<i>Manjinder S. Benning, Ajay Kapur, Bernie Till, George Tzanetakis, Peter Driessens</i>	