# Table of Contents

Electrocardiogram Collection, Pattern Recognition, and Classification Sensor System Supporting a Mobile Cardiovascular Disease Detection Aid  
*Paul Fortier, Patrick DaSilva, and Kristen Sethares*  

A Novel ID Anonymity Preserving Scheme (ID-APS) for Hierarchical Wireless Sensor Networks  
*Ahmed Al-Riyami, Ning Zhang, and John Keane*  

Enhanced Sensitivity in the VIS-NIR Range Under UV Light in a-SiC Pinpin Device  
*Vitor Silva, Paula Louro, Manuel Augusto Vieira, Isabel Rodrigues, and Manuela Vieira*  

WiFi Monitoring Embedded System for Electrical Microgeneration using Renewable Energy Sources  
*Sandro C. S. Juca, Paulo C. M. Carvalho, and Renata I. S. Pereira*  

Feasibility of Charge Transfer Based Atmospheric Ice Sensing  
*Taimur Rashid, Umair Najeeb Mughal, and Muhammad Shakeel Virk*  

Evaluation of Torque and Axial Loading Physics for Atmospheric Icing Sensors  
*Umair Najeeb Mughal and Muhammad Shakeel Virk*  

Using CFD-Based Virtual Sensor Data to Study the Structure of Air Flow behind A Porous Fence  
*Yizhong Xu and Mohamad Mustafa*  

Improving Distance Estimation in Object Localisation with Bluetooth Low Energy  
*Georgia Ionescu, Carlos Martinez de la Osa, and Michel Deriaz*  

Assessment of Sensor Technologies for Gate-Based Object Counting  
*Colin Lelsie, Alex Vakaloudis, Kostas Anagnostopoulos, Nikolaos Chalikias, and Jian Liang*  

Wide Area Surveillance Using Limited-Flying-Time Helicopters  
*Kenichi Mase*  

BuckshotDV - A Robust Routing Protocol for Wireless Sensor Networks with Unstable Network Topologies and Unidirectional Links  
*Reinhardt Karnapke and Jorg Nolte*  

Ultra Wideband Positioning: An Analytical Study of Emerging Technologies  
*Suheer Alhadhrami, AbdulMalik Al-Salman, Hend Al-Khalifa, Abdulrahman Alarifi, Ahmad Alnafessah, Mansour Alsaleh, and Mai Al-Ammar*  

Integrating Smart Items and Cloud Computing in Healthcare Scenarios  
*Sarfaraz Ghulam, Johannes Schubert, Gerrit Tamm, and Vladimir Stantchev*
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Impact of Link Lengths on Energy Consumption in Wireless Sensor Networks</td>
<td>82</td>
</tr>
<tr>
<td>Knut Ovsthus, Espen Nilsen, Anne-Lena Kampen, and Oivind Kure</td>
<td></td>
</tr>
<tr>
<td>Vincent C. Emeakarooha, Kaniz Fatema, Philip Healy, and John P. Morrison</td>
<td></td>
</tr>
<tr>
<td>Towards Tactical Military Software Defined Radio</td>
<td>96</td>
</tr>
<tr>
<td>Tapio Saarelainen</td>
<td></td>
</tr>
<tr>
<td>Small and Low Side Lobe Beam-forming Antenna Composed of Narrow Spaced Patch Antennas for Wireless Sensor Networks</td>
<td>107</td>
</tr>
<tr>
<td>Yosuke Sato and Shuzo Kato</td>
<td></td>
</tr>
<tr>
<td>Accuracy Enhancements in Indoor Localization with the Weighted Average Technique</td>
<td>112</td>
</tr>
<tr>
<td>Grigorios G. Anagnostopoulos and Michel Deriaz</td>
<td></td>
</tr>
<tr>
<td>60GHz Radio Hose for Wireless Harness Communication Systems</td>
<td>117</td>
</tr>
<tr>
<td>Yosuke Sato, Vannsith Ith, and Shuzo Kato</td>
<td></td>
</tr>
<tr>
<td>An Analysis of the Need for Dedicated Recovery Methods and Their Applicability in Wireless Sensor Networks Running the Routing Protocol for Low-Power and Lossy Networks</td>
<td>121</td>
</tr>
<tr>
<td>Anne-Lena Kampen, Knut Ovsthus, and Oivind Kure</td>
<td></td>
</tr>
<tr>
<td>Domain Specific Modeling Language for Object Localization in Marine Observatories</td>
<td>130</td>
</tr>
<tr>
<td>Charbel Geryes Aoun, Iyas Alloush, Yvon Kermarrec, Joel Champeau, and Oussama Zein</td>
<td></td>
</tr>
<tr>
<td>A Formal Graph-Based Model Applied to Cluster Communication in Wireless Sensor Networks</td>
<td>137</td>
</tr>
<tr>
<td>Laura Margarita Rodriguez Peralta, Lina Maria Pestana Leao de Brito, and Eduardo Ismael Hernandez</td>
<td></td>
</tr>
<tr>
<td>High Deployability of IEEE 802.15.4k DSSS Systems in Interference Dominated Bands</td>
<td>147</td>
</tr>
<tr>
<td>Yasutaka Tada, Yosuke Sato, and Shuzo Kato</td>
<td></td>
</tr>
<tr>
<td>A Real-Time Bridge Pier Scouring Monitoring System Based on Hall-Effect Sensors</td>
<td>152</td>
</tr>
<tr>
<td>Chen-Chia Chen, Ssu-Ying Chen, Wen-Ching Chen, Gang-Neng Sung, Jin-Ju Chue, Chih-Ting Kuo, Yi-Jie Hsieh, Chih-Chyau Yang, Chien-Ming Wu, and Chun-Ming Huang</td>
<td></td>
</tr>
<tr>
<td>Building Automation: Experience with Dynamic Reconfiguration of a Room</td>
<td>157</td>
</tr>
<tr>
<td>Maxime Louvel, Francois Pacull, Safietou Raby Thior, Maria Isabel Vergara Gallego, and Oussama Yaakoubi</td>
<td></td>
</tr>
<tr>
<td>An Integrated Ambient Intelligence System in the Monitoring and Rehabilitation of the Disorder of Consciousness</td>
<td>163</td>
</tr>
<tr>
<td>Francesco Riganello, Luigi Piscitelli, Luigi Flotta, Calogero Pace, Giuliano Dolce, and Walter G. Sannita</td>
<td></td>
</tr>
</tbody>
</table>