

# **2016 HONET-ICT**

**Nicosia, Cyprus  
13 – 14 October 2016**



**IEEE Catalog Number: CFP1605B-POD**  
**ISBN: 978-1-5090-3785-8**

**Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\*This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP1605B-POD
ISBN (Print-On-Demand):	978-1-5090-3785-8
ISBN (Online):	978-1-5090-3784-1
ISSN:	1949-4092

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# Table of Contents

<a href="#"><u>1</u></a>	Fadi Al-Turjman and Islam Elgedawy, IdProF: Identity Provisioning Framework for Smart Environments.....12
<a href="#"><u>2</u></a>	Mustafa Dagbasi, Olusola Bamisile and Chinedum Adii, The Techno-Economic Comparison of Solar Power Generation Methods for Turkish Republic of North Cyprus.....17
<a href="#"><u>3</u></a>	Ifeoluwa Wole-Osho, Humphrey Adun, Ismaila Yusuf and Olusola Bamisile, Comparison of Renewable Energy Potential in Relation to Tenewable Energy Policy in ECOWAS Countries.....24
<a href="#"><u>4</u></a>	Meriem Salhi, Maha Sliti and Noureddine Boudriga, All-Optical VPN Platform and Authentication for VLC-based Networks....29
<a href="#"><u>5</u></a>	Nihel Ramdhan, Maha Sliti and Noureddine Boudriga, Codeword-based Data Collection Protocol for Optical Unmanned Aerial Vehicle Networks....35
<a href="#"><u>6</u></a>	Kartheek Batchu and Abasifreke Ebong, The Use of ImageJ Software to Correlate the Percentage area of Ag Crystallites to Contact Resistance in Si Solar Cells....40
<a href="#"><u>7</u></a>	Tamer Khatib, A Comparison of Components' Replacement Models for PV/DG/Battery Systems Considering Different Operational Strategies....44
<a href="#"><u>8</u></a>	Diyari Hassan, Yonal Kirsal and Soydan Redif, Channel Capacity Improvement for Cooperative MIMO Wireless Sensor Networks via Adaptive MIMO-SVD....49
<a href="#"><u>9</u></a>	Ferhat Dikbiyik and Emre Karako, Rapid Migration of VMs on a Datacenter under Cyber Attack over Optical Infrastructure....54
<a href="#"><u>10</u></a>	Taner Arsan, Smart Systems: From Design to Implementation of Embedded Smart Systems....59
<a href="#"><u>11</u></a>	Ilker Korkmaz, Orhan Dagdeviren and Mehmet Emin Dalkilic, A 2-hop Coloring-Based Collision Free Infrastructure Design for Wireless Sensor Networks....65
<a href="#"><u>12</u></a>	Fadi Al-Turjman, Impact of User's Habits on Smartphones' Sensors: An Overview....70
<a href="#"><u>13</u></a>	Ahmet Yasli, Emanuel K. Akowuah, Shyqyri Haxha and Huseyin Ademgil, Photonic Crystal Fiber Based Surface Plasmon Sensor Design and Analyze with Elliptical Air Holes....75
<a href="#"><u>14</u></a>	Rozh Najeeb, Diyari Hassan, Dana Najeeb and Huseyin Ademgil, Design and Simulation of Microstrip Patch Antenna Array for X-Band Applications....79
<a href="#"><u>15</u></a>	Rozh Najeeb, Diyari Hassan, Dana Najeeb and Huseyin Ademgil, Design and Simulation of Wideband Microstrip Patch Antenna for RFID Applications....84
<a href="#"><u>16</u></a>	Reza Sirjani and Mehmet Kusaf, Optimal Design of Passive Harmonic Filters Using Bee Colony Optimization....88
<a href="#"><u>17</u></a>	Reza Sirjani and Eric Chekwube Okonkwo, A New Wind Power Model Using the Lightning Search Algorithm....93

<a href="#"><u>18</u></a>	Larian M Nkomo and Muesser Nat, Discovering Students Use of Learning Resources with Educational Data Mining....98
<a href="#"><u>19</u></a>	Henry Ukwu and Reza Sirjani, Unit Commitment in a Power Generation System Using a Modified Improved Dynamic Programming....103
<a href="#"><u>20</u></a>	Burcin Ozmen and Olaleye Olayinka John, Palmprint Encoding for Multispectral Images by using Directional Transform....108
<a href="#"><u>21</u></a>	Cannur Gürkut and Müesser Nat, Student Information System Satisfaction in Higher Education Institutions....113
<a href="#"><u>22</u></a>	Patience E Idoga, Elizabeth Yinka Coker-Farrell, Linda Ekeoma F. Ogazi and Mary Agoyi, Review of Security Issues in E-Healthcare and Solutions....118
<a href="#"><u>23</u></a>	Remember Samu, Murat Fahrioglu and Onur Taylan, Feasibility Study of a Grid Connected Hybrid PV-Wind Power Plant in Gwanda, Zimbabwe....122
<a href="#"><u>24</u></a>	Bora Tuccaroglu and Muesser Nat, The Readiness of Banks for the Application of Business Intelligence Solutions....127
<a href="#"><u>25</u></a>	Derrick Agbidi, Bamisile Olusola and Serkan Abbasogl, Performance analysis and comparison of Photovoltaic, Solar water heating and Photovoltaic Thermal Systems....133
<a href="#"><u>26</u></a>	Saleh Ahmadzada, Musa Zayyad and Mehmet Toycan., Readiness Assessment for the use of Cloud Computing in eHealth systems - A Field Study of Hospitals in the Capital of Azerbaijan....141
<a href="#"><u>27</u></a>	Patience E. Idoga and Mehmet Toycan, A Literature Review of eHealth Sector and Challenges in Nigeria....145
<a href="#"><u>28</u></a>	Ziya Arnavut, Meral Arnavut, Basar Koc and Huseyin Kocak, Investigation of Row and Column Permutations for Lossless Compression of Images....150
<a href="#"><u>29</u></a>	Feride Tabak and Vesile Evri, Comparison of Emotion Lexicons....154
<a href="#"><u>30</u></a>	Ravil Bikmetov, Yasin Raja, Khurram Kazi, Tanmay Sane and Natalya Shevchenko, Dynamic energy capacity planning for distributed resources in Smart Microgrids....159
<a href="#"><u>31</u></a>	Hasan Dağ and Mohammed Alamin, Power Consumption Estimation using In-Memory Database Computation....164
<a href="#"><u>32</u></a>	Tonderai Ruwa, Humphrey Adun and Serkan Abbasoğlu., Thermal energy storage for solar power plant applications....170