

2016 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube 2016)

**Quetta, Pakistan
11 – 12 April 2016**



**IEEE Catalog Number: CFP16CUB-POD
ISBN: 978-1-5090-1253-4**

**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:	CFP16CUB-POD
ISBN (Print-On-Demand):	978-1-5090-1253-4
ISBN (Online):	978-1-5090-1252-7

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
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

Dual-band miniaturized UHF-RFID tag for scaled-down networks using spiral resonators.....	1
<i>Touseef Hayat and Rana Ahsan Ali</i>	
Genetic algorithm based optimal back stepping controller design for stabilizing inverted pendulum	6
<i>Haris Mansoor and Hazoor A. Bhutta</i>	
Modelling of TiO ₂ based slot waveguides with high optical confinement in sharp bends	10
<i>Sergey Degtyarev, Muhammad Ali Butt, Svetlana Khonina and Roman Skidanov</i>	
IP NETWORK BASED HOME AUTOMATION SYSTEM USING AVR MICROCONTROLLER	14
<i>Adeel Ahmed, Ibrahim Siddiqui and Mujtaba Khan</i>	
Behavioural Modeling of an Optical Chopper for Intra Cavity Absorption Spectroscopy	22
<i>Usman Masud, Faraz Akram and M. Iram Baig</i>	
Morphology: Sindhi Morphological Analysis for Natural Language Processing Applications	27
<i>Waqar Narejo and Javed Mahar</i>	
Fusion of Motivational Strategies with Recommender System; Innovative Framework for Digital Repositories	32
<i>Tariq Hassan, Peer Azmat Shah and Farman Ali Khan</i>	
Single CDDBA Based Bilinear Current Mode Universal Filter	37
<i>Saleha Bano</i>	
A Cluster based Multicast routing protocol for Autonomous Unmanned Military Vehicles (AUMVs) communication in VANET	42
<i>Waqar Farooq, Muazzam A. Khan and Saad Rehman</i>	
Outage Analysis of RF/FSO Using Incremental and Selective Relay Technique	49
<i>Muhammad Ibraheem, Muhammad Zafrullah, Muhammad Saleem and Amjad Awan</i>	
A Distance-Based Performance Analysis of Heterogeneous Networks	54
<i>Muhammad Mussawer Pervez, Ziaul Haq Abbas and Fazal Muahammad</i>	
Reconfigurable UWB Monopole Antenna for Cognitive Radio Applications	59
<i>Rizwan Khan, Jalil Ur Rehman Kazim, Aftab Ahmad Khan, Sajid Aqeel, Tanveer Ahmad, Owais and Jawad Saleem</i>	

Modelling of the optical planar waveguide based on (Yb,Nb):RTP/RTP(001) system for cell counting	63
<i>Muhammad Ali Butt, Elena Kozlova, Svetlana Khonina and Ramon Skidanov</i>	
Effects of Input Capacitor (Cin) of Boost Converter for Photovoltaic System	68
<i>Aamir Hayat, Ali Faisal Murtaza, Muhammad Yaqoob Javed, Muhammad Haseeb and Riaz Ahmad Rana</i>	
CoEx Deco (Comment Extraction using Declarative CrowdSourcing)	74
<i>Kamran Shaukat and Usman Shaukat</i>	
Mathematical modeling and Control Law design for 1DOF Quadcopter Flight Dynamics	79
<i>Adnan Jafar, S.M Ahmad and Nisar Ahmed</i>	
Design of a Dual Band Frequency Reconfigurable Patch Antenna for GSM and Wi-Fi Applications	85
<i>Saad Shoukat, Sadiq Ullah, Sajjad Rahim, Babar Kamal and Usman Ali</i>	
Text Summarization using Rough Sets	90
<i>Nouman Azam and Afzaal Ahmad</i>	
An effective experts mining technique in Online discussion forums	95
<i>Abubakker Usman Akram, Khalid Iqbal, Ch. Muhammad Shahzad Faisal and Umer Ishfaq</i>	
Online Signature Verification using Segmented Local Features	100
<i>Madiha Tahir, Usman Akram and Muhammad Arslan Idris</i>	
TDDV: Intellegent System for Thyroid Disease Visualization	106
<i>Jamil Ahmed and M. Abdul Rehman Soomrani</i>	
Performance Analysis of Transmission System with Distributed Generation Using Analytical Approach	113
<i>M.Ifitikhar Khan, Anis Ur Rehman and Atiq Ur Rehman</i>	
Implementation of Low Cost Non-DFT based Phasor Measurement Unit for 50 Hz Power System	120
<i>Talha Ahmed Bhatti, Abdur Raheem, Abdullah Munir, Tanveer Alam and Muhammad Owais Malik</i>	
Evaluation of Graph Centrality Measure for Tweet Topic Classification ..	126
<i>Jaffar Hussain and Muhammad Arshad Islam</i>	

B-COSFIRE filter and VLM based retinal blood vessels segmentation and denoising	132
<i>Khan Bahadar Khan, Amir A. Khaliq and Muhammad Shahid</i>	
Dielectric Characteristics of Dichlorodifluoro-Methane Gas for High Voltage Application	138
<i>Arooj Rashid, Abdur Rashid, Madiha Naeem, Mohsin Amin, Zunaib Ali and Nadeem Ajmal</i>	
Glaucoma Detection through Optic Disc and Cup Segmentation using K-mean clustering	143
<i>Javeria Ayub, Jamil Ahmad, Usman Akram, Muhammad Jan, Sara Ayub, Lubna Ayub and Imran Basit</i>	
Control of DC link Voltage for Grid Interfaced DFIG Using Adaptive Sliding Mode & Fuzzy Based on Levenberg-Marquardt Algorithm during Symmetrical Fault	148
<i>Waqar Ud Din, Kamran Zeb, B. Khan, S. M. Ali, C. A. Mehmood and Aun Haider</i>	
Analysis of Radix-2 Decimation in Time Algorithm for FPGA Co-Processors	154
<i>Muhammad Ibrahim, Mohsin Kamal, Omar Khan and Khalil Ullah</i>	
Performance Analysis of Fast Fourier Transform on Field Programmable Gate Arrays and Graphic Cards	158
<i>Muhammad Ibrahim and Omar Khan</i>	
Optimization of Access Latency in DRAM	163
<i>Azhar Qazi, Zahid Ullah, Khalid Rehman, Muhammad Hilal Khan and Muhammad Bilal</i>	
Wheeling Hybrid Energy System for Industries	169
<i>Muhammad Bilal, Rizwan Ullah, Abdar Ali, Muhammad Hilal Khan and Zahid Ullah</i>	
Design and Comparison of Different Shapes Embedded Magnetorquers for CubeSat Standard Nanosatellites	175
<i>Zeeshan Mukhtar, Anwar Ali, Rizwan Mughal and Leonardo Reyneri</i>	
Investigating the Impacts of Entity and Group Mobility Models in MANETs	181
<i>Mohsin U. Rahman, Aftab Alam and Sohail Abbas</i>	
Speed control of Induction Motor via Fuzzy Proportional Integral (FPI) Controller	186
<i>Muhammad Asad Javaid Khan Tareen, Muhammad Arif and Uzair Khan</i>	

Multi-Factors Based Road Accident Prevention System	190
<i>Sheeba Razzaq, Faisal Riaz, Tahir Mehmood and Naeem Iqbal Ratyal</i>	
Call Admission Control based Femtocell Handover in LTE Networks	196
<i>Saba Khan, Atiq Ahmed, Ihsan Ullah and Syed Mohammad Zubair</i>	
PERFORMANCE EVALUATION OF STATIC EXCITATION SYSTEM OF TARBELA POWER STATION	202
<i>Muddasar Nawaz, Farhan Zulfiqar, Mohammad Bilal and Akif Zia Khan</i>	
Designing Efficient Electric Power Supply System for Micro-Satellite	207
<i>Muhammad Usman, Anwar Ali, Haider Ali, Sadiq Khattak and Iftikhar Ahmad</i>	
Simulation of Flow Control in Straight Microchannels Using Fuzzy Logic	213
<i>Ghulam Sarwar, Shahzadi Tayyaba, Dr. Muhammad Waseem Ashraf, Naveed Sheikh and Nitin Afzulpurkar</i>	
Particle Filter based Orientation of a Class of Under-Actuated System under Constraints	217
<i>Atif Ali and Mohammad Bilal Malik</i>	
Development of SCADA automated 230V power house as a testing platform	222
<i>Sajjad Durrani, Muhamamd Riaz and Uzair Khan</i>	
Modeling to find the top Bloggers using Sentiment Features	227
<i>Umar Ishfaq, Hikmat Ullah Khan and Khalid Iqbal</i>	
Simulation of Near Infrared Interference Bandpass Filters for Spectroscopic Applications	234
<i>Mohsin Habib and Anayat Ullah</i>	
Using Adaptive Filtering for Three Phase Distorted Grid Connected System	239
<i>Ume Hani Malik, Usman Ali, Arbab Waleed and Muhammad Salman</i>	
Reliability Assessment and Cost Analysis of Over Loaded Distribution System with Distributed Generation	244
<i>Anis Ur Rehman, Atiq Ur Rehman and Sheharyar Mehmood</i>	
Performance Evaluation of Routing Protocols in Energy Harvesting D2D Network	251
<i>Samad Riaz, Hassaan Khaliq and Muhammad Saleem</i>	
A Survey of Communication Technologies for Smart Grid Connectivity	256
<i>Fahad Khan, Atiq Ur Rehman, Muhammad Arif, Muhammad Aftab and Baber Khan Jadoon</i>	

Handwritten Optical Character Recognition System for Sindhi Numerals .	262
<i>Anwar Ali Sanjrani, Junaid Baber, Maheen Bakhtyar, Waheed Noor and Muhammad Khalid</i>	
Handovers in small cell based heterogeneous networks	268
<i>Bushra Naeem, Razali Ngah and Siti Z. Mohd Hashim</i>	
Design of Distribution Sub-Station With Cascaded Protection	272
<i>Wajahat Ali, Muhammad Riaz and Ehetasham Tahir</i>	
Sliding Mode Control for PMSG Based Wind Energy Conversion System .	277
<i>Ihtisham Ul Haq, Muhammad Iftikhar Khan and Kamran Zeb</i>	
Automatic Power Factor Correction Unit	283
<i>Muhammad Bilal Khan and Muhammad Owais</i>	
Finding most collaborating Mathematicians: A co-author network analysis of Mathematics domain	289
<i>Raabia Asif and Muhammad Arshad Islam</i>	
3D Face Recognition based on Region Ensemble and Hybrid Features	294
<i>Naeem Iqbal Ratyal, Imtiaz Ahmad Taj Ph.D., Usama Ijaz Bajwa, Muhammad Sajid, Mirza Jabbar Aziz Baig and Faisal Mehmood Butt</i>	
Differentiation of Blood Vessels in Retina into Arteries and Veins Using Neural Network	301
<i>Lubna Aziz, Javeria Ayub, Abdul Samad, Usman Akram, Sara Ayub, Samra Irshad and Imran Basit</i>	
H-infinity control with scenario optimization for handling and stabilizing vehicle using AFS control	307
<i>Muhammad Wasim, Amer Kashif, Asad Ullah Awan, Muhammad Mohsin Khan, Muhammad Wasif and Waqar Ali</i>	
Comparison of "Perturb & Observe" and "Incremental Conductance" Maximum Power Point Tracking algorithm on real environmental conditions	313
<i>Muhammad Hammad Uddin, Muhammad Ali Baig and Muhammad Ali</i>	
Object Detection and Identification using SURF and BoW Model	318
<i>Javeria Farooq</i>	