

2014 Asia-Pacific World Congress on Computer Science and Engineering

(APWC on CSE 2014)

**Nadi, Fiji
4-5 November 2014**



**IEEE Catalog Number: CFP1461Z-POD
ISBN: 978-1-4799-7278-4**

TABLE OF CONTENTS

MULTI AGENT PARADIGM USED TO COMPLEXITY MEASURE FOR PERFECTIVE SOFTWARE MAINTENANCE	1
<i>Mishra, Ashutosh ; Srivastava, Vinayak</i>	
A COMPUTATIONAL MODEL OF STP AND LTP FOR GENE LEVEL SIGNALING CASCADE IN HUMAN EPISODIC MEMORY	10
<i>Triapthi, Sudhakar ; Mishra, R.B.</i>	
GA-BASED CONTROL OF A ROBOT MANIPULATOR IN A FOUNDRY WORKCELL	18
<i>Al-Dois, Hatem ; Jha, A.K. ; Mishra, R.B.</i>	
A PROCESS IMPROVEMENT IN REQUIREMENT VERIFICATION AND VALIDATION USING ONTOLOGY	26
<i>Nazir, Sana ; Motla, Yasir Hafeez ; Abbas, Tahir ; Khatoon, Asma ; Jabeen, Javaria ; Iqra, Mehwish ; Bakhat, Khush</i>	
INCORPORATING ARTIFICIAL INTELLIGENCE TECHNIQUE INTO DSDM	34
<i>Jabeen, Javaria ; Motla, Yasir Hafeez ; Abbasi, Mateen Ahmed ; Batool, Dur-e-Benish ; Butt, Rahil ; Nazir, Sana ; Anwer, Syeda Ayesha</i>	
EXPERIMENTS USING META-HEURISTICS TO SHAPE EXPERIMENTAL DESIGN FOR A SIMULATION-BASED OPTIMIZATION SYSTEM: INTELLIGENT CONFIGURATION AND SETUP OF VIRTUAL TOOLING	42
<i>Weber, Jens ; Boxnick, Simon ; Dangelmaier, Wilhelm</i>	
WEB AND MOBILE BASED TOURIST TRAVEL GUIDE SYSTEM FOR FIJI'S TOURISM INDUSTRY	50
<i>Singh, Vineet ; Bali, Akeshnil ; Adhikthikar, Avinesh ; Chandra, Rohitash</i>	
AN MDL ANALYSIS FRAMEWORK FOR EQTL DATA	57
<i>Chalkidis, Georgios ; Sugano, Sumio</i>	
DIGIT RECOGNITION USING SINGLE LAYER NEURAL NETWORK WITH PRINCIPAL COMPONENT ANALYSIS	64
<i>Singh, Vineet ; Lai, Sunil Pranit</i>	
EFFECTIVENESS OF USING PLURALIST METHODOLOGY IN INFORMATION SYSTEM ADOPTION STUDIES: POSITION PAPER: IS QUALITATIVE — QUANTITATIVE METHOD	71
<i>Solorzano, Nayeth I. ; Sanzogni, Louis ; Houghton, Luke</i>	
APPLYING GPU PROGRAMMING TO OBTAIN AVERAGE AS/RS PERFORMANCE IN OPTIMAL ZONED AISLES	77
<i>Lauck, Sebastian ; Boxnick, Simon ; Kopecki, Lukas</i>	
AN EXPERT SYSTEM TO ASSESS THE LANDFALL PROPENSITY OF A TROPICAL CYCLONE IN AUSTRALIA	86
<i>Wasimi, Saleh A ; Saha, Kamal K</i>	
GENETIC ALGORITHM FOR AN OPTIMIZED WEIGHTED VOTING SCHEME INCORPORATING K-SEPARATED BIGRAM TRANSITION PROBABILITIES TO IMPROVE PROTEIN FOLD RECOGNITION	92
<i>Saini, Harsh ; Raicar, Gaurav ; Lal, Sunil ; Dehzangi, Abdollah ; Lyons, James ; Paliwal, Kuldip K. ; Imoto, Seiya ; Miyano, Satoru ; Sharma, Alok</i>	
LANDMARK AIDED NAVIGATION OF A POINT-MASS ROBOT VIA LYAPUNOV-BASED CONTROL SCHEME	99
<i>Chand, Ritesh ; Prasad, Avinesh ; Sharma, Bibhya ; Vanualailai, Jito</i>	
A UNIFIED ARCHITECTURE FOR UTILITY SERVICE IN CLOUD	106
<i>Habiba, Mansura ; Islam, Md.Rafiqul ; Ali, A B M Shawkat</i>	
A SIMPLE APPROACH TO MOTION CONTROL OF A THREE-DIMENSIONAL ARTICULATED MANIPULATOR ARM	114
<i>Prasad, Avinesh ; Sharma, Bibhya ; Vanualailai, Jito</i>	
ARTIFICIAL NEURAL NETWORK AND REGRESSION MODELS FOR PREDICTING FIJI POPULATION	121
<i>Qiokata, Viliame ; Khan, M.G.M.</i>	
DAILY AVERAGE LOAD FORECASTING USING DYNAMIC LINEAR REGRESSION	128
<i>Azad, Salahuddin A ; Ali, A B M Shawkat ; Wolfs, Peter</i>	
MODELING AND VERIFICATION FOR THE SERVER-SIDE NETPAY PROTOCOL	135
<i>Chaudhary, Kaylash ; Fehnker, Ansgar ; Dai, Xiaoling</i>	

OBJECT DETECTION AND RECOGNITION FOR A PICK AND PLACE ROBOT	143
<i>Kumar, Rahul ; Lai, Sunil ; Kumar, Sanjesh ; Chand, Praneel</i>	
REMOTE PATIENT PHYSICAL CONDITION MONITORING SERVICE MODULE FOR IWARD HOSPITAL ROBOTS	150
<i>Mamun, K.A. ; Sharma, A. ; Hoque, A.S.M. ; Szecsi, T.</i>	
IDENTIFICATION OF TYPICAL LOAD PROFILES USING K-MEANS CLUSTERING ALGORITHM	158
<i>Azad, Salahuddin A ; Ali, A B M Shawkat ; Wolfs, Peter</i>	
STORAGE COST MINIMIZING IN CLOUD — A PROPOSED NOVEL APPROACH BASED ON MULTIPLE KEY CRYPTOGRAPHY	164
<i>Saha, Tushar Kanti ; Ali, A B M Shawkat</i>	
MECHATRONIC DESIGN SOLUTION FOR FUEL LEVEL MONITORING USING PRESSURE SENSOR	173
<i>Goundar, J.A. ; Chand, A.A. ; Tabua, N. ; Prasad, R. ; Chand, P. ; Metha, U. ; Mamun, K.A.</i>	
A DATA MINING APPROACH TO SUPPORT A DATA-DRIVEN SCHEDULING SYSTEM FOR AIR CARGO TERMINALS	181
<i>Boxnick, Simon ; Lauck, Sebastian ; Weber, Jens</i>	
THE QED MANIFESTO — VERSION 2.0	189
<i>Weiss, Ittay</i>	
FINE-GRAINED ENCRYPTION FOR SEARCH AND RESCUE OPERATION ON INTERNET OF THINGS	196
<i>Li, Depeng ; Sampalli, Srinivas ; Aung, Zeyar ; Williams, John ; Sanchez, Abel</i>	
AN ONTOLOGY DEVELOPMENT APPROACH FOR ENHANCING SEARCH-ABILITY OF RECORD MANAGEMENT SYSTEMS	205
<i>Samsudin, Ahmad Z.H. ; Miah, Shah Jahan</i>	
VISION BASED AUTONOMOUS PATH TRACKING OF A MOBILE ROBOT USING FUZZY LOGIC	212
<i>Vans, Edwin ; Vachkov, Gancho ; Sharma, Alok</i>	
PAN PIPER 1.0: AN OVERVIEW OF A ROBOTIC PAN FLUTE FOR PACIFIC MUSIC	220
<i>Kumar, Kishan ; Kumar, Kishen ; Chand, Praneel ; Carnegie, Dale A.</i>	
DESIGN AND DEVELOPMENT OF LOW COST VOICE CONTROL SMART HOME DEVICE IN THE SOUTH PACIFIC	226
<i>Khalid, M.A. ; Kishan, K. ; Kishen, K. ; Gounder, U. ; Chand, P. ; Metha, U. ; Mamun, K.A.</i>	
LAYERED ARCHITECTURE FOR MOBILE WEB BASED APPLICATIONS	232
<i>Kumar, Bimal Aklesh</i>	
COMPUTING OPTIMAL STRATUM BOUNDARIES FOR MULTIVARIATE SURVEYS	238
<i>Reddy, K.G. ; Khan, M.G.M. ; Rao, D.K.</i>	
REQUEST-BASED DATA DISSEMINATION PROTOCOL FOR WIRELESS SENSOR NETWORKS	245
<i>Guerroumi, Mohamed ; Moussaoui, Samira ; Badache, Nadjib</i>	
GROWING RADIAL BASIS FUNCTION NETWORK MODELS	253
<i>Vachkov, Gancho ; Sharma, Alok</i>	
A COMPARATIVE STUDY OF E-GOVERNMENT SUCCESSFUL IMPLEMENTATION BETWEEN NIGERIA AND REPUBLIC OF KOREA	259
<i>Jonathan, Oluranti ; Ayo, Charles K. ; Misra, Sanjay</i>	
EVALUATION OF HADOOP/MAPREDUCE FRAMEWORK MIGRATION TOOLS	266
<i>Odia, Trust ; Misra, Sanjay ; Adewumi, Adewole</i>	
INTERNET OF THINGS (IOTS) AND ITS APPLICATION TO ROAD NAVIGATION AND USAGE PROBLEM	274
<i>Samuel, Victoria ; Misra, Sanjay ; Nicholas, Omoregbe</i>	
INTEGRATING LEGACY SYSTEM INTO BIG DATA SOLUTIONS: TIME TO MAKE THE CHANGE	279
<i>Jha, Sanjay ; Jha, Meena ; O'Brien, Liam ; Wells, Marilyn</i>	
DETECTING SQL INJECTION ATTACKS USING SNORT IDS	289
<i>Alnabulsi, Hussein ; Islam, Md Rafiqul ; Mamun, Quazi</i>	
DETERMINING THE OPTIMUM STRATA BOUNDARIES WITH CONSTANT COST FACTOR	296
<i>Fonolahi, Aluwesi Volau ; Khan, M.G.M.</i>	
CALIBRATION ESTIMATOR OF POPULATION MEAN IN STRATIFIED RANDOM SAMPLING	302
<i>Singh, G.K. ; Rao, D.K. ; Khan, M.G.M.</i>	

A SYSTEMATIC REVIEW OF THE EFFECTS OF TEAM CLIMATE ON SOFTWARE TEAM PRODUCTIVITY	307
<i>Soomro, Arjumand Bano ; Salleh, Norsaremah</i>	
CBR BASED APPROACH FOR ADAPTIVE LEARNING IN E-LEARNING SYSTEM.....	314
<i>Pandey, Babita ; Mishra, R.B. ; Khamparia, Aditya</i>	
NIR SPECTROMETER USED FOR MATERIAL MODELING WITH NEURAL NETWORKS.....	320
<i>Yee, Nigel</i>	
MAXIMUM SOLUTION OF FUZZY RELATION EQUATION	326
<i>Mitra, Nirmal Kanti ; Valluri, Maheswara Rao</i>	
APPLICATION OF DECISION TREE METHOD IN THE DIAGNOSIS OF NEUROPSYCHIATRIC DISEASES	331
<i>Gangwar, Mohit ; Mishra, Ravi Bhushan ; Yadav, Rama Shankar</i>	
Author Index	