Proceeding of the International Conference on Green Computing and Engineering Technologies 2018

17th - 19th August 2018

Aalborg University, Niels Bohrs Vej 8

Esbjerg Denmark

Editors

D. M. Akbar Hussain, G. S. Tomar, Bishwajeet Pandey

Organizers

AALBORG UNIVERSITET
ESBJERG

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Chair Message:

Ladies and Gentlemen it is indeed great honor for me as a chair to welcome you with great respect and enthusiasm to the International Conference on Green Computing and Engineering Technology ICGCET-2018 to be held at Aalborg University, Esbjerg campus, Denmark from 17th – 19th August 2018. It is the fourth conference hosted by Gyancity Research Lab and as a founder member; I hope that we will continue to provide such forums in future as well. ICGCET intended to attract innovative technical and scientific work in the field of Green Computing Engineering Technology. The response to the conference was over whelming and I am proud to state that we have some high quality contributions and I am sure as a participant you will share the same sentiment later.

As a chair and on behalf of the organizing committee I sincerely hope that ICGCET will offer a great venue at this beautiful city of Denmark to the participants coming from different parts of the world to share and contribute in the area of Green Computing Engineering Technologies. We hope to provide a good platform to the participants of ICGCET where not only they meet together and share their vision and ideas but also fertilize their thoughts in the ever-growing field of Green Computing Engineering Technologies.

The goals and objectives of such conferences and events are the exchange of knowledge and experience by inviting exemplary and well known keynote speakers. So in this regard, we the organizing committee has put great effort to bring together some elite group of speakers. I am also confident that our keynote speakers will be able to enrich your knowledge during the conference

&

I wish you a very pleasant and enjoyable stay in ESBJERG DENMARK.

Best wishes

Sincerely Yours / MVH
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ICGCET'18 Schedule

17th August 2018

09:00-13:00	**Skype Sessions:** 18, 21, 88, 101, 102, 112, 113, 117, 122, 127, 128, 129, 131, 151, 291, 292, 294, 302
08:30-11:30	Reporting at Registration Desk

18th August 2018

Paper Presentation

08:00-09:00	Reporting at Registration Desk
09:00-09:05	**Welcome Speech** by **Chair Prof D. M. Akbar Hussain,** Aalborg University, Denmark
09:05-09:20	**Inaugural Speech** by **Prof Jens Bo Holm Nielsen** Aalborg University, Denmark
09:20-09:30	**Chief Guest Honourable Syed Zulfiqar Gardezi** Ambassador to Denmark from Pakistan share his thoughts for Pakistani Students
09:30-10:00	**Keynote talk**: Issues in Space Debris Mitigation by **Prof Anders Schmidt Kristensen** Department of Civil Engineering, Structural and Offshore Engineering, Aalborg University, Denmark
10:00-11:15	**Session 1 and Session 2** **Session 1:** Chair: **Prof. Altaf Mukati,** SZAIST, Pakistan Location: C-117 Presentations: 17, 31, 23, 25, 46, 26 **Session 2:** Chair: **Prof Bhagwan Das**, Gyancity Research Lab, Malaysia and **Arun Shrivastava**,

	G L Bajaj Institute of Technology & Management, Gr. Noida, India Location: C-117 Presentations: 86, 58, 130, 105, 116
11:15-11:30 AM	Coffee Break
11:30-12:45AM **Paper Presentation:**	**Session 3 and Session 4** **Session 3:** Chair: **Dr Rajesh Kumar**, North Eastern Regional Institute of Science and Technology, Itanagar, India Location: C-117 Presentations: 118, 121, 125, 123, 124 **Session 4** Chair: **Prof Sayed Hyder Abbas Musavi**, Indus University, Pakistan Location: C-117 Presentations: 147, 152, 174, 175, 214
12:45-13:15	**Second Keynote** by **Josep M. Guerrero**, Aalborg University, Esbjerg, Denmark
13:15-14:15	LUNCH
14:15-14:45	**Third Keynote** by **Jason Levy,** University of Hawaii, USA and **Prof. Altaf Mukati,** SZAIST, Pakistan
14:45-17:00 **Presentation:**	**Session 5** Chair**: Prof. Geetam S Tomar**, MIR Lab, Gwalior, India, and **Prof Sadiq Khan**, KU, Pakistan Location: C-117 Papers: 215, 221, 235, 239, 252, 253, 280, 189
17:00-17:15	**Fourth Keynote** by **Prof. Ali Kashif Bashir** University of the Faroe Islands, Faroe Islands, Denmark
17:15-17:30	**Fifth Keynote** by **Prof Daniel Ortiz Arroyo,** Aalborg University, Denmark
17:30-18:30	PC Chair **Dr Geetam S Tomar** with Conference Organiser **Dr Jason levy** will honor all the participants with a Presentation Certificate.

18:30-18:45	Conference Closing: **Prof. D. M. Akbar Hussain.**
18:45-19:00	Coffee Break

19th August

Visit of Blaavand

Blaavand is a headland on the North Sea coast of Jutland northwest of Esbjerg. It is also westernmost point of metropolitan Denmark.

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- ***Abhishek Kumar, Gyancity Research Consultancy Pvt Ltd, India***

Abstract of Papers Accepted in ICGCET'18 Denmark Conference

Paper Id	Paper Title
17	**"Energy Efficiency In Software Defined Networks : A Survey"** *Anuradha Banerjee, Kalyani Govt. Engg. College, India, *D.M. Akbar Hussain, Aalborg University, Denmark anuradha79bn@gmail.com , akh@et.aau.dk **Abstract:** Software defined networks has been attracting the attention of several researchers these days, especially in the arena of cloud services and smart communications. Network control is decoupled from physical forwarding of data and therefore control function of SDN is directly programmable. A set of APIs (application programming interfaces) are provided to perform routing, security and access control functions maintaining quality of service. SDN is extensively used in data centers ranging from private enterprises to public sectors. Like all other networks, energy efficiency in SDN is a real issue because this significantly contributes to performance efficiency of the underlying network. Certain energy efficiency mechanisms have been proposed for SDN. The present article focuses on discussing these techniques. **Keywords:** software-defined networking, energy optimization ternary content addressable memory rule placement.

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Photonic Crystal Based Micro Mechanical Sensor in SOI Platform

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Abstract: Two dimensional photonic crystal with Nano rod configuration with integrated in silicon on insulator is analyzed here.Photonic crystal waveguide suspended over silicon substrate then weight can be applied on that substrate changes the displacement of substance and measure sensitivity for pressure in terms of micro units. The overall motive of this work is to detect the displacement which further points out at the force applied on the slab with photonic crystal having line defect placed on it. The stress of the slab and the displacement of the same will witness the pressure applied. The stress has been calculated by the power distribution /excitation in the slab. The displacement of the slab due to the force/pressure is determined by the photonic crystal sensor. The quality factor and sensitivity are calculated for the sensor and are 1496 and 1200 RIU respectively. The transmission spectrum has been calculated 0.1 micron to 0.5 microns shift respectively which are found to be distinct.

Keywords: Photonic crystal (PhC), Silicon on insulator (SOI), Micro Pressure
Stress Optical Membrane, Nano rods

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Study and Evaluation of VOIP Codecs Scalability in Digital Environment under OPNET Modele

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Abstract- Network convergence is one of the promoters' projects in the world of telecommunication. This convergence translates into the ability to host different traffic of multiple categories (TV, VOIP, videoconferencing and data) in the same network infrastructure, routing the whole through an IP network. VOIP (Voice Over IP) consists of digitizing the analog voice signal into a digital signal. The codecs allow compression and decompression of the signal; the sampling frequency reflects the quality of the returned signal. As a result, several existing codecs (G711, G792 and GSM) each have their own characteristics. Several scientific works have been carried out evaluating the performance of VOIP under different codecs. However, none of them took into consideration the rise in the number of users. In this paper, we will study and evaluate the performance of VOIP with different codecs (GSM, G711 and G729) by varying the number of clients.
The simulation was done under OPNET MODELER, the evaluation criteria are: GSM, G711 and G729.
Keywords- voip, Codec, simulation, opnet modeler

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Adaptive MOEMS Based Micro Pressure Sensor Using Photonic Crystal

Johanson O V, Research and Development Centre,Bharathiar University,Coimbatore
Dr. Preeta Sharan, Dept of Electronics and communication Engineering ,The Oxford college of Engineering ,Bangalore
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Abstract- Micro opto electro mechanical system is one of the most promising cutting edge technology development in recent trends, which is having huge potential in sensing applications. This simulation study describes Photonic Crystal (PhC) based micro pressure sensor which is highly position sensitive and offers resistance to electromagnetic interference and curbs the photons over the wavelength range. Functionality of MOEMS in photonic crystal based micro pressure sensor is achieved through the two piston shape slab structure movement analyzed in Rods in Air (RIA) and Holes in Slab (HIS) of photonic crystal configurations. Displacement of micro cavity due to applied pressure gives rise to shift in wavelength. It is found that for each submicron displacement starting from 0 to 0.25 micrometer of piston shape slab which is embedded exhibits approximate range of wavelength shift of 0.0001 for rods in air and for holes in slab configuration. Maximum wavelength variation with respect to power and variable pressure is monitored. From the simulation result, the design showed remarkable response in terms of intensity shift for desirable range of wavelengths 1.36µm to 1.44µm for RIA and 1.377 to 1.382 for HIS making it as wavelength adaptable. The performance parameters such as Q factor and deflection range for wavelength and intensity have been observed for both RIA and HIS configuration and it was found that the sensor with HIS configuration showed better performance with Q factor of 15897 compared to sensor with RIA configuration remained with Q factor of 2482. Deformation of structure for applied pressure exhibited linear relationship with resonant wavelength shift. Structural variation in relation to wavelength shift exhibited pressure sensitivity of 58.4µm/Pa and 0.98µm/µPa for rods in air and holes in slab configuration respectively. Fabrication of sensor with above said configurations not only considering the performance parameters but also from Photolithographic perspective HIS configuration based sensors are more suitable for implementation.

Keywords- Photonic crystal (PhC), Rod in Air (RIA), Holes in Micro cavity (HIS), Perfectly Matching layer (PML), Pressure, Total direct strain, micro cavity

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A Survey on Selfish Node Detection in Mobile Ad Hoc Network

*Souvik Mishra, *Anuradha Banerjee,
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Abstract: Mobile Ad-hoc Networks are self-configuring, infrastructure-less network for connecting the mobile devices. Security for this network is a big issue because of its frequently changing topology and dynamic nature. Some of it's nodes behave selfishly while preserving their own energy, thus the quality of the network goes down. In this paper we discussed about different kind of selfish node detection techniques in mobile ad-hoc network.

Keywords: Mobile Ad-Hoc Network, Selfish nodes, Security

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PHOTONIC CRYSTAL BASED NANO SCALED SENSOR FOR THE DETECTION OF DIFFERENT CONCENTRATIONS OF POTASSIUM CHLORIDE

Harshada Jitendra Patil, VEMANA INSTITUTE OF TECHNOLOGY
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Abstract- A high sensitive scheme for sensing and evaluating chemicals can be clued-up by means of photonic sensors by coalescing chemical constituents with their optophysical properties. In this article we have corroborated a 2D ring resonator using photonic crystal optical sensor which can detect potassium chloride by knowing the transmitted flux. The corresponding peaks were explored. Yee's method has been used for the assessment. Electromagnetic simulation tools have been used for designing the 2D all pass ring resonator photonic crystal. The peak shifts in frequency and wavelength distinctively for different concentrations of potassium chloride respectively. The quality factor of the sensor was found to be 347663 along with a sensitivity of 1nm/RIU. It is witnessed from the simulation that for minor distinction in refractive index (RI) will cause a judicious alteration in the frequency and wavelength. These properties authorize the design to be the unequivocally sensitive sensor. The layout design of the sensor is deliberated using IMEC IPKISS tool. The GDSII file was spawned using OWL VISION tool and meticulously substantiated with K-Layout tool. The ASCII code was engendered from OWLVISION tool.

Keywords- Photonic Crystal, Chemical Sensor, refractive index, frequency shift, wavelength shift

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Cheat proof Communication through Cluster Head (C3H) in Mobile Ad Hoc Network

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Abstract: Mobile ad hoc network (MANET) is a wireless network based on a group of mobile nodes without any centralized infrastructure. In civilian data communication all nodes cannot be homogeneous type and not do a specific communication. Therefore, node co-operation and cheat proof are essential to successfully run MANETs in civilian communications. Denial of service and malicious behavior of node are main concern to secure and successful communication in MANETs. This scheme proposed a generic solution to prevent malicious behavior of node by cluster head through nodes clustering strategy.

Keywords: Ad hoc network, MANET, cheat proof, malicious node, node co-operation, Black Hole attack

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Visual Design for Malay Consonants Pronunciation

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Abstract- Numerous studies on text visualization have been long conducted around the world for distant and close reading. Nevertheless, in Malay language, a lot of research works on text visualization are focusing more on distant reading as compared to close reading. Thus, there is still lacking on determining textual feature for in-depth analysis of Malay texts. This paper discusses the Malay texts features that involve in designing the pronunciation of Malay consonants. The design process starts by analyzing articulation table and the standard articulation part of human mouth. The important parameters are identified from both sources in order to represent such data and symbols in a glyph visualization. Each glyph representation illustrates the simplified version of pronouncing the consonants. This research gives benefit to scholars who learn Malay language as a second language, specifically concentrating on pronouncing a precise Malay consonant.

Keywords: Consonant, Glyph, Malay texts, Phonetic, Pronunciation

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Context-Aware Crowd Monitoring with Dynamic Multi-User Tracking Data

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Abstract- Monitoring small crowd of people as tourists in different country always create recurrence issues to their tour-guides such as someone is lost somewhere, losing important documents and getting sick in the middle of the crowd. Similarly, during the Hajj season, such issues occur while millions of Muslims are gathered in two popular cities, Mecca and Medina, of Saudi Arabia. At the peak of the Hajj season, Mecca is identified as the most crowded place when pilgrims all over the world along with their respective tour-guides known as Mutawwif are resided in the city. Thus, communication between the crowd and their respective tour guides offers useful dynamic multi-user tracking data which is essential for close monitoring purposes. This study explores the usage feasibility of dynamic multi-user tracking data in order to provide a context-aware and simple communication means in the form of mobile application to both pilgrims and Mutawwifs for resolving their recurrence issues. The application can be used by the pilgrims to send current location and purpose for contacting the Mutawwif. At the same time, the Mutawwif is able to locate their respective pilgrims and aware of their pilgrims' current location and needs. The prototype of the system is developed by using software engineering approach to test the feasibility of using multi-user tracking data in such situation. The prototype has been evaluated and fulfilled the intended requirements for monitoring small crowd. As a conclusion, the prototype offers an alternative for Malaysian Mutawwifs to aware of pilgrims' issues and track their need and location at real time during Hajj season. Similarly, the pilgrims also can communicate their needs and problems to their respective Mutawwifs..

Keywords: Dynamic Data
Dynamic Tracking, Multi User Tracking, Monitoring Small Crowd, Small Group Communication

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A Novel Approach for Wireless Penetration Testing

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Abstract- In today's modern era, the internet is essential for everyone. We are using different types of wireless connection for connecting to the internet. We are using our home routers, public routers at railway, hotels, restaurant, colleges, etc. But can you guess how your router and how many public routers are secure. The wireless security is not just a word. It requires a lot of knowledge and efforts to secure your network from the evil hackers. This paper not only provide you what are the ways in which you can escape or secure your router from hackers, but also the ways in which a hacker can penetrate your network. Because once you get to know the ways, you can secure your network yourself too.

Keywords- WEP, WPA, WPA2, Wifite, Reaver, Aircrack, Fluxion

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Switching time analysis of RF MEMS Shunt Capacitive Switch

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Abstract: This paper basically provides a design of high speed MEMS switch and an analysis for switching time was done considering applied voltage, spring constant of the beam material and air gap height between top electrode and central CPW conductor. The switch was designed for a low pull in voltage of 10.5 v and FEM analysis was done specifically for switching time. It was found that for a pull in voltage of 10.5 V and air gap 0.6 µm, the switching time was observed as 0.2 ns. Effect of beam width on switching time for a constant air gap is also considered. It was also concluded that top electrode beam made up of high spring constant materials is desirable for design of high speed switch.
Keywords: Switch,RF,Beam,Switching time,Electrode

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Diagnosis Of Skin Cancer Type Dark Caucasian and Asian using SPR Nanotechnology

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Abstract- The progress in the field of bio-medical is increasing rapidly. SPR based melanoma provides the accuracy to detect the affected cancerous cell on any skin types. The growth in the small black spot in malignant and invasive melanoma of normal cell over affected cell is unpredictable to detect cancer in any skin types biosensing application sensors have by focusing on the graphene layer. The FDTD simulation guides the SPR to provide the configuration concentration on the Metal-Insulator-Metal (MIM) layer. Simulations are performed on different types of Asian, Caucasian and Dark skin on SPR based biosensor. The ultra-high sensitivity of biosensors can be calculated at a higher rate using R-soft tool and the readings are observed in optical meter. From the obtained simulation results, the sensitivity of the Asian skin is 8812nn/RIU, Caucasian skin is found to be 6064nm/RIU and Dark skin is 9290nm/RIU. The design is emphasized in a way that will show various application on melanoma detection with a sensitivity of 8055nm/RIU for the wavelength of 1550nm. It has been observed that for 1550 nm wavelength.The light speed at which the waveguide travels is up to 3*10-8 m/s. Finally, the sensitivity, accuracy and quality factor has been computed and found to be very high.

Keywords- SPR, Biosensors, MIM, Sensitivity, Quality factor, Accuracy, FDTD, Melanoma

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Is Mobile Test Strategy different to Web Testing?

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Abstract- This paper is an outcome of the research on the testing strategy on two types of the software applications namely mobile testing and the web testing. The main objective of this research is to come up with changes in the test strategy usually followed in the industry to get better results in less time delivering good application to the market, as the success in the market depends upon the quality of the application released. Mobile testing of an application is crucial in the industry as new devices are hitting the market along with user interfaces and new versions of operating systems. It differentiates how testing of the mobile application to different to web application? This paper discusses various challenges to be considered while testing a mobile application along with the guidelines for while preparing the mobile test strategy. In order to propose the mobile test strategy, a survey was conducted with the real industry persons participating in the survey. The survey results were analyzed with respect to the experience of the individuals

Keywords- Mobile application testing
software Test strategy
web test strategy
mobile application test strategy

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Survey on Agile Implementation of the BI Systems

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Abstract-Business intelligence (BI) is a technique that helps organisations to effectively analyse, manipulate and store data. It takes historical and present data from various sources and presents the data to the users anytime, anywhere to help them make smart and effective decisions. However, the cross functional nature of BI systems that covers the length and breadth of the organization, pose an issue with effective implementation. Various Traditional methodologies have been used to implement BI systems however have encountered countless failures leading the practitioners to look up to Agile methodologies to overcome the shortcomings. Since different companies have different requirements, out of the box Agile solutions do not address the requirements effectively. As a result, use of Agile methodologies for BI implementation also face lot of issues. To justify this claim we conducted a survey of agile practitioners doing BI implementation. This paper aims at presenting the findings of the study focused on identifying the gaps in implementing BI systems using Agile methodologies. It also presents the results for a survey conducted to capture the methodologies used by the organisations and practitioners and issues in BI implementation. In future, this captured information would be utilised into formulating a framework that can work along with Agile methodology to help address the issues faced with Agile methodologies for BI Implementations.

Keywords- Agile Methodology for Business intelligence (BI)
Waterfall methodology for Business intelligence (BI)
Cross functional Business intelligence (BI)
Business intelligence (BI)

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Testing and Analysis of the HRV Signals from Wearable Smart HRV Sensors

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Abstract: The following document describes test procedure and results for HRV signal analysis of data obtained from wearable smart HRV sensors. The selected consumer devices under test are wrist band, wrist watch and chest belt. There are two types of sensors – Photoplethysmograph (optical) and Electrocardiograph (body electrical potential). The selected devices broadcast HRV signal (R-R interval data) to a smartphone. The method selected for validation uses LF/HF ratio calculated by a set of R-R interval data to estimate drowsiness state of a human. The value LF to HF ratio measures balance between sympathetic and parasympathetic activity, that can be measured from HRV (Heart rate variability) signals, and instantaneous change in heart rate referred as Heart Rate Variability (HRV). At the beginning of sleep, LF to HF ratio in HRV signals decreases. This fact is considered as detection of drowsiness.

Keywords: Test Procedure, Signal Analysis, Heart Rate Variability, Optical Sensor, Statistical Validation

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Software for Creating Tutorials and Examinations on Natural Languages

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Abstract: This work presents the software for creating tutorials and exams by philologists independently from software developers. To cover various features of natural language and involve more abilities of users, such tutorials and exams contain randomly generated tasks of different types: text, graphical, sound – in both questions and answers. This software implements the algorithmic programming language for creating randomly generated (parameterized) tasks.

Keywords: natural language, algorithmic programming language, randomly generated task, parameterized question, complex examination

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FPR :Fuzzy Controlled Probabilistic Rebroadcast in Mobile Ad Hoc Network

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Abstract- Broadcasting in mobile ad hoc networks is performed using various techniques like blind flooding, counter based broadcast, probabilistic broadcast etc. Among these flooding is the most primitive, where every node forwards the broadcast message whenever it gets the message for the first fine. However, duplicate copies of the same broadcast message are always eliminated. In spite of simplicity of the mechanism, it results in highly redundant retransmission, contention and collision in the network. This is popularly termed as broadcast storm problem. Probabilistic broadcast method reduces the broadcast probability from 1 to some fraction close to 0.5. Certain probabilistic scheme use fixed probability while some others take into account network size, total number of nodes etc. The proposed article fuzzy controlled probabilistic broadcast or FPR computes rebroadcast probability of a node based on various factors line distance of downlink neighbours of current node from broadcast source, left, right, top, bottom coordinators of nodes already covered, hop count etc. Simulation results reveal that the proposed protocol improves network throughput, saves a lot of rebroadcast while reducing end-to-end delay.

Keywords- Ad hoc networks
broadcast region, flooding, hop count, rebroadcast probability,delay

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Multi Criteria Decision Analysis (MCDA) of Unmanned Aerial Vehicles (UAVs) as a Part of Standard Response to Emergencies

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Abstract: Objecitve: To investigate whether the incorporation of Unmmaned Areial Vehicles (UAV) into emergency services is better than the manned drone and conventional means of transportation.
Methodology: Multi Criteria Decision Analysis (MCDA) is applied to analyse four options to respond to emergencies. These four options are manned drone, UAV, helicopter and vehicle of incident commander.
Findings: The UAV costs less than helicopters and manned drones and it is faster than incident commander's vehicle. The analysis based on three important parameters of response time, cost and availability of the option to reach at the scene of crash in most of the conditions, reveals that UAV is the best option.
Application:Based on the findings of the study, it is recommended to include UAV as a part of standard response to emergencies..

Key word: Fire and rescue services, multi criteria decision analysis, response time, unmanned aerial vehicles

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Sensitivity improvement and Optomechanical analysis of composite material using Fiber Bragg Grating sensor

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Abstract: The paper presents the design and simulation of FBG as a pressure sensor. Fiber Bragg Grating (FBG) coated with different materials and their sensitivity has been investigated. Using optomechanical equations strain and shift in wavelength values are calculated for a bare FBG and three other FBG coated with PMMA, polystyrene and aluminium.Using R-soft simulation tool reflectivity hence sensitivity are compared and it is noted that FBG coated with PMMA offers good sensitivity. Optomechanical simulation in Comsol multiphysics has also been investigated to obtain mechanical stress and strain with optical spectral response for metal embedded FBG sensor.Remarkable shift in wavelength is observed during the analysis.Metal embedded FBG sensor is having tremendous application in aviation, automobiles,machine tools.

Keywords: Fiber Bragg Grating, PMMA, Polystyrene

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Page Ranking Algorithm Based on Numbers of Link Visits and its Application in Recommendation System for online Business

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Abstract- Mining of World Wide Web (WWW) data encounters many new challenges with increased amount of information on data repository. The search engines play vital role for retrieving the required information from huge information. Nowadays, the well-known search engines, such as Google, Yahoo, MSN, etc, have provided the users with good search results based on special search strategies. One of the key components which ensure the acceptance of web search service is the web page ranker a component which is said to have been the main contributing factor of Google. This paper discusses the page ranking algorithms based on contents, structures and usages in web mining, proposed page ranking algorithm based on number of links visit and its application in selection of top most visited links in recommendation system for on lines business.

Keywords- Recommendation System, Web Content Mining, Web Structure Mining, Web Usage Mining, PageRank

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Application of ABM to Spectral Features for Emotion Recognition

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Abstract: Feature extraction and feature selection are most important process steps in emotion recognition(ER) from speech signals. The aim of present study is to select the most relevant spectral feature subset. In this paper, Mel-Frequency Cepstrum Coefficients (MFCC) were extracted from the EmoDB. Several statistical values as maximum, minimum, mean, standard deviation, skewness, kurtosis and median were obtained from MFCC. Agent-Based Modelling (ABM) that is hardly applied to this area was applied to actual features. Opt-aiNET optimization algorithm was applied in order to choose the agent group giving the best classification success. Artificial Neural Network (ANN) and 10 cross-validations were used for classification and evaluation. A narrow comprehension with three emotions was performed in the application. As a result, it was seen that the classification accuracy was rising after applying proposed method. The method was shown promising performance with spectral features.

Keywords: Agent-Based Modelling, Emotion recognition, Feature extraction, Artificial neural networks, Optimization.

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Efficient Priority Based Data Aggregation in WBAN

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Abstract: Congestion in data traffic plays a vital role in wireless sensor networks the performance of WSN is highly affected by routing techniques. Sometimes it is highly important to send the data as soon as possible for example patient's critical condition should be sending to the concerned doctor in case of any serious situation regarding to patient health. In WSN it is important to control traffic load by using efficient routing protocols for data aggregation, but in case of Wireless body area network (WBAN) it is really very necessary to guide the information with efficient data aggregation procedure and send it on the priority basis according to the condition of patient. In this study a protocol will be proposed that can not only be able to sense and control the patient's health related data but also send the data on the priority basis by using the efficient routing algorithm with the use of fuzzy logic. The methodology will first merge the procedure of routing the data which helps in controlling the data transmission and reduce of traffic load, Fuzzy logic controller will help in handling this process in WBAN. The performance of the proposed technique will be evaluated by using simulations and comparison will be made with other techniques to prove the efficiencies.

Keywords: Fuzzy logic, WBAN, WSN, Data Transmission

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Conceptions of Software Testing as a Service

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Abstract- Information technology has covered a global village of Software testing as a service. Data is veryimportant for every organization as it is difficult to test a real world environment in terms of hardware, software licensing, simulator etc.This qualitative study illustrates the concept of Software testing as a service and methods used togive these services to the customer or software organizations. SAAS is an active and challenging activity in the technological era. TESTQUAL tool is used for measuring the performance of tester'sservices for both developer and end user in terms of software quality and investigate different quality measures of the end user in the direction of tangibility, user satisfaction and agency oversight.This study focuses the tools that can be used to test the quality of software for the developer and end user. It also describes the framework of TESTQUAL and practical implementation of the TESTQUAL. Tangibility is measured for the requirement of software and hardware is being used and proper documentation is use for every process to meet requisite of the user. Alpha and beta testing is used to measure the user satisfaction in contact with the software. Testers are the agents to measure the quality of software for the user in this research article. This research article assures that the developed software is accurate, consistent, reliable and secure according to the expectations of the end user. The perspective of software testing as a service will improve the software quality services by implementable and structured TESTQUAL tool that will give tremendous benefits to both developers and end user whereas STAAS allows the organizations and developer to pay for the services when they need and which one they need. It gives automation testing with low cost that is a flexible and cost efficient benefit of STAAS.

Keywords:TESTQUAL, Software, Service, testing IT device

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DEVELOPMENT OF FUNCTIONALITIES FOR SMART PHONE AND POWER SHARE

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Abstract- We have developed a smartest mobile phone with power sharing and solar system. Power share consist of flexible coils and clocking aids embedded in the device that deliver on the go fast wireless power transfer just by touching to devices together. It is designed with a fer-rite plate, coils and copper tape. This phone has a storage to store charge and when the phone is in low battery it takes charge from that storage .The storage take charge from sun that's mean it takes charge by solar system. In this device we use a solar path outside of back part. In this work, we provided our proposal and solution to share charge between two smart phone and store charge.

Keywords- Power Share, Wireless Power Transfer, Solar System

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Apneic Events Detection Using Different Features of Airflow Signals

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Abstract: This work deals with detection of apneic episodes on airflow signals belongs to Apnea-ECG and MIT-BIH databases. In order to accomplish this task, representative three feature sets namely classic feature set, amplitude feature set and descriptive model feature set were created. The performances of these feature sets were evaluated individually and in combination with the aid of the random forest classifier to detect apneic episodes. Moreover, effective features were selected by OneR Attribute Eval Feature Selection Algorithm to obtain higher performance. Selected 28 features for Apnea-ECG database and 31 features for MIT-BIH database from totally 54 features were applied to classifier to compare achievements. As a result, the highest classification accuracies were obtained with the usage of effective features as 96.21% for Apnea-ECG database and 92.23% for MIT-BIH database.

Keywords: Apneic event detection, Feature extraction, Classification, OneRattribute eval feature selection, Random forest

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A Machine Learning Based Approach for Diabetes Detection and Care in Bangladesh

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Abstract- Now-a-days Diabetes is an alarming issue all over the world. In Bangladesh, many individuals are affected by it. Due to overpopulation and lack of proper education, it is very difficult to provide sufficient care for diabetes patients. This paper presents a system that can detect if anyone has diabetes. A machine learning algorithm, KNN is used on a supervised dataset to detect diabetes. It also shows nearby doctor chambers through location tracking. The dataset was collected from different hospitals of Bangladesh. Due to security reason, we cannot disclose the names of the institutions from where we collected all the data. However, supervised training in such situation shows a great accuracy although no such work has found for Bangladesh region. This paper studies two different algorithms on the dataset. These are, KNN and K-means. Between them, the proposed approach achieves 99.78% accuracy, which is so far the best for detecting diabetes. We have used total number of 6219 data of different diabetes affected patients. Through this system, one can easily know if he has diabetes by giving test reports and consult with nearest certified doctors with location tracking. Resulting in saving time and money used to detect diabetes and to find preferable doctors as one do not have to go to doctors the very first time and see his health condition sitting right at their home.

Keywords- K-means, KNN, Unsupervised training, Supervised training, Scaling, Confusion matrix, Clustering

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Wavelet thresholding algorithms for image denoising

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Abstract-This paper talks about the wavelet thresholding algorithm for image denoising. Any data, either in the form of signals, or images contain more noise than pieces of information. To make sense out of it, it needs denoising. For that, this paper explains algorithm that makes active use of wavelet thresholding to achieve maximum denoising. For statistical analysis, Matlab software is used as it comes with wavelet thresholding application. This is then used to process standard Lenna image to obtain haar wavelet transform for three levels of decomposition of the image. On the contrary Daubechies wavelet transform is also applied to the same sample image of Lenna. Using Haar Wavelet for image compression has a little bifurcation in Retained Energy and Number Of Zeros along the x-axis. On the other hand, Daubechies Wavelet compression with global thresholding on decomposition level 4 for the standard image of Lenna yields different trend lines between Retained Energy and Number Of Zeros. Its applications vastly cover all media such as image, video, signals, etc. to achieve maximum information. With advances in image denoising, space can be utilized more appropriately as the user can be able to save space on his personal devices like mobile phones, laptops, etc. With this user can be able to use or access that free space in order to upload more data, or use it for his computational use.

Keywords-Image Denoising, Wavelet Transform, Thresholding

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Dynamical Causal Modelling: An Effective Source of Analyzing ERP for Auditory Brain Mapping

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Abstract: Dynamic Causal Modeling (DCM) is a well-known robust technique mainly used for analysis of evoked responses and estimating their dynamic sources and connectivity in neural activities. It entirely depends on a biophysical and neurobiological generative model of electrophysiological data. In this paper, DCM is well-thought-out to be a highly effective and robust source of the mechanism for analysis of evoked responses and their physical neural dynamic connectivity among the active regions of an auditory system during EEG experiment carried out on a single subject with a stimuli of hearing tones of defined frequencies. Inversion of DCM model with Bayesian approach with well-defined multiple constraints befitted with estimated equivalent current dipoles (ECDs) and lead field matrix is the main goal of this paper. The results show that inverting DCM with Bayesian inference approach not only demonstrate the neural connectivity and its dynamics but it also helps in estimation of the localization of sources as indicated by ECDs thereby making it easy for the EEG sensors to pick-up the signals from the defined places of the scalp. From the results, it can be inferred that predicted and observed neural behavior estimated in primary auditory cortex is approximately the same. Further the inverting DCM yields the lead matrix under conditional densities for parametrization. These densities and lead matrix entail the underlying brain neural activities of the brain. The results are processed through SPM12. Matlab software toolbox by using auditory stimuli such as music or other hearing tones for reflecting the neural activity in an auditory system of the human brain. The results demonstrated are satisfactory in terms of comparison of the predicted and observed neural behavior of the connectivity, dynamics source localization and their strength of neural activities taking place in an auditory cortex region during the brain mapping.

Keywords: Dynamic Causal Modelling, Electroencephalography, Equivalent Current Dipoles, Bayesian inference, Auditory system, Neural Connectivity, Evoked responses

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Immediate Feedback as a Supporting Tool for Information Seeker

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Abstract- Seeking online information is a crucial skill for every student to have in academic environment due to online reading is the gist activities in learning. This research investigates the viability of having immediate feedback as a supporting tool in the form of formative assessment for information seeker. The formative assessment provides learners in higher education with an environment that allows them to perform their online reading activities such as search the Web and write free-response texts based on the given online reading task. On request, their Web text-handling outcomes are evaluated and the feedback is presented to them in real-time. Currently, existing Web text-handling applications have not yet implemented immediate feedback as a supporting tool in a real-life task setting. This research is important in determining the usability and accessibility of the proposed system specifically in making use of real-time interaction data (which are produced by learners) and providing immediate constructive feedback as a support tool for the student as the information seeker. Evaluation results of the Web Text-handling Support System indicate that the system is usable for capturing, assessing, and providing immediate feedback based on the students' real-time interaction data in a real-life information-seeking setting. This research finds that students were more controlled of the number of verbatim copied words in their free-response text when they were informed of the existence of the verbatim copying detection mechanism and presented with e-feedback. In addition, this research proves that the Latent Semantic Analysis technique in the proposed system is usable for determining the quality of student's free response texts in terms of its sentence-to-sentence coherence and its similarity with the given Web text-handling task, i.e. in the domain of an informal, unstructured and unconstrained type of free-text automatic assessment.

Keywords- Formative Assessment, Handling Web Texts, Immediate Feedback, Information Seeker, Interaction Data, Latent Semantic Analysis.

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Preliminary Study on Educational User Interface Architecture for Social Network

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Abstract- Social network has becoming a major platform of daily activities from leisure to business purposes. Educational activities could also benefited from this trending platform for its dynamic functions. Among educational activities that could be performed on social network are collaborative studies, blended learning and group activities. Through this platform, students and teachers can be connected to each other for the purpose of exchanging ideas and information. High-end interaction and connectivity between students and teachers makes social network popular as learning platform. A preliminary study on an online tuition conducted by latihminda.com has been conducted. The focus of this study is to proposed a suitable educational user interface architecture for social network education. Elements of real-time interaction and intelligent avatar used by latihminda.com are studied and an educational user interface architecture for social network are proposed in this paper.
Keywords:- user interface architecture, social network, user interface, education, multimedia elements

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End-to-End Packet Delay Analysis and Modeling Concept in Multi-Hop Wireless Network

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Abstract- The multi-hop remote innovation improve the a few properties (limit and scope) in a financially savvy way and it has been present in Fourth-Generation (4G) norms. A multi-hop remote framework is can be clarified in better path like as multi-hop and time-opened yet the compelling limit idea is produced in view of single-jump and nonstop time correspondence frameworks. So two idea are utilized to portray the conduct of framework: the multi-jump successful limit idea for multi-bounce systems and the Mixed Continuous/Discrete-Time (MCDT) viable limit idea for time-opened systems coming about in this way there are two ways are include to approve these two idea on perfect remote interchanges, bundles navigate various remote system gadgets and parcels are transmitted to or gotten from a remote system gadget each Transmission Time Interval (TTI). So End-to-End Packet Delay Analysis and Modeling idea in Multi-hop remote Network enhance the execution.

Keywords- End-to-End Packet Delay, Multi-Hop Wireless Network, Discrete-Time, TDMA

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Review of Data Visualization for Social Media Postings

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Abstract- Facebook and Twitter are the most popular social media platforms among netizen. People are now more aggressive to express their opinions, perceptions, and emotions through social media platform. These massive data provide great value for the data analyst to understand patterns and emotions related to a certain issue. Mining the data needs techniques and time, therefore data visualization becomes trending in representing these types of information. This paper aims to review data visualization studies that involved data from social media postings. Past literature used a node-link diagram, node-link tree, directed graph, line graph, heatmap, and stream graph to represent the data collected from the social media platform. An analysis by comparing the social media data types, representation, and data visualization techniques is carried out based on the previous studies. This paper critically discussed the comparison and provides a suggestion for the suitability of data visualization based on the type of social media data in hand.

Keywords-Data visualization, Social media, Perception, Emotion, Data representation

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A case study: An Impact of Facebook on English

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Abstract- In modern age Facebook is most wide spreading, popular and vital social networking tool for social interaction and learning English language as well and usually students use Facebook for different purposes like, education, communication, business and marketing. In many researches have focused on user behaviors using wrong English Language in sentences, words and code mixing in texts, pictures and videos. The purpose of this research was to investigate the impacts of Facebook on English as a Second language in Higher Education Institutions. Qualitative method was used to conduct the research because it helps deeper to investigate the problem. In addition, it is more useful for educational purpose and suitable for small population. Participants of the study were the undergraduate students of the Shaheed Benazir Bhutto University, Naushahro Feroze Campus aged from 20 to 25 years old. Web based survey was used on Facebook to collect the data. Group posts were categorized into three user interfaces like, text, pictures and videos. Findings the study depicted negative impacts of Facebook on English as a second language.

Keywords- Facebook, Social Media, Code Mixing, Text Messaging, Communication

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An Optimized Hybrid Beamforming for Millimeter Wave MU-Massive MIMO System

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Abstract- Millimeter wave and massive multiple-input multiple-output communications (Massive MIMO) has been adopted as the most important key for the next wireless generation network (5G) due to high spectrum availability and its use for high-speed wireless broadband communications. Massive MIMO must be implemented parallel with mm-wave to overcome high path-loss issue in millimeter-wave band by improving the antennas gain. Digital precoding in Massive MIMO , shows high performance at the cost of huge number of radio frequency (RF) chains, analog-to-digital converters (ADCs), and hardware complexity. On the other hand analog precoding have less complexity with limited performance as it supports only one data stream. In compromise between these two, a hybrid precoding for multiuser massive MIMO (MU-massive MIMO) system, with low-complexity and reasonable performance becomes necessary for next generation networks. We propose an optimized hybrid precoding and combining scheme for fully connected structure. The design of combined digital and analog precoding for the mm-wave MU-massive MIMO system becomes a non-convex problem. Therefore, we proposed a suboptimal design, where we split the transmitter and receiver hybrid precoding and decoding and adopt orthogonal matching pursuit algorithm for their design. The simulation results show that the performance of proposed hybrid precoding approaches the digital precoding in the term of total sum data rate as we increase number of RF chains and SNR.

Keywords- Massive MIMO, Beamforming, Hybrid precoding

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Comparative Analysis of Learning Algorithms For Lung Cancer Identification

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Abstract- Cancer is lethal, a disease defined to be associated with an abnormality in cell growth followed by irregular cell reproduction. It is marked to be the major reason for death globally. Detection of cancer at an early stage is still a challenge for the radiologist. All extant of cancers should be detected by a screening test while avoiding workups that are unnecessary. Accurate and consistent diagnosis of lung cancer while looking at CT scan is difficult for the radiologists. In this paper, an experimental study is conducted to evaluate the performance of learning classifiers (DNN, SVM, Random Forest, Decision Tree, Naïve Bayes) with different features to identify the two (Benign and Malignant) cancer (tumor) types. The experiment is conducted in two phases to observe the performance of classifiers in term of classification accuracy and improving the false positive rate respectively. Experimental results show significant improvement in false positive rate up to 30% for both Benign and Malignant. Whereas, Deep neural network (DNN) demonstrate high value in term of classification accuracy in comparison with other classifiers.

Keywords- Machine learning, DICOM Images, CT Scan, Image Processing, Lung Cancer

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A Weighted Fuzzy Time Series Forecasting Model

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Abstract- In this paper we describe a new automatic fuzzy partitioning method and a weighted first order fuzzy time series forecasting model. First, we show that our automatic fuzzy partitioning method provides an accurate approximation to the original time series. Then we apply our partitioning method to extract a rule base of first order fuzzy rules. We show that our first order forecasting model's accuracy is improved when an ordered weighting averaging operator is used. Our model does not attempt to produce the most accurate forecasting results when compared with other more complex higher order models. The goal of this paper is to show that there is still space for improvement in simple first order models. The combination of a simple partitioning method, combined with a first order models and an averaging operator is still capable of outperforming other similar first and higher order models that have been proposed in the literature.

Keywords- Fuzzy Logic, Fuzzy Time Series, Forecasting, OWA operators

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Anomaly detection of Sensors Streaming data based on the Gaussian distribution model

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Abstract- The power grid turns into the Smart Grid by utilizing distinctive sensors to mechanize the framework. The data got from the sensors is vast in measure and can be said as large data. We can make the Smart Grid the more astute framework by including the component of realtime examination to the sensors. Like different frameworks, the Smart Grid Systems store their data in the servers, and this data is gotten to by utilities for various purposes like electricity bills. The metering system web servers contains the sensors which are capable to report the latency of the servers. In this paper we are contributing if these sensors are reporting the normal latency values of the servers. In the event that they are not, at that point they are considered as anomalies. In our examination, the sensor value is created by Kafka Producer. The value is then analyzed by Kafka Consumer based on the Spark Streaming architecture. Moreover, we are utilizing the Gaussian distribution model to recognize the anomalies in the sensor data because of its wide usage in the process of anomaly detection.

Keywords Sensors, Streaming data, Anomaly detection, Gaussian distribution model

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Architecture and implementation of the Internet of Things

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Abstract- The Internet of Things (IoT) is a vision that aims to connect different real world objects with each other through the existing Internet. In this sense, IoT is an integral part of the Future Internet where the smart things are expected to exchange and process the sensed data while reacting autonomously to the events. However, making several things talk with each other in a heterogeneous environment and on a large scale is a challenging task. Lately, researchers have shown greater interest to propose diverse operating systems, simulators, testbeds and architectures for IoT. Since these are very early days of IoT, many of their proposals still need to be materialized. This paper firstly discusses the requirements and challenges of operating systems, simulators, testbeds and architectures of IoT. Then the working, merits, demerits and comparison of the several operating systems, simulators, testbeds and architectures proposed for IoT have been outlined. Finally, in order to deal with the challenges of IoT such as standardization, interoperability, integration with other networks, security, etc., a novel IoT architecture and security model has been proposed in this paper.

Keywords-IoT, Simulation, operating systems, testbed, architecture, security, intelligence, management layer

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New Approach Based Internet of Things for a Clean Atmosphere

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Abstract- We are hearing more and more about the Internet of Things, connected objects, even the connected world, and smart homes; new concepts that invade the world and disrupt our way of life.
The Internet of Things called the 3rd industrial revolution will profoundly change the people lives with home automation, health and recreation, energy, distribution and our environment with smart city or connected transport. The information collection remains a major challenge that without the participation of several partners cannot be easy. This participation manifests the Crowdsourcing.
In this communication, we will discuss the technology of the Internet of Things (IoT) and connected objects and their importance in our daily lives. Then we will present our project "Crowdsourcing based on Connected Objects for the measurement of pollution"

Keywords- Connected Objects, Internet of Objects, Cloud Computing, IoT

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OPTIMAL OVERHEAD ENERGY EFFICIENT ALGORITHM OF LEACH PROTOCOL IN WIRELESS SENSOR NETWORKS

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Abstract- In future the world will consist of smart devices that would basically dependent upon the sensory data from real world environments. In this way, inevitability of large scale remote sensors and IoT is unyielding in future. Wireless sensor nodes have limited resources, which comprised of spatially dispersed remote sensing nodes, which have some constrained issues among them the consumption of the power is the most significant one. WSN consumes hundreds to thousand times more energy in transmission of data as compared to the execution of instructions. The applications of the WSN involves wide spread fields, such as in the military battle field, forest fire detection, medical, and smart home/ city automations. So a big challenge for researchers for a large scale WSNs during the collection of data is the minimal amount of energy utilization. Various techniques have been embraced to diminish the utilization of energy in data collection. Among all, small size data packets is one of the important aspect to conserve the energy, because sensor node consumes significantly less energy for information processing as compared to communication between the nodes. Reduce energy consumption and decreases the system delay is the main goal of cluster based sensor networks. For micro-sensor networks LEACH is a cluster based protocol which accomplishes energy efficient, scalable routing and reasonable media access for sensing nodes. Data collected in rounds in a dynamic clustering method through which in each round new set of clusters with different nodes as CHs are formed. The basic concept of LEACH is fair selection of CH according to thetotal number of nodes in the network and the uniform dissemination of energy utilization among all the nodes in a network. This rest of the paper is organized as follows: Section I contains Introduction, Section II discussion about distributed clustering algorithms, Section III energy consumption in data collection rounds, Section IV proposed overhead energy calculation, Section V discussion about simulation model, Section VI performance analysis and results, Section VII Conclusion is derived based on the analysis and simulation.

Keywords: WSN, TDMA, CSMA, LEACH

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ENERGY EFFICIENT HYBRID LEACH PROTOCOL FOR WIRELESS SENSOR NETWORKS

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Abstract- The energy efficiency of sensor nodes is an important issue to handle in distributed wireless sensor network (WSN) for gathering massive information. In WSN, sensor node has draw backs of limited energy and shorter lifetime. Therefore, efficient network routing protocol should be developed to minimize the energy dissipation while maximizing its coverage. In the proposed algorithm, the main focus is to efficiently utilized the energy while communicating to base station (BS). Since location of most BSs varies from nodes to nodes in sensing area, hence energy dissipation in sending data also varies. Low-energy adaptive clustering hierarchy (LEACH) protocol is no doubt a good alternative but its performance is not good always. A hybrid protocol is proposed, which optimizes the energy and enhancing the coverage of nodes. A hybrid LEACH protocol is a combination of bacteria foraging (BF) and particle swarm optimization (PSO). It enhances networks life time by making it energy efficient.

Keywords- Wireless sensor network (WSN), Low energy adaptive, clustering hierarchy (LEACH), Particle swarm optimization (PSO)

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Towards Novel Method for Adaptive Network selection

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Abstract- Software Defined Networking (SDN) is an emerging technology that replaces traditional networks and offers a wide variety of applications in network environments, and allows personalized control, and presents an opportunity to eliminate intermediate equipment. Recently, SDN has been proposed for wireless networks to add flexibility to incorporate exponentially growing wireless traffic and adapt network configurations on the fly, and is known as Software Defined Wireless Networking (SDWN). In this article, we propose a new model for intelligent and adaptive network selection.

Keywords- novel method, adaptive network, Wireless Networking (SDWN)

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Fast RSA scheme to secure bitcoin exchanges

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Abstract-As bitcoin has received considerable attentions, a large number of transactions are increasingly published through the Internet. The potential threat to online transactions is not only limited to the anonymity of identities such as address and pseudonyms, but also other sensitive information shown on scripts like transaction amounts. RSA algorithm is one of the most popular and secure public key cryptographic algorithms. To guarantee data security in bitcoin exchanges, RSA algorithm has been widely used to secure bitcoin transactions. In this paper, we propose a fast variant of the RSA scheme to speed up its algorithms.

Keywords- bitcoin, Confidentiality, Homomorphic Encryption, Speed up Bitcoin-RSA, Hensel lifting, Chinese Remaindering

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Design of Arm Processor's Elements Using QCA

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Abstract- Quantum dot Cellular Automata is becoming a promising future nanotechnology for computing which takes advantage of the coulomb force interacting between electrons. The aim of this paper is to consider the logical circuits ofARM processors and further reducing their size in nanometres like 2:1 multiplexer , D Flip Flop, scan Flip Flop, 2:1 multiplexer with enable, encoder, decoder, SR FF, shift register, memory cell and program counter are designed using QCAD tool . Their cell count, area, kink energy are taken in consideration to calculate power and energy dissipation.

Keywords- QCA Quantum Dot Cellular Automata, Complementry Metal-Oxide Semiconductor

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HVDC (High Voltage Direct Current) Transmission System: A Review Paper

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Abstract-Back in the early days of electricity supply, AC (alternating current) was adopted for power transmission because it could be stepped up or down as needed by transformers, and because it could be interrupted more easily than DC (direct current). High-voltage AC grids evolved as an efficient way to connect existing islands of distribution grids and large generation units with industrial and residential loads. It was not until some decades later that the technology for high voltage DC (HVDC) power advanced sufficiently for the first commercial HVDC link to be established. This paper reviews current & future of HVDC transmission systems in India. The paper discuss about the recent developments in HVDC Transmission & other technologies in India & World also. This paper compares the HVDC transmissions design, operation, construction and maintenance over HVAC. The paper additionally shows an economic analysis of HVDC transmission innovation over an AC framework in India. This paper gives review of references formations of HVDC transmission frameworks in India. The paper conclusions why picking HVDC frameworks in the present power framework development.

Keywords- HVDC Links, Bipolar Transmission, Transmission

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Hydro Power Technology in India: A Review Paper

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Abstract- Encouraged by maintained monetary process and ascend in economic advantage levels, Asian nation is ready to confront an imperative increment in vitality request inside the following couple of decades that conjointly translates into higher interest for power. The hole inside the power request supply situation is featured by the plain reality that the nation old a pinnacle deficiency of 5.2% and a vitality shortfall of 4.2% in FY 13-141, with the abundance western and jap districts unfit to offer reparations for the extremely shortage northern, southern and north-eastern areas. Considering partner vitality snap of 0.82, Asian nation is anticipated to need around seven-membered yearly development in power offered to manage an esteem development of around 8.5% p.a. over after couple of years. this needs stable every potential source to deal with the shortage and take care of the demand development for quick monetary improvement though thinking about worries of long-run property, ecological and social perspectives. worldwide environmental change and distinctive negative impacts of exploitation petroleum products for control age together with developing contemplations over vitality security are driving the augmentation of hydropower around the globe. in spite of the fact that supply based for the most part hydropower returns have come underneath feedback on account of ozone harming substance and alkane arrangement discharges on the far side worthy breaking points, most hydro-rich nations have taken after partner coordinated full life-cycle approach for the appraisal of the preferences and effects to ensure property. The examination is a preliminary to bring out strikingly the past, blessing, and way forward for hydro vitality in India; some significant parts of the overall circumstance ar specified. Significant strategies of the focal government are contacted upon ace re nata while talking about the bottlenecks experienced in speedy hydropower division advancement.

Keywords- Hydropower, Indian Strength in Hydro Engineering, Hydro Development, Modeling and Simulation, Comparison, Economic Analysis, Financial aspects, Policies

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Fast variant of the Cloud-RSA encryption scheme to secure video content

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Abstract- With the innovations and increasing popularity of smart cities, video analytics (e.g., from social media, entertainment, surveillance, smart health monitoring, and crowd management) are used in a range of application domains to provide safety, security, and well-being for residents. As these video analytics are shared through highly interconnected devices, sensors, and other smart city stakeholders, security and integrity is a concern for secure video content. Without proper techniques to address the security threats of such transmission and sharing, it would be very difficult for a smart city government to provide safety and quality-of-life to its residents. To this end, this paper proposes a fast variant of the RSA encryption scheme, to speed up the RSA in the generation of a key for cloud encryption to secure video content. We boosted the standard RSA encryption scheme at security level, Cloud-RSA. In this paper, we propose a new fast variant of the Cloud-RSA scheme to speed up its algorithms. The proposed variant uses a modulus of the form N = for r, s ≥ 2 and employs Hensel lifting and Chinese remaindering to decrypt. Simulation results show that the proposed variant gives a large speed up over the Cloud-RSA scheme while preserving a prescribed security level.

Keyword- Cloud Computing, Confidentiality Integrity Availability, lifting Chinese Remaindering

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Microgrids Technology: A Review Paper

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Abstract- Microgrids are currently rising centres, banks and pilot exhibition locales in business markets, driven by mechanical enhancements, diminishing costs, demonstrated involvement and developing acknowledgement of their advantages. They are utilised to enhance the dependability and strength of intensity frames, to deal with the expansion of conveyed clean vitality assets, for example, wind and sunlight based age to lessen petroleum derivative emanations and to give power in territories that are not don't have incorporated electrical framework. This survey provides a multidisciplinary representation of current microgrid controllers, specific applications, difficulties and prospects.

Keywords- Microgrids, Renewable integration Prosumers, Distribution energy

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Wind Energy: A Review Paper

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Abstract- This review paper examined the outline of wind innovation, where the approach depends on standards and down to earth executions. Wind vitality is the second biggest wellspring of sustainable power source after hydropower. It is incredibly reasonable, yet it is discontinuous. Even though the abuse of twist goes back a few centuries, the cutting edge wind vitality industry started amid the oil emergency of the seventies. Most these days wind turbines are onshore; however others are fabricated seaward, more often than not in wind ranches. Since wind vitality is discontinuous, it must be upheld by different wellsprings of power. Wind vitality can be productive as a rule. However, it has not yet accomplished full matrix equality with fossil vitality sources. .

Keywords- Microgrids, Renewable integration Prosumers, Distribution energy

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A Novel Imaging System for Underwater Haze Enhancement

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Abstract- Images captured underneath water can be badly corrupted with spreading of element, which decrease the dissimilarity, alter color, as well as build point description hard on the way to recognize, by human visualization. For that reason deblurring will be a significant problem to eliminate the control of underneath cause in order to get better visual outcome of the picture. The projected scheme is conceded towards the visibility of deblurred imagery. Found on dim channel preceding towards removing mist, beside gradient guided strain headed for processing the picture owing towards happenings of radiance. Yet following modification, radiance is not totally separated.
Consequently, meant for additional modification border preserve smooth gradient guided filter is used. These processes have a gain over conventional process by restraining halos entirely. Tentative consequence illustrates increased concert through the algorithm,
evaluate towards former existing methods.

Keywords- Image Haze, Image Enhancement, Dark channel, Prior, Gradient Guided Filter

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Adaptive strategy operators based rule discovery for Genetic Algorithm

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Abstract- A new variant of genetic algorithm, which provides equal opportunity for all parent solution to produce the offspring solution, has been applied in discovery of classification rules from continuous datasets. The main objective of proposed algorithm is used to discover classification rule with three measures like accuracy, coverage (completeness) and comprehensibility, using which easily understandable, accurate and comprehensible rules can be generated. A new process has been defined to simplify the generated rules by reducing the features dimension, according to their role in the success of discovering rules. Proposed solution generates rules which are easy to handle and does not require computational machine for applications use. Adaptive approach for crossover and mutation operations has also been applied to handle the exploration and exploitation in dynamic manner.

Keywords- Adaptive, Strategy, Genetic Algorithm

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Diversity based self-Adaptive clusters using PSO clustering for Crime data

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Abstract- A popular heuristic search algorithm which has been motivated through nature is Particle swarm optimization. These techniques when combined with clustering algorithms determine number of clusters dynamically. Diversity is the key parameter which play the key role in defining the exploration capability of natural computing algorithms. Once diversity has lost prematurely, result or poor convergence is nearby guaranteed. There are number of sensitive parameters available with nearly all paradigm of natural computing, whose optimal values drives the quality of solution. In this paper diversity based self-adaption has applied to Particle Swarm Optimization (PSO) to obtain better clusters. With the depth of diversity parameters like inertia weight. The proposed solution has applied over numeric benchmark function which optimizes the result in better way. Also, the diversity based PSO clustering algorithm is applied on crime datasets of Karnataka and Bangalore to determine similar and different crime characteristics.

Keywords- Cluster, Particle swarm optimization, Diversity, Self-adaption, Crime

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