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## Technical Advisory Board

**1.**

**Authors:** Nermin K. Negied

**Paper Title:** Expert System for Wheat Yields Protection in Egypt (ESWYP)

**Abstract:** This paper presents a novel approach for the diagnoses of insect pests that can harm wheat crops in Egypt. ESWYP is a system that enables the farmer to classify insect diseases among 12 types. Diagnose of the insect pests is a complex and sensitive task, and can only be performed by an expert of the agriculture sciences. ESWYP expert system is designed to imitate the agricultural experts for disease diagnoses, and to enable a computer to behave like an agricultural expert to discriminate the type of pests began to affect the wheat crops and then advice the best treatment for it. This paper presents the relationship and mapping of the expert system technology onto agricultural sciences, and technicalities involved in designing of the ESWYP expert system. The expert system also provides a reasoning facility that enables the user to look into the diagnoses and treatment details.

**Keywords:** Insect pests, Wheat diseases, Common symptoms, Distinctive symptoms, Fact extractor, Results' combiner, Explanation facility.

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**2.**

**Authors:** Anshu Anand Jethi, Ajay Rana

**Paper Title:** Commissioning of BTS / Node B

**Abstract:** This paper demonstrates the commissioning of BTS/NODE B through a Wizard (series of user interfaces), that stores information provided by the user. It also provides another option of commissioning i.e. purely file based commissioning (user has a configuration file and he want to upload this file only). This Paper proposes File Based Commissioning of BTS/NODE B, which eases the task of uploading the configuration to the BTS/NODE B both from user point of view and maintenance point of view.

**Keywords:** BTS/NODE.

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**3.**

**Authors:** C. Vaishnavi, S.Sindhuja, B.subathra, K.selvi Priya, C.Bala Subramanian, M.Angelin Nithya Devi

**Paper Title:** Improving the Message Delay Overhead Using Nested Nemo Based Vanet

**Abstract:** Vehicular Ad Hoc Network (VANET) is an emerging technology. Mobility management is one of the most challenging research issues for VANETs to support variety of Intelligent Transportation System (ITS) applications. Network mobility solutions can be divided into two broad categories, intra–domain and inter–domain solutions. So, mobility management for vehicular networks is required. However most of Mobility model currently

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| | used are very simple. In this paper we will focus on the Network Mobility Approach in Vehicular Ad Hoc Network, this model will describe the communication between Infrastructure to Vehicle and Vehicle to Vehicle i.e. NEMO Based VANET and Nested NEMO Based VANET.<br><br>**Keywords:** VANET, MANET, MobiSim, NEMO, Road Side Unit(RSU).<br><br>**References:**<br>1. J. Broch, D.A Maltz, D.B. Johnson, Y-C Hu, and J. Jetcheva. "A Performance Comparison of Multi-Hop Wireless Ad Hoc Network Routing Protocols," in Proc. of ACM/IEEE MOBICOM, 1998, pp. 85-97.<br>2. S. M. Mousavi, H. R. Rabiee, M. Moshref, A. Dabirmoghaddam, " Wireless and Mobile Computing, Networking and communications," 2007, WiMOB 2007.<br>3. J. Lorchat and K. Uehara, "Optimized inter-vehicle communications using NEMO and MANET," in Proc. 3rd Annu. Int. Conf. Mobile UbiquitousSyst.: Comput., Netw., Services, San Jose, CA, USA, Jul. 17–21, 2006, pp. 1–6.<br>4. Vehicular ad-hoc Network: Wikipedia, the free encyclopedia. http://en.wikipedia.org/wiki/VANET.<br>5. "VANET Routing on City Roads using Real-Time Vehicular Traffic Information," Josiane Nzouonta, Neeraj Rajgure, Guiling Wang, Member, IEEE, and Cristian Borcea, Member, IEEE.<br>6. S. Taha, S. Cespedes, and X. Shen, "EM3A: Efficient mutual multi-hop mobile authentication scheme for pmip networks," in Proc. IEEE ICC, Ottawa, ON, Canada, Jun. 10–15, 2012, pp. 873–877.<br>7. E. Perera, V. Sivaraman, and A. Seneviratne, "Survey on network mobility support," SIGMOBILE Mobile Comput. Commun. Rev., vol. 8, no. 2, pp. 7–19, Apr. 2004.<br>8. S. Cespedes, X. Shen, and C. Lazo, "IP mobility management for vehicular communication networks: Challenges and solutions," IEEE Commun. Mag., vol. 49, no. 5, pp. 187–194, May 2011.<br>9. Y. Bi, L. Cai, X. Shen, and H. Zhao, "A Cross Layer Broadcast Protocol for Multihop Emergency Message Dissemination in Inter-Vehicle Communication," Proc. IEEE Int'l Conf. Comm. (ICC), pp. 1-5, May 2010.<br>10. S. Biswas, R. Tatchikou, and F. Dion, "Vehicle-to-Vehicle Wireless Communication Protocols for Enhancing Highway Traffic Safety," IEEE Comm. Magazine, vol. 44, no. 1, pp. 74-82, Jan. 2006.<br>11. F. Ye, R. Yim, J. Guo, J. Zhang, and S. Roy, "Prioritized Broadcast Contention Control in VANET," Proc. IEEE Int'l Conf. Comm. (ICC), pp. 1-5, May 2010. | |
| **4.** | **Authors:** | **K.Gowthami, S.Janci Priya, S.Kiruba, S.Maheswari** |
| | **Paper Title:** | **Designs of Micro-Strip Band Pass Filter for L Band Frequency** |
| | **Abstract:** In this paper we propose a strip line Bandpass filter for 2.4 GHz application using Advanced design software. The filter is operated at L band frequency range in 2.4 GHz for various microwave applications & the filter is design on Roger Duroid 5880(tm) substrate with dielectric constant of 2.2, with dimension conductor thickness 0.035 mm and substrate height 0.787 mm. The proposed filter is design at a center frequency of 2 GHz. Simulation results show that the filter operation is optimum over the frequency range 1.8 GHz to 2.6 GHz which is best in this range. In this paper, band pass filter order n=3 development with the assistance of the Richards-Kuroda Transformation method is used.<br><br>**Keywords:** chebyshev bpf, Strip-line, ADS Software tool, Roger Substrate, L Band Spectrum, S Parameters<br><br>**References:**<br>1. Li Zhongshen, "Design and Analysis of Improved Chebyshev BandpassFilter," The Eighth International Conference on Electronic Measurement and Instruments, pp. 1729-1732, 2007.<br>2. Anju and Mamta Katiyar, "Design of Chebyshev and Chebyshev 1 BandpassFilter for Equalized Group Delay," International Journal of Advanced Research in Computer Science and Software Engineering, vol. 2, Issue 5,May 2012.I.<br>3. David M. Pozar., Microwave Engineering, 3nd Edition, John Wiley & Sons, Inc. Canada.2005, pp422-459.<br>4. Roman Kaszynski and Jacek Piskorowski, "New Concept of Delay–Equalized BandpassChebyshev Filters," IEEE Symposium on Industrial Electronics and Application (ISIEA 2009), vol. 1, pp. 171-175, 9-12 July, 2006.<br>5. Les Besser and Rowan Gilmore, "Filters and Resonant Circuit," In: Practical RF Circuit Design for Modern Wireless System, Passive circuit in Systems, vol1,<br>6. Anju and Mamta Katiyar, "Design of Chebyshev and Chebyshev 1 BandpassFilter for Equalized Group Delay," International Journal of Advanced Research in Computer Science and Software Engineering, vol. 2, Issue 5,May 2012.<br>7. R. Levy, R.V.Snyder and G. Matthaei, "Design of Microwave Filters," IEEE Transactions On Microwave Theory, vol.50, pp.783-793, March 2002.<br>8. Vadim Kim, "How to Design 10 kHz filter (Using Chebyshev filter design)," PhD Thesis, Brandeis University, US, 1998.M. Young, The Technical Writer's Handbook. Mill Valley, CA: University Science, 1989. | **11-14** |
| **5.** | **Authors:** | **Shiva Shankar, Dharanirajan** |
| | **Paper Title:** | **Drainage Morphometry of Flood Prone Rangat Watershed, Middle Andaman, India- A Geospatial Approach** |
| | **Abstract:** Floods is one of the wide spread global geo-epidemics frequently causing extensive loss of life and property, flood induced disease, hampering of socio-economic activity including transport and communication. Rangat watershed in middle Andaman is not an exception for that instance. Morphometric analysis of Rangat watershed using Geographic Information System (GIS) and remote sensing indicates that it is susceptible to flooding during extreme meteorological events. The watershed exhibit dentritic drainage pattern and has a perennial Rangat river of 4th order. The computed values of drainage density (2.76 Km/ Km2), stream frequency (5.66 no. streams/ Km2), drainage texture (6.26), infiltration number (15.62), form factor (0.35), elongation ratio (0.19) and Compactness constant (1.51) of the Rangat watershed articulates that it is elongated sub-circular having moderate relief and low infiltration capacity due to impervious sub-surface resulting rapid storm response giving rise to a higher runoff resulting in downstream flooding. Rangat River has the highest stream order (4th order) associated with greater discharge and higher velocity of the stream flow indicating the watershed is highly susceptible to floods during monsoon.<br><br>**Keywords:** Floods, Drainage Morphometry, Geographic Information System, Remote Sensing, Rangat River, Andaman | **15-22** |

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**6.**

**Authors:** **Sami El Moukhlis, Abdessamad Elrharras, Abdellatif Hamdoun**

**Paper Title:** **FPGA-Based Handwritten Signature Recognition System**

**Abstract:** In this paper, a method of classification of handwritten signature based on neural networks, and FPGA implementation is proposed. The designed architecture is described using Very High Speed Integrated Circuits Hardware Description Language (VHDL). The proposed application consists of features extraction from handwritten digit images, and classification based on Multi Layer Perceptron (MLP). The training part of the neural network has been done by using MATLAB program; the hardware implementations have been developed and tested on an Altera DE2-70 FPGA.

**Keywords:** ANN, FPGA, MLP, Recognition, VHDL.

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| **Authors:** | **Amogh Pendharkar, Preeti Sharma, Chhaya Varade, Rekha Jadhav** |
| **Paper Title:** | **Pocket Droid – A PC Remote Control** |

**Abstract:** In today's world, electronic devices and PC's holds a valuable position in ones' life. An important aspect of the technology is to remotely monitor these devices. We are aware of multiple Remote Control applications which provides an effective way to control and monitor devices easily and quickly. This paper proposes an idea for remote controlling of Android mobile devices, evaluating the network and obtaining the accurate and optimal solution in different cases. In this paper we have explored various importance of using Pocket Droid Application. One can use Pocket Droid to share files between PC and android device, activate and kill the applications installed on the Target PC, shutdown the Target PC and much more. Pocket Droid surrounds the Client and Server application. In which, the Server application has been implemented in JAVA and Client application in Android.

**Keywords:** Android phone, IP address, JAVA, Window OS, remote desktop, remote visualization, smart phone, wireless handheld devices.

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**8.**

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| **Authors:** | **Aashik Chandramohan, Krishna Murthy K.R., Sowmya G. , Surya Prasad P.A., Vijay Krishna V., Peeyush K.P.** |
| **Paper Title:** | **Cost Effective Object Recognition and Sorting Robot Using Embedded Image Processing Techniques** |

**Abstract:** This paper presents an application to sort objects based on its colour using a robotic arm. In many small scale industries, the major obstacle faced is shortage of time and laborers to efficiently sort and pack the products. This hurdle can be overcome by using the developed robotic arm which is cost effective and user friendly. This method of packaging is faster and does not require continuous monitoring, thereby increases the production and growth of the industry. In this paper, computer vision is carried out with the aid of OpenCV and the robotic arm is powered by Arduino microcontroller. The eBox-3300MX is used as the hardware to integrate OpenCV with robotic arm.

**Keywords:** Arduino, dominant colour detection algorithm, eBox-3300MX, OpenCV.

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**9.**

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| **Authors:** | **P. Nandhakumar, M. Hemalatha** |
| **Paper Title:** | **Effective Semantic Web Information Retrieval Using Fuzzy Based Ontology** |

**Abstract:** Information retrieval technology has been essential to the success of the Web. This paper presents a Fuzzy based Ontology approach which can improve semantic documents retrieval. Fuzzy Knowledge Base is being defined formally and new relationship called as semantic correlation is considered as a non-taxonomic relationship. This correlation is updated automatically when an insert is made into the database after processing a query. Here Information retrieval algorithm is used to find out the unique path between the entities being extracted from the queries by parsing. The extracted entities are used in construction of a SPARQL query using the template and the search is made to obtain maximum semantic association in the knowledge base. The implementation results obtained shows promising results in terms of precision and recall. The comparison made with other existing algorithms used has proved our proposed approach to be a outstanding one in information retrieval environment.

**Keywords:** Semantic Web, Ontology, Fuzzy Theory, Information Retrieval.

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**10.**

**Authors:** **Ravikiran Pawar, Hrishikesh Bhapkar, Sanket Domal, Amol Bankar, Vikrant Dudhale.**

**Paper Title:** **Reducing Inner Data Stealing Using Bogus Information Attacks in the Cloud Computing**

**Abstract:** Cloud Computing is giving the new approach to use our computers to handle and storing the confidential information. Cloud Computing providing Services like Infrastructure as a Service <IaaS>, Platform as a Service <PaaS> and Software as a Service <SaaS> as well as we have to pay according to our use. The Cloud users can get access over it by the permission of Cloud provider without large investment. As access over Cloud is easily provided by Cloud providers therefore the Security Issues are more in it. The presenting Encryption Strategies are failed to preventing the Inner Data stealing. In this paper we are proposing the completely distinct approach to prevent the Inner data stealing attacks by using offensive decoy technology. When the user is going to access the data we monitoring over it. We are verifying the user by asking him some challenging security questions. Once the user is found that he is unauthorized then we directly applying the decoy information attack over attacker. This will helping us to stop the misuse of the genuine user's data. Using certain functioning we can easily make the evidences against the attacker to stop this malicious activity.

**Keywords:** Cloud Computing, Decoy information, Encryption, malicious, Offensive Decoy Technology.

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**11.**

**Authors:** **Rashmi Tomar, Bhawani Shankar, Rakesh Kumar, Madhu Godhara, Vijay Kumar Sharma**

**Paper Title:** **Synthesis, Characterization and Antimicrobial Activity of Novel Hydroxamic Acids of Pyrimidine- 5-Carboxylic Acid and Their Complexes**

**Abstract:** A series of metal complexes of Cu(II), Ni(II) and Co(II) have been synthesized with new hydroxamic acids, 1,3-dimethyl-2,4,6-trioxo-1,2,3,4,5,6-hexahydropyrimidine-5-carboxylic acid hydroxamide (5) and 1,3-dimethyl-4,6 -dioxo-2-thioxo-1,2,3,4,5,6-hexahydropyrimidine-5-carboxylic acid hydroxamide (6). During the course of present investigations, simple analytical and spectroscopic techniques such as repeated melting point (M.P.) determination, elemental analysis, running their thin layer chromatography for single spot, I.R., H1-NMR and UV-Vis. (only for metal chelates) spectral studies were employed to indentify the purity and structure of hydroxamic acids and their metal chelates. Free ligands and their metal complexes have been screened for their antimicrobial activity against various species of fungi and bacteria.

**Keywords:** Hydroxamic acids, antimicrobial activity, metal complexes.

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**12.**

**Authors:** **Manisha D. Wasnik**

**Paper Title:** **Image Stitching using Matlab**

**Abstract:** Images are an integral part of our daily lives. Image stitching is the process performed to generate one panoramic image from a series of smaller, overlapping images. Stitched images are used in applications such as interactive panoramic viewing of images, multi-node movies,mobile phones and other applications associated with modeling the 3D environment using images acquired from the real world. Feature matching, used in Specifically, image stitching presents different stages to render two or more overlapping images into a seamless stitched image, from the detection of features to blending in a final image. In this process, Scale Invariant Feature Transform (SIFT) algorithm[1]can be applied to perform the detection and matching control points step, due to its good properties. The process of create an automatic and effective whole stitching process leads to analyze different methods of the stitching stages. SIFT methods to extracting feature points, is the key of image mosaic. The advantages of SIFT is one of the most robust and the widely used image matching algorithms based on local features This paper describes the design and implementation of an image stitcher which can be used to join colour images.

**Keywords:** Seamless stitched image, Panoramic image.

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**13.**

**Authors:** **Hussein saadi A. AL-Daffaie, Y. K. Bind, Emad S. Shamsaldin**

**Paper Title:** **Feasibility of LLW & ILW-SL Landfill In AL-Tuwaitha Site_Iraq**

**Abstract:** The present study is the effort of investigating the safe disposal of radioactive waste to save the people of Iraq from the bad effect of radioactivity. Iraq has suffered from many destructive wars in recent past in the year of 1991 and 2003. Lots of radioactive wastes were generated as a consequence of these wars. Radioactive wastes are divided in three categories Low- Level Radioactive Waste (LLW), Intermediate-Level Radioactive Waste (ILW) and High-Level Radioactive Wastes (HLW). HLW have life span of more than 10000 years hence it is quite difficult to find any site for safe disposal of HLW wastes since it needs to be buried in deep mines whereas it is relatively easy to isolate LLW and ILW wastes in manmade repositories. This paper assesses the suitability of AL-Tuwaitha site, which is small town located south of Baghdad city to be used as the sits for confining the radioactive wastes. The suitability of location of site from geotechnical and geological point of view was studied from three and six borehole data’s respectively. It was found from the study of selected area that site is suitable for the construction of hazardous waste landfill.

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**Keywords:** Low- Level Radioactive Waste, Intermediate-Level Radioactive Waste, High-Level Radioactive Wastes, Landfill.

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**14.**

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| **Authors:** | **K.D. Yesugade, Sheetal Salunke, Ketaki Shinde, Snehal Gaikwad, Meenakshi Shingare** |
| **Paper Title:** | **Hand Motion Recognition** |


**Abstract:** Hand gesture recognition system can be used for interfacing between computer and human using hand gesture. This work presents a technique for a human computer interface through hand gesture recognition that is able to recognize 25 frams per second. The motive for designing this project is to recognize dynamic hand motions in runtime without using any external hardware. The key features of this project are customizable palm motion and backward compatibility within low cost. There is no need of any high definition camera or any costly hardware, used for recognition of hand gestures. A simple low resolution VGA camera is used. An attempt is made to use simple algorithms and to provide more user friendly environment.This application focuses on the building block and key issues to be considered in HGRS and our contribution in the development of HGRS. The primary goal of the project is to create a system that can identify human dynamic hand gestures and use it for performing different functionalities. In this project, an attempt is made to building a richer bridge between machines and humans than primitive text user interfaces or even GUIs (Graphical User Interfaces), which still limit the majority of input to keyboard and mouse. Hand Gesture Recognition System enables humans to interface with the machine (HMI) and interact naturally without any mechanical devices. This could potentially make conventional input devices such as mouse, Keyboards and even touch-screens redundant.



**Keywords:** Customizable Palm Motion, Backward Compatibility, HGRS.


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| **15.** | **Authors:** | **Saliu Adam Muhammad** |
| | **Paper Title:** | **Fraud: The Affinity of Classification Techniques to Insurance Fraud Detection** |

**Abstract:** Quite a large number of data mining techniques employed in financial fraud detection (FFD) are seen to be classification techniques. In this paper, we developed an algorithm to find the features of classification techniques (or method) that so much place it (classification techniques) in the heart of researchers in their various efforts in the study of insurance frauds detection. We also got to know the characteristics of insurance frauds data that made data mining classification techniques so much attracted to it (insurance data).

**Keywords:** affinity, classification techniques, insurance frauds common features.

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| **16.** | **Authors:** | **Abhinav.A.Baone, K.R.Jansi** |
| | **Paper Title:** | **Enhancing Data Confidentiality in Cloud System Using Key-Private PRE Scheme** |

**Abstract:** Cloud computing is an approach to computing that leverages the efficient pooling of an on-demand, self-managed, virtual infrastructure. It abstracts the business services from complex IT infrastructure by making use of virtualization and pooling of resources. The risks involved on evaluation are that it requires trusting of cloud platform provider for availability and data security. It can also raise legal concerns while storing data outside customer premises. Intentional or unintentional release of secure information to an untrusted environment is the major security issue which is compromised. Data confidentiality is the main threat often experienced by the end users while outsourcing services to third parties. To overcome this scenario encryption schemes are used, but it limits the functionality of storage system since only few operations are supported over encrypted data. The proposed idea is to make use of key private proxy re-encryption scheme over encrypted data so that secured cloud storage system can be established. The model will not only support secure robust data storage and retrieval but it also allows different hosts to forward there data among each other via virtual machines. The main technical work is to implement key-private PRE scheme which supports re-encryption over encrypted message as well as forwarding operations over re-encrypted messages. To add-on system integrates all operations together to provide enhanced security and restrict data breaching. Entire focus is on building a secure cloud system which improves the factors such as robustness,

confidentiality, functionality of an application.

**Keywords:** Cloud computing, key-private pre scheme, data confidentiality

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| **Authors:** | **Sunil Sharma, Kamlesh Kumar Mishra, Preeti Singh** |
| **Paper Title:** | **Experimental Testing of Bio Fuel Extracted from Cassava** |

**Abstract:** In this study, ethanol has been extracted from raw cassava root and blended with diesel. The performance of a constant speed, stationary diesel engine using ethanol–diesel blends as fuel has been evaluated experimentally. The experiments have been performed using 5, 10, 15 and 20% ethanol-diesel blends. Diesel fuel has been used as a basis for comparison the testing of various engine parameters such as BHP, RPM and efficiency. The efficiency observed for blending of 15% of ethanol in diesel with 1% additive is higher than any other proportion of the blending of diesel with ethanol.

**Keywords:** Biofuel, Cassava, Brake Power, Thermal Efficiency.

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| **Authors:** | **K. C. Niveditha, Pooja Ramesh Nair, Sugirtha. R, Swapna. S, Swetha. K, N. Kayalvizhi** |
| **Paper Title:** | **Digitization of Linearized Thermistor Output Using Dual Slope ADC** |

**Abstract:** To measure the temperature using a thermistor, linearization of the thermistor output to compensate the inverse exponential nature of resistance-temperature characteristic is required. A linearized dual slope analog to digital converter (LDSDC) that takes thermistor as input and provides digital output is constructed here. A logarithmic amplifier that counterbalances the exponential nature is presented at the input of the LDSDC. The conversion logic of the dual slope ADC is suitably modified to obtain the required inversion and offset correction so as to obtain linearization over a wide range of temperature. The Time and Logic Unit of the system is constructed using a Field Programmable Gate Array(FPGA) with a high speed clock to ensure resolution of 20ns to have

negligible effect of hysteresis loop. The efficiency of the proposed LDSDC is verified through simulation and is will be practically demonstrated through a prototype unit being built and tested upon. Analysis to identify different possible sources of error will thus be proposed.

**Keywords:** Dual Slope ADC, Field Programmable Gate Array(FPGA), Linearization, Thermistor.

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**19.**

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| **Authors:** | **Zakir Hussain, Rahul Kumar, Parul Priya, Sumit Bisht, Rohit Singh, Arindam Ghosal** |
| **Paper Title:** | **"Ajaatshatru"- A New Technology in Indian Army** |

**Abstract:** This paper is mainly focused with defensive technology. It is designed to serve the Indian army. We all know about the environment around the border areas. Terrorists always try to infiltrate border security mainly during night and winter. Indian soldiers always try their best to protect border so that no terrorist can infiltrate border. But sometimes it become difficult for them to guard border because of their several limitations i.e. vision problem due to dark and due to fog in winter, because nobody can fight properly without sight. For eliminating these kinds of problems we are introducing "AJAATSHATRU".

**Keywords:** Ajaat shatru, Thermal Imaging System, Mine Detector, Global Positioning System, Remote Driving.



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**20.**

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| **Authors:** | **Piyush Saxena, Aniket Maithani, Asish Srivastava, Tinesh Kumar Goyal** |
| **Paper Title:** | **An Introduction to Effective Cloud Management with Monitoring as a Service** |

**Abstract:** In the New era of cloud computing and service based market monitoring state of a system or an application is necessary to get maximum benefit of the power of a system. Monitoring state of system means continuous checking the over-all functionality under various permutations and combinations of load considering all the factors that can harm performance of system. Monitoring can be provided as a service to clients through cloud computing. This will be beneficial for both the client and the providers as client will be aware of the over-all performance of system and which may help consumers to visualize further needs of improvement and providers may get an option for increasing revenues as well as their system knowledge. Cloud computing allows consumers and businesses to use application without installation and access their personal files at any computer with internet access. Speed up the calculations and processes. Provide multi tenancy features. Cloud Computing is a Computing in which services and software are provided over the Internet ("cloud") which is very cheap and affordable. Cloud computing is on demand access to virtualized IT resources that are housed outside of your own data centre, shared by other simple to use, paid for via monthly subscription which is very low in cost, and accessed over the web with many features in it. Monitoring as a Service is a business model in which a large company rents space in their storage infrastructure to another company or individual. The key advantage to Cloud setup in the enterprise is in cost savings -- in personnel, in hardware and in physical storage space. The Cloud provider agrees to rent storage space on a cost-per-gigabyte-stored and cost-per-data-transfer basis and the company's data would be automatically transferred at the specified time over the storage provider's proprietary wide area network (WAN) or the Internet. If the company's data ever became corrupt or got lost, the network administrator could contact the cloud service provider and request a copy of the data.

**Keywords:** Cloud App Monitoring, Cloud Computing, MaaS, Virtualized IT Resources.



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**21.**

**Authors:** **Ramesh Kumar, Sabarikumar M, Vignesh S, Boopathi D, Ranga Raj R**

**Paper Title:** **"Multi Swept Wing"– Elite Execution Over Wing's History**

**Abstract:** Profundity of wing structure that needs change has no closure. A wing is a type of fin with surface that produce aerodynamic force for aircraft through the atmosphere, In that way, a high performance aircrafts capable of subsonic, transonic and supersonic speed employ a forward swept wing platform. Due to aero elasticity effect, the aerodynamic force on wing tip tends to bend it in forward swept wing. But in the wing design that we propose, has smaller elasticity effect. The air flows towards the wing root and hence the dangerous tip stall becomes safer in our wing. Also due to sweep at the tip of the wing, it increases the aileron performance and further it increases the yaw directional stability. Since the wings are generally larger at the root and due to multi swept, this improves the lift performance. As a result, maneuverability is improved especially at both lower and higher angle of attacks. Thus the stability of a forward swept wing aircraft is disclosed that corrects a dynamic instability phenomenon which occurs when the whole vehicle (rigid body) motion couples with the wing structural motion. Our technology will be elite in wing's ability today.

**Keywords:** Aerodynamics, Improved lift and drag, Maneuverability, Multi swept, Stability

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**22.**

**Authors:** **Le Ngoc Son**

**Paper Title:** **A Proposed Model for Firm's Technological Capability Assessment under Uncertain Environment**

**Abstract:** The recognition of technological level and capability has become one of the most important activities which not only help the firm appraise its strength and weakness, but also guide to plan the technological innovation strategic and enhance the competitive advantages. In this study, firm's technological capability is determined completely with four components (T – Technoware, H – Humanware, I – Inforware, O - Orgaware) and their criteria using Technology Atlas method, which was developed by Asian and Pacific Center for Technology Transfer. The contribution degrees toward technological capability of each component and criteria in specific industry are determined efficiently rely on fuzzy-AHP. Besides, aggregation of group judgment using a new technique with triangular intuition fuzzy number (IFN) representation makes the decisions more accuracy and efficiency. Our proposed model helps the firm's managers can easily evaluate their current technological capability keep track of their technological growth, compares with the industrial level and guides to the technological renovation strategy which is one factor to raise competitive advantage.

**Keywords:** technological capability assessment, group aggregation, analytic hierarchy process, intuitionistic fuzzy.

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**23.**

**Authors:** **Arpit Mehra, Arindam Ghosal**

**Paper Title:** **A 3- Wheels Electric Car for Physically Disabled People**

**Abstract:** Electric cycles and scooter users have been identified as vulnerable road users by most of state road transport authorities. Motorized cycles and electric wheel chairs are increasingly used as an alternate form of transport for older people and for people with disabilities. Older peoples are using motorized cycle as an alternative form of transport no longer feels safe to drive a motor vehicle.[1] In this paper, an attractive modern electric car also called Electro Handy has been designed for handicapped people. Electro Handy is a powerful car for disabled people powered by rechargeable battery.

**Keywords:** Electro handy, Handicapped, motorized car, Prototype

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**24.**

**Authors:** **Iuliana Florentina Gheorghe**

**Paper Title:** **Comparative Efficiency in Nutrient Retention between the Vegetation of the Natural Ecosystems and of the Agro-Systems**

**Abstract:** Over the last 50 years, the Europe's agricultural sector was supported by the commune agrarian policy (CAP). Although in the beginning the emphasis was on expanding farmland at the expense of the natural ecosystems and on an intensive agriculture in the existing farmland, in the last decades was understood also the need of nature conservation in parallel with the development of agriculture. This support has evolved alongside growing recognition and awareness of the strong links between agricultural production and biological diversity conservation. The Ecology development as science, mainly after the Odum approach, emphasized the role of natural ecosystems in natural capital conservation and biodiversity. Also the ecology studies conducted in the last two decades, have revealed and other services provided by the natural ecosystems besides the generated resources, that fixation carbon dioxide, the reduce diffuse pollution with nutrients, creation a local microclimate, etc The local microclimate created by natural vegetation areas near of the crops influences strongly the ecological functions of anthropogenic ecosystems , even the in the semi-natural ecosystems, important functions as cycles of nutrient and water (local water balance, nutrient

balance and the production of biomass). The keeping of a mosaic structure (a mixed of crops with pasture, forests, rivers and lakes) is an ideal solution to harmonize the development of society which involves an increase of needs in energy and materials resources; with nature conservation.

**Keywords:** Plant communities, Primary production, Litter decomposition, Water balance, Nutrients balance

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**25.**

**Authors:** **Vijayalaxmi Kumbar, Maheshwari Biradar**

**Paper Title:** **BER Performance Analysis of DS-CDMA over AWGN Channel**

**Abstract:** In this paper, we present a bit error rate (BER) performance of DS-CDMA over AWGN channel with perfect power control. The standard Gaussian approximation (SGA), Simplified Improved Gaussian Approximation (SIGA), Reverse Channel and performance with adaptive antennas at the base stations and Modified SIGA are used to evaluate the BER performance for the DS-CDMA. Power control is the important system requirement for CDMA. For CDMA system to function properly, we need to control the power; if power control is not implemented many problems arises such as the near-far problem will start to dominate and consequently will lower the capacity of the CDMA system. However, when the power control in CDMA systems is employed, it allows users to share resources of the system equally between themselves, leading to increased capacity. Power control is an important method to reduce co-channel interference and it can improve the system capacity.

**Keywords:** AWGN, BER, DS-CDMA, Power Control.

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**26.**

**Authors:** **Agarwal Sunny Kumar P., Upadhyaya Deep S.**

**Paper Title:** **Infrastructure Development of Village**

**Abstract:** The aim of project is to develop the village with urban facilities. A team of project is find the problem or need of a village in terms of physical or social infrastructure and to design that facility with efficient engineering solution which include the design proposal and estimate cost to facilitate the require facility for the future growth of village

**Keywords:** Infrastructure, Development, Urban, Fringe Villages, Villages, Zadeshwar.

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**27.**

**Authors:** **Gholamreza Khorasani, Li Zeyun**

**Paper Title:** **Implementation of Technology Acceptance Model (TAM) in Business Research on Web Based Learning System**


**Abstract:** In contemporary society, Web based learning system (e-learning) is playing a significant role in our lives, it enable us to easily to access different internet sources and make students to study much more efficiency and effective. This study developed and empirically tested a model testing on the perceived usefulness and perceived ease of use toward intention to use web based learning system. In our study, we aim to find out the fundamental factors that influence intention to use web based learning system (e-learning). Quantitative survey is carried out among undergraduate students to explore how the independent variables and mediating variables will affect the dependent variable using e-learning. We apply Technology Acceptance Model (TAM) to construct a theoretical framework.
Our sample size is 150 students' data from Universiti Sains Malaysia based on convenience sampling. The data gathered through questionnaire was coded and analyzed using the computerized Statistical Software Package for Social Science (SPSS) software. We apply frequency analysis, descriptive analysis, validity and reliability test, correlation test and multiple regression analysis in our research. Based on our findings, the mediating variables perceived usefulness and perceived ease of use had the strongest impact on using web based learning system. These findings also very useful to provide insights for future research and management practice on the improvement of web based learning system



**Keywords:** Web-Based Learning, E-learning, SPSS, Technology Acceptance Model (TAM), Regression Analysis.


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**28.**

**Authors:** **Rajwinder Kaur, Kanwalvir Singh Dhindsa**

**Paper Title:** **Simulation of Adaptive Neuro Fuzzy Logic Controlled Wireless Intelligent Telemetry System**


**Abstract:** This paper presents the simulation of a telemetry system for controlling the flow of water in water tanks used in industrial process using adaptive neuro fuzzy logic with the help of "neuro fuzzy design" module in matlab .Basically three ANFIS(Adaptive neuro Fuzzy Inference System) models are taken for simulation and then compared. First model is using single input variable "level", second model is using two input variables "level" and "flow" and third model is using three input variables "level", "flow" and "rate". All these three models are using Sugeno type fuzzy model because only Sugeno type fuzzy models can be simulated in neuro fuzzy design module of matlab. Thus all models are using single output variable "motorstatus" which is either "ON" or "OFF". Simulation is

performed by taking constant and linear type output membership functions as major parameters. Training and checking of models is simulated for each type of output membership functions using two optimization methods "hybrid" and "back propagation" alternatively and number of epochs is considered 30, 60 and 120 for each method.

**Keywords:** ANFIS, Neuro fuzzy design, Telemetry system, Water level control.

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**29.**

**Authors:** **Ann M. Peiffer, Paul J. Laurienti, Kourtland R. Koch, Lorna C. Timmerman**

**Paper Title:** **Merging the Wechsler Adult Intelligence Scale Picture Completion Subtest with fMRI in Adult Learners: a Pilot Study**

**Abstract:** With the emergence of functional magnetic resonance imaging (fMRI), standard intelligence tests can now be studied to assess neural activity during test performance. However, traditional assessments are given with paper/pencil or card based methods which are difficult to deliver while in an MRI. Here, we validate a computerized version of the Wechsler Adult Intelligence Scale (WAIS) Picture Completion subtest against the card based version in 20 adult learners. A preliminary fMRI series is included to investigate whether the blood oxygen level-dependent (BOLD) activity can be associated with the paradigm. Using sparse sampling fMRI techniques, a control condition is contrasted to when participants 'knew' what answer they were going to provide. In 8 task-novice individuals, significant activation was seen in right primary visual and left temporal cortex and is interpreted as task-specific activation related to visual search and naming the item missing from the scene. To our knowledge this is the first fMRI experiment of the WAIS picture completion subtest. Future imaging work can now use alternative control conditions to explore the different cognitive components used within the subtest.

**Keywords:** (WAIS), (BOLD), fMRI

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**30.**

**Authors:** **Vishvender Singh, Gunjan Agarwal, Mukesh Sharma**

**Paper Title:** **Study of Sense Amplifier for Low offset High Speed SRAM Memory Design**

**Abstract:** The sense amplifiers is a main peripheral of CMOS memory and play an important role to overall delay, offset, speed , memory access time and power dissipation of the memory and to improve the speed performance of a memory, and to provide signals which conform to the requirements of driving peripheral circuits within the memory,

sense amplifiers are applied. In this paper we present study and literature survey of low offset and high speed low power sense amplifier architecture selection for SRAM memory design application and in this paper also present the comparison voltage mode sense amplifier and current mode sense amplifier. Presented Sense amplifier CMOS schematic is design tanner EDA S-edit , Simulate T-spice and 0.13µm technology.

**Keywords:** Sense amplifier, current mode sense amplifier, offset, Intrinsic offset.

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**31.**

**Authors:** **Jasvir Singh Rana, Rajendra Prasad, Raghuvir Singh**

**Paper Title:** **Order Reduction using Modified Pole Clustering and Factor Division Method**

**Abstract:** The authors proposed a mixed technique for reducing the order of the high order dynamic systems. In this technique, the denominator polynomial of the reduced order model is determined by using the modified pole clustering while the coefficients of the numerator are obtained by Factor Division Method. This technique is simple and gives stable reduced models for the stable high-order system. C.B. Vishwakarma, modified pole clustering technique is suggested, which generates the more effective cluster .If a cluster contains r number of poles, then IDM criterion is repeated r times with the most dominant pole available in that cluster. The Factor division algorithm has been successfully used to find reduced order approximants of high order systems. The proposed method is described by solving a numerical example taken from the literature.

**Keywords:** Modified pole clustering, Order reduction, Factor Division, Transfer function

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**32.**

**Authors:** **A.W. Ogun Sola, B.A. Peter**

**Paper Title:** **Non-Newtonian Fluid Flow with Arrhenius Reaction between Heated Parallel Plates through a Porous Medium**

**Abstract:** The flow of a fluid of grade three between heated parallel plates is examined. It is assumed that the fluid is temperature-dependent and reacts satisfying Arrhenius law. We employed Galerkin weighted residual method to solve the resulting non-linear equations. The results show the effects of Brinkman number, which is the parameter that controls the viscous dissipation, which is the non-Newtonian parameter. The result shows that the velocity of the

flow decreases as Brinkman number, and increases. The temperature of the flow decreases with increase in parameter. We also deduce from the result that parameter has considerable effects on the temperature profile of the system.

**Keywords:** Non-Newtonian fluid, Weighted residual method, Third grade fluid and Arrhenius reaction.

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| **33.** | **Authors:** | **A.W.Ogunsola, B. A. Peter** |
| | **Paper Title:** | **Reacting Laminar Flow with Variable Thermal Conductivity and Suction/Injection in a Channel Filled with Saturated Porous Media** |

**Abstract:** In this work, we examined reacting laminar flow of a third grade fluid with variable thermal conductivity and suction/ injection in a channel filled with saturated porous media. It is assumed that the fluid reacts satisfying Arrhenius law. We employed Galerkin weighted residual method to solve the resulting non-linear equation. The results show the effects of variable thermal conductivity parameter, suction/ injection parameter, Brinkman number, Reynolds number, Prandtl number, Darcy number and parameter on the flow system.

**Keywords:** Non-Newtonian fluid, Weighted residual method, Laminar flow, Suction/Injection and Arrhenius reaction.

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