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	Authors:	Nidhal Kamel Taha El-Omari, Ahmad H. Al-Omari, Ali Mohammad H. Al-Ibrahim, Tariq Alwada'n	
	Paper Title:	Text-Image Segmentation and Compression using Adaptive Statistical Block Based Approach	
1.	<p>Abstract: Images and scanned text documents are gradually more used in a vast range of applications. To reduce the needed storage or to accelerate their move through the computers networks, the document images have to be compressed. Traditional compression mechanisms, which are generally developed with a particular image type and purpose, are facing many challenges with mixed documents. This paper describes a statistical block-based technique for an automatic document image segmentation and compression. Based on the number of detected colors in each region of the image, this approach creates a new representation of the image that can produce very highly-compressed document files that nonetheless retain excellent image quality. The proposed algorithm segments the compound document image into blocks of equal size. The blocks are classified into seven different categories. Each category represents an image part that shares the same properties. A new representation of each category is formed and the similar adjacent blocks are merged to form labeled regions sharing the same properties. At the end, to achieve better compression ratio, the different regions of the image are compressed using different compression techniques.</p> <p>Keywords: Adaptive Compression, Block-Based Segmentation, Image Document Compression, Image Segmentation, Lookup Dictionary Table (LUD).</p> <p>References:</p> <ol style="list-style-type: none"> Acharyya, M. and Kundu, M.K. (2002). "Document Image Segmentation Using Wavelet Scale-Space Features", IEEE Transactions Circuits Syst. Video Technol., Volume 12, Issue 12, pp. 1117-1127. Nidhal Kamel Taha El Omari. (2008). "A Hybrid Approach for Segmentation and Compression of Compound Images", PhD Dissertation, the Arab Academy for Banking and Financial Sciences. Nidhal Kamel Taha El-Omari and Arafat A. Awajan. (December 20-22, 2009). 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2.	Authors:	Akhilesh Kumar Sharma, Brijendra Kumar Sharma	
	Paper Title:	Development of Sensors on Android Platform	
	<p>Abstract: Mobile phones play increasingly bigger role in our everyday lives. Today, most smart phones comprise a wide variety of sensors which can sense the physical environment. In this research, we propose and demonstrate my DAM4GSN architecture to capture sensor data using sensors built into the mobile phones. Specifically, we combine</p>		10-14

	<p>an open source sensor data stream processing engine called ‘Global sensor n/w (GSN)’ with the android platform to capture sensor data. We present the design, implementation, evaluation, and user experiences of the Cence-me application, which represents the first system that combines the inference of the presence of individual using off-the self sensor enabled mobile phones with sharing of this information through social networking applications such as face-book and my-space. An android based application that monitors the vehicle through an On Board Diagnostics (OBD-2) interface, being able to detect accidents.</p> <p>Keywords: DAM4GSN architecture, Cence-Me application, On Board Diagonstics (OBD-2) interface.</p> <p>References:</p> <ol style="list-style-type: none"> 1. K. Aberer, M. Hauswirth, and A. Salehi. Infrastructure for data processing in large-scale interconnected sensor networks. In Mobile Data Management, 2007 International Conference on, pages 198–205. 2. L. Cai, S. Machiraju, and H. Chen. Defending against sensor-sniffing attacks on mobile phones. In Proceedings of the 1st ACM workshop on Networking, systems, and applications for mobile handhelds, MobiHeld ’09, pages 31–36, New York, NY, USA, 2009. ACM. 3. Crossbow Technology Inc. Crossbow-manuals getting started guide. Technical report, Crossbow Technology, September 2005. 4. F. Fitzek, M. Pedersen, G. P. Perrucci, and T. Larsen. Energy and link measurements for mobile phones using ieee802.11b/g. In Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks and Workshops, 2008. WiOPT 2008. 6th International Symposium on, page 36, april 2008. 5. Google Inc. Android developer guide: Sensors, 2011. http://developer.android.com/guide/topics/sensors/index.html [Accessed on: 2011-12-26]. 6. GSN Team. Global sensors networks. Technical report, Ecole Polytechnique Federale de Lausanne (EPFL), 2009. 7. GSN Team. Global sensor networks project, 2011. http://sourceforge.net/apps/trac/gsn/ [Accessed on: 2011-12-16]. 8. P. Guillemin and P. Friess. Internet of things strategic research roadmap. echnical report, The Cluster of European Research Projects, 2009. 9. P. Klasnja, S. Consolvo, T. Choudhury, R. Beckwith, and J. Hightower. Exploring privacy concerns about personal sensing. In Proceedings of the 7th International Conference on Pervasive Computing, Pervasive ’09, pages 176–183, Berlin, Heidelberg, 2009. Springer-Verlag. 10. G. Kortuem, F. Kawsar, D. Fitton, and V. Sundramoorthy. Smart objects as building blocks for the internet of things. Internet Computing, IEEE, 14(1):44–51, 2010. 11. N. Lane, E. Miluzzo, H. Lu, D. Peebles, T. Choudhury, and A. Campbell. A survey of mobile phone sensing. Communications Magazine, IEEE, 48(9):140–150, sept. 2010. 12. M. Lennighan. Total telecom: Number of phones exceeds population of world, May 2011. http://www.totaltele.com/view.aspx?ID=464922 [Accessed on: 2011-12-30]. 13. Salehi. Design and implementation of an efficient data stream processing system. PhD thesis, Ecole Polytechnique Federale de Lausanne (EPFL), 2010. 14. H. Sundmaecker, P. Guillemin, P. Friess, and S. Woelffl’e. Vision and challenges for realising the internet of things. Technical report, European Commission Information Society and Media, 2010.
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Authors:	Ahmed Sharieh, Raja Masadeh
Paper Title:	Implementing Fair Resource Synchronizer Algorithm for Distributed Mutual Exclusion in Mobile Computing Environment

	<p>Abstract: Mutual exclusion in distributed systems is a critical feature required to coordinate access to shared resources. It is highly needed to be employed in distributed systems including mobile computing environments. Dynamic Resource Synchronizer algorithm (DRS) works on decreasing the amount of messages that transferred in the system by minimizing the amount of sites that are included in the mutual exclusion. In this paper, a DRS algorithm is presented with a simulation study for distributed mutual exclusion that could be used in mobile environments in which nodes communicate with each other based onto specific conditions. Also, ring topology is used, all nodes have a unique identifier, a node failure doesn’t occur, communication links are bi-directional, and First In First Out (FIFO) priority and a partition in a network doesn’t occur. In addition, decreasing the amount of storage which is needed at various sites on the system. The DRS algorithm proved that the mutual exclusion is achieved. Whereas, deadlock and starvation are impossible to occur. Thus development mutual exclusion algorithm is one of the most appropriate for mobile computer systems.</p> <p>Keywords: Distributed systems, synchronization, mutual exclusion, mobile computing.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Sharieh, A., Itriq, M., & Djabat, W. (2008). A dynamic resource synchronizer mutual exclusion algorithm for wired/wireless distributed systems. American Journal of Applied Sciences, 5(7), 829-834. 2. Badrinath, B. R., Acharya, A., & Imielinski, T. (1994, June). Structuring distributed algorithms for mobile hosts. In Distributed Computing Systems, 1994., Proceedings of the 14th International Conference on (pp. 21-28). IEEE. 3. Liu, D., Liu, X., Qiu, Z., & Yan, G. (2003). A high efficiency Distributed Mutual Exclusion algorithm. In Advanced Parallel Processing Technologies (pp. 75-84). Springer Berlin Heidelberg. 4. Erciyas, K. (2004). Distributed mutual exclusion algorithms on a ring of clusters. In Computational Science and Its Applications–ICCSA 2004 (pp. 518-527). Springer Berlin Heidelberg. 5. Ricart, G., & Agrawala, A. K. (1981). An optimal algorithm for mutual exclusion in computer networks. Communications of the ACM, 24(1), 9-17. 6. Lejeune, J., Arantes, L., Sopena, J., & Sens, P. (2015). A fair starvation-free prioritized mutual exclusion algorithm for distributed systems. Journal of Parallel and Distributed Computing, 83, 13-29. 7. Tamhane, S. A., & Kumar, M. (2012). A token based distributed algorithm for supporting mutual exclusion in opportunistic networks. Pervasive and Mobile Computing, 8(5), 795-809. 8. Lodha, S., & Kshemkalyani, A. (2000). A fair distributed mutual exclusion algorithm. Parallel and Distributed Systems, IEEE Transactions on, 11(6), 537-549. 9. Ding, Z., Zhou, M., & Wang, S. (2014). Ordinary Differential Equation-Based Deadlock Detection. Systems, Man, and Cybernetics: Systems, IEEE Transactions on, 44(10), 1435-1454. 10. Du, Y., & Gu, N. (2015, December). Accelerating Reachability Analysis on Petri Net for Mutual Exclusion-Based Deadlock Detection. In 2015 Third International Symposium on Computing and Networking (CANDAR) (pp. 75-81). IEEE. 11. Lodha, S., & Kshemkalyani, A. (2000). A fair distributed mutual exclusion algorithm. IEEE Transactions on Parallel and Distributed Systems, 11(6), 537-549. 12. Lamport, L. (1978). Time, clocks, and the ordering of events in a distributed system. Communications of the ACM, 21(7), 558-565. 13. Jani, K., & Kshemkalyani, A. D. (2004, December). Performance of fair distributed mutual exclusion algorithms. In International Workshop 	15-20
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	<p>on Distributed Computing (pp. 2-15). Springer Berlin Heidelberg.</p> <ol style="list-style-type: none"> 14. Kanrar, S., Chattopadhyay, S., & Chaki, N. (2013). A New Link Failure Resilient Priority Based Fair Mutual Exclusion Algorithm for Distributed Systems. <i>Journal of network and systems management</i>, 21(1), 1-24. 15. Lejeune, J., Arantes, L., Sopena, J., & Sens, P. (2015). A fair starvation-free prioritized mutual exclusion algorithm for distributed systems. <i>Journal of Parallel and Distributed Computing</i>, 83, 13-29. 16. Kundu, S. (2005, December). Deadlock-Free distributed relaxed mutual-exclusion without revoke-messages. In <i>International Workshop on Distributed Computing</i> (pp. 463-474). Springer Berlin Heidelberg. 17. Suzuki, I., & Kasami, T. (1985). A distributed mutual exclusion algorithm. <i>ACM Transactions on Computer Systems (TOCS)</i>, 3(4), 344-349. 18. Singhal, M. (1989). A heuristically-aided algorithm for mutual exclusion in distributed systems. <i>IEEE transactions on computers</i>, 38(5), 651-662. 19. Raymond, K. (1989). A tree-based algorithm for distributed mutual exclusion. <i>ACM Transactions on Computer Systems (TOCS)</i>, 7(1), 61-77. 20. Itriq, M., Dbabat, W., & Sharieh, P. (2013). Adaptive Dynamic Resource Synchronization Distributed Mutual Exclusion Algorithm (ADRS). <i>Journal of Theoretical & Applied Information Technology</i>, 53(3). 21. Altamony, H., Alshurideh, M., & Obeidat, B. (2012). Information Systems for Competitive Advantage: Implementation of an Organisational Strategic Management Process. <i>Proceedings of the 18th IBIMA Conference on Innovation and Sustainable Economic Competitive Advantage: From Regional Development to World Economic</i>, Istanbul, Turkey, 9th-10th May. 22. Alkalha, Z., Al-Zu'bi, Z., Al-Dmour, H., & Alshurideh, M. (2012). Investigating the effects of human resource policies on organizational performance: An empirical study on commercial banks operating in Jordan. <i>European Journal of Economics, Finance and Administrative Sciences</i>, 51, 44-64. 23. Masa'deh, R., Tayeh, M., & Al-Jarrah, I. M. (2015). Accounting vs. Market-based Measures of Firm Performance Related to Information Technology Investments. <i>International Review of Social Sciences and Humanities</i>, 9 (1), 129-145. 24. Shannak, R., Obeidat, B., & Almajali, D. (2010). Information Technology Investments: A Literature Review. <i>Proceedings of the 14th IBIMA Conference on Global Business Transformation through Innovation and Knowledge Management: An Academic Perspective</i>, Istanbul-Turkey, 23rd-24th June, pp.1356-1368. 					
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Authors:	Jincy Das, Judith Mercy Praveena S, Mirna Genesis Asian, A. Monisha, R. Sindhuja					
Paper Title:	Communication and Obstacle Detection System for the Disabled using Arduino Lilypad					
4.	<p>Abstract: This paper proposes the design of a hand glove using Arduino Lilypad and Zigbee for the people with disability in hearing, speaking and vision. There are nearly 900,000 people who are deaf and dumb and 285 million people who are blind. This device would help for communication by the bending of flex sensors which are fixed on the glove and the obstacles are detected by Ultrasonic sensor. And the combination of input is processed by the microcontroller Arduino Lilypad. The processed value is transmitted through the Zigbee to Microcontroller-AT89S2051 and the sign language is recognized and the corresponding value is obtained through LCD and speaker. The obstacle is sensed by Ultrasonic sensor and the person is alerted through vibration. The proposed system is compact, wireless and easy to use.</p> <p>Keywords: Arduino Lilypad, Flex sensor, Hand glove, Microcontroller- AT89S2051, Ultrasonic sensor, Vibration motor, Voice module-WTV040, Zigbee-CC2500.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Arslan Arif, Syed Tahir Hussain Rizvi, Iqra Jawaid, Muhammad Adam Waleed, Muhammad Raheel Shakeel "Techno-talk: An American Sign Language (ASL) Translator.2016 International Conference on Control, Decision and Information Technologies (CoDIT) – IEEE Conference Publications. 2. P.Vamsi Praveen, K.Satya Prasad "Electronic Voice to Deaf and Dumb People Using Flex Sensor". <i>International Journal of Innovative Research in Computer and Communication Engineering – Vol.4, Issue 8, August 2016.</i> 3. Dhiraj Gupta, Pankhuri Singh, Khushbu Pandey, Jaya, Solanki "Design and Development of a Low Cost Electronic Hand Glove for Deaf and Blind". <i>IEEE-2015, 2nd International Conference on Computing for Sustainable Global Development (INDIACom).</i> 4. Neha Niharika, Heena, Bhavnes Jain "An Electronic Aid for the Mobility of Visual Impaired " <i>IEEE-2015.</i> 5. Ranjit A Wagh, Dr.U.B.S. Chandrawat "Hand Gloves for Deaf and Mute Person using Flex Sensor a Survey". <i>International Conference on Global Trends in Engineering, Technology and Management ICGTETM – 2016.</i> 6. Thuong N.Hoang, Ross T.Smith, Bruce H.Thomas "Ultrasonic Glove Input Device for Distance Based Interaction". 7. Adam Keyes, Mathew D'Souza and Adam Postula "Navigation for the Blind Using a Wireless Sensor Haptic Glove "- <i>4th Mediterranean Conference on Embedded Computing MECO – 2015.</i> 8. Mrs.Neela Harish, Dr.S.Poonguzhali "Design and Development of Hand Gesture Recognition System for Speech Impaired People". - <i>International Conference on Industrial Instrumentation and Control (ICIC) – 2015 May.</i> 9. J.Thilagavathy, A.Jeyapaul Murugan, S.Darwin "Embedded Based Hand Talk Assisting System for Deaf and Dumb. <i>International Journal of Engineering Research and Technology (IJERT) – Vol.3, Issue 3, 2014 March.</i> 10. Leah Buchley and Michael Eisenberg. "The Lilypad Arduino: Toward Wearable Engineering for Everyone – <i>IEEE.</i> 	21-23				
5.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Mena Ahmed, Abdul Halim Ghazali, Thamer Ahmed Mohammad, Badronnisa Yusuf, Aminuddin Abdul Ghani</td> </tr> <tr> <td>Paper Title:</td> <td>Hydraulic Simulation of Flow Around Spur Dikes</td> </tr> </table> <p>Abstract: The morphological changes of rivers, which are manifested by bed and banks deformations, show a direct relationship with water flow and sediment transport. Spur dikes are among the most common structures used to regulate velocity distribution and control sedimentation in a river section. This paper aims to simulate the hydraulic properties of steady turbulent flow in a straight rectangular open channel which has spur dikes with various configurations, such as number, alignment and lengths. The effects of the spur dikes on the velocity distribution have been evaluated three-dimensional (3D) Computational Fluid Dynamic (CFD) method. The simulated results from the model are calibrated and validated using data obtained from physical model. Different scenarios with spur dikes were simulated, and the results were demonstrated using the isovels, velocity magnitudes and mass exchange between spur dikes fields and main flow. Eventually, each scenario gives a better understanding on employing spur dikes for river restoration, enhancing navigation (by increasing water depth and rearranging the thalweg line), and protecting abutments and pump intakes against erosion as well as creating stable aquatic habitat.</p> <p>Keywords: Hydraulic simulation, velocity distribution, spur dike, river restoration.</p>	Authors:	Mena Ahmed, Abdul Halim Ghazali, Thamer Ahmed Mohammad, Badronnisa Yusuf, Aminuddin Abdul Ghani	Paper Title:	Hydraulic Simulation of Flow Around Spur Dikes	24-28
Authors:	Mena Ahmed, Abdul Halim Ghazali, Thamer Ahmed Mohammad, Badronnisa Yusuf, Aminuddin Abdul Ghani					
Paper Title:	Hydraulic Simulation of Flow Around Spur Dikes					

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	<p>Authors: Meenal P.Talekar, Ravindra Kale</p> <p>Paper Title: Review on Cryptoleq: Single Instruction Set Abstract Machine</p>	
6.	<p>Abstract: Today data communication mainly depends upon digital data communication, where is data security is prior requirement which become crucial now days in every sector. So in order to protect it, various methods and Algorithm have been implemented. Cryptography combines Science, Mathematics, Computer Engineering and Networking. The purpose of this research paper is (i) to find the best cryptographic algorithm for computations (ii) to study the Cryptoleq system which (iii) and finally the comparison of performance of algorithm with Cryptoleq and without Cryptoleq.</p> <p>Keywords: single instruction machine, heterogeneous computer, mathematical computations, encryption.</p> <p>References:</p> <ol style="list-style-type: none"> Oleg Mazonka, Nektarios Georgios Tsoutsos, "Cryptoleq: A Heterogeneous Abstract Machine for Encrypted and Unencrypted Computation" in (2016). S. Halevi and V. Shoup, "Bootstrapping for HElib," in Advances in Cryptology. Heidelberg, Germany: Springer,, 641–670,2015. J. Zimmerman, "How to obfuscate programs directly," in Advances in Cryptology. Heidelberg, Germany: Springer, 2015, pp. 439–467. S. Halevi and V. Shoup. HElib: Design and Implementation of a Homomorphic-Encryption Library, accessed on Nov. 13, 2015. D. Apon, Y. Huang, J. Katz, and A. J. Malozemoff, "Implementing cryptographic program obfuscation," in Proc. IACR Cryptol. ePrint Arch., 2014, p. 779. S. Garg, C. Gentry, S. Halevi, and M. Zhandry, "Fully secure functional encryption without obfuscation," in Proc. IACR Cryptol. ePrint Arch.,2014, p. 666. P. T. Breuer and J. P. Bowen, "A fully homomorphic crypto-processor design," in Engineering Secure Software and Systems. Heidelberg, Germany: Springer, 2013, pp. 123–138. Naser A W S and Bin Md Fadli (2013), " Use of Cryptography in Cloud Computing", pp. 179-184, proceedings of IEEE International Conference on Control System Malaysia. Shahzadi Farah et al."An Experimental Study on Performance Evaluation of Asymmetric Encryption Algorithms", Recent Advances in information Science, Proceeding of the 3rd European Conf. of Computer Science. (EECS-12) 2012. Ramgovind S, Eloff M and smith E "The management of security in Cloud Computing", Proceedings of IEEE Conference 2010. 	29-30
7.	<p>Authors: Ananya Kalita, Arnob Bormudoi, Mimi Das Saikia</p> <p>Paper Title: Probability Distribution of Rainfall and Discharge of Kuls River Basin</p> <p>Abstract: The frequency analysis of daily rainfall data of 24 years was carried out to determine the annual one day maximum rainfall and discharge of Ukiam. For evaluation of observed and expected values Weibull's plotting position Gumbel, Log Pearson and Log normal probability distribution functions were fitted. For determination of goodness of fit chi square test was carried out by comparing the expected values with the observed values. The results found showed that the Log Pearson and Log Normal were the best fit probability distribution for determination of annual one day maximum rainfall and discharge for different return periods respectively.</p> <p>Keywords: Probability distribution, Chi-Square Value</p>	31-37

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Authors: Sandeep C. S, Sukesh Kumar A, Susanth M. J.
Paper Title: The Online Datasets Used to Classify the Different Stages for the Early Diagnosis of Alzheimer’s Disease (AD)

Abstract: Alzheimer Disease (AD) is one of the common forms of dementia which is an irreversible neurodegenerative progressive disorder of the brain which affects the elderly population above the age of 65. Alzheimer is a brain disease that causes problems with memory, thinking and behavior. It is severe enough to interfere with daily activities. Alzheimer symptoms are characterized by memory loss that affects day-to-day function, difficulty performing familiar tasks, problems with language, disorientation of time and place, poor or decreased judgment, problems with abstract thinking, misplacing things, changes in mood and behavior, changes in personality and loss of initiative. There are different types of tests associated with AD such as neuropsychological tests, laboratory tests and various imaging modalities for the early diagnosis of AD. Although these tests are available, they are inadequate for the definite diagnosis of the disease. In this paper we focus on the databases related to AD such as ADNI (Alzheimer Disease Neuroimaging Initiative), OASIS (Open Access Series of Imaging studies), Alz Gene, AD&FTDMDB (The Alzheimer Disease & Frontotemporal Dementia Mutation Database), (CAMD) Alzheimer's disease Database and NAAC(National Alzheimer’s Coordinating Center), TREAD (Trajectory-Related Early Alzheimer’s Database), Coalition Against Major Diseases use of the soft computing techniques and image analysis from the different imaging modalities in an efficient way for making a definite diagnosis and early prediction of AD. Our aim is to predict the early diagnosis in a reliable manner such that to combine the values of different tests with the help of soft computing techniques to develop software tool for a definite diagnosis.

8. Keywords: Alzheimer Disease, Dementia, ADNI, OASIS, AlzGene, AD&FTDMDB, TREAD, NAAC. Soft Computing techniques, image analysis.

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22. David Darby1 , Amy Brodtmann1 , Michael Woodward1 , Colin Masters2 , 1 Florey Institute of Neuroscience and Mental Health, Parkville VIC, Australia; 2 University of Melbourne, Melbourne, VIC, Australia THE TRAJECTORY-RELATED EARLY ALZHEIMER'S DATABASE (TREAD) STUDY,P4-188
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Authors: Purushottam Sahu, Santosh Kumar Mishra, Shatendra Kumar Sahu

Paper Title: Surface Alloying of Aluminum Alloy (Lm4) With Iron Powder using Tig Welding

Abstract: Development of Fe–Al composite layer by utilizing combination surface alloying process with blend of Al and Fe powders has been examined to enhance the surface hardness of cast aluminum amalgam LM4, business Al–Si compound substrate. Tungsten Arc welding procedure is utilized to adjust the surface. Components, for example, welding current, welding speed, terminal to work separation are changed to the composite the surface of LM4 with preplaced press covering on the substrate at different levels of welding current (3-6mm/sec) and cathode to work remove (2-3mm) in the argon gas protecting. The microstructure of the alloyed layer changed with expanding Fe content from hypo-eutectic structure to hyper-eutectic structure. Hardness of the surface changed LM4 combination shifts from HV98.96 to HV141.9 as for the elements chose and their levels [25]. The alloyed examples with low warmth input demonstrates high hardness when terminal to work separation is kept steady, as the cathode to work remove increments small scale hardness additionally increments. The greatest increment in hardness is 40.25% accomplished at Welding current 100A, welding speed 5mm/sec, Electrode to work separate 3mm because of the best possible dissemination of iron particles into the substrate bringing about the arrangement of Al-Fe intermetallic.

Keywords: HV98.96 to HV141.9, LM4, Utilizing Combination, (3-6mm/sec), Intermetallic.

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	Authors: Hazem Samih Mohamed	
	Paper Title: Numerical analysis on Pre-Stressed Steel I-Beams	
10.	<p>Abstract: Pre-stressing with external tendon is one of the most efficient techniques for rehabilitation of existing structures, strengthening of steel structures, controlling the structure deflection and reduction of the construction cost. This paper consisting of a parametric study to investigate the effect of several parameters on the structure behavior. The key variables examined were the number of deviator, eccentricity of the external tendon, pre-stressing technique. ANSYS software has been used to analyze and simulate the process of applying the pre-stressing force and the structure loads. Geometrical imperfections and buckling modes of the unloaded beam are taken into consideration as an initial condition. The results show that these variables impose additional challenges on the accurate prediction of pre-stressed steel structures performance during its service life.</p> <p>Keywords: Tendon; External pre-stressing; ANSYS; Steel I-beam; Deviator</p> <p>References:</p> <ol style="list-style-type: none"> Dunker, K. F. (1985). "Strengthening of simple span composite bridges by post-tensioning." Vernigora, E., and Marcil, J. R. M. (1969). "Bridge Rehabilitation and Strengthening by Continuous Post-Tensioning." <i>Prestressed concrete institute journal</i>, 14(2), 88-104. Kandall, C. (1968). "Increasing Load-Carrying Capacity Of Existing Steel Structures." <i>Civil Engineering</i>, 38(10), 48-57. Knee, D. (1966). "The Prestressing of Steel Girders." <i>Structural Engineer</i>. Troitsky, M. S. (1990). <i>Prestressed steel bridges: Theory and design</i>, Van Nostrand Reinhold New York. Bradford, M. A. (1991). "Buckling of prestressed steel girders." <i>Engineering journal</i>, 28(3), 98-101. 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	Authors: Akshay Ashok Sonawane, Sultan Shahajahan, Azhar Rehaman	
	Paper Title: Design and Fabrication of an Inline Pipe Inspection Robot	
11.	<p>Abstract: already there are various designs available in the case of an inline-pipe inspection robot. This research paper aims at preparing a new design along with its fabrication process. For a start we studied the readily available designs and their advantages as well as limitations. We have used CATIA V5R19 to design our robot. The key factors we have considered while in the process of design are mobility, safety in operation, steer ability, and the most important one is size and shape adaptability. Our model is a wireless flexible pipe inspection robot which is capable to pass through a pipe with diameter in range of 6-9 inches. We can detect various defects such as cracks, corrosion, buckles, etc.</p> <p>Keywords: inline pipe-inspection, mobility, shape adaptability, wireless.</p> <p>References:</p> <ol style="list-style-type: none"> Ankit Nayak, S. K. Pradhan, "Design of a New In-Pipe Inspection Robot," in 12th Global congress on manufacturing and management, GCMM 2014. Lee Vuen Nee, I. Elamvazuthi, Timothy Ganesan, M.K.A. Ahamed Khan and S. Parasuraman, "Development of a Laboratory-scale Pipeline Inspection Robot," in 2015 IEEE International Symposium on Robotics and Intelligent Sensors (IRIS 2015). Kentarou Nishijima, Yixiang Sun, Rupesh Kumar Srivastava Harutoshi Ogai, Bishakh Bhattacharya, "Advanced pipe inspection robot using 	58-61

	<p>rotating probe,” in The Fifteenth International Symposium on Artificial Life and Robotics 2010 (AROB 15th '10), B-Con Plaza, Beppu,Oita, Japan, February 4-6, 2010.</p> <p>4. Nur Shahida Roslin, Adzly Anuar, Muhammad Fairuz Abdul Jalal, Khairul Salleh Mohamed Sahari, “A Review: Hybrid Locomotion of In-pipe Inspection Robot,” in 2012 International Symposium on Robotics and Intelligent Sensors.</p> <p>5. Xin Li, Wuyi Yu, Xiao Lin, and S. S. Iyengar, “On Optimizing Autonomous Pipeline Inspection,” in IEEE Transactions On Robotics, Vol. 28, No. 1, February 2012.</p> <p>6. Hanaa Said Salim Al-Hajry and G.R. Rameshkumar, “Designand Testing of Pipeline Inspection Robot,” in International Journal of Engineering Innovation & Research Volume 2, Issue 4, ISSN: 2277 – 5668.</p> <p>7. Ankit Nayak, S. K. Pradhan, “Investigations of Design Issues Related To In-Pipe Inspection Robots,” in International Journal of Emerging Technology and Advanced Engineering Website: www.ijetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 4, Issue 3, March 2014).</p> <p>8. Atul A. Gargade, Dr. Shantipal S. Ohol, “Development of In-pipe Inspection Robot,” in IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e-ISSN: 2278-1684,p-ISSN: 2320-334X, Volume 13, Issue 4 Ver. VII (Jul. - Aug. 2016), PP 64-72.</p> <p>9. E Navin Prasad, M Kannan, A Azarudeen and N Karupphasamy, “Defect Identification In Pipe Lines Using Pipe Inspection Robot,” in IJMERR.</p> <p>10. Dr. Sharanabasappa C. Sajjan , Naveen Srivatsa H.S, Dinesh Kumar P, “Design And Development Of Pipe Inspection Robot,” in TROI.</p>					
12.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Vivek Kumar, Namrata Patil, Bhavesh Zope</td> </tr> <tr> <td>Paper Title:</td> <td>Solar Panel Selection for 5KW System</td> </tr> </table> <p>Abstract: The theme of this project work is solar panel selection which capacity is 5KW. The first phase of the project is introduction, prospects, configuration about Photo-Voltaic systems (PV systems) and study of photo-voltaic cells, modular and array. The second phase includes the selection of solar panel, efficiency, economic considerations and calculations of the photo-voltaic system. The photo-voltaic technology is an off-shoot of the evaluation in semiconductor technology during 1980s. Several different base materials and doping materials were tried during early 1980s. By mid 1980s the silicon has been adopted as base material for producing photo-voltaic cells by almost all the photo-voltaic cell manufacturers. They work on principle of the light energy of the sun is directly converted in to electrical energy.</p> <p>Keywords: photo-volatic; cell; modular; array</p> <p>References:</p> <ol style="list-style-type: none"> 1. Dr V.M. Domkundwar, and Anand V. Domkundwar, “Dhanpat Rai & Co. (P) LTD,” Phil. , page. 11.8-11.15. 2. D.P. Kothari, “Renewable energy source and emerging techonologies”, 2nd ed. PHI Learning PVT LTD Delhi-110092, page.129-132. 3. G.N. Tiwari, “Solar Energy Fundamental, Design, Modellingand Applictaion” Revised edition , Narosa Publication House new Delhi, page. 452. 4. J. B Gupta, “A course in electrical Power,” S.K Kataria & Sons, page. I, 131. 5. H.A. Kazem, “Renewable Energy in Oman: Status and Future Prospects”, Renewable and Sustainable Energy Review, vol. 15, page. 3465-3469, . 	Authors:	Vivek Kumar, Namrata Patil, Bhavesh Zope	Paper Title:	Solar Panel Selection for 5KW System	62-65
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13.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Nazrin Nazar, A. Nizad</td> </tr> <tr> <td>Paper Title:</td> <td>Effect of Treated Recycled Aggregate on the Mechanical Properties of Polypropylene Fibre Reinforced Concrete</td> </tr> </table> <p>Abstract: The non-availability of materials is one of the major factors affecting the progress of construction. Natural resources are becoming insufficient to meet the increasing demand in construction. As a solution to the above problems, recycled aggregates from the demolished waste are now being used as replacement of natural aggregates. But the use of recycled aggregates drastically decreases the strength of concrete. This is mainly due to old mortar on the surface of aggregate which render the surface porous and makes it of inferior quality. Recent literatures suggests surface treatment to improve the strength. Therefore in this study, recycled aggregate that is treated in dil. HCl to remove the loose mortar is used instead of recycled aggregate. Also fibre reinforced concrete is now being widely used in industry due to its abrasion resistance, shrinkage control and impact resistance. The objective of this study is to find out the combined effect of treated recycled aggregate with polypropylene fibres and the strength properties are compared with that of conventional concrete. Mix proportion is done for M25 concrete. Natural coarse aggregate is replaced by treated recycled coarse aggregate in proportions of 0, 20, 40, 60, 80 and 100%. In all mixes the proportion of polypropylene fibre is kept constant at 0.2% by volume of concrete. From the test results it is inferred that the use of concrete, containing up to 60% replacement of natural coarse aggregate with treated recycled coarse aggregate can be economically and judiciously encouraged for structural applications.</p> <p>Keywords: Fibre reinforced concrete, polypropylene fibre, recycled aggregate, treated recycled aggregate.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Akca, K. R., O. Cakik, M. Ipek (2015) Properties of polypropylene fibre reinforced concrete using recycled aggregates, Construction and Building Materials, 98, pp. 620-630. 2. Dharani, N., A. Ashwini, G. Pavitha and G. Arulraj (2013) Experimental investigation on mechanical properties of Recron 3s fibre reinforced hyposludge concrete, International Journal Of Civil Engineering And Technology, 4, pp. 182-189. 3. Dilbas, H. and O. Kadir (2014) An investigation on mechanical and physical properties of recycled aggregate concrete (RAC) with and without silica fume, Construction and Building Materials, 61, pp. 50–59. 4. Ede, A. N. and A. O. Ige (2014) Optimal polypropylene fibre content for improved compressive and flexural strength of concrete, Journal of Mechanical and Civil Engineering, 11, pp. 129-135. 5. Ismail, S. and M. Ramli (2013) Engineering properties of treated recycled concrete aggregate (RCA) for structural applications, Construction and Building Materials, 44, pp. 464–476. 6. Kakooei, S., H. M. Akil, M. Jamshidi and J. Rouhi (2012) The effects of polypropylene fibres on the properties of reinforced concrete structures, Construction and Building Materials, 27, pp. 73-77. 7. Khan, S., R. A. Khan, A. R. Khan, M. Islam and S. Nayal (2015) Mechanical properties of polypropylene fibre reinforced concrete for M 25 & M 30 mixes: A comparative study, International Journal of Scientific Engineering and Applied Science, 1, pp. 327-340. 8. Kwan, W. H., M. Ramli, K. J. Kam and M. Z. Sulieman (2012) Influence of the amount of recycled coarse aggregate in concrete design and durability properties, Construction and Building Materials, 26, pp. 565–573. 	Authors:	Nazrin Nazar, A. Nizad	Paper Title:	Effect of Treated Recycled Aggregate on the Mechanical Properties of Polypropylene Fibre Reinforced Concrete	66-71
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	<p>9. Madhavi, T. C., L. S. Raju and D. Mathur (2014) Polypropylene fibre reinforced concrete: A Review, International Journal of Emerging Technology and Advanced Engineering , 4, pp. 114-119.</p> <p>10. Manzi, S., C. Mazzotti and M. C. Bignozzi (2013) Short and long-term behaviour of structural concrete with recycled concrete aggregate, Cement & Concrete Composites, 37, pp. 312–318.</p> <p>11. Wagih, A. M., H. Z. Karmoty, M. Ebid and S. H. Okba (2013) Recycled construction and demolition concrete waste as aggregate for structural concrete, Housing and Building National Research Center, 9, pp. 193–200.</p>													
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	<p>bacteria which can then be stored or used to directly power electrical devices. Microbial fuel cells could be a great source of energy in developing countries, particularly in impoverished and rural areas. To have created technology that can potentially transform the lives of poor people who don't have access to, or cannot afford electricity, is an exciting prospect. I hope this will enable those in need to enjoy a better quality of life as a result of our research.e spacing. Fore more details, please download TEMPLATE HELP FILE from the website.</p> <p>Keywords: ACID (Anode Current Into Device), CCD (cathode current departs), MFC (Microbial Fuel Cell), CH4N2O (Molecular Formula of Urea), C5H4N4O3 (Uric Acid), Oxidant (Oxidizing Agent).</p> <p>References:</p> <ol style="list-style-type: none"> 1. Ali Abul, Jun Zhang, "MFC: Design,Control oriented Modelling", Michigan State University in partial fulfillment of the requirements for the degree of Mechanical Engineering - Master of Science 2015. 2. Mahyudin Abdul Rachman, "Electricity from Biowaste based Gas Hydrogen as a Source of Renewable Energy", 3rd International Conference On Informatics, Electronics & Vision 2014. 3. Amarveer Singh, "Urine Powered Battery (UPB) for Low Power Sensors",2015 International Conference on Sustainable Energy Engineering and Application (ICSEEA) 4. Jaskiran Kaur,Amarpreet Singh, "Enhanced Urine Powered Battery (EUPB) for Low Power Applications". IEEE WiSPNET 2016 conference. 5. Wahidul Hasan, "Generation of Electricity Using Cow Urine",International Journal of Innovation and Applied Studies ISSN 2028-9324 Vol. 9 No. 4 Dec. 2014, pp. 1465-1471. 6. Cochran, John F. and Mapother, D. E. "Superconducting Transition in Aluminum". Physical Review 111. (1958). 7. Charles, J.; Kopf, P. W.; Toby, S. "The Reaction of Pyrophoric Lead with Oxygen". Journal of Physical Chemistry 70: 1478:10.1021/j100877a023. (1966). 							
17.	<table border="1"> <tr> <td>Authors:</td> <td>Richmond Adebaiye</td> </tr> <tr> <td>Paper Title:</td> <td>Interpreting Users' Perceptions of Mobile Security Methods and Their Effectiveness</td> </tr> <tr> <td colspan="2"> <p>Abstract: The increasing adoption of open source operating system (OS) platforms, such as Android and iOS, have opened up new security vulnerabilities and threats to mobile devices and other wireless access technologies. Recent statistics show that mobile networks around the globe "generate exceedingly over 86 exabytes of traffic annually". Thus, mobile security vulnerabilities and threats such as SMS spam, rogue apps, adware, malware, cyber-attacks and unlawful eavesdropping have become an ever-increasing problem for mobile users around the world. This paper proposes a quantitative research survey to investigate mobile device security and the implications of security application recommendations for its users. The objective is to identify increased security risks, and recommend best security practices for mobile users. To obtain quantitative values, web-based questionnaires using the Likert scale were used, and data processed by factor analysis, ANOVA and multiple regression analysis tabulated along a continuum in numerical form. The study thus identifies and reveals the impacts of smartphone security threats such as mobile adware, rogue application downloads, and considers the suitability of smartphone security solutions offered by various vendors. This paper provided insights into users' problems of malware, attack channels, black industry 'chain of smartphone security', and accessibility to smartphone security solutions introduced by mobile vendors. As this study adds to the available body of knowledge, it is anticipated that future research will continue to advance the available information regarding rogue applications, adware, malware, and other security threats related to mobile technology.</p> <p>Keywords: Smartphones; Mobile security; Information Security; Android O/S; Vulnerabilities and Threats; iOS</p> <p>References:</p> <ol style="list-style-type: none"> 1. Christian, M. (2014). Integrating Cloud Computing and Mobile Applications: A Comparative Study Based on Cloud and Sanscode, Journal of Cloud Computing, 2(14) 1-9. 2. Gao, C, and Liu J. (2013). Modeling and Restraining Mobile Virus Propagation. IEEE Transactions on Mobile Computing, 12(3): 529-541. 3. Greenberg, A. (2010). Google Pulls App that Revealed Android Flaw, Issues Fix, http://news.cnet.com/8301-270803-20022545-245.html. 4. Harris, M, and Patten, K. (2013). Mobile Device Security Considerations for Small- and Medium-Sized Enterprise Business Mobility Integrated Information Technology, Information Management and Computer Science, 22(1): 97-144 5. Liu, D, Zhang, and Hu, K. (2013). A Survey on Smartphone Security, Applied Mechanics and Materials, (Vol 347-350): 3861-3865. 6. Mavridis, I., & Pangalos, G. (2012). Security Issues in a Mobile Computing Paradigm. In I. Mavridis, & G. Pangalos, Communications and Multimedia Security (pp. 61-76). Springer US. 7. Park, J., Yi, K and Jeong, Y. (2014). An Enhanced Smartphone Security Model based on Information Security Management Systems, Electronic Commerce Research, 14(3): 321-348. 8. Patten, K and Passerini, K. (2007). Next Generation Small and Medium Enterprises Mobility Strategy Roadmap, Proceedings of ISOneWorldConference, Las Vegas, NV, 11-13 April. 9. Waltz, M. (2011). 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"Top 8 Mobile Operating Systems in the United States from Jan 2012 to Jan 2013", Stat Counter Global Stats, accessed 12 February 2013,http://gs.statcounter.com/#mobile_osUS-monthly-201201- </td> </tr> </table>	Authors:	Richmond Adebaiye	Paper Title:	Interpreting Users' Perceptions of Mobile Security Methods and Their Effectiveness	<p>Abstract: The increasing adoption of open source operating system (OS) platforms, such as Android and iOS, have opened up new security vulnerabilities and threats to mobile devices and other wireless access technologies. Recent statistics show that mobile networks around the globe "generate exceedingly over 86 exabytes of traffic annually". Thus, mobile security vulnerabilities and threats such as SMS spam, rogue apps, adware, malware, cyber-attacks and unlawful eavesdropping have become an ever-increasing problem for mobile users around the world. 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18.	<table border="1"> <tr> <td>Authors:</td> <td>Venkatesh Patil, Ganesh Satras, Mukund Pawar, Ranjithkumar Biradar</td> </tr> <tr> <td>Paper Title:</td> <td>Transformer Oil Temperature Monitoring with GSM Based Fault Detection</td> </tr> <tr> <td colspan="2"> <p>Abstract: Transformer is an important and costly device in the power system. The reliable and fault free operation of a decisive role in the availability of electricity. The ageing of transformer depends on several factors especially electrical and thermal stresses. Due to which incipient faults occurs which in turn if left undetected will cause deterioration and eventually lead to failure of the transformer. The presence of faults in transformer results in chemical</p> </td> </tr> </table>	Authors:	Venkatesh Patil, Ganesh Satras, Mukund Pawar, Ranjithkumar Biradar	Paper Title:	Transformer Oil Temperature Monitoring with GSM Based Fault Detection	<p>Abstract: Transformer is an important and costly device in the power system. The reliable and fault free operation of a decisive role in the availability of electricity. The ageing of transformer depends on several factors especially electrical and thermal stresses. Due to which incipient faults occurs which in turn if left undetected will cause deterioration and eventually lead to failure of the transformer. The presence of faults in transformer results in chemical</p>		91-95
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decomposition of the transformer oil. The transformer oil is deteriorated due to the combination of the ageing process such as partial discharge (PD), electrical arcing and thermal ageing. But some faults occurs in the substation that faults are affect the transformer operation as well as transformer life. These faults are short circuit and open circuit faults. In this project, we will attempt to show that how to avoid such electrical equipment failures could be caused by temperature rise in transformer and short circuit, Open circuit in substation.

Keywords: AVR Microcontroller, LM35 Temperature Sensor, GSM Module Etc.

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Authors:	Johnson Y, Imthias Ahamed T P
Paper Title:	Robust Analysis with Controller Design of Forward-Velocity Dynamics of UAVs in Close Formation Flight

Abstract: Study of multi-UAVs (Unmanned Aerospace Vehicles) in close formation flight has received wide attention due to the significant advantages in resource mapping at greater swaths, 3-D imaging etc. The control design study and its analysis is carried out for two aerodynamically non-identical UAVs in a leader-follower pattern of flight and it can be extended for multi UAVs. The modeling includes the effect of leader-trailing-wing vortex on the follower, both for nominal and perturbed system dynamics. Robust controller design to maintain the relative velocity between two UAVs in longitudinal plane close formation flight under nominal, wind and aero-perturbed condition is the major objective of this article. The forward velocity control of the leading vehicle and its tracking by a follower are performed by a PID controller and then compared with that of a robust H_{∞} controller.

Keywords: Formation flight, UAV, PID, robust H-infinity, tracking and control, wing vortex.

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20.	Authors:	Sukanta Kumar Tulo, Madhusmruati Nayak, Manish Kumar, Khushboo
	Paper Title:	Brain Tumor Detection from MRI Image using Digital Image Processing
	<p>Abstract: Tumor detection and removal is one medical issue that still remains challenging in field of biomedicine. Early imaging techniques had the drawback of being invasive and hence the CT and MRI imaging technique help the surgeons in providing a better vision. In this paper, tumor image processing involves three stages namely pre-processing, segmentation and morphological operation. After the acquisition of the source image, it is pre-processed by converting the original image to gray scale in addition high pass filter for noise removal and median filter for quality enhancement is provided which is followed by enhancement stage resulting with histogrammic equivalent image. Finally segmentation is done by means of watershed algorithm. The above proposed methodology is helpful in generating the reports automatically in less span of time and advancement has resulted in extracting many inferior parameters of the tumor. The present work demonstrates that method can successfully detect the brain tumor and thereby help the doctors for analyzing tumor size and region .The algorithms have been developed by using MATLAB.</p> <p>Keywords: Brain Tumor, MRI Image, Segmentation, Filtering</p> <p>References:</p> <ol style="list-style-type: none"> 1. R. Kavitha, Dr. C. Chellamuthu, Ms. KavinRupa "An Efficient Approach for Brain Tumour Detection Based on Modified Region Growing and Neural Network in MRI Images" International Conference on Computing, Electronics and Electrical Technologies [ICCEET] IEEE Xplorer 2011, pp(1087 – 1096). 2. Aamir Ahmad "Pathways to Breast Cancer Recurrence" Hindawi Publishing Corporation ISRN Oncology Volume 2013, Article ID 290568, 16 pages http://dx.doi.org/10.1155/2013/290568, pp(1-17). 3. Ahmed KHARRAT Mohamed Ben MESSAOUD Nacéra BENAMRANE Mohamed ABID "Detection of Brain Tumor in Medical Images", International Conference on Signals, Circuits and Systems 2009 IEEE, pp(1-6). 4. Bryan Cunitz, BarbrinaDunmire, Marla Paun, Oleg KaundinyaGopinath "Brain Functional Localization: Survey of Image Registration Techniques", IEEE TRANSACTIONS ON MEDICAL IMAGING, VOL. 26, NO. APRIL 2007 pp(427-450). 	
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21.	Authors:	Janaki Sivakumar, K. Thangavel
	Paper Title:	Gender Classification with Weighted Principal Component (wPC) using BPN
	<p>Abstract: Gender Classification in the field of forensic Science becomes essential in the case of criminal investigation. Automated tools can help forensic experts by reducing their manual efforts. Soft computing techniques like Fuzzy Computing, Neural Networks and Genetic Algorithm are all helpful to develop automated tools for human identification. Lateral Cephalogram plays a vital role in Gender Classification from skeletal remains. Principal component analysis (PCA) is a technique that is useful for the compression and classification of data. This study proposes Weighted Principal Components of lateral Cephalogram landmarks as an ideal measure .Also this study recommends BPN as an optimal classifier for Gender Classification from lateral Cephalogram.</p> <p>Keywords: Lateral Cephalogram, Forensic Anthropology, Cephalofacial Landmarks, Linear Measurements, GLCM Features, Principal Components, Weighted Principal Components, Feature Extraction and Back Propagation Neural Network</p> <p>References:</p> <ol style="list-style-type: none"> 1. Patil KR, Mody RN. Determination of sex by discriminant function analysis and stature by regression analysis: a lateral cephalometric study. Forensic Sci. Int. 2005; 147:175-80.2. 2. Graw M, Wahl J, Ahlbrecht M. Course of the meatus acusticus internus as criterion for sex differentiation Forensic Sci. Int. 2005; 147:113-7 3. Almas Binal and BK yashoda devi,"Identification of sex using Lateral Cephalogram:Role of Cephalofacial Parameters", JIAOMR, Oct-Dec, 2012, 24(4):280-283 4. Jonathon Shlens, "A Tutorial on Principal Component Analysis.. 5. Delchambre L, Weighted principal component analysis: a weighted covariance eigen decomposition approach, Monthly Notices of Royal Astronomical Society, 446(4), December, 2014. 6. . Debbie I, A primer for using and understanding weights with national datasets, The Journal of Experimental Education, 73(3), pp: 221–248, 2005 7. Wei Lu, Neural Network Model for Distortion Buckling Behaviour of Cold-Formed Steel Compression Members, Helsinki University of Technology Laboratory of Steel Structures Publications 16, 2000 8. Haykin S, Neural Networks - A comprehensive foundation, Macmillan Press, New York,1994 9. Rinehart D.E, Hinton G.E and Williams R. J., learning internal representations by error propagation, Parallel Distributed Processing, Cambridge, MA: MIT Press,1994 10. Lu H, Setiono R and Liu H, Effective data mining using neural networks, IEEE Transaction On Knowledge and Data Engineering,1996 11. Roy, Artificial neural networks – a science in trouble, SIGKDD Explorations, 2000 12. Raul Rojas , Neural Networks - A Systematic Introduction.The Back propagation Algorithm, 1996. 13. Robert Barry, Artificial Neural Network Prediction of Wavelet Sub-bands for Audio Compression, Thesis for Bachelor of Science, Dept. of Electrical & Computer Engineering, 2000 	
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22.	Authors:	Prasad M. Pawar, Pooja S. Gurav, Mrunali S. Raut, Pratik P. Shinde
	Paper Title:	Design and Fabrication of Coco Pith Block Making Machine
	<p>Abstract: Small scale industries play a major role in the economic development of India. To enhance its growth and to effectively utilize the renewable energy, waste products to be reused one such product is coir pith Coir is mainly used in exporting and in agricultural field, as it is good absorbent of the water. It maintains the moisture content of the</p>	
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	<p>pith to enhance the quality of the product. The Konkan as well as costal region has a tremendous plantation of coconut trees. Coconut trees are known as ‘Kalpavruksha’ i.e each n every part of it is useful. The industries manufacturing coir ropes as their main output stores coco pith which is the left over product after the production of the coir ropes,as waste material and sold to the outer agencies at a very cheaper rate. We have designed and fabricated a machine to make the blocks of the coco pith. We have designed a machine in minimum possible cost, less work space, and portable which can be used in small scale and household use also. We have applied pressure of about 4bar using a lead screw, which is driven with the help of chain drive. Analysis for lead screw for static and torsional loading is done in which maximum stress intensity for static loading is 1.3684e+009 Pa and for torsion loading 1.2467e+009 Pa. Maximum equivalent stress in static loading is 1.1879e+009 Pa and for torsional loading is 1.1732e+009 Pa.</p> <p>Keywords: Coco Pith, Lead Screw, Portabl.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Nor Mazlana Main, Rosnita A Taliba,*, Rushdan Ibrahimd, Russly Abdul Rahman,Ainun Zuriyati Mohamed (2014), “Suitability of Coir Fibers as Pulp and Paper” “ST26943”, 2nd International Conference on Agricultural and Food Engineering, CAFEi2014”. 2. 1K. Krishnamurthy, 2C. Maheswari, 2R. Udayarani and 2V. Gowtham (2009). “Design and Fabrication of Coir Pith Prequetting Machine” IDOSI Publications. 3. Abhijith R.P (2015), “ Effect of Natural Coir fibres on CBR Strength of Soil Subgrade” , International Journal of Scientific and Research Publications, Volume 5. 4. Jafferjee Brothers, Hayleys (2003), “Composite Applications using Coir Fibres in Sri Lanka”, Delft University of Technology, the Netherlands. 5. U.S. Sharma, Central Coir Research Institute; Kalavoor,Keraia-688 522 India “Eco-friendly and Versatile Coir Geotextile”, Geosynthetics Asia’97, 26-29 November, Bangalore, India. 6. V.B. Bhandari, “A book Design of Machine Elements,” Tata Mcgrav-hill publication, pp.566-604. 					
23.	<table border="1"> <tr> <td>Authors:</td> <td>Joseph Zacharias, Vijayakumar Narayanan</td> </tr> <tr> <td>Paper Title:</td> <td>Two-Band QAM Data Transmission using Parallel Mach-Zehnder Modulators in RoF System</td> </tr> </table> <p>Abstract: A radio over fiber (RoF) system with the transmission of two QAM sidebands by using two parallel Mach-Zehnder modulator is proposed. Optical comb generation at the central station (CS) helps to produce two combs from a single laser diode. This RoF system uses dual parallel Mach-Zehnder modulators (MZM) for the transmission of two QAM modulated sidebands. In one branch of the MZM, 4-QAM data is transmitted while in the other 16-QAM data is transmitted. Finally the downlink performance of the RoF system can be analyzed by using signal constellations and eye diagrams.</p> <p>Keywords: Comb generation, Quadrature amplitude modulation (QAM), Radio over fiber (RoF).</p> <p>References:</p> <ol style="list-style-type: none"> 1. J. Wells. Faster than fiber: The future of multi-g/s wireless. IEEE Microwave Magazine, 10(3):104–112, May 2009. 2. Ming Zhu, Liang Zhang, Jing Wang, Lin Cheng, Cheng Liu, and Gee-Kung Chang. Radio-over-fiber access architecture for integrated broadband wireless services. J. Lightwave Technol., 31(23):3614–3620, Dec 2013. 3. Zhensheng Jia, Jianjun Yu, Georgios Ellinas, and Gee-Kung Chang. Key enabling technologies for optical–wireless networks: Optical millimeter-wave generation, wavelength reuse, and archi- tecture. J. Lightwave Technol., 25(11):3452–3471, Nov 2007. 4. R. Herschel and C. G. Schffer. Radio-over-fiber systems for next generation wireless access. In 2011 International Students and Young Scientists Workshop “Photonics and Microsystems”, pages 54–58, July 2011. 5. D. Y. Kim, M. Peltusi, Z. Ahmed, D. Novak, H. F. Liu, and Y. Ogawa. Ultrastable millimetre-wave signal generation using hybrid modelocking of a monolithic dbr laser. Electronics Letters, 31(9):733–734, Apr 1995. 6. L. A. Johansson and A. J. Seeds. Generation and transmission of millimeter-wave data-modulated optical signals using an op- tical injection phase-lock loop. Journal of Lightwave Technology, 21(2):511–520, Feb 2003. 7. J. Yao. Microwave photonics. Journal of Lightwave Technology, 27(3):314–335, Feb 2009. 8. L. Chen, H. Wen, and S. Wen. A radio-over-fiber system with a novel scheme for millimeter-wave generation and wavelength reuse for up-link connection. IEEE Photonics Technology Letters, 18(19):2056–2058, Oct 2006. 9. J. Ma, J. Yu, C. Yu, X. Xin, J. Zeng, and L. Chen. Fiber dispersion influence on transmission of the optical millimeter-waves gen- erated using In-mzm intensity modulation. Journal of Lightwave Technology, 25(11):3244–3256, Nov 2007. 10. Caiqin Wu and Xiupu Zhang. Impact of nonlinear distortion in radio over fiber systems with single-sideband and tandem single-sideband subcarrier modulations. Journal of Lightwave Technology, 24(5):2076–2090, May 2006. 11. Rakesh Sambaraju, Valentín Polo, Juan Luis Corral, and Javier Martí. Ten gigabits per second 16-level quadrature amplitude modulated millimeter-wave carrier generation using dual-drive mach–zehnder modulators incorporated photonic-vector modu- lator. Opt. Lett., 33(16):1833–1835, Aug 2008. 12. G. M. Macfarlane, A. S. Bell, E. Riis, and A. I. Ferguson. Optical comb generator as an efficient short-pulse source. Opt. Lett., 21(7):534–536, Apr 1996. 	Authors:	Joseph Zacharias, Vijayakumar Narayanan	Paper Title:	Two-Band QAM Data Transmission using Parallel Mach-Zehnder Modulators in RoF System	118-121
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MANET is a network that exchanges information among the entities that are potentially mobile without any pre-defined infrastructure based communication support. These networks are of practical importance in applications like environmental monitoring, health care, military, location tracking, disaster recovery and many more. This paper provides a comprehensive study of MANETs applications scenarios, main features and characteristics, challenges facing the deployment of MANET, current issues and latest research issues.</p> <p>Keywords: MANET applications, Characteristics, Challenges, recent issues</p> <p>References:</p> <ol style="list-style-type: none"> 1. S. PK, "Routing in Mobile Ad hoc Network: A Review," International Journal of Advances in Computing and Information Technology, 2012. 2. L. P. K. Haohong Wang, Ajay Luthra and Song Ci. (2009). 4G WIRELESS VIDEO COMMUNICATIONS. 3. H. J. Alqaysi and G. A. 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processes around 60 images per second, with each image consisting of millions of points. Computer vision is still a long way from its goal of replicating the human eye, but in the meantime various computer vision techniques are being applied to complex applications. The proposed algorithm is resistant to small illumination changes and also involves a module that reduces effects of camera movement. In this system four static cameras are used to capture the moving objects. Background subtraction method subtracts the moving object from static underwater place. This procedure is done by pixel by pixel. Area of the species is also main consideration. Once the species are detected from static underwater place, using background subtraction method tracking is done on each of the four sides. Gaussian mixture model (GMM) and BLOB analysis method is applied for counting the rare species. Gaussian mixture model gives the better segmentation to the original images. BLOB analysis produces the bounding boxes to the species.

Keywords: Blob analysis, Gaussian Mixture Model, MATLAB.

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Authors: A. Elizabeth, Bavanirajan, Kannabiran, Surendiran

Paper Title: BLDC Motor Driven Solar PV Array Fed Water Pumping System Employing Zeta Converter

Abstract: This paper proposes a simple, cost effective and efficient brushless DC (BLDC) motor drive for solar photovoltaic (SPV) array fed water pumping system. A zeta converter is utilized in order to extract the maximum available power from the SPV array. The proposed control algorithm eliminates phase current sensors and adapts a fundamental frequency switching of the voltage source inverter (VSI), thus avoiding the power losses due to high frequency switching. No additional control or circuitry is used for speed control of the BLDC motor. The speed is controlled through a variable DC link voltage of VSI. The proposed water pumping system is designed and modeled such that the performance is not affected under dynamic conditions. The suitability of proposed system at practical operating conditions is demonstrated through simulation results using MATLAB/Simulink followed by an experimental validation.

Keywords: BLDC motor, SPV array, Zeta converter, INC-MPPT.

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28.	Authors:	Alkhatib Khalafalla Muslim Abdelhadi, Hala Eldaw Idris, Abdalla Abdalrahman Mohamed	145-150
	Paper Title:	A QoS Analysis of UGS and ERTPS Scheduling Service Flows in video Conference over Worldwide Interoperability for Microwave Access (Wi-MAX)	
	<p>Abstract: The IEEE 802.16e (published 2005) defined five different Quality of Service (QoS) classes including UGS, ertPS, rtPS, nrtPS and BE. It is well known that UGS and ertPS are designated to support QoS for voice applications with silence suppression. The other three classes have different applications. In this paper, we investigate the performance of UGS and ertPS QoS classes in terms of multimedia applications such as video conferencing over WiMAX network scenarios. The OPNET modeler 14.5 simulator is employed for simulation purposes in order to evaluate the performance of UGS and ertPS with a focus on video conferencing streaming and voice applications. The simulations show that the user with UGS QoS could provide higher throughput and lower delay, lower jitter, and lower queuing delay compared to the ertPS case. Consequently, we also evaluated the video conferencing/streaming application for the ertPS QoS case. Simulation results in this case show that for a defined two scenarios of network and a certain combination of users that are allocated a QoS and a selected application e.g., voice or video conferencing, UGS offers higher performance than ertPS.</p> <p>Keywords: QoS, UGS, ertPS, throughput, delay, jitter, queuing delay..</p> <p>References:</p> <ol style="list-style-type: none"> 1. Mark C. Wood, accessed May 24, 2016, "An Analysis of the Design and Implementation of QoS over IEEE 802.16", http://repository.mdp.ac.id/ebook/library-ref-eng/ref-eng-3/physical/wimax/wimax-qos/wimax_qos.pdf. 2. Qiang Ni, A. Vinel, Yang Xiao, A. Turlikov, Tao Jiang, 2007, IEEE Communications Magazine, "Wireless broadband access: WiMax and beyond- investigation of bandwidth request mechanisms under point-to-multipoint mode of WiMax networks1". 3. Genc, S. Murphy, Yang Yu, J. Murphy, 2008, IEEE Wireless Communications Magazine "IEEE 802.16J relay-based wireless access networks: an overview". 4. http://www.wimaxforum.org, Accessed May 24, 2016, WiMAX Forum. 5. IEEE Std 802.16-2009, May 2009, "IEEE Standard for Local and metropolitan area networks Part 16: Air Interface for Broadband Wireless Access Systems, " (Revision of IEEE Std 802.16-2004), IEEE Wireless Communications Magazine. 6. Bo Li, Yang Qin, Chor Ping Low, Choon Lim Gwee, December 2007, "A Survey on Mobile WiMAX", IEEE Communications Magazine. 7. Avni Khatkar, Yudhvir Singh, Vikas Nandal, July 2013, "A QoS Oriented Analysis of ertPS, rtPS and nrtPS flows in WiMAX", International Journal of Advanced Research in Computer Science and Software Engineering, http://www.ijarcse.com/docs/papers/Volume_3/7_July2013/V3I6-0680.pdf 8. ITU-T recommendation. (2001). Communications quality of service: A framework and definitions. G.1000, I-T. R. (2001). ITU. 		
29.	Authors:	Sunil Kumar Singh, Mahaveer Prasad Sharma	151-153
	Paper Title:	A Y-Shaped Planar Monopole Antenna for Wide Band Applications	
	<p>Abstract: A Y shaped monopole utilizing a modified notch in the ground is presented. The monopole is developed from a triangular monopole and has increased the impedance bandwidth from ~550MHz to ~6GHz for reflection coefficient less than -10dB. Since the antenna shows a bandwidth ratio of 3.9:1, it can be considered as an Ultra Wide Band antenna. Use of stepped notch under feed line provides here the better impedance matching and increased bandwidth. We use ANSOFT High Frequency Structure Simulator (ANSOFT HFSS 13.0) which uses Finite Element Method (FEM) for its processing. The monopole is fabricated on FR4 epoxy dielectric substrate and both simulated and measured results are found to be in agreement.</p> <p>Keywords: Impedance Bandwidth, Monopole Antenna, Reflection Coefficient, Ultra Wideband.</p> <p>References:</p> <ol style="list-style-type: none"> 1. First Report and Order, Revision of Part 15 of the commission's Rules Regarding Ultra-Wideband Transmission Systems FCC, 2002, FCC02-48. 2. M. J. Ammann, "Control of the impedance bandwidth of wideband planar monopole antennas using a beveling technique," Microw. Opt. Technol. Lett., vol. 30, no. 40, pp. 229-232, Aug 2001. 3. N. P. Agrawal, G. Kumar, and K. P. Ray, "Wide-band planar monopole antennas," IEEE Trans. Antennas Propag., vol. 46, no. 2, pp. 294-295, Feb. 1998. 4. K. L. Wong and Y. F. Lin, "Stripline-fed printed triangular monopole," Electron. Lett., vol. 33, pp. 1428-1429, Aug. 1997. 5. J. M. Johnson and Y. Rahamt-Samii, "The tab monopole," IEEE Trans. Antennas Propag., vol. 45, no. 1, pp. 187-188, Jan. 1997. 6. Ramesh Garg, Prakash Bharatia, Inder Bahl, and Apisak Ittipiboon, "Microstrip Antenna Design Handbook," Artech House, Boston, London, 2001. 7. K. P. Ray, "Design aspects of printed monopole antennas for ultra-wide band applications," International Jour. Of Antennas And Propag., Hindawi Publishing corporation, vol. 2008, doi:10.1155/2008/713858, 8 pages. 8. Brian C. Wadell, "Transmission Line Design Handbook," Artech House, Boston, 1991. 		
30.	Authors:	Tejaswini Bhandarkar	154-156
	Paper Title:	Enhancing Security of Android Phones	
	<p>Abstract: Use of mobile commerce for commerce for conducting commercial transactions online is increasing rapidly. A wide range of wireless devices which includes mobile phones, tablets provide an easier way for mobile payments and M-commerce. Risk associated with such devices such as loss of private information is also increasing. The basic requirement for using secure M-Commerce application is a secure mobile operating system. Without a security feature or secure application on the device, it is not possible to have secure Mobile-transaction. Among many operating system used for mobile devices, android operating systems are widely used. Though Android Systems are good in memory management they are also vulnerable to security attacks. Such security attacks make the phone unusable, cause unwanted SMS/MMS (short message service/ multimedia messaging service) billing, or expose private information. There are two doors for attacker to attack a smart phone. The first is to get users to download, install, and run software that contain unethical codes such as virus, worms etc. and the other is to attack device directly by using software vulnerabilities.</p>		

	<p>This paper presents security assessment for Android with an overview of security architecture for android. The Paper also list various threats to android devices and there countermeasures.</p> <p>Keywords: Android Systems, mobile payments, software vulnerabilities.</p> <p>References:</p> <ol style="list-style-type: none"> 1. An Insight into the Security Issues and Their Solutions for Android Phones.[2015] 2. "Mobile Attacks and Defense", white paper copublished by the IEEE computer and Reliabilty Societies, 2014. 3. Countering the Advance Persistent Threat challenge with deep discovery, white paper, copublished by Trend Micro white paper April 2013. 4. Sheran A.Gunasekera, "Android Architecture", in Android Apps Security, Ed.New York: Apress, 2012. 5. Mobile Aattacks and Defense , white paper copublished by the IEEE computer and Reliability Societies,July/August 2011. 6. Google Android: A Comprehensive Security Assessment, copublished by the IEEE computer And Reliability Societies, March/April 2010 					
31.	<table border="1"> <tr> <td>Authors:</td> <td>Ch. Sankara Rao, K. Soujanya, T. Sudhakar Reddy</td> </tr> <tr> <td>Paper Title:</td> <td>A Simplified Version of Multilevel Inverter with Minimal Number of Switches</td> </tr> </table> <p>Abstract: Multilevel inverters have created a new wave of interest in industry and research. These multilevel inverters are generally used in medium voltage high power application. In this paper a eleven level inverter is proposed which has less number of switches compared to the conventional inverter. This inverter topology reduces the size and complexity of the system. The effectiveness of the proposed topology has been demonstrated and the results are validated by simulating the proposed topology in MATLAB.</p> <p>Keywords: Multilevel Inverters, circuit topology, reduced device count.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Abdul Halim Mohamed Yatim, and Ehsan Najafi, "Design and Implementation of a New Multilevel Inverter Topology" IEEE transactions on industrial electronics, vol. 59, no. 11, November 2012. 2. A.Kirubakaran, Jacob James Nedumgatt, Vijayakumar D. Umashankar S, "A Multilevel Inverter with Reduced Number of Switches"2012, IEEE Students Conference on Electrical, Electronics and Computer Science. 3. Mariusz Malinowski,K. Gopakumar Jose Rodriguez, and Marcelo A. Pérez—A Survey on Cascaded Multilevel Inverters IEEE Transactions On Industrial Electronics, Vol. 57, No. 7, July 2010. 4. José Rodríguez, Jih-Sheng Lai,, And Fang Zheng Peng, " Multilevel Inverters: A Survey Of Topologies, Controls, And Applications" IEEE Transactions On Industrial Electronics, Vol. 49, No. 4, August 2002. 5. Oscar Lopez, Remus Teodorescu, "Multilevel transformerless topologies for single phase grid-connected converter", IEEE conference, 2006. 6. Johnson Uthayakumar R.1, Natarajan S.P.2, Bensraj R, "A Carrier Overlapping PWM Technique for Seven Level Asymmetrical Multilevel Inverter with various References" IOSR Journal of Engineering June. 2012. 7. N Booma, Nagisetty Sridhar, "Simulation of nine level cascaded H- bridge multilevel inverter DC-link inverter" IEEE Students Conference on Electrical, Electronics and Computer Science.2011. 8. Valsan K, Joseph K.D"A Reduced Switch Multilevel Inverter for Harmonic Reduction" IEEE Conference.2012. 9. Ahmed, R.A.; Mekhilef, S.; Hew Wooi Ping,"New multilevel inverter topology with minimum number of switches," 2010 IEEERegion 10 Conference (TENCON 2010),vol. no.2, pp.1862-1867, Nov. 2010. 10. Hulusi Karaca "A Novel Topology for Multilevel Inverter with Reduced Number of Switches", World Congress on Engineering and Computer Science, WCECS, 2013, SanFrancisco, USA, vol I, 23-25 October, 2013. 11. Ceglia, G., Guzman, V.; Sanchez, C.; Ibanez,F.; Walter, J.; Gimenez, M.I. "A New Simplified Multilevel Inverter Topology for DC & AC Conversion", IEEE Transactions on Power Electronics, vol.21, no.5, pp.1311-1319, Sept. 2006. 12. Arjun J. Jariwala, Nilesh V. Shah "A new Multilevel Inverter Topology with reduced number of switches" International Journal of Current Engineering and scientific Research (IJCESR) ISSN (PRINT): 2393-8374, (Online): 2394-0697, Volume-2, Issue-7, 2015 13. Ebrahim Babaei. "A Cascade Multilevel Converter Topology with Reduced Number of Switches". IEEE Trans. On Power electronics. 2008; 23(6): 2657-2664. 14. R Naveen Kumar. "Energy Management system for Hybrid RES with Hybrid Cascaded Multilevel inverter". International Journal of Electrical and Computer Engineering (IJECE). 2014; 4(1): 24~30. 15. Gnana Prakash M, Balamurugan M, Umashankar S"A New Multilevel Inverter with Reduced Number of Switches"International Journal of Power Electronics and Drive System (IJPEDS)Vol. 5, No. 1, July 2014, pp. 63~70ISSN: 2088-8694 16. Aditya Parasha "International Journal of Engineering Research and Applications (IJERA) ISSN: 2248-9622 International Conference on Emerging Trends in Mechanical and Electrical Engineering" (ICETMEE- 13th-14th March 2014) 	Authors:	Ch. Sankara Rao, K. Soujanya, T. Sudhakar Reddy	Paper Title:	A Simplified Version of Multilevel Inverter with Minimal Number of Switches	157-160
Authors:	Ch. Sankara Rao, K. Soujanya, T. Sudhakar Reddy					
Paper Title:	A Simplified Version of Multilevel Inverter with Minimal Number of Switches					
32.	<table border="1"> <tr> <td>Authors:</td> <td>Ajit Kumar Senapati, Shantanu Kumar Sahoo, Saylesh Singh, Sudhakar Sah, Pratyush Ranjan Padhi, Nitesh Satapathy</td> </tr> <tr> <td>Paper Title:</td> <td>A Comparative Investigation on Physical and Mechanical Properties of MMC Reinforced With Waste Materials</td> </tr> </table> <p>Abstract: Aluminium alloy based metal matrix composites (MMC) are produced with agro waste Rice Husk Ash (RHA) and industrial waste Fly Ash as reinforcement. By the continuous stir casting method the MMCs were fabricated in a bottom pouring furnace at 7000C. A rectangular metal mould was used to prepare the casting having dimension 300x50x20 mm³. The effect of adding the different reinforcement were realized through various mechanical behaviour tests. Based upon the standards in the mechanical workshop samples were prepared for measuring mechanical properties such as Impact strength, Compression strength, Tensile strength, Brinell hardness and Density test of both the MMCs. The Fly Ash and Rice Husk distributions in the MMCs were confirmed through the examinations conducted of the microstructure on image analyzer and scanning electron micrographs. Results thus found revealed that there is a great effect of reinforcing Flyash and Rice Husk in aluminium alloy matrix composites. Fly ash gave more enhanced mechanical properties as compared to Rice Husk. Thus selection of waste material from industry based and agro based for reinforcement was found one of the most important criteria for fabricating aluminium matrix composites where as during machining process is the average surface roughness (Ra) and the cutting force required to carry an operation on it., and it is mostly caused by many machining parameters such as speed, feed , depth of cut.</p> <p>Keywords: Metal Matrix Composites (MMCs), Flyash, Rice Husk Ash (RHA), Mechanical Properties, Physical properties, Surface Roughness, Speed, Feed, Depth of Cut.</p>	Authors:	Ajit Kumar Senapati, Shantanu Kumar Sahoo, Saylesh Singh, Sudhakar Sah, Pratyush Ranjan Padhi, Nitesh Satapathy	Paper Title:	A Comparative Investigation on Physical and Mechanical Properties of MMC Reinforced With Waste Materials	161-169
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	<p>References:</p> <ol style="list-style-type: none"> 1. S.A. Kori, T.M. Chandrashekharaiah (2007), Studies on the dry sliding wear behavior of hypoeutectic and eutectic Al–Si alloys, <i>Wear</i>, vol-263, pp.745–755. 2. J. Bienia, M. Walczak, B. Surowska, J. Sobczak (2003), MICROSTRUCTURE AND CORROSION BEHAVIOUR OF ALUMINUM FLY ASH COMPOSITES, <i>Journal of Optoelectronics and Advanced Materials</i> Vol. 5, No. 2, June 2003, p. 493 –502 3. Y. H. Seo, and C. G. Kang (1995), “The effect of applied pressure on particle dispersion characteristics and mechanical properties in melt-stirring squeeze-cast SiC/Al composites,” <i>J. Mater. Process. Technol.</i>, vol.55, pp. 370–379. 4. K. Purazrang, K. U. Kainer, and B. L. Mordike (1991), “Fracture toughness behavior of a magnesium alloy metal-matrix composite produced by the infiltration technique,” <i>Composites</i>, vol. 22 (6), pp. 456–462. 5. D. B. Miracle (2005), “Metal Matrix composites-From science to technological significance,” <i>Composites Science and Technology</i>, vol. 65, pp. 2526-2540. 6. S. Long, O. Beffort, C. Cayron and C. Bonjour (1999), Microstructure and mechanical properties of a high volume fraction SiC particle reinforced AlCu4MgAg squeeze casting, <i>Materials Science and Engineering</i>, A269, pp.175-185. 7. Jung-Moo Lee, Sang-Kwan Lee, Sung-Jin Hong and Yong-Nam Kwon.(2012), Microstructures and thermal properties of A356/SiCp composites fabricated by liquid pressing method, <i>Materials & Design</i>, Volume 37, pp.313-316. 8. G. N. Lokesh, M. Ramachandra, K. V. Mahendra and T. Sreenith.(2013), Characterization of Al-Cu alloy reinforced fly ash metal matrix composites by squeeze casting method, <i>International Journal of Engineering, Science and Technology</i>, Vol. 5, No. 4, pp.71-79. 9. S.D.Saravanan and M.Senthil Kumar.(2013), Effect of Mechanical Properties on Rice Husk Ash Reinforced Aluminum alloy (AlSi10Mg) Matrix Composites, <i>International Conference On Design And Manufacturing</i>, pp-1505 – 1513.1 10. Chittaranjan.v, Mr. F.AnandRaju and Dr. M.L.S.Deva Kumar (2014), “Thermal Properties of Aluminium-Fly Ash Composite”, <i>International Journal of Innovative Research in Science, Engineering and Technology</i>, Vol 3(11), pp.17217-17220. 11. AnkushSachdeva, Ram Narayan and R.B. Gupta (2013), “Evaluation & Comparison of Mechanical Properties of Aluminium Alloy 5052 reinforced with SiC, Graphite and Fly Ash Hybrid Metal Matrix Composites”, <i>International Journal of Engineering Science and Technology</i>, Vol-5(10), pp.1780-1787. 12. Dr .Selvi.S, Dr. Rajasekar.E, Sathishkumar.M and Ramkumar. B (2013), “Theoretical and Experimental Investigations of Mechanical Properties of Aluminum based Metal Matrix Composite”, <i>IRACST – Engineering Science and Technology</i>, Vol-3(2), pp.353-358. 13. BasavarajMathpathi and Bharat S Kodli (2014), “A Study on Mechanical Properties of Aluminum, Rice Husk and Silicon Carbide Matrix Composites”, <i>International Journal for Scientific Research & Development</i> Vol. 2, Issue 08, pp.13-14. 14. PallaviDeshmukh, Jatin Bhatt, DilipPeshwe and Shaikumar Pathak (2012), “Development and Characterization of Al based MMC by Using RHA and Metallurgical Grade SiO2 with Varying Percentage of Mg”, <i>Nano Trends: A Journal of Nanotechnology and Its Applications</i>, Vol-12(2), pp.01- 10. 15. Deepak Singla, S.R. Mediratta(2013) Evaluation of mechanical properties of Al 7075-fly ash composite material, <i>International Journal of Innovative Research in Science, Engineering and Technology</i>, Vol. 2, Issue 4, pp.951-959. 16. Sandeep Kumar Singh,R J Immanuel, S Babu, (2016) Influence of multi pass friction stir processing on wear behaviour and machinability of an AlSi hypoeutectic A356 alloy <i>Journal of materials processing technology</i> 236(2016)252 22 17. J.Jenix Rino, D.Chandramohan, K.S.Sucitharan An Overview on Development of Aluminium Metal Matrix Composites with Hybrid Reinforcement, <i>International Journal of Science and Research (IJSR)</i>, India Online ISSN: 2319 7064 18. J Samuel, A Dikshit , R E DeVor , SG Kapoor(2009) Effect of carbon nano tube (CNT) loading on the thermo mechanical properties and the machinability of CNT-reinforced polymer composite , <i>journal of manufacturing science and engineering by ASME</i> P.P 131/031008-1 19. D palanisamy ,P senthil , V Senthil Kumar (2015) The effect of aging on machinability of 15Cr-5Ni precipitation harden stainless steel ,<i>PP</i> 1653-63 					
	<table border="1"> <tr> <td>Authors:</td> <td>Kaushik Das, Rajkishur Mudoi</td> </tr> <tr> <td>Paper Title:</td> <td>Detection of Epileptic Seizure using Radius Measurement and Higher Order Moments in The EMD Domain</td> </tr> </table>	Authors:	Kaushik Das, Rajkishur Mudoi	Paper Title:	Detection of Epileptic Seizure using Radius Measurement and Higher Order Moments in The EMD Domain	
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Paper Title:	Detection of Epileptic Seizure using Radius Measurement and Higher Order Moments in The EMD Domain					
33.	<p>Abstract: This paper presents a method for the detection of epileptic seizure from EEG signal using empirical mode decomposition (EMD). The intrinsic mode functions (IMFs) which is generated by the EMD method can be considered as a set of amplitude and frequency modulated (AM-FM) signals. The Hilbert transformations of these IMFs which is circular form in the complex plane can be used as a feature for radius calculation and the higher order moments like variance, skewness and kurtosis are applied on the output values of Short-time Fourier transform (STFT) of the IMFs, the proposed method shows better classification result than simply applying higher order moments. The effectiveness of the proposed method is tested using the dataset which is available online. It is found that the result obtained from radius measurement and higher order statistical moments provide good discrimination performance for the detection of epileptic seizure.</p> <p>Keywords: Electroencephalogram (EEG), intrinsic mode functions (IMFs), empirical mode decomposition (EMD), Epileptic Seizure.</p> <p>References:</p> <ol style="list-style-type: none"> 1. P. C. Petrantonakis and L. J. Hadjileontiadis, “Emotion recognition from EEG using higher order crossings,” <i>IEEE Trans. Inf. Technol. Biomed.</i>, vol. 14, no. 2, pp. 186–197, Mar. 2010. 2. Y. Li et al., “An EEG-based BCI system for 2-D cursor control by combining mu/beta rhythm and p300 potential,” <i>IEEE Trans. Biomed. Eng.</i>, vol. 57, no. 10, pp. 2495–2505, Oct. 2010. 3. R. Tetzlaff and V. Senger, “The seizure prediction problem in epilepsy: Cellular nonlinear networks,” <i>IEEE Circuits Syst. Mag.</i>, vol. 12, no. 4, pp. 8–20, 2012. 4. Semah et al., “Is the underlying cause of epilepsy a major prognostic factor for recurrence?,” <i>Neurology</i>, vol. 51, no. 5, pp. 1256–1262, 1998. 5. H. Mohseni, A. Maghsoudi, and M. Shamsollahi, “Seizure detection in EEG signals: A comparison of different approaches,” in <i>Proc. 28th Annu. Int. Conf. IEEE EMBS</i>, 2006, pp. 6724–6727. 6. Adeli, H., Zhou, Z., Dadmehr, N., “Analysis of EEG records in an epileptic patient using wavelet transform,” <i>J. Neurosci. Methods</i>, vol. 123, pp.69-87, 2003. 7. Srinivasan, V., Eswaran, C., Sriraam, N., “Artificial neural network based epileptic detection using time-domain and frequency-domain features,” <i>J. Med. Syst.</i>, vol. 29, pp. 647-660, 2005. 8. Accardo, A., Affinito, M., Carozzi, M., Bouquet, F., “Use of the fractal dimension for the analysis of electroencephalographic time series,” <i>Biol. Cybern.</i>, vol. 77, pp. 339-350, 1997. 9. Casdagli, M.C., Iasemidis, L.D., et. al., “Non-linearity in invasive EEG recordings from patients with temporal lobe epilepsy,” <i>Electroencephalogr. Clin. Neurophysiol.</i>, vol. 102, pp. 98-105, 1997. 10. P. Flandrin, G. Rilling, and P. Goncalves, “Empirical mode decomposition as a filter bank,” <i>IEEE Signal Process. Lett.</i>, vol. 11, no. 2, pp. 112–114, Feb. 2004. 11. R. J. Oweis and E. W. Abdulhay, “Seizure classification in EEG signals utilizing Hilbert-Huang transform,” <i>Biomed. Eng. Online</i>, vol. 10, no.1, p. 38, 2011. 	170-174				

	<p>12. EEG Time Series Download Page 2012 [Online]. Available: http://epileptologie-bonn.de/cms/front_content.php?idcat=193&lang3</p> <p>13. N. E. Huang, Z. Shen, S. R. Long, M. C. Wu, H. H. Shih, Q. Zheng, N. C. Yen, C. C. Tung, and H. H. Liu, "The empirical mode decomposition and Hilbert spectrum for nonlinear and non-stationary time series analysis," <i>Proc. R. Soc. Lond. A</i>, vol. 454, pp. 903-995, 1998.</p> <p>14. M.E. Cohen, D.L. Hudson, P. Deedwania, "Applying continuous chaotic modeling to cardiac signal analysis," <i>IEEE Eng. Med. Biol. Mag.</i> Vol. 15, pp. 97-102., 1996</p> <p>15. Alexandros T. Tzallas, Markos G. Tsipouras, and Dimitrios I. Fotiadis, "Epileptic Seizure Detection in EEGs Using Time-Frequency Analysis," <i>IEEE Tran. Inf. Tech. in Bio.</i> vol. 13, pp. 703-710, 2009</p> <p>16. Mohamed Bedeuzzaman.V, Omar Farooq, Yusuf Uzzaman Khan, "Automatic Seizure Detection Using Higher Order Moments," <i>IEEE Int. Conf. on Recent Trends in Information, Telecommunication and Computing</i>, pp. 159-163, 2010</p>					
34.	<table border="1"> <tr> <td>Authors:</td> <td>Ashish Bandekar, George G. Chase</td> </tr> <tr> <td>Paper Title:</td> <td>Performance of an Electrowet-Coalescer</td> </tr> </table>	Authors:	Ashish Bandekar, George G. Chase	Paper Title:	Performance of an Electrowet-Coalescer	
Authors:	Ashish Bandekar, George G. Chase					
Paper Title:	Performance of an Electrowet-Coalescer					
	<p>Abstract: Water in diesel fuel can cause corrosion and reduce engine performance. Mechanical separators are most effective when water in the fuel is in the form of drops larger than about 100 microns but often fuels contain emulsified drops smaller than 100 microns. Pre-coalescence of the emulsified drops to larger drops can improve separation performance of mechanical separators such as coalescing and membrane filters. In this work, a thin-slit radial-flow electrowet-coalescer device was experimentally tested and statistically analyzed to evaluate the performance. The effects of the slit gap distance, the diesel fuel flow rate, and the applied electric potential were evaluated. Application of a full quadratic statistical model and the response optimizer method in Minitab™ shows the applied potential and the gap distance had greater impacts on the average drop size exiting the device than did the flow rate. The analysis determined the best performance occurred with the applied potential of 380V, gap distance of 0.0007m and flow rate of 2ml/s. At these conditions the average drop size increased from 33 microns in the inlet stream to 120 microns in the exit stream. The electric power required to operate the device was less than 1 milliwatt.</p> <p>Keywords: Electro wetting, Coalescence, Oil-water separation.</p> <p>References:</p> <ol style="list-style-type: none"> French, C. C. (1969). Problems arising from the water cooling of engine components. <i>ARCHIVE: Proceedings of the Institution of Mechanical Engineers</i>, 184(1969), 507-542. Rakopoulos, C., Rakopoulos, D., Hountalas, D., Giakoumis, E., & Andritsakis, E. (2008). Performance and emissions of bus engine using blends of diesel fuel with bio-diesel of sunflower or cottonseed oils derived from Greek feedstock. <i>Fuel</i>, 87(2), 147-157 Shin, C., & Chase, G. G. (2004). 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35.	<table border="1"> <tr> <td>Authors:</td> <td>Modi Milan, Kutwal Musarraf, Varia Akash, Goswami Parth, N. J. Parmar</td> </tr> <tr> <td>Paper Title:</td> <td>Study of 6s Concept and its Effect on Small Scale Industry</td> </tr> </table> <p>Abstract: The search for quality is never ending which involves continuous improvement process to find a way to restrict the reasons creating problems. These can be accomplished by going through stages instead of implementing a</p>	Authors:	Modi Milan, Kutwal Musarraf, Varia Akash, Goswami Parth, N. J. Parmar	Paper Title:	Study of 6s Concept and its Effect on Small Scale Industry	182-186
Authors:	Modi Milan, Kutwal Musarraf, Varia Akash, Goswami Parth, N. J. Parmar					
Paper Title:	Study of 6s Concept and its Effect on Small Scale Industry					

	<p>large improvement .The various concepts such as Kaizen, PDCA cycle, Quality circle, JIT, 5S, etc. Can be proven helpful in this type of improvement. Among all Kaizen have high level of difficulty as it requires huge potential steps. Due to this, as a foundation of “Kaizen” we study 6S concept. It is derived from concept of 5S. 6S concept have one more “S” which stands for safety with organization, surrounding and health. The merits of 6s concept are reduce in wastage, reduction in defects, soaring of productivity, morale of worker goes high, etc. This all combine resulted in gradual improvement of industry with reduction in environmental problems. Furthermore, it also reduced the cost of production and high product services.</p> <p>Keywords: 6S, continuous improvement process, kaizen, 5S, productivity, EHS.</p> <p>References:</p> <ol style="list-style-type: none"> 1. J. Michalska, D. Szewieczek, The 5S methodology as a tool for improving the organisation, Journal of Achievements in Materials and Manufacturing Engineering, Volume 24(2), October 2007, 211- 214. 2. Gheorghie DULHAI, The 5S strategy for continuous improvement of the manufacturing process in autocar exhaust, Journal of Management & Marketing, Vol.3 (4), 2008, 115-120. 3. R.T. Salunkhe, G.S. Kamble, Prasad Malage, Inventory Control and Spare Part Management through 5S, KANBAN and Kaizen at ABC Industry, Journal of Mechanical and Civil Engineering (IOSR- JMCE), 43-47 4. Kaushik Kumar, SanjeevKuma, Step for implementation of 5S, Volume 2(6), June 2012, 402-416. 5. P. M. Rojasa, M. N. Qureshi, Performance Improvement through 5S in Small Scale Industry: A case study, International Journal of Modern Engineering Research (IJMER) . Vol.3 (3) May - June 2013, 1654-1660. 6. M. Mahajan, Statistical Quality Control, Dhanpat Rai & Co., 2012. 					
36.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>A. Rahil, Alwitaishi M., Kamel M. A., N. M. W. Al-Bustami</td> </tr> <tr> <td>Paper Title:</td> <td>Comparative Analysis of Two Different Adjustment Techniques as Applied to The Least Squares Processing of The Direct Linear Transformation (DLT)</td> </tr> </table> <p>Abstract: A simple method for close range photogrammetric data reduction with non- metric cameras developed by Abdel Aziz and Karara [], it establishes the direct linear transformation (DLT) between coordinates of image points, and the corresponding object- space coordinates. This paper concentrates on the method of least squares as a method for adjusting the non-linear transformation equations. Hence, there are two different adjustment techniques that can be used to the processing of the non-linear transformation equations; namely: mixed and parametric least square adjustment techniques. The two different adjustment techniques are applied for two different geometry; namely double station geometry and multi-station geometry. In this study, two different iterative least – squares adjustment techniques are developed to solve the nonlinear transformation equations incorporated with distortion corrections. The results from the two different adjustment techniques will be discussed and analyzed. The obtained results showed the superiority of the mixed adjustment technique especially in the multi- station geometry. Therefore, the least squares mixed adjustment technique is recommended to be used for solving the non-linear transformations incorporated with distortion corrections.</p> <p>Keywords: About four key words or phrases in alphabetical order, separated by commas.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Abdel Aziz and Karara, "Photogrammetric potentials of non-metric cameras" Civil Engineering studies, Photogrammetry series No.36, University of Illinois at Urbana-Champaign, 1973. 2. Abdel Aziz and Karara, "Direct Linear Transformation from comparator coordinates into object space coordinates in Closer –Range photogrammetry " proceedings of the Asp/ui symposium on Closer –Range photogrammetry, Urbana, Illinois,1974 3. Doma, M.I., "Application of optimization theory to geodetic networks using different orders design problems", M. Sc. thesis, Faculty of Engineering, Shebin El-Kom, Minufia University, Egypt, 2004. 4. Hottier " Accuracy of close -Range Analytical Restitutions: Practical Experiments and Prediction" Photogrammetric Engineering and Remote sensing, Vol.42, No.3, March.1976, pp. 345-375. 5. Hirvonen,R.A , "Adjustment by least squares in geodesy and photogrammetry" Ungar, publishers, U.S.A, 1971. 6. Kenefick, "Ultra-precise Analysis", Photogrammetric Engineering, Vol.37, No.11, Nov.1971. 7. Mikhail, E.M. and F. Ackermann (1976)" Observations and Least-Squares" Harper and Row, Inc. New York, U.S.A, 1976. 8. Nour El deen W.M., " Use of terrestrial photogrammetry in the Documentation of Egyptian Monuments", M.Sc., Faculty of Engineering, Ain Shams University, Cairo Egypt. 	Authors:	A. Rahil, Alwitaishi M., Kamel M. A., N. M. W. Al-Bustami	Paper Title:	Comparative Analysis of Two Different Adjustment Techniques as Applied to The Least Squares Processing of The Direct Linear Transformation (DLT)	187-192
Authors:	A. Rahil, Alwitaishi M., Kamel M. A., N. M. W. Al-Bustami					
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37.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>Ajit Kumar Senapati, Subham Choudhury, Snehansu Sekhar Mishra, Ravi Roushan, Subhashis Nanda, Amit Kumar Mohanta</td> </tr> <tr> <td>Paper Title:</td> <td>Mechanical and Tribological Analysis of Polymer Matrix Composites</td> </tr> </table> <p>Abstract: Polymer matrix composites are very popular in the applications of lightweight aircraft, marine and automobile structures. Particularly, epoxy resin based reinforced composites are the prepared choice because of the superior physical, thermal, electrical and mechanical properties, ease of processing, excellent wettability with various reinforcements, less moisture pick up, low density, and ductile nature of the epoxy resin. In accordance with that, the present work is aimed to study the mechanical and tribological properties of particulate filled fibre reinforced glass Epoxy resin polymer matrix composite. At first glass Epoxy resin polymer matrix composite was prepared by filling varying wt% of Fly Ash(240 mesh size) and Carbon Powder(240 mesh size) using hand lay up technique. While preparation of the polymer matrix composite a brief study on the process of preparation and composition was studied. After that tests for mechanical and tribological properties was carried out. The mechanical property tests such as density and hardness was investigated in accordance with ASTM standards. Tribological properties i.e. two body abrasive wear study was carried out using a pin-on-disc wear tester. According to the observations the concentration of filler material best suited for different purposes was determined. Finally we have compared the properties of Fly Ash and Carbon Powder filled fibre reinforced glass Epoxy resin polymer matrix composite with each other and other polymer matrix composites. It also highlights the current application and future potential of particulate filled glass fiber reinforced polymer matrix composites in aerospace, automotive, marine and other construction industries.</p>	Authors:	Ajit Kumar Senapati, Subham Choudhury, Snehansu Sekhar Mishra, Ravi Roushan, Subhashis Nanda, Amit Kumar Mohanta	Paper Title:	Mechanical and Tribological Analysis of Polymer Matrix Composites	193-203
Authors:	Ajit Kumar Senapati, Subham Choudhury, Snehansu Sekhar Mishra, Ravi Roushan, Subhashis Nanda, Amit Kumar Mohanta					
Paper Title:	Mechanical and Tribological Analysis of Polymer Matrix Composites					

	<p>Keywords: Polymer Matrix Composites (PMCs), Fly ash, Carbon Powder, Abrasive wear, Micro Hardness, Density.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Xian, Jheng. 2003. A study on the effect of the type and content of filler in epoxy–glass composite system. 2. Dr. K.A. Rameshkumar. Investigation of Mechanical Properties on Epoxy, Fly Ash and E -Glass Fiber Reinforcement Composite Material 3. B. Suresha, G. Chandramohan, J. N. Prakash, V. Balusamy and K. Sankaranarayananasamy .2006. The role of Fillers on Friction and Slide Wear Characteristics in Glass-Epoxy Composite Systems. 4. Suresha, Kishore A, P. Sampathkumaran P. Seetharamu .2007. The role of SiC fillers in glassepoxy (G-E) composites on mechanical and dry sliding wear behavior. 5. Biswas, Satapathy.2010.Tribological and mechanical investigation on alumina filled glass-epoxy composites. 6. Basavarajappa , C.M. Manjunatha, Ramesh Bojja, N. Jagannathan .2010. Effect of SiC filler material on three-body abrasive wear behavior of glass-epoxy composites. 7. Sudarshan Rao K , Y.S Varadarajan and N Rajendra.2011. The abrasive wear behaviour of graphite filled carbon fabric reinforcement epoxy composite. 8. Mohan.N, S. Natarajana, S. Kumaresh Babu .2011. effects of silicon carbide fillers on two-body abrasive wear behavior of glass fabric-epoxy (G-E) composites. 9. Sujesh, Ganeshan .2012. Tensile behavior of bidirectional woven Glass Fiber Reinforced Epoxy Polymer (GFRP) composites filled with nano silica. 10. K. Devendra and T. Rangaswamy.2012. Mechanical behaviour of E-Glass Fiber reinforced Epoxy composite filled with varying concentration of AL2O3, Mg(OH)2 and SiC. 11. R.Satheesh Raja, K.Manisekar, V.Manikanda .2013. Effect of fly ash filler size on mechanical properties of polymer matrix composites. 12. Weikang Li, Anthony Dichiara, Junwei Zha, Zhongqing Su, Jinbo Bai .2014. A study on improvement of mechanical and thermo-mechanical properties of glass fabric/epoxy composites by incorporating CNT–Al2O3 hybrids. 13. Md Nadeem M, K Chandrashekar, Yathisha N , Rudramurthy .2014. Effects of Carbon and glass fibre reinforcement and other fillers on elevated temperature resistant properties of ER matrix composites. 14. Aditi Kaul Shah & Sandeep K. Sodhi .2015. Effect of epoxy modifiers (Al2O3/SiC/TiO2) on the Tensile Strength of epoxy/glass fibre hybrid composites. 15. Vijay D. Karande, Prof. P.R.Kale .2015. Effect of Fly Ash as Filler on Glass Fiber Reinforced Epoxy Composite. 16. Iskender Ozsoy, Askin Demirkol, Abdullah Mimaroglu, Huseyin Unal, Zafer Demir.2015. Influence of Micro- and Nano-Filler Content on the Mechanical Properties of Epoxy Composites. 17. Prasad Galande, S. E. Zarekar(2016) Effect of Various Fillers on Mechanical Properties of Glass Fiber Reinforced Polymer Composites. 18. Mr.Chavan V.B. , Prof. Gaikwad M.U. A review on development of Glass Fiber/Epoxy Composite Material. 19. T RAM PRABHU, S BASAVARAJAPPA,R B SANTHOSH and S M ASHWINI.2016. Study on tribological and mechanical behaviour of dual-particle (nanoclay and CaSiO3)-reinforced E-glass-reinforced epoxy nano-composites. 20. Halil Burak, Kayball, Hasan Ulus1, Ahmet Avci .2016. Characterization of Tensile Properties And Toughness Mechanisms on Nano-Al2O3 Epoxy Nano-composites. 		
38.	<p>Authors:</p>	<p>Kajal Sejpal</p>	
	<p>Paper Title:</p>	<p>Improving The Assembly Process of Down lighter by using Two Hand Process Chart</p>	
	<p>Abstract: The objective of this research is to improve the productivity by optimizing certain operations of the manual assembly process of a product in a manufacturing industry. By creating a standard process in manual assembly line time is saved as well as energy of the worker is also saved. This leads to increased units of production and lesser fatigue. In this paper, flow process chart of assembly line of a particular product is studied. The two hand process chart of selective time consuming operations is carried out. The time saved and improvement to the operations is noted thus improving the assembly process.</p>		
	<p>Keywords: Work flow, Two hand process, Downlighter</p>		204-209
	<p>References:</p> <ol style="list-style-type: none"> 1. Mr. Gurunath V. Shinde, Prof.V.S.Jadhav,” A Computer based novel approach of ergonomic study and analysis of a workstation in a manual process”, International Journal of Engineering Research & Technology, Vol.1 - Issue 6 (August- 2012),e-ISSN: 2278-0181 2. Durward K. Sobek, II Dept. of Mechanical and Industrial Engineering Montana State University, Cindy Jimmerson Community Medical Center,”Tool for Process Improvement “ 3. George Kanawaty. Introduction to work study: International Labour Office, Geneva. 4th (revised) edition. 2000;17-108 4. Dr Ashish Jain,Dr Punit Yadav,”Application of Method Study to Improve Work Flow Process in a Dietary Facility of a Medical College”,Volume 6, Issue 3, March 2016,ISSN - 2249-555X, IF : 3.919, IC Value : 74.50 5. Chapin N. 1970. Flowcharting with the ANSI Standard: A Tutorial. Computing Surveys 1970; 2(2):119-146. 6. Md. Shakil, Md. Rahamat Ullah, and Mostafa Lutfi,”Process Flow Chart and Factor Analysis in Production of a Jute Mills”,Journal of Industrial and Intelligent Information Vol. 1, No. 4, December 2013 		
39.	<p>Authors:</p>	<p>Mayuri Vaijanath Atre, K. Chandra Obula Reddy</p>	
	<p>Paper Title:</p>	<p>A Novel Hybrid Power Conditioner for Mitigation of Harmonics and Neutral Line Current in Three Phase Four Wire Distribution System</p>	
	<p>Abstract: In this paper, a novel hybrid power conditioner is proposed for suppressing harmonic currents and neutral-line current in three-phase four-wire distribution power systems. The proposed hybrid power conditioner is composed of a neutral-line current attenuator and a hybrid power filter. The hybrid power filter, configured by a three-phase power converter and a three-phase tuned power filter, is utilized to filter the nonzero-sequence harmonic currents in the three-phase four-wire distribution power system. The three-phase power converter is connected to the inductors of the three-phase tuned power filter in parallel, and its power rating can thus be reduced effectively. The tuned frequency of the three-phase tuned power filter is set at the fifth harmonic frequency. The neutral-line current suppressor is connected between the power capacitors of the three-phase tuned power filter and the neutral line to suppress the neutral-line current in the three-phase four-wire distribution power system. With the major fundamental voltage of the utility dropping across the power capacitors of the three-phase tuned power filter, the power rating of the neutral-line current suppressor can thus be reduced. Hence, the proposed hybrid power conditioner can effectively reduce the power rating of passive and active elements. A hardware prototype is developed to verify the performance of the proposed hybrid power conditioner. Experimental results show that the proposed hybrid power conditioner</p>		210-214

achieves expected performance.

Keywords: Harmonic, neutral-line current, power converter

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Authors: Alkhatib Khalafalla Muslim Abdelhadi, Hala Eldaw Idris

Paper Title: Performance Evaluation of ARQ Mechanism in Wimax Networks

Abstract: WiMAX (Worldwide Interoperability for Microwave Access) is the IEEE 802.16 standards-based wireless technology, provides Broadband Wireless Access (BWA) for Metropolitan Area Networks (MAN). The Automatic Repeat request (ARQ) mechanism in WiMAX uses a feedback channel for the confirmation of error-free packet delivery or for packet retransmission request. This method can increase network throughput when radio channel condition is worse. In this paper attempt has been made to study the effect of implementation of ARQ on the performance of WiMAX network through simulation. Simulation study has been carried out for WiMAX network with and without enabling ARQ. The performance is been compared by considering the performance metrics like throughput, delay and jitter.

Keywords: WiMAX, ARQ, Base station, Subscriber Stations, Simulation.

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	<p>Authors: Saleh S. AlTayyar, Ahmed E. Negm</p>	
	<p>Paper Title: Foot Classification and Influence of Pattern Recognition</p>	
<p>41.</p>	<p>Abstract: The article presents the application of neural network and decision tree techniques to investigating barometric data got with instruments measuring the weight of the human plantar onto contact surface while strolling. The examination was completed on a gathering of plantar foot photo taken while the subject remained on the reflected photograph box. We gather 35 understanding, 30 of them are male and 5 female with various ages. Numerical qualities for foot examination for every patient foot part get measuring 12 property. Some foot plant pathologies, similar to buckle and level foot, are ordinarily identified by a human master by method for impression pictures. All things considered, the absence of prepared individual to finish such huge first screening discovery endeavors blocks the routinely analytic of the previously mentioned pathologies. In this work an imaginative programmed framework for foot plant pathologies in view of neural systems (NN) and Decision Tree (DT) are introduced. The outcomes accomplished with this framework confirm the attainability of setting up programmed conclusion frameworks in light of the impression and example acknowledgment. The order settled on by the resultant choice tree was right for all the more than 94% steps. This permits to point the parameters which are the best discriminators between the explored sorts of human walk.</p> <p>Index Terms: Foot Deformities, Photography, Pattern Recognition, Neural Network, Decision Trees.</p> <p>Keywords: WiMAX, ARQ, Base station, Subscriber Stations, Simulation.</p> <p>References:</p> <ol style="list-style-type: none"> 1. M. C. J. D. S. a. L. P. Marco Mora, "Automatic Diagnosis of Foot Plant Pathologies: A Neural Networks Approach," in International Symposium on Neural Networks, 2007. 2. M. Derlatka and M. 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42.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>Saleh S. Altayyar</td> </tr> <tr> <td>Paper Title:</td> <td>A Comparative Study of Medical Equipment Maintenance Cost and Performance for Selected Saudi Hospitals</td> </tr> </table> <p>Abstract: Healthcare technology administrators are always held responsible for the poor performance of the medical equipment maintenance team, delay in response to service requests, and long down time. Customer satisfaction are just part of the challenges they are facing. The objective of this study is to analyze and compare the cost of medical equipment maintenance, performance of medical equipment maintenance team in three major hospitals in Saudi Arabia (academic, military, and public). The annual cost of maintenance per medical equipment, work load per 1 FTE (technical employee), down time, turnaround time, cost of service ratio (COSR), hourly cost of maintenance, and acquisition cost per 1 FTE (technical employee) are used in the assessment and analytical comparison. When comparing the cost of service (COSR), turnaround time, and the down time in the three hospitals, it can be seen that the academic hospital has the lowest COSR (3.7%), the lowest down time (1.2 days) and the lowest turnaround time (1.5 days). The other two hospitals (military and public) have relatively higher COSR (6.7 and 5.8 %) respectively and high down time (29 and 10.7) days respectively. it is clear from this study that hospital that uses a combination of in house, Original Equipment Manufacturer (OEM), and independent service provider (third party) contract tend to have redundancy in technical staff which results in under worked technical staff and consequently unnecessary increased spending on maintenance, and poor maintenance performance, when measured by the annual cost of maintenance of medical equipment, down time, and turnaround time. This can be seen in the public hospital which has the highest cost of medical equipment maintenance among the three hospitals (\$570).</p> <p>Keywords: Acquisition Cost per technician, Cost of Service (COSR), Medical equipment maintenance, Methods of Maintenance.</p> <p>References:</p> <ol style="list-style-type: none"> Information document concerning the definition of the term "medical device". Global Harmonization Task Force, 2005 (http://www.ghtf.org/documents/sg1/sg1n29r162005.pdf, accessed March 2011). Medical equipment maintenance programme overview. WHO Medical device technical series, 2011. Emily Kulenkamp what do donuts and equipment service contracts have in common?. October 03, 2015. Blumberg DF. New strategic directions in acquiring and outsourcing high-tech services by hospitals and implications for clinical engineering organizations and ISOs. In: Dyro JF. <i>Clinical engineering handbook</i>. San Diego (United States): Elsevier Academic Press; 2004. P 137–46. Global Industry Analysts, Inc. <i>Medical devices outsourcing: a global strategic business report</i>. 2010. Available from: www.strategyr.com/Medical_Device_Outsourcing_Market_Report.asp Accessed 8 March 2012. Smithson P, Dickey D. <i>Outsourcing clinical engineering service.n: Dyro JF. Clinical engineering handbook</i>. San Diego (United States): Elsevier Academic Press; 2004.Pp135–7. Ministry of Health Annual Report, Saudi Arabia (2015). Direct communication with the Equipping Directorate – Ministry of Health, Saudi Arabia (2017). Antonio Miguel-C; Adriana Rios-Rincón; Gregory L. Haugan. Outsourcing versus in-house maintenance of medical devices: a longitudinal, empirical study. <i>Rev Panam Salud Publica</i> vol.35 n.3 Washington Mar. 2014. Patricia McLoughlin. OEM Maintenance Contracts vs. Third Party Maintenance. <i>Managed Maintenance</i>. Feb 07,2012 Lawrence Martin. "How to compare costs between in-house and contracted services." Executive Summary. <i>How – to – guide #4</i>. March 1993. Larry Nguyen. Five ways hospitals can cut equipment maintenance costs. May 21, 2015. Patrick E. Lynch. Measuring the cost of service. <i>TechNation</i>, July 2013. P46–48. Michelle Bush, Matt Baretich, Frank Painter. <i>Benchmarking solutions Healthcare technology management. A resources for clinical engineering departments</i>. AAMI, May, 10, 2016. Doug Dreps, Dave Dickey. Cost of Service Ratio Comparison: A tale of two health care systems. <i>Mercy clinical engineering services</i>. P 1 – 25. 	Authors:	Saleh S. Altayyar	Paper Title:	A Comparative Study of Medical Equipment Maintenance Cost and Performance for Selected Saudi Hospitals	226-231
Authors:	Saleh S. Altayyar					
Paper Title:	A Comparative Study of Medical Equipment Maintenance Cost and Performance for Selected Saudi Hospitals					
43.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>Cong-Trang Nguyen, Yao-Wen Tsai</td> </tr> <tr> <td>Paper Title:</td> <td>A Decentralized Finite-Time Sliding Mode Controller for Large-Scale Systems: a Moore-Penrose Inverse Approach</td> </tr> </table> <p>Abstract: In this paper, a class of uncertain large-scale systems with mismatched uncertainties and unknown disturbances of state variables is considered. First, a novel reduced-order observer (ROO) is designed to estimate unmeasurable variables. A novel decentralized finite-time sliding mode controller (DFTSMC) based on measured variables is then established to drive state trajectory of systems to a sliding surface and main a sliding motion on it thereafter in finite time. In addition, a newly appropriate linear matrix inequality (LMI) condition is given such that the system in sliding mode is asymptotically stable. Finally, a numerical simulation is performed which shows the effectiveness and advantages of proposed method.</p>	Authors:	Cong-Trang Nguyen, Yao-Wen Tsai	Paper Title:	A Decentralized Finite-Time Sliding Mode Controller for Large-Scale Systems: a Moore-Penrose Inverse Approach	232-240
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Keywords: Decentralized Finite Time Sliding Mode Controller (DFTSMC), Reduced-Order Observer (ROO), finite-time convergence, large-scale systems.

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Paper Title: Numerical Simulation of Dry Reciprocating Wear Loss Characteristics of Al 6061 Alloy

Abstract: In this paper, attempts were made to develop a numerical wear model. The developed wear model was used to investigate the effect of parameters on the response reciprocating wear loss characteristics of Al 6061 alloy against En 31 hard steel counterface. A Box-Behnken design of experiment was used to investigate the effect of parameters such as normal load (15-45N), reciprocating velocity (0.4-0.6 m/s), and sliding distance (300-500 m) on the response reciprocating wear loss characteristics of Al 6061 alloy. The normal load (Percentage of contribution, P = 34.23%), and reciprocating velocity (P = 43.75%), sliding distance (P = 14.45%) are the controlling factors on the response wear loss behaviour of Al 6061 alloy. The interaction model term between the normal load and reciprocating velocity (P = 3.21%) was the secondary influencing factor on the response wear loss characteristics of Al 6061 alloy within the range of parameters investigated. An optimized sliding condition was identified by the genetic algorithm (GA) approach as load 15N, reciprocating velocity 0.6m/s and sliding distance 300m.

Keywords: Wear loss, Percentage of contribution, Reciprocating tribometer, Genetic algorithm.

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45.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Shruti S. Sonone, R. M. Autee</td> </tr> <tr> <td>Paper Title:</td> <td>Prepaid Multifunction Controlled Metering System using MATLAB GUI</td> </tr> </table> <p>Abstract: The system of Prepaid Multifunction Controlled Metering System using MATLAB GUI is developed for monitoring Electricity, Water & Gas consumption. Accurate billing is an important factor to manage household finances especially in difficult times. It is a tool that records amount of energy, water & gas used by a residence or Organizations. This system consists of Energy Metering IC module, Water flow sensor and Gas Detector at customer side. Prepaid services are concept of “First Pay & then use it” done using GSM module which sent SMS of low Balance Energy Meter, Water meter and Gas alert. Similarly using MATLAB GUI, real time readings of Energy Meter, Water meter and Gas alert are displayed on Graphical User Interface and LCD. This reduces wastage of Energy, Water & Gas and helps to keep a track on average domestic & commercial usage.</p> <p>Keywords: Energy Metering IC, Water Flow Sensor, Gas sensor, ARM7, GSM, MATLAB GUI.</p> <p>References:</p> <ol style="list-style-type: none"> 1. H. G. Rodney Tan, C. H. Lee & V. H. Mok, “Automatic Power Meter Reading System using GSM Network”, IEEE-The 8th International Power Engineering Conference (IPEC 2007) 2. Ashish Shrivastava, RatneshPrabhaker, Rajeev Kumar and Rahul Verma, “Gsm Based Gas Leakage Detection System” International Journal of Technical Research and Applications e-ISSN: 2320-8163, www.ijtra.com Volume 1, Issue 2 (may-june 2013), PP. 42-45 3. Manisha V Shinde, Pradip W Kulkarni, “New Development In Energy Meter Reading System” International Journal of Scientific Research and Management Studies (IJSRMS) ISSN: 2349-3771 Volume 1 Issue 4, pg: 124-129 4. HarshadaNavale, Prof.B.V.Pawar, “ARM based Gas Monitoring System”, International Journal of Scientific & Technology Research ,Vol 3, Issue 6 June 2014 5. Md. MejbaulHaque, Md. Kamal Hossain, Md. Mortuza Ali, Md. Rafiqul Islam Sheikh, “Microcontroller Based Single Phase Digital Prepaid Energy Meter for Improved Metering and Billing System”, International Journal of Power Electronics and Drive System (IJPEDS) Vol.1, No.2, December 2011, pp. 139~147 ISSN: 2088-8694 	Authors:	Shruti S. Sonone, R. M. Autee	Paper Title:	Prepaid Multifunction Controlled Metering System using MATLAB GUI	247-249
Authors:	Shruti S. Sonone, R. M. Autee					
Paper Title:	Prepaid Multifunction Controlled Metering System using MATLAB GUI					
46.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Sehba Shahabuddin Siddiqui, Varsha Nagpurkar</td> </tr> <tr> <td>Paper Title:</td> <td>Testing Approaches for Mobile Applications using M-TaaS</td> </tr> </table> <p>Abstract: Due to high popularization and rapid development of cloud services along with advancement in mobile computing technology and wireless services, a new software testing service has come up called testing as a service (TaaS). Usage of wide scale mobile devices with heterogeneous environment and platform, testing as a service utilizes cloud infrastructure to provide on demand testing services for customers all time. With increase in utility of mobile applications (apps) due to ease of internet access along with rise in demand of critical applications like mobile banking, mobile social alerts for reporting accidents, apps for monitoring traffic etc. testing of mobile apps plays a vital role. M-TaaS over cloud provides a new business standard for diversified mobile applications software validation service employing pay-as-you-test model in order to attain cost sharing and reduction in mobile computing resources, networks, cloud computing and storage. Paper addresses different testing approaches for mobile applications like emulation based testing, device based testing, cloud testing, crowd-based testing in order to cope up with frequent up gradation of mobile devices and technologies, hence developers need a reusable and cost-effective environment for validating mobile applications and flexible infrastructure for supporting large scale test automation.</p> <p>Keywords: mobile testing; mobile app testing; mobile TaaS; TaaS.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Oleksii Starov,Sergiy Vilkomir,Anatoliy Gorbenko,Vyacheslav Kharchenko, “Testing-as-a-Service for Mobile Applications: State-of-the-Art Survey.” In Advances in Intelligent Systems and Computing, ISBN: 978-3-319-08964-5, vol. 307, pp. 55-71, Springer International Publishing, 2015. 2. Isabel Karina Villanes, Erick Alexandre Bezerra Costa, Arilo Claudio Dias-Neto, “Automated Mobile Testing as a Service (AM-TaaS),” in World Congress on Services, ISBN: 978-1-4673-7274-9, pp. 79-86, IEEE July 20,2015. 3. Jerry Gao, Wei-Tek Tsai, Ray Paul, Xiaoying Bai, Tadahiro Uehara, “Mobile Testing-As-A-Service(MTaaS)-Infrastructures, Issues, Solution and Needs,”in 15th International Symposium on High-Assurance Systems Engineering, ISBN: 978-1-4799-3466-9, IEE March 06, 2014. 4. \$ 200 Million Mobile Application Testing Market Boosted by Growing Deman for Automation.[Online] Available: https://www.abiresearch.com/press/200-million-mobile-application-testing-market-boos/[Accessed on October 20,2016]. 	Authors:	Sehba Shahabuddin Siddiqui, Varsha Nagpurkar	Paper Title:	Testing Approaches for Mobile Applications using M-TaaS	250-253
Authors:	Sehba Shahabuddin Siddiqui, Varsha Nagpurkar					
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	Authors:	Monisha Mohan, Preetha V. H
47.	Paper Title:	<p>A Review on Block-Key Point Based Copy Move Forgery Detection</p> <p>Abstract: in which a part of a digital image is copied and pasted within the same image. Many algorithms have been developed for detecting the copy move forgery. Copy move forgery is mainly classified into two types which is block based and keypoint based. The block based method includes PCA, DCT, DWT etc and key point based method includes SIFT and SURF. This paper will include a detail study of different image forgery detection techniques, different tampering techniques and a detailed study of different block based and keypoint based method.</p> <p>Keywords: Copy move forgery, DCT, DWT, SIFT, SURF</p> <p>References:</p> <ol style="list-style-type: none"> 1. Snigdha K. Mankar, Prof. Dr. Ajay A. Gurjar, ' Image Forgery Types and Their Detection: A Review', International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue 4, April 2015 2. Nishtha Parashar and Nirupama Tiwari, 'A Survey Of Digital Image Tampering Techniques', International Journal of Signal Processing, Image Processing and Pattern Recognition Vol.8, No.10 (2015), pp.91-96 3. Ardizzone E, Bruno A, Mazzola G. Detecting multiple copies in tampered images. In: Image Processing (ICIP), 2010 17th IEEE International Conference on. IEEE; 2010. p. 2117–20. 4. R. Singh, A. Oberoi, and N. Goel, "Copymove forgery detection on digital images," International Journal of Computer Applications, vol. 98, no. 9, pp. 17–22, 2014. 5. Y. Cao, T. Gao, L. Fan, and Q. Yang, "A robust detection algorithm for copy-move forgery in digital images," Forensic science international, vol. 214, no. 1, pp. 33–43, 2012. 6. J. Zhao and J. Guo, "Passive forensics for copy move image forgery using a method based on DCT and SVD," Forensic science international, vol. 233, no. 1, pp. 158–166, 2013. 7. S. Kumar, J. Desai, and S. Mukherjee, "Copy move forgery detection in contrast variant environment using binary DCT vectors," International Journal of Image, Graphics and Signal Processing, vol. 7, no. 6, pp. 38–44, 2015. 8. Preeti Yadav, Yogesh Rathore, "Detection of Copy-Move Forgery of Images Using Discrete Wavelet Transform", International Journal on Computer Science and Engineering (IJCSSE), Vol. 4 No. 04 ,pp. 565-570, April 2012 9. C. Popescu and H. Farid, "Exposing Digital Forgeries by Detecting Duplicated Image Regions," Technical Report, TR2004-515, Department of Computer Science, Dartmouth College, 2004 10. Swapnil HK, Gawande A. Copy-Move Attack Forgery Detection by Using SIFT. International Journal for Innovative Technology and Engineering IJITEE. 2013;2(5). 11. Chihaoui T, Bourouis S, Hamrouni K. Copy-move image forgery detection based on SIFT descriptors and SVD-matching. In: Advanced Technologies for Signal and Image Processing (ATSIP), 2014 1st International Conference on. IEEE; 2014. p. 125–9. 12. Shivakumar B, Baboo LDSS. Detection of region duplication forgery in digital images using SURF. IJCSI International Journal Computer Science Issues. 2011;8(4). 13. Hashmi MF, Anand V, Keskar AG. A copy-move image forgery detection based on speeded up robust feature transform and Wavelet Transforms. In: Computer and Communication Technology (ICCT), 2014 International Conference on. IEEE; 2014. p. 147–52.
48.	Authors:	<p>Gayathri S P, Sajeer M</p> <p>Paper Title:</p> <p>Biometric Information Security System Based On Nonlinear Encryption Scheme</p> <p>Abstract: With the growth of multimedia and digital technology the transmission over public channel become more common and also the issues with the confidentiality and integrity of data increases in an alarming rate. Biometric characteristics such as fingerprint , iris , palm print, gestures, handwritten signature and hand geometry have to be considered as an efficient tool for establishing the identity of an individual. Because they contain the unique characteristics of a person. So we proposed a method, to protect the biometric information from any of the unauthorized access. Which utilizes an orthogonal coding and multiplexing technique, direct LSB replacement steganography technique and finally a chaotic encryption method. Multiple biometric signatures are encoded and then multiplexed together in the form of a single image using orthogonal encoding and multiplexing. The encoded image is embedded in to the colour cover image ,which is decomposed in to three plane namely red ,green ,blue respectively. In steganography technique, the multiplexed image pixel is used to replace the LSB of corresponding colour cover image pixel for information hiding purpose. Finally, the stego image is encrypted using a non linear encryption technique. The objective of this paper is to develop a novel and efficient technique to protect the Biometric Information from any unauthorized access and also reduces the vulnerability of an intruder to retrieving any information through any steganalysis attack .In addition to this technique can also accommodate a number of different biometric information in the same cover image while maintaining the negligible amount of distortion when compared with original colour cover image. The encrypted images are random, non repeated and unpredictable. Chaotic encryption have excellent diffusion and confusion properties and can resist the any plaintext attack. The Performance of the proposed technique was investigated through matlab simulation using various biometric signatures and colour cover images.</p> <p>Keywords: orthogonal transform, steganography, nonlinear encryption , chaotic system</p>

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49.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Manjith Shukur, U. S. P. Shet</td> </tr> <tr> <td>Paper Title:</td> <td>Experimental Investigations on the Performance and Efficiency of a Typical Domestic LPG Gas Stove</td> </tr> </table> <p>Abstract: Industrial, commercial and domestic gas appliances cover an extremely wide range of requirements with regard to flame stability, flame temperature, shape, size and aeration which need to be satisfied for optimum performance. With the wide spread use of LPG in industrial, commercial and domestic appliances, it should be our endeavor to design efficient burner systems not only to conserve fuel but also to keep our environment clean and green. In atmospheric burner primary air is entrained by momentum sharing between the gas and the surrounding air. The amount of air induced in this way is generally about 50 to 70 % of the stoichiometric air requirement. Two types of atmospheric burners may be distinguished, those in which the gas issues at normal supply pressure and those in which the gas is supplied from a compressor or high pressure supply. The importance of the former type, e.g., the Bunsen burner type heralded a new phase in gas utilization development when it was first introduced. Low-pressure atmospheric burners are restricted to industrial appliances, however they have been adopted on a limited scale. The present experiment consist of measuring the thermal efficiency of a LPG gas stove without wire mesh with varying heights of the vessel above the stove head: the height at which the thermal efficiency is maximum is noted for two burners i.e. BIG BURNER and SMALL BURNER for two gas input rates, i.e., the SIM (LOW) Flame and HIGH Flame position.</p> <p>Keywords: Domestic Lpg Gas Stove, burner, flame.</p> <p>References:</p> <ol style="list-style-type: none"> 1. H. R. N. Jones, Domestic Gs Burner Design, E & FN. Spon, British Gas 1989. 2. T.N. Singh, Effect of Flame Ring Design on Thermal Efficiencies of the Pressure Stoves, Narosa, Delhi 2000. 3. T.N. Singh, K.N. Dobhal, A.L. Arora and K.K.Gandhi, Effect of Design Parameters on Thermal Efficiency of Pressure Stove, Narosa, Delhi 2000. 4. K.N.Dobhal and S.K.Khanna, Thermal Efficiency with Respect to Clearance in Domestic Heating Appliances, Narosa, Delhi 2000. 5. Dougworth, M.R. and Melvin, A, The proceeding of the16th Symposium (International) on Combustion, 255 (1977). 	Authors:	Manjith Shukur, U. S. P. Shet	Paper Title:	Experimental Investigations on the Performance and Efficiency of a Typical Domestic LPG Gas Stove	263-265
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50.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>Manjith Shukur, U. S. P. Shet</td> </tr> <tr> <td>Paper Title:</td> <td>Experimental Investigations on the Efficacy Augmentation of a Domestic LPG Gas Stove using an Add-on Wire Mesh</td> </tr> </table> <p>Abstract: There have been several attempts to improve thermal efficiency of gas stoves by improving various parameters like flame stability, flame temperature, shape, size and aeration etc. including the burner heads. The spacing of ports, inclination of the flame cones, port geometry are also important parameters which govern the flow pattern of hot gases impinging on the heat exchanger vessel. Several gadgets are displayed on the market, claiming that they can improve thermal efficiency of the gas stove. One such gadget is the wire mesh disc, which placed over the burner head is claimed to improve thermal efficiency of the stove. The mesh is made of durable special compound metal alloy to withstand vigorous LPG heat. Interwoven wires enable concentrated high flame. Also, the utensils do not get blackened as no unburned hydrocarbons are produced. This work aims at quantifying the effect of add-on disc holding wire-mesh above the burner head on the thermal efficiency of the gas stove and to determine its optimum location to further improve the thermal efficiency. The experiments suggest that the use of wire mesh on burner head improves gas stove thermal efficiency. Use of this gadget will be beneficial, as it leads to saving of LPG, however small, and on a global scale, it will be a major step towards energy conservation as millions of stove operate globally.</p> <p>Keywords: Efficacy Augmentation, Domestic LPG Gas Stove, Add-on Wire Mesh</p> <p>References:</p> <ol style="list-style-type: none"> 1. H.R.N.Jones, Domestic Gs Burner Design, E & FN. Spon, British Gas 1989. 2. T.N. Singh, Effect of Flame Ring Design on Thermal Efficiencies of the Pressure Stoves, Narosa, Delhi 2000. 3. T.N. Singh, K.N. Dobhal, A.L. Arora and K.K.Gandhi, Effect of Design Parameters on Thermal Efficiency of Pressure Stove, Narosa, Delhi 2000. 4. K.N.Dobhal and S.K.Khanna, Thermal Efficiency with Respect to Clearance in Domestic Heating Appliances, Narosa, Delhi 2000. 5. Dougworth, M.R. and Melvin, A, The proceeding of the16th Symposium (International) on Combustion, 255 (1977). 	Authors:	Manjith Shukur, U. S. P. Shet	Paper Title:	Experimental Investigations on the Efficacy Augmentation of a Domestic LPG Gas Stove using an Add-on Wire Mesh	266-268
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