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S. No	Volume-5 Issue-1, October 2015, ISSN: 2249-8958 (Online) Published By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.		Page No.
1.	Authors:	Nasser. R.A., Hee. H.C., Ervina Junaidi, Martin Anyi	
	Paper Title:	Hydro Rice Milling Machine	
	<p>Abstract: It has been reported that 41% of the countryside and isolated areas in Sarawak which still have no electricity coverage, compared to only 10% in Peninsular Malaysia. Furthermore, most of the Sarawak rural communities are farmers and families are feeding on the harvesting of paddies. The harvesting of paddies in rural area of Sarawak is inefficiency as compared to other parts of the world due to insufficient supply of electricity. This study investigates the feasibility of implementing hydropower generated rice milling machine in rural area of Sarawak through laboratory testing on minimum power required to run the rice milling machine and the power that can be supplied from the open channel. The results show that with the current open channel flume and the structure of the rice milling machine, it is feasible to replace traditional methods (beating or foot husk) and more modern methods (gasoline powered engine or electricity dependence rice miller) with the hydro rice milling machine.</p> <p>Keywords: harvesting of paddies, Hydropower, Open channel, Rice milling machine.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Sarawak Government. (n.d.). Climate and rainfall. Available: http://www.sarawak.gov.my/web/home/article_view/159/176/ 2. S. K. Goyal, S. V. Jogdand, A. K. Agrawal. (2012). Energy use pattern in rice milling industries – a critical appraisal. <i>Journal of Food Science and Technology</i>. Columbia: Springer Science & Business Media, 2012. 3. M. H. Chaudhry. Open channel flow. Columbia: Springer Science & Business Media, 2007. 		1-4
Authors:	A. Chennakesava Reddy		
Paper Title:	Effects of Adhesive and Interphase Characteristics between Matrix and Reinforced Nanoparticle of AA2124/AlN Nanocomposites: Mathematical and Experimental Validation		
2.	<p>Abstract: Interphase around the reinforcement has significant influence on the interfacial stress, displacement and stiffness of composites. In this article two types of RVE models have been implemented using finite element analysis. Aluminum nitride nanoparticles were used as a reinforcing material in the matrix of AA2124 aluminum alloy. It has been observed that the nanoparticle did not overload during the transfer of load from the matrix to the nanoparticle via the interphase due to interphase between the nanoparticle and the matrix. The maximum tensile strengths of AlN/AA2124 nanocomposite have been found 535.40 MPa without interphase and 561.57 MPa with interphase. The transverse modulus has been established lower than the longitudinal modulus of AA2124/AlN nanocomposites. The results obtained from the finite element analysis were validated with mathematically derived and experimental results.</p> <p>Keywords: RVE models, AlN nanoparticle, AA2124, finite element analysis, interphase, transverse modulus.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Chennakesava Reddy, "Mechanical properties and fracture behavior of 6061/SiCp Metal Matrix Composites Fabricated by Low Pressure Die Casting Process," <i>J. Manuf. Technol. Res.</i>, vol.1 (3/4), 2009, pp. 273-286. 2. A.Chennakesava Reddy and Essa Zitoun, "Tensile properties and fracture behavior of 6061/Al₂O₃ metal matrix composites fabricated by low pressure die casting process, <i>Int. J. Mater. Sci.</i>, vol.6(2), 2011, pp. 147-157. 3. X. Deng and N. Chawla, "Modeling the effect of particle clustering on the mechanical behavior of SiC particle reinforced Al matrix composites," <i>J. Mater. Sci.</i>, vol.41, 2006, pp.5731-5734. 4. A.J.Reeves, H.Dunlop and T.W. Clyne, "The effect of interfacial reaction layer thickness on fracture of titanium-SiC particulate composites," <i>Metall. Trans. A</i>, vol.23, 1992, pp.977-88. 5. Kotiveerachari and A. Chennakesava Reddy, "Interfacial effect on the fracture mechanism in GFRP composites," CEMILAC Conference, Ministry of Defense, India. 1999, 1(b), pp.85-87. 6. Chennakesava Reddy, Analysis of the Relationship Between the Interface Structure and the Strength of Carbon-Aluminum Composites, NATCON-ME, Bangalore, 13-14th March, 2004, pp.61-62. 7. S. Ren, X. Shen, X. Qu and X. He, "Effect of Mg and Si on infiltration behavior of Al alloys pressureless infiltration into porous SiCp preforms," <i>Int. J. Miner. Metall. Mater.</i> Vol.18 (6), (2011), pp.703-708. 8. N. Sobczak, M. Ksiazek, W. Radziwill, J. Morgiel, W. Baliga, and L. Stobierski, "Effect of titanium on wettability and interfaces in the Al/ SiC system," in: <i>Proceedings of the International Conference High Temperature Capillarity</i>, Cracow, Poland, 29 June-2 July 1997. 9. A.M. Davidson and D. Regener, "A comparison of aluminium based metal matrix composites reinforced with coated and uncoated particulate silicon carbide. <i>Compos. Sci. & Technol.</i>, vol.60(6), 2000, pp.865-869. 10. M. Romanowicz, "Progressive failure analysis of unidirectional fiber-reinforced polymers with inhomogeneous interphase and randomly distributed fibers under transverse tensile loading," <i>Compos. A</i>, vol.41, 2010, pp.1829-1838. 11. R. Hill, "Elastic properties of reinforced solids: some theoretical principles," <i>J. Mech. Phys. Solids</i>, vol.11, 1963, pp.357-372. 12. Y.J. Liu and X.L. Chen, "Evaluations of the effective material properties of carbon nanotube-based composites using a nanoscale representative volume element," <i>Mech. Mater.</i>, vol.35, 2003, pp.69-81. 13. Chennakesava R Alavala, "Finite element methods: Basic concepts and applications," PHI Learning Pvt. Ltd., New Delhi, 2008. 14. Chenna kesava Reddy, "Cause and Catastrophe of Strengthening Mechanisms in 6061/Al₂O₃ Composites Prepared by Stir Casting Process and Validation Using FEA," <i>Int. J. Sci. & Res.</i>, vol.4(2), 2015, pp.1272-1281. 15. Chennakesava Reddy, "Influence of Particle Size, Precipitates, Particle Cracking, Porosity and Clustering of Particles on Tensile Strength of 6061/SiCp Metal Matrix Composites and Validation Using FEA," <i>Int. J. Mater. Sci.& Manuf. Eng.</i>, vol.42(1), 2015, pp. 1176-1186. 16. Zhengang Liuy, Guoyin Zu, Hongjie Luo, Yihan Liu and Guangchun Yao, "Influence of Mg Addition on Graphite Particle Distribution in the Al Matrix Composites," <i>J. Mater. Sci. & Technol.</i>, vol.26 (3), 2010, pp.244-250. 17. Chennakesava Reddy and Essa Zitoun, "Matrix alloys for alumina particle reinforced metal matrix composites," <i>Indian Foundry J.</i>, vol.55 (1), 2009, pp.12-16. 18. Z. Hashin, "Thermoelastic Properties of Fiber Composites With Imperfect Interface," <i>Mech. of Mater.</i>, vol. 8, 1990, pp. 333-348. 		5-12

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3.	Authors: David R. Tuigong, Thomas K. Kipkurgat	13-16
	Paper Title: Viability of Using Solar Photovoltaic Systems in Textiles Industries in Kenya: a Case of Rivatex East Africa Limited	
	<p>Abstract: The low supply and the high cost of electricity create a huge gap between demand and supply in Kenya, making industries to look for alternative ways of generating cheap and renewable power. This paper attempts to identify the challenges and drivers of the using solar photovoltaic system in textiles industries with a case of Rivatex East Africa Limited. The study adopted a qualitative research method in order to achieve the intended objectives. Data was collected using interviews. The findings indicates that for textiles industries to operate optimally and cut down on the production cost, there is need for alternative means of generating power and one of the options is to purchase and install solar PVC's. Another factor that motivates the textiles industry to invest on PVC is the sustainability that solar energy creates. The study also reveals that inadequate policies to encourage subsidies by the government, high cost of installation, challenges to access funding, high and fluctuating interest rates for loans to invest on renewable technology were identified as the major barriers to industries adapting to solar energy. Furthermore, the study revealed other barriers such as lack of awareness and inappropriate information concerning solar energy coupled with poor implementation of policies were also factors that were identified in the study. The study recommends that appropriate structures and policies that encourage subsidies for industries to be put in place to encourage such industries to invest in renewable energy. The government should also give support to industries in terms of funding renewable energy investments.</p> <p>Keywords: Renewable energy, Textiles industries, Photovoltaic, Rivatex, Solar energy</p> <p>References:</p> <ol style="list-style-type: none"> 1. Chaurey A., Kandpal T., (2010). Assessment and evaluation of PV based decentralized rural electrification: and overview. Indian institute of Technology. <i>Renewable and sustainable Energy Reviews</i> Volume 14, Issue 8, pp 2266-2278. 2. Duffie, J.A., Beckman, W.A. (1991). <i>Solar Engineering of Thermal Processes</i>, John Wiley and Sons, New York. 3. GOK (Government of Kenya). (2011). <i>Scaling-Up Renewable Energy Program (SREP): Investment Plan for Kenya</i>. Government Printer, Nairobi. 4. Haar, N. & Theyel, G. (2006). U.S. electric utilities and renewable energy: drivers for adoption. <i>International Journal of Green Energy</i>, 3,271-28. 5. Kirui, H. W. (2006). <i>Assessment of Solar and Wind Energy Potential in the Central Rift Valley of Kenya</i>. M.Sc Thesis. Egerton University, Kenya. 6. Martinot, E. & McDoom, O. (1999). <i>Promoting Energy Efficiency and Renewable Energy: GEF Climate Change Projects and Impacts</i> Washington, DC.: Global Environmental Facility. 7. Neville, R. C., (1995). <i>Solar Energy Conversion</i>. Elsevier Science B. V. Publishers, Netherlands. 8. Randolph J., Masters G. (2008). <i>Energy for sustainability: Technology, Planning, Policy</i>. Island Press. 	
4.	Authors: Amit J. Modak, H. P. Inamdar	17-27
	Paper Title: Optimal Simulated Design of RBF Neural Network Classifier Block for Assessment of State of Degradation in Stator Insulation of Induction Motor	
	<p>Abstract: In the present work the design of discrete 'ANN' simulation model is done for the classification and qualitative assessment of the state of degradation of insulation in the respective phases of three-phase ac induction motor. The extraction of mathematical parameters of stator current data pattern, which are simulating the specific state of degradation of insulation based on Park's current transformation model, are presented in the previous research papers. The methodology adopted towards the optimal design process of the discrete neural network classifier blocks of discrete 'ANN' simulation model, which are designed on the basis of 'radial basis function' (RBF) type of neural network architecture for the qualitative assessment of the state of degradation of stator insulation is described in the present research paper.</p> <p>Keywords: induction motor, stator insulation, radial basis function, artificial neural network, Park's current transformation</p> <p>References:</p> <ol style="list-style-type: none"> 1. G. C. Stone, H. G. Sedding, B.A. Lloyd and B.K. Gupta, "The ability of diagnostic tests to estimate the remaining life of stator insulation," <i>IEEE Trans. Energy Conversion</i>, vol.3, no.4, Dec.1988, pp. 833 - 841. 2. Yoshida, H. and K. Umemoto, "Insulation Diagnosis for Rotating Machine Insulation," <i>IEEE Trans. Electrical Insulation</i>, vol. 21, no.6, Dec. 1986, pp. 1021-1025. 3. Tsukui, T., M. Takamura and Y. Kako, "Correlations between Nondestructive and Destructive Tests on High-Voltage Coil Insulations for Rotating Machines," <i>IEEE Trans. Electrical Insulation</i>, vol. 15, no. 2, April 1980, pp. 118-124. 4. A.J. Modak and H.P. Inamdar, "Performance Evaluation of Computer Simulated Extracted Features of Induction Motor with Intermediate State of Degradation Present in Any One-Phase," <i>International Journal of Applied Information Systems (IJ AIS)</i>, Foundation of Computer Science FCS, New York, USA vol. 1, no.2, January 2012, (ISSN : 2249-0868) 5. A.J. Modak and H.P. Inamdar, "Performance Evaluation of Computer Simulated Extracted Features of Induction Motor with Healthy State of Insulation Present in Any Two-Phases," <i>International Journal of Computer and Electrical Engineering (IJCEE)</i>, International Association of Computer Science and Information Technology Press (IACSIT), Singapore, vol.4, no.1, February 2012, pp. 65-74, DOI:10.7763/IJCEE.2012.V4.453, (ISSN: 1793-8163) 6. A.J. Modak and H.P. Inamdar, "Computer Simulated Extracted Parameters of Induction Motor for Unequal Variation in State of Degradation of Insulation in all Three-phases," <i>Proc. 7th IEEE Int. Conf. Industrial Electronics and Applications (ICIEA)</i>, Singapore, July 2012, pp. 1229-1235, IEEE Catalog Number: CFP1220A-CDR, (ISBN: 978-1-4577-2119-9/12) 7. [NEUROSOLUTIONS, 5.0]: NEUROSOLUTION Version 5.0,http:// www.neurosolutions.com, NeuroDimension, Inc. 3701 NW 40th Terrace, Suite 1, Gainesville, FL 32606. 	
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	Paper Title: Multiresolution Color Denoising using Biorthogonal Wavelets for Satellite Images	

	<p>Abstract: Satellite images are required to be of high quality since most of the databases created by different countries are using the images especially for Geographical Information System (GIS) applications and military purposes. Recently available high resolution multi spectral imaging sensors facilitate greatly the process of feature extraction which is given as the input to the database systems. But because of the sensor vibrations, different angle of inclinations, influence of clouds & shadows and many unwanted factors create noise in satellite images which ultimately affects the quality of feature extraction process. In this paper a novel method of multiresolution colour image denoising using bi-orthogonal wavelets is discussed. The method is compared with other orthogonal wavelet denoising schemes and existing techniques based on patch processing. Experimental analysis and visual inspection of images validates the superior performance of the proposed method.</p> <p>Keywords: Multispectral, Biorthogonal, Daubechies, Decomposition, Multispec32, Quality Measures</p> <p>References:</p> <ol style="list-style-type: none"> 1. S. Shrestha, "Image Denoising using New Adaptive based Median Filter", An International Journal of Signal & Image Processing (SIPIJ), Vol.5, NO.4, PP. 1-13, Aug. 2014. 2. V. Govindaraj and G. Sengottaiyan, "Survey of Image Denoising using Different Filters", International Journal of Science, Engineering and Technology Research (IJSETR), Vol.2, NO. 2, pp. 344-351, Feb.2013. 3. B. K. Shreyamsha Kumar, "Image Denoising based on Gaussian/Bilateral Filter and its Method for Noise Thresholding", Signal, Image and Video Processing , Springer, vol.7, no.6, pp 1159-1172, 2012. 4. 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6.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>ASM Delowar Hossain</td> </tr> <tr> <td>Paper Title:</td> <td>Consolidation of Accreditation Activities to Improve Assessment of Student Learning Outcomes in Technical Disciplines</td> </tr> </table> <p>Abstract: Lack of coordination in accreditation activities results in assessment being a burdensome and inefficient process. This work emphasizes the need of a preemptive and coordinated effort to consolidate various accreditation activities to make the assessment process more streamlined and efficient within the context of technical discipline. Specifically, this work demonstrates common grounds of assessment activities between the regional standards and ABETS accreditation criteria to attain assessment efficiency.</p> <p>Keywords: Assessment, Accreditation, Engineering Education</p> <p>References:</p> <ol style="list-style-type: none"> 1. http://chea.org/pdf/Overview%20of%20US%20Accreditation%2003.2011.pdf 2. http://ope.ed.gov/accreditation/FAQAccr.aspx 3. http://www.50states.com/college-resources/accreditation.htm#_VRcAdNgtH_s 4. The Chronicle of Higher Education Almanac, Issue 2010-2011, August 27, 2010 5. http://www.chea.org/pdf/2014-2015_Directory_of_CHEA_Recognized_Organizations.pdf, 2014 6. www.msche.org 7. http://www.abet.org/accrediation 8. http://www.abet.org/uploadedFiles/Accreditation/Accreditation_Step_by_Step/Accreditation_Documents/Current/2014_- 	Authors:	ASM Delowar Hossain	Paper Title:	Consolidation of Accreditation Activities to Improve Assessment of Student Learning Outcomes in Technical Disciplines	35-37
Authors:	ASM Delowar Hossain					
Paper Title:	Consolidation of Accreditation Activities to Improve Assessment of Student Learning Outcomes in Technical Disciplines					

	<p>_2015/T001%2014-15%20ETAC%20Criteria%2010-26-13.pdf, 2014</p> <p>9. Kuh, G. D., & Ikenberry, S. O., "More than you think, less than we need: Learning outcomes assessment in American higher education", Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment, October 2009.</p> <p>10. "2011 outcomes assessment accreditation handbook", http://atmae.org/index.php?option, October 24, 2011</p> <p>11. Middle States Commission on Higher Education (MSCHE), "Characteristics of excellence in higher education: Requirements of affiliation and standards for accreditation", http://www.msche.org/publications/CHX06_Aug08REVMarch09.pdf, 2009</p> <p>12. Brumm, T., Mickelson, S., Steward, B., & Kaleita, A., "Competency-based outcomes assessment for agricultural engineering programs. International Journal of Engineering Education", 22(6), 1163–1172, 2006.</p>	
7.	<p>Authors: Lakshmi HV</p>	
	<p>Paper Title: Detection of Intrusion and Honey Net Architecture Approach to Defend in Virtual Network Systems</p>	
	<p>Abstract: Security in cloud is one of the most important issues that drawn interest of research and development in past years. Hackers can explore vulnerabilities of cloud system and to deploy large-scale Distributed Denial-of-Service they compromise virtual machines. Distributed Denial-of-Service attacks involve early stage actions as multi-step exploitation, less frequency vulnerability scanning, and compromising insecure virtual machines, and Distributed Denial-of-Service attacks through the compromised VMs. In cloud system, the detection of zombie attacks is difficult. Because users may install insecure applications on their VMs to avoid insecure virtual machines from being compromised in the cloud, we propose a multi-phase distributed vulnerability finding, and Honey Net approach to fight back the attack. HoneyPot is a data system resource and its value lies in unauthorized use of that resource of system. Honey nets are "a security resource whose value lies in being attacked". HoneyPots and honey nets are used to collect data about threats that organizations might face and hence protect them.</p> <p>Keywords: Network Security, Honey Pot, Honey Net, Cloud Computing, Intrusion Detection</p> <p>References:</p> <ol style="list-style-type: none"> 1. Cloud Security Alliance, "Top threats to cloud computing v1.0," https://cloudsecurityalliance.org/topthreats/csathreats.v1.0.pdf, March 2010. 2. M. Armbrust, A. Fox, R. Griffith, A. D. Joseph, R. Katz, A. Kon-winski, G. Lee, D. Patterson, A. Rabkin, I. Stoica, and M. Zaharia, "A view of cloud computing," ACM Commun., vol. 53, no. 4, pp. 2010. 3. R.Thomas, B. Mark, T. Johnson. NetBouncer: client-legitimacy-based high-performance DDoS filtering [J]. In Pro of DARPA information Survivability Conference and Exposition. Washington, DC, 2003:14-25. 4. T. Peng, C. Leckie, K. Ramamohanarao. Protection from distributed denial of service attacks using history-based IP filtering [J]. In Pro of IEEE International Conference on Communications (ICC03), Anchorage, Alaska, USA, 2003:482-486. 5. Zhu Ge Jianwei. HoneyPot and honeynet technology description [J].Peking University Institute of Computer Technology, 2006. 6. Shi Weiqi, Chengjie Ren. HoneyPot technologies and applications[J]. Computer Engineering and Design, 2008,29 (22) :5725-5728. 7. J. Mirkovic, G. Prier, P. Reiher. Source-end DDoS defense [J]. In Pro of IEEE International Symposium on Network Computing and Applications (NCA2003). Ca mbridge, Massachusetts, 2003:171-178.1989. 8. Yang Shangsen, Hu Bei. Based on Intrusion Deception active honeypot technology system design [J]. Computer Applications and Software, 2008,25 (1) :259-260. 	38-40
8.	<p>Authors: M. Jagannadha Rao, B. Gopal Krishna</p>	
	<p>Paper Title: Synthesis of Copper Silicate (CuSiO₃.H₂O) using Copper Oxide, Quartz and Microbes</p>	
	<p>Abstract: Microbes like bacteria, algae, fungi and virus play an important role to catalyst chemical reactions. In Nature, ores or minerals of different compounds are formed due to microbial environment and other factors like weathering. Microbial environment is also instrumental in forming copper containing silicate minerals. Chemical reactions occur under microbial environment because microbes have the ability to control or modify different factors like pH, chemical potential and temperature during reactions. In this paper, synthesis of copper silicate (CuSiO₃.H₂O) using copper oxide (CuO) and quartz (SiO₂) under microbial environment in the laboratory is being adopted to produce the material. XRD technique is used to confirm the formation of CuSiO₃.H₂O.</p> <p>Keywords: Copper oxide, Quartz, CuSiO₃, microbes, XRD</p> <p>References:</p> <ol style="list-style-type: none"> 1. R . M .Atlas, and R. Bartha, Microbial ecology. Fundamentals and Applications. Benjamin/Cumming Pub. Co., Inc.,1998. 2. L .Bhatnagar, and B . Z .Fathpure, Mixed cultures in Detoxification of hazardous waste. In: Mixed Cultures in Biotechnology, Zeikus, G. and Johnson, E. A., eds., McGraw-Hill, Inc. , p. 293-340, 1991. 3. T.D. Brock, Biology of Microorganisms. 2/e. Prentice-Hall, Englewood Cliffs, NJ.,1974. 4. E.S. Deevey Jr., Mineral cycles. Sci. Amer., 223(3) , p.149-158, 1991. 5. R.L. Dimmick, H. Wolochow, and M.A. Chatigny, Evidence that bacteria can form new cells in airborne particles. Appl. Environ. Microbiol., 37, p.924-927, 1979. 6. P.N. Hobson, and N.J.Poole, In: Microorganisms in action: Concepts and applications in Microbial Ecology. Blackwell Sci. Pub., Oxford., p.302, 1988. 7. W.E. Krumbein, On the precipitation of aragonite on the surface of marine bacteria. Naturwissenschaften., 61, p.167, 1970. 8. S.I. Kuznetsov, M.V. Ivanov, and N.N. Lyalikova, Introduction to Geological Microbiology. McGraw Hill, New York., p. 26, 1963. 9. R. Lynd Lee, J. Weimer Paul, H. van Zyl Willem, and S. Pretorius Isak, Microbial Cellulose Utilization: Fundamentals and Biotechnology. Microbiol. Mol. Biol. Rev., 66 (3), p.506-577, 2000. 10. R.Y. Morita, Calcite precipitation by marine bacteria. Geomicrobiol. J., 2 , p. 63-82, 1980. 11. D.M. Webley, R .B. Duff, and W.A. Mitchell, A plate method for studying the breakdown of synthetic and natural silicates by soil bacteria. Nature , 188, p.766-767, 1960. 12. T. Yanagita, Natural Microbial Communities: Ecological and physiological features. Japan Sci. Soc. Press, Tokyo and Spriger-Verlag, Berlin, p. 417-425, 1990. 13. R .H. Sillitoe, Epochs of intrusion-related copper mineralization in the Andes: Journal of South American Earth Sciences, 1, p. 89–108, 1988. 	41-44

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Paper Title: Digraph Approximation with an Adaptation Technique for Mobile User Authentication through Keystroke Dynamics

Abstract: Mobile devices have evolved at a proliferating rate and are now used in almost all aspects of life. With these the ability to store potentially private or sensitive information on these devices has also increased. Hence an intrusion detection and prevention system is a necessity for preserving the confidentiality and integrity of users. Keystroke dynamics which refers to detailed typing pattern of a person is used to model user behavior and use the so formed footprint for user identification and intrusion detection. A neural network based system using monograph and digraph timings with digraph approximation and adaptation technique is proposed for keystroke dynamics in mobile devices for free text data. With adaptation mechanism, the missing monographs and digraphs and also the time bound variations of user keystroke time variations are captured and adapted. The combined use of digraph approximation and adaptation yields a False Acceptance Rate (FAR) and False Rejection Rate (FRR) of 0% for 22 users. The impact of adaptation on other performance measures like accuracy, specificity, sensitivity and Mean Square Error(MSE) is also studied.

Keywords: Keystroke Dynamics, Intrusion Detection, Adaptation Mechanism, Keystroke Authentication

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	Authors:	Davood Kaviani, Majid Saghi, Maryam Sabonian, Mohammad Hosein Bigtan, Behzad Padidaran a	
	Paper Title:	Orthogonal Array Design for the Optimization of Solvent-Assisted Dispersive Solid Phase Extraction for the Determination of Copper Ions in Water and Vegetable Food Samples using Flame Atomic Absorption Spectrometry	
		<p>Abstract: A simple and efficient dispersive solid -phase micro extraction technique was developed and combined with flame atomic absorption spectrometry, for the extraction and determination of trace amounts of copper in real samples.2-(5Bromo-2-pyridylazol)-5-(diethyl amino)-phenol (5-Br-PADAP) was used as chelating agent and benzophenon was selected as extraction solvent. Several possible influential factors such as the type and amount of extraction solvent, amount of autistic agent, sample pH, were optimized using orthogonal array design (OAD) with OA16(4)5 matrix. Under optimum conditions, an enrichment factor of 13 was obtained. The analytical curves were linear between 5-2000 µg L-1. Based on three SD of the blank, the detection limits was 1.2 µg L-1. The relative SDs for eight replicate measurements of 100 µg L-1 of metal ions was 3.2%. The proposed method was successfully applied for determination of copper in environmental waters and some vegetable samples including Pepper, Tomato, Thyme, Aloe vera gel, Morus.</p> <p>Keywords: Solvent-assisted dispersive solid phase extraction, Copper (II), Flame atomic absorption spectrometry, Food and environmental water samples.</p> <p>References:</p> <ol style="list-style-type: none"> 1. C.L. Arthur, Pawliszyn, Anal. Chem., 62 (1990) 2145. 2. J. Pawlyszyn, Anal. Chem., 75 (2003) 2543. 3. J. Pawlyszyn, Anal. Chem., 75 (2003) 2543. 4. S.B. Hawthorne, Anal. Chem., 62 (1990) 633 A. 5. Robert L. Grob, Eugene F. Barry, Modern practice of gas chromatography, Fourth edition, John Wiley & Sons, Inc, 2004. 6. J.L.Manzoori , A.Bavili.Tabrizi , J.Anal.Chem. , 470(2002) 2150. 7. M. A. Jeannot. F.F. Cantwell, Anal. Chem., 71 (1999) 388. 8. Y. He, H.K. Lee, Anal. Chem, 69 (1997) 4634. 9. H. Lui, P.K. Dasgupta, Anal. Chem, 68 (1996) 1817. 10. M.A. Jeannot. F.F. Cantwell, Anal. Chem., 68 (1996) 2236. 11. H. Lord, J. Pawlyszyn, J. Chromatogr, A 902 (2000) 17. 12. M. A. Jeannot. F.F. Cantwell, Anal. Chem., 70 (1999) 3912. 13. Francisco Pena-Pereir, Isela Lavill, Carlos Bendicho, Miniaturized preconcentration methods based on liquid-liquid extraction and their application in inorganic ultratrace analysis and speciation: A review, Spectrochimica Acta Part B 64 (2009) 1-15. 14. Zhefeng Fan, Xuejuan Liu, Determination of methylmercury and phenylmercury in watersamples by liquid-liquid-liquid microextraction coupledwith capillary electrophoresis, Journal of Chromatography A, 1180 (2008) 187-192. 15. YanLiu,Yuki Hashi, Jin-Ming Lin,Continuous-flow icroextraction and gas romatographic -massspectrometricdetermination of polycyclic aromatchydrocarbon compounds in water, Analytica Chimica Acta 585 (2007) 294-299. 16. H. Kataoka, H.L. Lord, J. Pawlyszyn, J. Chromatogr., A 880 (2000) 35. 17. M .Otto, Chemoetrics:Statistical andcomputer Application in Analytical Chemistry ,Johnwiley ,Newyork,1999. 18. K.Goto,Y.Fukue.H.Watanabe,Talanta ,24(1977)752. 19. H.Watanabe,H.Talanta, 25(1978)585. 20. H.Watanabe,Solution behavior of surfactants,Plenmun Press, New York, USA, 1982. 21. E.Pelizzetti,E.Parmaua,Anal.Chim.Acta,169(1985)1. 22. Y.Wang,Y.C. Kwok, Y. He, H.K. Lee, Anal. Chem., 70 (1998) 4610. 23. E.K.Paleogos, D.L.Giokas, M.I.Karayannis, Trend , Anal .Chem, 24(2005)426. 24. M. A. Jeannot. F.F. Cantwell, Anal. Chem., 71 (1999) 388. 25. W. Liu, H.K. Lee. Anal. Chem., 72 (2000) 4462. 26. Z. Mester, R. Sturgeon, J. Pawliszyn, Spectrochim Acta part B 56 (2001) 233. 27. Przejazny, J.M. Kokosa, J. Chromatogr., A 977 (2002) 143. 	52-56
	Authors:	Davood Kaviani, Majid Saghi, Maryam Sabonian, Mohammad Hosein Bigtan, Behzad Padidaran a	
	Paper Title:	Performance and Emission Characteristics of CI Engine Operated with Waste Cooking oil Methyl-Ester and Diesel Blends	
		<p>Abstract: Biodiesel from bio-oils are considered as the promising renewable alternative fuel for CI engine. However the damped waste cooking oil poured in the earth is one of the contributors of water and environmental pollution. In this study, biodiesel from waste cooking oil (WCO) is produced by transesterification reaction and blended with diesel fuel (B10, B20, B30, B40, B50). These blends were tested in single cylinder, 4-stroke, water cooled CI engine at different loads with 1500rpm constant engine speed to evaluate the performance and emission characteristics. Performance study contains brake thermal efficiency, specific fuel consumption while emission study consider NOx, CO, CO2 emission. During experimentation it was found that an increase of load leads to increase of brake thermal efficiency and decrease in specific fuel consumption. It was also observed that the results using biodiesel have similar characteristics to that of diesel. The NOx emission increases as load increases, while CO emission decreases for B10, B20 as blending increases.CO follows the trend similar to that of diesel. Also CO2 emission increases at partial and medium loading condition.</p> <p>Keywords: Waste cooking oil, waste cooking oil methyl ester, transesterification, emission</p> <p>References:</p> <ol style="list-style-type: none"> 1. .C.Meher,D. VidyaSagar, S.N. Naik, "Technical aspects of biodiesel production by transesterification", Renewable and Sustainable Energy Reviews, 10 (2006) 248-268. 2. Y. Zhang, M.A. Dube, D.D. McLean, M. Kates, "Biodiesel production from waste cooking oil: 2.Economic assessment and 	57-61
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Paper Title: Interactive Terrain Surface Visualization using Haptics Assisted Display

Abstract: In this paper we present a novel method to handle terrain surface features using haptic feedback providing interaction for the purpose of navigation of terrain over a virtual 3D environment. This system uses Phantom Haptics Desktop Device for touch bound interactions using force feedback stylus, which acts as a pointer that allows the user to feel the deformations over the terrain surface. The advantage of haptic feedback is that it works in 3D environment and provides better control with the force compared to mouse and other hardware.

Keywords: Haptics Visualization, Navigation, Terrain classification.

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Authors: Harsh Deep, Varsha

Paper Title: Tabu Search Based General Self-Organized Tree-Based Energy-Balance Routing Protocol (GSTEB) for Wireless Sensor Networks

Abstract: GSTEB has shown quite necessary results over the on the market WSNs protocols. but it's neglected

many issues. thus on beat the constraints of the sooner work a completely unique improved technique is planned throughout this analysis work. The planned technique has the flexibility to beat the constraints of the GSTEB routing protocol by pattern clump and TABU search. The comparison square measure drawn among the current and planned techniques. The comparisons has clearly shown that the planned technique outperforms over the on the market techniques. The experimental results has shown an 20.37% improvement in network time period.

Keywords: GSTEB, PASCC, WIRELESS SENSOR NETWORK ,TABU SEARCH .

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Authors: **Saloni Bindra, Priyanka Karmarkar, Abhishek Kumar Verma, Laxmi Grover**

Paper Title: **Social Media Mining for Opinion Analysis**

Abstract: Here we describe a method which involves determining the sentiment of a review about Banks by extracting the phrases with a noun-adjective relationship, Identifying if the noun is present in the domain specific Ontology tree and then determining the polarity of the adjective, aggregating the polarity. The results so obtained are thus summarized and then categorized by characteristic feature pertaining to the Bank. This reduces the human efforts to go through them and a result specific to a particular Bank; sub-categorized by Peculiar features of it with polarity alongside each individual characteristic. Thus the fruits of the reviews are gained even without reading them.

Keywords: Sentiment, Polarity, Domain Ontology, Opinion Mining.

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15.	Authors:	Praveen S S, Aparna P R	77-81
	Paper Title:	Single Digital Image Multi-focusing Using Point to Point Blur Model Based Depth Estimation	
	<p>Abstract: The proposed paper focuses on Multi-focusing, a technique that restores all-focused images from defocused ones and generates images focused at different depths. The method proposed in the paper can be applied to images taken with an ordinary camera and does not require any specialized hardware. The method deviates from the existing de-convolution process for obtaining multi-focused images and highlights procuring a focused image by using only a single image. Blur map estimation is the core of the proposed method. Initially, a rough blur map is obtained which gives the blur amount at edge locations and by propagating the blur amount at edge locations to the entire image, the full blur map of the scene can be recovered. In order to produce photographs at different depths, a depth map is required. Since the amount of blur is proportional to the distance from the plane of focus, the blur map can be used as a cue for depth. The depth map is calculated using the blur map and the camera parameter information embedded in the defocused image. Using the depth map, multi-focused images can be obtained.</p> <p>Keywords: Multi-focusing, Depth estimation, blur estimation</p> <p>References:</p> <ol style="list-style-type: none"> 1. Y. Cao, S. Fang, and Z. Wang "Digital Multi-Focusing From a Single Photograph taken with an Uncalibrated Conventional Camera", IEEE Trans. on image processing, vol. 22, no. 9, Sept. 2013 2. S. Zhuo and T. Sim, "Defocus map estimation from a single image," Pattern Recognit., vol. 44, no. 9, pp. 1852–1858, 2011. 3. S. W. Hasinoff and K. N. Kutulakos, "Confocal stereo," Int. J. Comput. Vis., vol. 81, no. 1, pp. 82–104, 2009. 4. Levin, D. Lischinski, and Y. Weiss, "A closed form solution to natural image matting," in Proc. IEEE Comput. Soc. Conf. CVPR, Jun. 2006, pp. 61–68. 5. V. P. Nambodiri and S. Chaudhuri, "Recovery of relative depth from a single observation using an uncalibrated (real-aperture) camera," in Proc. CVPR, Jun. 2008, pp. 1–6. 6. A. Saxena, M. Sun, and A. Ng, "Make3D: Learning 3-D scene structure from a single still image," IEEE Trans. Pattern Anal. Mach. Intell., vol. 31, no. 5, pp. 824–840, May 2009. 		
16.	Authors:	Bharti Nagpal, Manoj Kumar, Priyank Pandey, Sonakshi Vij, Vaishali	82-86
	Paper Title:	Minutiae vs. Correlation: Analysis of Fingerprint Recognition Methods in Biometric Security System	
	<p>Abstract: Identification and verification of a user's identity in an organization is a big challenge. Earlier, it was done through passwords that had various limitations for example it could be cracked or stolen. Biometric technology has replaced all the existing technologies with greater advantage. Fingerprint technique, so far, is recognised as a better technique than others and is widely used. It provides accurate results and has less false rate as compared to other techniques. This paper aims to analyse the two main methods of fingerprint recognition in biometric security systems which are minutiae based and correlation based methods. An analysis of these two has been summarized and it shows the pros and cons of both the methods, with respect to factors such as computational power, poor quality image evaluation etc. The paper concludes all the features of both these methods and explains the process followed by them</p> <p>Keywords: biometric system, correlation based fingerprint, minutiae based.</p> <p>References:</p> <ol style="list-style-type: none"> 1. K. Mali and S. Bhattacharya, "Comparative study of different biometric features", international journal of advanced research in computer and communication engineering (IJARCCE) Vol. 2, Issue 7, 2013. 2. M Kaur, M Singh, A Girdhar and P.S sandhu, "Fingerprint verification system using minutiae extraction technique", published at world academy of science engineering and technology, issue 46, 2008. 3. T.Y Jea and V Govndaraaju, "A minutia-based partial fingerprint recognition system", published at Elsevier in pattern recognition issue, 2005. 4. J Ravi, K Raja and K. R venugopal, "fingerprint recognition using minutia score matching", international journal of engineering science and technology, vol. 1, issue 2, 2009. 5. P Verma, M dubey and P verma, "Correlation based method for identification of fingerprint- A biometric approach" international journal of engineering and advanced technology (IJEAT), vol. 1, issue 4, 2012. 6. A.M. Bazen, G. T. B Verwaaijen and S.H Gerez et al, "A correlation based fingerprint verification system", published at Proceedings of the ProRIsC, IEEE workshop, 2000. 		
17.	Authors:	Anwar Al-Shrouf	87-92
	Paper Title:	Noise-Immune ECG Classifier Using Wavelet Transform and Neural Networks	
	<p>Abstract: This paper proposes a novel algorithm for automatic classification of electrocardiogram (ECG) beats recorded by Holter systems. The algorithm is based on a combination of neural network and discrete wavelet transform. Discrete wavelet transform coefficients are used as an input of the neural network to perform the classification task. The proposed classifier wastested by both real ECG signals andartificially generated signals. Five Hermite functionswereused in generating the ECG artificial testing signals. Different levels of noise were added to the signals to examine the noise immunity of the classifier. The main advantage of the proposed classifier is that it is noise immune and accurate. The testing results on the proposed classier show that it is capable of recognising 40 beats, and it works properly in the classification of the ECG signal with a classification ratio of 100% for an SNR of more than 6 dB.</p> <p>Keywords: Wavelet transforms, neural networks, ECG beat classification, arrhythmia, white noise, Hermite functions.</p>		

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Authors: Esam Elsheh, Saddek Elbendago, Marwan Ali.H.Omer
Paper Title: On the Security of Image Encryption Using Discrete Fourier Transform and Fractional Fourier Transform

Abstract: Recent developments of different forms of discrete Fourier transform, have encouraged many researchers to design image encryption algorithms based on a discrete fractional or multiple fractional Fourier transforms. One of these algorithms is proposed by Ashutosh and Sharma, (International Journal of Engineering and Advanced Technology, Vo. 2, Issue. 4, 2013). In this paper, we show that this algorithm represents a classic textbook example of insecure cipher; all the building blocks of this scheme are linear, and thus, breaking this scheme, using a known plaintext attack, is equivalent to solving a set of linear equations. We also invalidate several of the security and performance advantages claimed by the authors, namely, the efficiency, key sensitivity, and the complexity.

Keywords: Image processing, encryption, discrete transforms, linear cipher.

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	<p>Authors: Athira R, Lekshmy D Kumar</p> <p>Paper Title: Secure Data Storage in Cloud using Centralized Access Control with Anonymous Authentication</p> <p>Abstract: Cloud computing’s multi-tenancy feature which provides privacy, security and access control challenges because of sharing of physical resources among untrusted tenants. Much of the data stored in clouds is highly sensitive particularly in the case of medical records and social networks. Security and privacy are very important issues in cloud computing. In one hand, the user should authenticate itself before initiating any transaction, and on the other hand, it must be ensured that the cloud does not tamper with the data that is outsourced. User privacy is also required so that the cloud or other users do not know the identity of the user. The validity of the user who stores the data is also verified. In order to achieve safe storage, a suitable encryption technique with key management should be applied before outsourcing the data. A new decentralized access control scheme is implemented for secure data storage in clouds, which supports anonymous authentication. In this scheme, the cloud verifies the authenticity of the user without knowing the user’s identity before storing data. The scheme also has the added feature of access control in which only valid users are able to decrypt the stored information. The scheme prevents replay attacks and supports creation, modification and reading data stored in the cloud. User revocation is also addressed. Moreover, the authentication and access control scheme is decentralized and robust, unlike other access control schemes designed for clouds which are centraliz</p> <p>Keywords: Attribute based encryption, Access control, Authentication.</p> <p>References:</p> <ol style="list-style-type: none"> 1. S. Ruj, M. Stojmenovic, and A. Nayak, “Privacy Preserving Access Control with Authentication for Securing Data in Clouds,” Proc.IEEE/ACM Int’l Symp. Cluster, Cloud and Grid Computing, pp. 556-563, 2012. 2. C. Wang, Q. Wang, K. Ren, N. Cao, and W. Lou, “Toward Secure and Dependable Storage Services in Cloud Computing,”IEEE Trans. Services Computing, vol. 5, no. 2, pp. 220-232, Apr.-June 2012. 3. J. Li, Q. Wang, C. Wang, N. Cao, K. Ren, and W. Lou, “Fuzzy Keyword Search Over Encrypted Data in Cloud Computing,”Proc. IEEE INFOCOM, pp. 441-445, 2010. 4. S. Kamara and K. Lauter, “Cryptographic Cloud Storage,”Proc.14th Int’l Conf. Financial Cryptography and Data Security,pp. 136-149, 2010. 5. C. Gentry, “A Fully Homomorphic Encryption Scheme,” PhD dissertation, Stanford Univ., http://www.crypto.stanford.edu/craig, 2009.D. Chaum and E.V. Heyst, “Group Signatures,” Proc. Ann. Int’lConf. Advances in Cryptology (EUROCRYPT), pp. 257-265, 1991. 6. H.K. Maji, M. Prabhakaran, and M. Rosulek, “Attribute-Based Signatures: Achieving Attribute-Privacy and Collusion-Resistance,”IACR Cryptology ePrint Archive, 2008.[24] H.K. Maji, M. Prabhakaran, and M. Rosulek, “Attribute-Based Signatures,” Topics in Cryptology - CT-RSA, vol. 6558, pp. 376-392,2011. 7. Beimel, “Secure Schemes for Secret Sharing and Key Distribution,”PhD thesis, Technion, Haifa, 1996. 8. Sahai and B. Waters, “Fuzzy Identity-Based Encryption,” Proc. Ann. Int’l Conf. Advances in Cryptology (EUROCRYPT), pp. 457-473,2005. 9. V. Goyal, O. Pandey, A. Sahai, and B. Waters, “Attribute-Based Encryption for Fine-Grained Access Control of Encrypted Data,”Proc. ACM Conf. Computer and Comm. Security, pp. 89-98, 2006. 10. J. Bethencourt, A. Sahai, and B. Waters, “Ciphertext-Policy Attribute-Based encryption,” Proc. IEEE Symp. Security and Privacy, pp. 321-334, 2007. 11. X. Liang, Z. Cao, H. Lin, and D. Xing, “Provably Secure and Efficient Bounded Ciphertext Policy Attribute Based Encryption,”Proc. ACM Symp. Information, Computer and Comm. Security (ASIACCS), pp 343-352, 2009. 12. M. Chase, “Multi-Authority Attribute Based Encryption,” Proc.Fourth Conf. Theory of Cryptography (TCC), pp. 515-534, 2007. 13. H. Lin, Z. Cao, X. Liang, and J. Shao, “Secure Threshold Multi-Authority Attribute Based Encryption without a Central Authority,”Proc. Progress in Cryptology Conf. INDOCRYPT), pp. 426-436,2008. 14. M. Chase and S.S.M. Chow, “Improving Privacy and Security in Multi-Authority Attribute-Based Encryption,” Proc. ACM Conf.Computer and Comm. Security, pp. 121-130, 2009. 15. K. Yang, X. Jia, and K. Ren, “DAC-MACS: Effective Data Access Control for Multi-Authority Cloud Storage Systems,” IACR Cryptology ePrint Archive, p. 419, 2012. 16. A.B. Lewko and B. Waters, “Decentralizing Attribute-Based Encryption,” Proc. Ann. Int’l Conf. Advances in Cryptology (EUROCRYPT),pp. 568-588, 2011. 	97-101
20.	<p>Authors: Ruchal G. Humbare, Suraj R. Gurav, S. B. Trimbakeac</p> <p>Paper Title: Analysis of Heat Transfer Enhancement in Tube-in-tube Helical Coil Heat Exchangers</p> <p>Abstract: The heat exchangers most widely used are shell and tube heat exchangers which are larger in size and offer lesser heat transfer rate. Also, in shell and tube heat exchanger dead zone is produced which further reduces heat transfer rate and in order to improve heat transfer rate some active techniques are required. Helical heat exchanger is more compact, offer better heat transfer rates and heat transfer rate can be further improved by passive techniques. Its shape offers advantages such as more fluid contact, elimination of dead zones, and secondary turbulence. An experimental test rig was developed for evaluation of tube-in-tube helical coil heat exchanger. This paper deals with parametric analysis and its effect on performance of tube-in-tube helical coil heat exchanger.</p>	102-108

	<p>Keywords: Tube-in-tube helical coil, Dean Number, Dimensionless pitch, Curvature ratio, Effectiveness, Secondary turbulence, Heat transfer coefficient, Nusselt number.</p> <p>References:</p> <ol style="list-style-type: none"> 1. B. Chinna Ankanna, B. Sidda Reddy, "Performance Analysis of Fabricated Helical Coil Heat Exchanger", International Journal of Engineering Research, Volume 3, Issue no: Special 1, March 2014. 2. B. S. V. S. R. Krishna, "Prediction of Pressure Drop in Helical Coil with Single Phase Flow of Non-Newtonian Fluid", International Journal of Applied Research in Mechanical Engineering, Volume-2, Issue-1, 2012. 3. Bibin Prasad, Sujith V, Mohammed Shaban K, Saju Haneef, Sandeep N, Vishnu Raj, " Comparison of Heat Transfer Between a Helical and Straight tube Heat exchanger", International Journal of Engineering Research and Technology, Volume 6, Number 1, 2013. 4. Dr. Prabhanjan, "Influence of Coil Characteristic on Heat Transfer to Newtonian Fluids", McGill University, Canada, August 2000. 5. Hui Zhu, Hanqing Wang, Guangxiao Kou, "Experimental Study on the Heat Transfer Enhancement by Dean Vortices in Spiral Tubes", International Journal of Energy and Environment, Volume 3, Issue no: Special 1, March 2014. 6. J. S. Jayakumar, Helically Coiled Heat Exchanger, Heat Exchanger – Basics Design Applications, Dr. Jovan Mitrovic(Ed.), March 2012. 7. James R. Lines, "Helically Coiled Heat Exchangers Offer Advantages", Graham Manufacturing Co. Inc. 8. M. Kannan, S. Ramu, S. Santhanakrishnan, G. Arunkumar, Vivek M., "Experimental and Analytical comparison of Heat Transfer in Double Pipe Heat Exchanger", Internal Journal of Mechanical Engineering Applications Research, Volume 3, Issue 3, July 2012. 9. M. Necati Özisik, "Heat Transfer – a Basic Approach", McGraw-Hill, New York, 1985 10. Mrunal P. Kshirsagar, Trupti J. Kansara, Swapnil M. Aher, "Fabrication and Analysis of Tube-in-tube Helical Coil Heat Exchanger", International Journal of Engineering Research and General Science, Volume 2, Issue 3, April- May 2014. 11. N. D. Shirgire, P. Vishwanath Kumar, "Review on Comparative Study between Helical Coil and Straight Tube Heat Exchanger", IOSR Journal of Mechanical and Civil Engineering, Volume 8, Issue 2, August 2013. 12. Pramod S. Purandare, Mandar M. Lele, Rajkumar Gupta, " Parametric Analysis of Helical Coil Heat Exchanger", International Journal of Engineering Research and Technology, Volume 1, Issue 8, October 2012. 13. Prof. Jung Yang San, "Type of Heat Exchanger and LMTD Design Method", Mechanical Engineering Dept, National Chung Hsing University 14. R. Thundil Karuppa Raj, Manoj Kumar S., Aby Mathew C. and T. Elango, " Numerical Analysis of Helically Coiled Heat Exchanger Using CFD Technique", ARPN Journal of Engineering and Applied Sciences, Volume 9, Number 3, March 2014. 15. Ramachandra K. Patil, B. W. Shende, Prasanta K. Ghosh, "Designing a Helical Coil Heat Exchangers", December 1982. 16. Ramesh K. Shah, Dušan P. Sekulić, "Fundamentals of Heat Exchangers Design", John Wiley and Sons Inc., 2003. 17. Sadik Kakac, Hongtan Liu "Heat Exchangers: Selection, Rating and Thermal Design", CRC Press, Second Edition. 18. Shinde Diji Vijay D., Dange H.M., "Heat Transfer Analysis of a Cone Shaped Helical Coil Heat Exchanger", International Journal of Innovations in Engineering and Technology, Volume 3. Issue 1, October 2013. 19. Souyma Ranjan Mohanty, "CFD Analysis of Heat Exchanger Using Fluent", National Institute of Technology, 2013. (M. Tech Report) 20. Yong Ju Hong, Seong Je Park, Young-Don Choi, "A numerical Study of the Performance of a Heat Exchanger for a Miniature Joule-Thomson Refrigeration", International Cryocooler Conference, Inc. Boulder Co., 2009. 21. Timothy J. Rennie, "Numerical Experimental Studies of Double Pipe Helical Heat Exchanger", Department of Bioresearch Engineering, McGill University, Montreal, August 2004. 					
	<table border="1"> <tr> <td>Authors:</td> <td>A. A. Elsayed</td> </tr> <tr> <td>Paper Title:</td> <td>Structural Behavior of High Strength Self – Compacting Concrete Beams</td> </tr> </table>	Authors:	A. A. Elsayed	Paper Title:	Structural Behavior of High Strength Self – Compacting Concrete Beams	
Authors:	A. A. Elsayed					
Paper Title:	Structural Behavior of High Strength Self – Compacting Concrete Beams					
21.	<p>Abstract: This research presents an experimental and theoretical studies on the structural behavior of high strength self- compacted concrete I-beams. The main objective is to arrive the mode of failure of I beams which reinforced with and without web reinforcement. The experimental program presents the obtained results of tested eight high strength self compacting concrete I- beams specially reinforced to ensure a shear failure. All beams were tested simply supported along span 2400mm and subjected to four lines loadings until failure. The main variables were web thickness. The presence of web reinforcement in concrete beams increases its shear capacity and improves the ductility of the beam. Increasing the loading span to depth ratio decreased the failure load of concrete beams with web reinforcement, increasing the loading span to depth ratio decreased the failure load of concrete beams with web reinforcement, increasing (a/d) ratio from 2.4 to 2.9 led to a decrease in failure load by 33.3%. The effect of the studied variables are presented and discussed.</p> <p>Keywords: High strength concrete; Self compacting concrete; Beams; Shear failure; Stirrups; Cracking.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Hajime Okamura, Masahiro Ouchi, "Self Compacting Concrete" Journal of Advanced Concrete Technology Vol. 1, No.1, 5-15, April 2008. 2. Ahmad, S.H., Khaloo, A.R., and Poveda, A. (1986): "Shear Capacity of Reinforced High Strength Concrete Beams." ACI J., v. 83, no. 2, Mar.-Apr. 1986, pp. 297-305. 3. Bernhardt, C. J. and Fynboe, C. C. High strength concrete beams. Nordic Concrete Research Publication No. 5, Nordic Concrete Federation, Oslo, 1996. pp. 19-26. 4. B. K. Teoh, M. A. Mansur, and T. H. Wee: "Behavior of High-Strength Concrete I-Beams with Low Shear Reinforcement" ACI J., V. 99, no. 3, May.-June. 2002, pp. 299-307. 5. Egyptian Code of Design and construction of reinforced concrete structures, ECP-203 2010. 6. American Concrete Institute, ACI building code requirements for reinforced concrete, ACI 318-08. 7. British Standard BS 8110: 97 Structural use of concrete, code of practice for design and construction. 8. Michael P. Collins, Evan C. Bentz, and Edward G. Sherwood (2008), "Where is Shear Reinforcement Required? Review of Research Results and Design Procedures", ACI Structural Journal, Vol.105, No. 5, Sept.-Oct. 2008. pp.590-600. 9. Ozcebe, G., Ersoy, U., and Tankut, T., Evaluation of Minimum Shear Reinforcement Requirements for Higher Strength Concrete, American Concrete Institute Structural Journal, V. 96, No. 3, May-June. 2009, pp. 361-368 10. Roller, J. J. and Russell, H. G. Shear strength of high-strength concrete beams with web reinforcement. ACI Structural Journal, Vol. 87, No. 2, March-April 1990, pp. 191-8. 11. Thorenfeldt, E., and Drangsholt, G. (2011):" Shear Capacity of Reinforced High Strength Concrete Beams." ACI 2nd Int. Symp. on HSC, ACI SP 121.8, pp. 129-154. 12. Youssef Choulli, Antonio R. Mari and Antoni Cladera, "Shear behaviour of full-scale prestressed I-beams made with self compacting concrete" Materials and Structures (2008) 41:131-141. 13. A.Cladera, A.R.Mari "Experimental Study on high strength concrete beams failing in shear" Engineering Structures 27 (2012). 	109-115				

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	<p>Authors: Shiny Sara Jacob, P Sandhya</p>	
	<p>Paper Title: Position Sensorless Direct Torque With Indirect Flux Control Of BLDC Motor In Three Phase Conduction Mode</p>	
22.	<p>Abstract: In this work, an analysis on position sensorless direct torque control of BLDC Motor with indirect flux control have been studied using two level, six switch Voltage Source Inverter (VSI). By adopting the indirect flux control in direct torque control, the stator flux can be effectively controlled in the constant torque region. This scheme is adapted to three phase conduction mode of VSI. Maximum torque efficiency can be obtained in this method since the torque is estimated in the dq reference frame. In direct torque with indirect flux control of BLDC in three phase conduction mode, the commutation torque ripple can be minimized as well as torque ripple can be effectively reduced. Since the scheme is position sensorless, the electrical rotor position is estimated using stator winding inductance, stationary reference frame currents and flux linkages. The voltage vector selection is set up in the look-up table so that fast torque response is possible. Since the neutral point of the motor is not available, conventional 2×3 matrix is replaced by 2×2 Park's and Clarke's transformations for the balanced systems. The experimental results are validated in MATLAB/SIMULINK</p> <p>Keywords: Brushless DC (BLDC) Motor, Constant torque region, Direct Torque Control (DTC), Three phase conduction mode, Voltage Source Inverter (VSI).</p> <p>References:</p> <ol style="list-style-type: none"> Ozturk, Salih Baris. "Direct torque control of permanent magnet synchronous motors with non-sinusoidal back-EMF." PhD diss., Texas A&M University, 2008. Anitpal Singh, Shakti Singh, "Direct Torque Control of PMSM with a Two-Level Inverter Matlab/Simulink", IJEIT, Vol.2, pp.10-15, 2010. Y. Liu, Z. Q. Zhu and D. Howe, "Direct torque control of brushless DC drives with reduced torque ripple," IEEE Trans. on Industry Applications, Vol.41, No.2, March/April, 2005, pp.599-608. S. B. Ozturk and H. A. Toliyat, "Direct torque control of brushless dc motor with non-sinusoidal back-EMF," in Proc. IEEE IEMDC Biennial Meeting, Antalya, Turkey, May 3-5, 2007, vol. 1, pp. 165-171. S. Baldursson, —BLDC Motor Modeling and Control – A MATLAB/Simulink Implementation, Master Thesis, May, 2005. S.B.Ozturk and H.A.Toliyat, "Sensor less direct torque and indirect flux control of brushless dc motor with non-sinusoidal back-EMF," in Proc. IEEE IECON, Orlando, FL, Nov.9-11, 2008, pp.1373-178. P. Vas. Sensorless Vector and Direct Torque Control. London, U.K.: Oxford Univ. Press, 1998. http://www.microsemi.com/document-portal/doc_view/130909-sf-foc-pmsm-hall-ug 	116-120
	<p>Authors: Michael A. Gragasin, Romualdo C. Martinez</p>	
	<p>Paper Title: Design and Testing of Improved Village-Type Dehuller- Degerminator for Dry-Milling Process of Corn</p>	
23.	<p>Abstract: Majority of the available village-type corn mills in the Philippines have failed to fully satisfy the minimum product recovery and degerminator efficiency of 64% and 80%, respectively, as set by the Philippine Agricultural Engineering Standard (PAES). This resulted in the production of poor quality corn grits with high postharvest losses. Vital in improving the performance of existing village-type corn mills is the development of efficient dehuller-degerminator that responsible in the separation of germ and hull including the tip cap from the endosperm. The major part of the corn kernel that causes irritation when cooked corn grits are served in the table is primarily the tip cap and not the hull alone. The results of laboratory and field trials revealed that the developed dehuller-degerminator has a milling capacity of 367 kg/h and capable of providing milling recovery of 79.2% and degerminator efficiency of 83.8%. Significant reduction in aflatoxin level was also observed once corn kernels with high level of aflatoxin have pass through the developed dehuller-degerminator. The innovative design features a hexagonal-dented screen-huller with counter-flow auger and suction blower to efficiently separate the tip cap, germ, and hull from the endosperm.</p> <p>Keywords: Corn dehuller-degerminator, Corn mill, Dry-milling process, Postharvest</p> <p>References:</p> <ol style="list-style-type: none"> DA-Corn Program, "White Corn Industry Development Roadmap", Department of Agriculture, Philippines, 2014. F.R. Earle, J.J. Curtis, and J.E. Hubbard, "Composition of the Component Parts of the Corn Kernel", Cereal Chemistry, vol. 23, pp.504-511, 1946. AMTEC, "Philippine Agricultural Engineering Standard Specification for Cornmill (PAES 210:2000)", Agricultural Machinery Testing and Evaluation Center, University of the Philippines at Los Banos, Laguna, Philippines, 2001. 	121-126
	<p>Authors: A. A. Elsayed</p>	
	<p>Paper Title: Study of Isolation Methods of Underground Structures By using Concrete Admixtures</p>	
24.	<p>Abstract: Waterproofing of underground structures is frequently a problem and a range of solutions have been tried in the last two decades. Dominating the market are PVC and HDPE (high density poly ethylene) sheet membranes, but recently the alternative, is concrete admixtures for water permeability reducing and so that use in concrete isolation (waterproofing), the longevity of a concrete structure is influenced by the permeability of the concrete. The main objectives of the research are to study the mechanical properties of concrete and the improvement these properties by adding waterproofing using various mount percentages and two types of waterproofing (ADDICRETE DM2-PLASTOCRET-N) series of experimental studies were carried out on plain concrete with added, ADDICRETE DM2 and PLASTOCRETE-N in order to investigate their properties and</p>	127-131

influence on the water permeability of concrete. In this study, it has been addition ADDICRETE DM2 and PLASTOCRETE N to the mixture by difference ratio. 1%, 0.5%, 0.45% ,0.35% of cement weight, constant ratio from , sand, gravel, cement and water W/C equal to 0.45 in all tests that used in the research . The study of these tests by measuring the permeability of concrete specimens prepared in the laboratory. Many tests were carried out and the results were presented.

Keywords: waterproofing; ADDICRETE DM2, PLASTOCRETE-N, permeability, concrete.

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Authors: Swapna P S, Sakuntala S. Pillai

Paper Title: Downlink Resource Allocation Scheme for OFDMA System

Abstract: Orthogonal Frequency Division Multiple Access (OFDMA) is a promising multiple access technique for next generation wireless communication such as WiMAX, LTE, IMT-A etc because of its high spectral efficiency and inherent robustness against frequency selective fading. Inclusion of relays into the system further improves the system performance. The asymmetric radio resource allocation problem for cooperative relay assisted OFDMA wireless networks with the objective of maximizing the data rate is addressed in this paper. In cooperative communication the transmission from base station to mobile stations is assisted by decode-and-forward relays. To reduce the computational complexity of its optimal solution, the proposed scheme is sub-divided into three subsections. The first section is to select the relays and then the subcarrier is allocated to the selected relays. As the next step, power is allocated to each subcarrier. Simulation results shows that the proposed scheme achieves better performance than the existing techniques.

25. **Keywords:** Hungarian algorithm, Interference computation, OFDMA, Resource Allocation, Water filling algorithm. .

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26.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>Anita Ganpati, Jyoti Sharma</td> </tr> <tr> <td>Paper Title:</td> <td>A Hybrid Implementation of K-Means and HAC Algorithm and Its Comparison with other Clustering Algorithms</td> </tr> </table> <p>Abstract: There is a huge amount of data which is being produced everyday in Information Technology industry but it is of no use until converted into useful information. Data mining is defined as the process of extracting of hidden predictive information from large databases. Data mining provides an easy and timesaving concept to extract the useful information from large database instead of going through the whole database. There are various data mining techniques and clustering is one of them. Clustering algorithms especially draws significant attention of researchers all around the world because it makes an easy availability of the same data in form of clusters. There are various types of clustering algorithms available in the literature, with each algorithm having its own pro and cons. In this research paper, a hybrid implementation of k-Means and HAC clustering algorithm is presented. Also, the hybrid approach is compared with four other clustering algorithm namely k-Means, DT, HAC, VARCHA. The hybrid implementation has been done using Python scripting language and SCIKIT LEARN open source tool was used for the performance comparison of the algorithms. The various parameters used for comparison were accuracy, precision, recall and f-score. The results show that the performance of hybrid algorithm is found to be quite better than the existing ones.</p> <p>Keywords: Data Mining, Clustering, k-Means, DT, HAC, VARCHA, Python and SCIKIT</p> <p>References:</p> <ol style="list-style-type: none"> 1. http://www.tutorialspoint.com/data_mining/dm_cluster_analysis.html. 2. Lior Rokach, Oded Maimon, "Clustering Methods", http://www.ise.bgu.ac.il/faculty/lior/hbchap15.pdf. 3. Aastha Joshi, "A Review: Comparative Study of Various Clustering Techniques in Data Mining", International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 3, Issue 3, March 2013. 4. Bhavani Thuraisingham, "Data Mining-Technologies, Techniques, Tools and Trends", CRC, 1999. 5. Jyoti Sharma and Anita Ganpati, "An Analysis of Grid Based Clustering Algorithms In Data Mining", National Seminar on Web Based Technologies: Present & The Future, St. Bede's College, Aptil 30th 2015- May 1st 2015, Shimla. 6. M.Sathya Deepa, "Comparative Studies of Various Clustering Techniques and Its Characteristics", International Journal Advanced Networking and Applications, Vol. 5, Issue 6, 2014. 7. Margaret H. Dunham, "Data mining Introductory and Advanced Topics", Pearson Publication, 2005. 8. Pang-Ning-Tan, Michael Steinbach, Vipin Kumar, "Introduction to Data Mining", Pearson Publication, 2009. 9. Ravindra Jain, "A Hybrid Clustering Algorithm for Data Mining", IEEE Transaction on Neural Networks, June 2012. 10. Manju Kaushik and Mrs. Bhawana Mathur, "Comparative Study of K-Means and Hierarchical Clustering Techniques", International Journal of Software & Hardware Research in Engineering (IJSHRE), Vol. 2, Issue 6, 2014. 11. Bharat Chaudhari and Manan Parikh, "A Comparative Study of Clustering Algorithms Using Weka Tool , International Journal of Application or Innovation in Engineering & Management (IAIEM), Vol. 1, Issue 2, October 2012. 12. S. Revathi, "Performance Comparison of Various Clustering Algorithm", International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 3, Issue 2, February 2013. 13. T. Kanungo, D. Mount, N. Netanyahu, C. Piatko, R. Silverman, and A. Wu, "An efficient k-Means Clustering Algorithm: Analysis and Implementation", IEEE Transaction Pattern Analysis and Machine Intelligence, Vol. 24, No. 7, July 2000. 14. Yuhua Feng, "Analysis on Algorithm and Application of Cluster in Data Mining", Journal of Theoretical and Applied Information Technology, Vol. 46, No.1, December 2012. 15. http://gerardnico.com/wiki/data_mining/cluster, Accessed on 15.09.2015 at 21:10. 	Authors:	Anita Ganpati, Jyoti Sharma	Paper Title:	A Hybrid Implementation of K-Means and HAC Algorithm and Its Comparison with other Clustering Algorithms	136-138
Authors:	Anita Ganpati, Jyoti Sharma					
Paper Title:	A Hybrid Implementation of K-Means and HAC Algorithm and Its Comparison with other Clustering Algorithms					
27.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>Nikita Lemos, Kavita Sonawane, Bidisha Roy</td> </tr> <tr> <td>Paper Title:</td> <td>Novel Approach to Secure Data Transmission using Video</td> </tr> </table> <p>Abstract: Internet is being widely used for transmitting sensitive data. The data transferred online is prone to attacks. This paper presents a novel technique where steganography and cryptography are clubbed together to get achieve dual level security. Steganography hides the existence of data and cryptography scrambles the data and makes it difficult to interpret it even if the attacker gets hold of the data. Since videos are used widely today and are a popular on social media we have used video as a cover to the hide the secret data Text data is stored in video frames. The data is subjected to steganography and cryptography which are simple and novel techniques and then stored in the video frames using a random fashion using simple linear probing techniques.</p> <p>Keywords: Steganography, cryptography, cover, security threats</p> <p>References:</p> <ol style="list-style-type: none"> 1. Petitcolas, F.A.P.: "Introduction to Information Hiding". In: Katzenbeisser, S and Petitcolas, F.A.P (ed.) (2000) Information hiding Techniques for Steganography and Digital Watermarking. Norwood: Artech House, INC. 2. Ashish T. Bhole, Rachna Patel, "Design and Implementation of Steganography Over Video File", The Indian Journal of Technical Education, Special Issue for NCEVT' 12, pp. 69-72, April 2012. 3. Natarajan Meghanathan, Lopamudra Nayak, "Steganalysis Algorithms for Detecting the Hidden Information in Image, Audio And 	Authors:	Nikita Lemos, Kavita Sonawane, Bidisha Roy	Paper Title:	Novel Approach to Secure Data Transmission using Video	139-140
Authors:	Nikita Lemos, Kavita Sonawane, Bidisha Roy					
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	<p>Video Cover Media”, International Journal of Network Security and its Applications (IJNSA),Vol.2, No.1,pp. 43-55, January 2010.</p> <p>4. R. Balaji and G. Naveen,” Secure Data Transmission Using Video Steganography”, Electro/Information Technology IEEE International Conference , 2011</p> <p>5. Nikita lemos, Kavita sonawane and Bidisha Roy,”Secure data transmission using video”, Eight International Conference on Contemporary Computing (IC3) IEEE ,2015</p>	
	<p>Authors: Hakeemuddin Ahmed, N. Seetha Ramaiah, M. Manzoor Hussain</p> <p>Paper Title: Experimental Investigation of Surface Integrity of End milled CFRP Composites</p>	
28.	<p>Abstract: In general, the quality of the surface produced during machining is affected by the process variables and the vibrations of the tool. The surface finish is affected by the undesired vibrations that occur especially when a rotating tool like drill/ milling cutter is involved. Machining of fiber reinforced composites plays a vital role in obtaining fine tolerances on their components so as to assemble and integrate them with the other components. Carbon Fiber Reinforced Polymer (CFRP) composites are rapidly substituting the conventional materials as they meet high performance requirements due to their high specific stiffness, strength and corrosion resistance. In this study, the effect of process parameters on the dimensional accuracy and surface finish of the slots produced by end milling on CFRP laminate is studied. Experimental investigation is carried out to determine the relationship between spindle speed and feed which minimizes the surface roughness and delamination factor. The variation of the cutting forces involved is also studied in relation with the process variables to derive the regression equations</p> <p>Keywords: CFRP, Delamination factor, End Milling, Surface Integrity</p> <p>References:</p> <ol style="list-style-type: none"> 1. Azmi, A.I., R.J.T. Lin, and D. Bhattacharyya, “Experimental Study of Machinability of glass fibre reinforced composites by End milling”, Materials and Manufacturing Processes, Vol 27, 2012, pp1045-1050 2. Calzada, K.A., J. Samuel, S.G. Kapoor, and R.E. Devor, “Failure mechanisms encountered in micro-milling of aligned carbon fiber reinforced polymers”.Transaction of NAMRI/SME 2010, 38, pp 221-228. 3. Carlos Santiuste , Xavier Soldani , Maria Henar Miguélez, “Machining FEM model of long fiber composites for aeronautical components”, Composite Structures 92 (2010) pp 691–698 4. H.Y. Puw and H. Hocheng, “Machinability test of carbon fiber reinforced plastics in milling”. Materials and Manufacturing Processes, 1993 pp 103-108. 5. J.Paulo Davim, Pedro Reis, C.Conceicao Antonio, A study on milling of GFRP by hand layup using ANOVA, Composite Structures, Vol. 64, 2004. pp 493-500 6. Karpat, Y., O. Bahtiyar, and B. Değer, “Mechanistic force modeling for milling of unidirectional carbon fiber reinforced polymer laminates”. International Journal of Machine Tools and Manufacture. Vol 56, 2012, pp 79-93 7. Kalla, D., J. Sheikh-Ahmad, and J. Twomey, “Prediction of cutting forces in helical end milling fiber reinforced polymers”. International Journal of Machine Tools and Manufacture, Vol 50, 2010 pp 882-891 8. Koplev, A., A. Lystrup, and T. Vorm, “The cutting process, chips, and cutting forces in machining CFRP Composites”, Composites,1983, Vol14, pp 371-376 9. N.Feito, J.Lopez-Puente Numerical prediction of delamination in CFRP drilling, Composite Structures, Vol 108, 2014, pp 677-683 10. Rahman, M., S. Ramakrishna, J.R.S. Prakash, and D.C.G. Tan, “Machinability study of carbon fiber reinforced composite”. Journal of Materials Processing Technology, 1999, pp 292-297. 11. Rawat, S. and H. Attia, “Wear mechanisms and tool life management of WC-Co drills during dry high speed drilling of woven carbon fibre composites”. Wear 2009, 267 (5-9), pp 1022-1030. 12. R.Madoliat, S.Hayati, A.Ghasemi Galebahman “Investigation of chatter suppression in slender end mill via a frictional damper”, Scientia Iranica B, Vol.18, 2011, pp 1069-1077 13. Takeyama, N. Ijima, “Machinability of GFRP and application of Ultrasonic machining”, Annals of CIRP, 1998,37(1), pp 93-96 14. Tsao, C.C., “Investigation into the effects of drilling parameters on delamination by various step-core drills”, Journal of Materials Processing Technology, 2008. 206(1-3), pp. 405-411. 	141-145
	<p>Authors: Rashmi Kalia</p> <p>Paper Title: Persistent Organic Pollutants: A Review</p>	
29.	<p>Abstract: Persistent organic pollutants (POPs) are toxic chemicals that adversely affect human health and the environment around the world. Most of the POPs are released due to anthropogenic activities, while others are produced as a result of secondary emission. Because they can be transported by wind and water, most POPs generated in one country can and do affect people and wildlife far from where they are used and released. They persist for long periods of time in the environment and can accumulate and pass from one species to the next through the food chain.</p> <p>Keywords: Persistent Organic Pollutants, Pesticides, Hazards</p> <p>References:</p> <ol style="list-style-type: none"> 1. Beyer, A., Mackay, D., Matthies, M., Wania, F., Webster, E. (2000). Assessing Long-Range Transport Potential of Persistent Organic Pollutants. Environmental Sciences & Technology. 34(4), 699–703. 2. Dewan, Jain V.; Gupta P; Banerjee BD. (February 2013). "Organochlorine pesticide residues in maternal blood, cord blood, placenta, and breastmilk and their relation to birthsize". Chemosphere 90 (5): 1704-1710 3. Damstra, T. (2002). Potential Effects of Certain Persistent Organic Pollutants and Endocrine Disrupting Chemicals on Health of Children. Clinical Toxicology. 40(4), 457–465 4. El-Shahawi, M.S., Hamza, A., Bashammakhb, A.S., Al-Saggaf, W.T. (2010). An overview on the accumulation, distribution, transformations, toxicity and analytical methods for the monitoring of persistent organic pollutants. Talanta. 80, 1587–1597 5. Francis, O., A. 2004. Boon or Bane? The Environmental and Health Impacts of Persistent Organic Pollutants (POPs), Human Ecology Review, Vol. 11, No. 1, 27-35 6. Wania, F., Mackay, D. (1996). Tracking the Distribution of Persistent Organic Pollutants. Environmental Science & Technology. 30 (9), 390A–396A. 	146-148
30.	<p>Authors: Zuhair Issa Ahmed, Ali Malik Saadon</p>	

Paper Title:	Optimization Process Parameters of Submerged Arc Welding Using Taguchi Method	
	<p>Abstract: Submerged arc welding (SAW) process is an essential metal joining processes in industry. The quality of weld is a very important working aspect for the manufacturing and construction industries, the challenges are made optimal process environment. Design of experimental using Taguchi method (L9 orthogonal array (OA)) considering three SAW parameter are (welding current, arc voltage and welding speed) and three levels (300-350-400 Amp. , 32-36-40 V and 26-28-30 cm/min). The study was done on SAW process parameters on the mechanical properties of steel type comply with (ASTM A516 grade 70). Signal to Noise ratio (S/N) was computed to calculate the optimal process parameters. Percentage contributions of each parameter are validated by using analysis of variance (ANOVA) technique. The experimental results were analyzed by using Minitab 16 software.</p>	
	<p>Keywords: ANOVA, SAW, S/N, Taguchi Method, Welding Process Parameters</p>	
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