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	<p>Abstract: Spark Med is Self-managing, Pervasive Automated network for Medical Enterprise Data (SparkMed). It is a framework for mobile healthcare which is obtained from the improved network wireless technologies. It allows a wide range of heterogeneous medical software and database system to be dynamically incorporated in to peer to peer multimedia data. SparkMed incorporates techniques from multimedia streaming, rich Internet applications (RIA), and remote procedure call (RPC) .This framework allows medical data applications to share data among mobile host over wireless.</p>		1-4
	<p>Keywords: RPC, RIA, HL7; Automated systems; biomedical engineering; handheld computing; m-Health; middleware.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Foundation for the National Institutes of Health. (2009). The Inaugural mHealth (mobile health) Summit, Washington D.C.[Online]. Available: http://www.fic.nih.gov/news/events/mhealthsummit.htm 2. D. Vatsalan, S. Arunatileka, K. Chapman, G. Senaviratne, S. Sudahar, D.Wijetileka, and Y. Wickramasinghe, "Mobile technologies for enhancing Health solutions in developing countries," in Proc. 2nd Int. Conf. eHealth, Telemed., Soc. Med., eTELEMED 2010, Includes MLMB 2010; BUSM Med 2010, pp. 84–89. 3. R. Istepanian, C. S. Pattichis, and S. Laxminarayan, "Ubiquitous mhealth systems and the convergence towards 4G mobile technologies," in M-Health: Emerging Mobile Health Systems. New York: Springer- Verlag, 2005, pp. 3–14. 4. J. A. Hernandez, C. J. Acuna, M. V. de Castro, E. Marcos, M. Lopez, and N. Malpica, "Web-PACS for multicenter clinical trials," IEEE Trans. Inf. Technol. Biomed., vol. 11, no. 1, pp. 87–93, Jan. 2007. 5. I. Balasingham, H. Ihlen, W. Leister, P. Roe, and E. Samset, "Communication of medical images, text, and messages in inter-enterprise systems: A case study in Norway," IEEE Trans. Inf. Technol. Biomed. 6. A. Rosset, L. Spadola, and O. Ratib, "OsiriX: an open-source software for navigating in multidimensional DICOM images," J. Digital Imag., vol. 17, no. 3, pp. 205–216, Sep. 2004. 7. A. Kailas, C. Chong, and F. Watanabe, "From mobile phones to personal wellness dashboards," IEEE Pulse, vol. 1, no. 1, pp. 57–63, Jul.–Aug 2010. 8. 2007 IBM Report on Health Care. (2007), "Healthcare 2015: Win-win or lose-lose? A portrait and a path to successful transformation," IBM Institute for Business Value, pp. 1–8. [Online]. Available: http://www-935.ibm.com 9. J. Philbin, F. Prior, and P. Nagy, "Will the next generation of PACS be sitting on a cloud?" J. Digital Imag., vol. 24, no. 2, pp. 179–183, Apr. 2011. 10. C. Costa, C. Ferreira, L. Bastiao, L. Ribeiro, A. Silva, and J. L. Oliveira, "Dicoogle—An open source peer-to-peer PACS," J. Digital Imag., vol. 24, no. 5, pp. 848–856, Oct. 2010. 11. Merge Healthcare, Inc. (2011, Jun. 1). "AMICAS PACS—The first 100% web-based PACS system," [Online]. Available: www.merge.com/products/pacs/amicas-pacs/index.aspx 12. S. G. Langer, "Challenges for data storage in medical imaging research," J. Digital Imag., vol. 24, no. 2, pp. 203–207, Apr. 2011. 13. T. J. Farnsworth, "PACS for imaging centers," Radiol. Manage., vol. 25, no. 3, pp. 36–41, 2003. 14. S. B. El-Ghatta, T. Clade, and J. C. Snyder, "Integrating clinical trial imaging data resources using service-oriented architecture and grid computing," Neuroinformatics, vol. 8, no. 4, pp. 251–259, Dec. 2010 15. T.-H. Yang, Y. S. Sun, and F. Lai, "A scalable healthcare information system based on a service-oriented architecture," J. Med. Syst., vol. 35, no. 3, pp. 391–407, Jun. 2011. 16. B. Silverman, O. Sokolsky, V. Tannen, A. Wong, and L. Lang, "HOLON/CADSE: Integrating open software standards and formal methods to generate guideline-based decision support agents," in Proc. AMIA Annual Symp., 1999. 17. R. Kapitzka, H. Schmidt, G. Soeldner, and F. Hauck, "A framework for adaptive mobile objects in heterogeneous environments," in OTM Conference (Lecture Notes in Computer Science). New York: Springer, 2006, pp. 1739–1756. 18. W. Grimson, D. Berry, J. Grimson, G. Stephens, and E. Felton, "Federated healthcare record server—the Synapses paradigm," Int. J. Med. Informat., vol. 52, no. 1, pp. 3–27, 1998. 19. D. Sullivan, K. Farion, S. Matwin, and W. Michalowski, "A conceptbased framework for retrieving evidence to support emergency physician decision making at the point of care," in Knowledge Management for Health Care Procedures, (Lecture Notes in Computer Science vol 4924), 2008, pp. 117–126 20. M. Tsiknakis, M. Brochhausen, J. Nabrzyski, and J. Pucacki, "A semantic grid infrastructure enabling integrated access and analysis of multilevel biomedical data in support of postgenomic clinical trials on cancer," IEEE Trans. Inf. Technol. Biomed., vol. 12, no. 2, pp. 205–217, Mar. 2008. 		
	Authors:	Wasen Abdul Ameer Ali, Wisam Abdul Ameer Farid, Abdul Muttalib Abdullah Al-Eed	
	Paper Title:	Hydrocarbons Distribution in Shatt Al-Arab River Bacteria and Fungi	
	<p>Abstract: The hydrocarbons in bacteria and fungi of Shatt Al-Arab River were estimated. The bacteria contained n-alkanes from C13 to C33. While, the n-alkanes in fungi ranged from C13 to C35. The two patterns of carbon atoms numbers of n-alkanes were observed in bacteria, the low molecular weight (<20) with the predominance of C16 to C19 and the high molecular weight (>20) with the predominance of C21, C22, and C24 to C29. In fungi, the carbon atoms numbers of n-alkanes were characterized by the other two patterns, the first in the range C13 to C23 with the predominance of C13, C14, C16 and C19 to C22, and the second in the range >23 with the predominance of C27 to C30. The pristane compound was only revealed in fungi samples. The distribution patterns of carbon atoms numbers of n-alkanes and the carbon preference index (CPI) values of bacteria and fungi suggested the biogenic origin of hydrocarbons.</p>		
	<p>Keywords: Shatt Al-Arab River, biogenic hydrocarbons, bacterial hydrocarbons, fungal hydrocarbons, n-alkanes distribution.</p>		

2.	<p>References:</p> <ol style="list-style-type: none"> Al-Saad, H.T. (1995). Distribution and sources of hydrocarbons in Shatt Al-Arab estuary and North West Arabian Gulf. Ph.D. thesis, Biology department, Basrah University, Iraq, 186 p. American Petroleum Institute (API) (2001). Risk-based methodologies for evaluating petroleum hydrocarbon impacts at oil and natural gas E&P Sites. American Petroleum Institute. Askari, K. and Pollard, S. (2005). The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils. 1st Ed., Environment Agency, Bristol, ISBN-10: 1844323420, p. 22. Bagaeva, T.V. (1998) Sulfate-reducing bacteria, hydrocarbon producers. Thesis Doctoral (Biol) Dissertation, Russia, Kazan State University. Bagaeva, T.V. and Chernova, T.G. (1994). Comparative characteristics of extracellular and intracellular hydrocarbons of <i>Desulfovibrio desulfuricans</i>. <i>Biochemistry</i>, 59 :31–33. Bagaeva, T.V. and Zinurova, E.E. (2004). Comparative characterization of extracellular and intracellular hydrocarbons of <i>Clostridium pasteurianum</i>. <i>Biochemistry</i>, 69: 427–428. Bessey, E. A. (1950). Morphology and taxonomy of fungi. The Blakiston Co., Philadelphia, Pa. Calvin, M. (1969). The nature of hydrocarbons in microorganisms. In: Chemical evolution. (Calvin, M. ed). Oxford, Oxford University Press, p. 39–54. Eglinton, G. and Hamilton, R. J. (1963). Chemical plant taxonomy, London and New York, Academic Press, chap 8. Ehrhardt, M. and Petrick, G. (1993). On the composition of dissolved and particulate-association fossil fuel residues in Mediterranean surface water. <i>Marine Chemistry</i>, 42: 57-70. Han, J. and Calvin, M. (1969). Hydrocarbon distribution of algae and bacteria, and microbiological activity in sediments. <i>Proceeding of the National Academy of Sciences</i>, 64 :436–443. Hoog de, G. S. and Goarro, J. (1995). Atlas of clinical fungi Centraalbureau voor schimmel-cultures and universital rovirai virgili, Spain. Jankowski, G.J. and ZoBell, C.E. (1944). Hydrocarbon production by sulfate-reducing bacteria. <i>Journal of Bacteriology</i>, 47: 447. Joint Group of Experts on the Scientific Aspect of Marine Pollution (GESAMP) (1993). Impact of oil and related chemical wastes on the marine environment. Reports and Studies (50). Jones, J.G. (1969). Studies on lipids of soil microorganisms with particular reference to hydrocarbons. <i>Journal of General Microbiology</i>, 59 :145–152. Klenkin A.A.; Pavlenko, L.F.; Skrypnyk, G.V. and Larin A.A. (2010). Biogenic hydrocarbons and their effect on oil pollution estimates of the sea os Azov. <i>Water Resources</i>, 37 (5): 699-705. Ladygina, N.; Dedyukhina, E.G. and Vainshtein, M.B. (2006). A review on microbial synthesis of hydrocarbons, <i>Process Biochemistry</i>, 41: 1001–1014. Laseter, J.L.; Hess, W.M.; Weete, J.D.; Stocks, D.L. and Weber, D.J. (1968). Chemotaxonomic and ultrastructural studies on three species of <i>Tilletia</i> occurring on wheat. <i>Canadian Journal of Microbiology</i>, 14 :1149–1154. Merdinger E. and Devine E.M. (1965). Lipids of <i>Debaryomyces hansenii</i>. <i>Journal of Bacteriology</i>, 89 :1488–1493. National Research Council (NRC) (2003). Oil in the sea III. Input, fates and effects, National Academic Press. Washington. Oppenheimer, C.H. (1965). Bacterial production of hydrocarbon-like materials. <i>Zeitschrift fur Allgemeine Mikrobiologie</i>, 5: 284–289. Oro, J.; Laseter, J.L. and Weber, D. (1966). Alkanes in fungal spores. <i>Science</i>, 154: 399–400. Stone, R.W and ZoBell, C.E. (1952). Bacterial aspects of the origin of petroleum. <i>Industrial and Engineering Chemistry Research</i>, 44 :2564–2567. Tornabene, T.G.; Morrison, S.J.; Kloos, W.E. (1970). Aliphatic hydrocarbon contents of various members of the family Micrococcaceae. <i>Lipids</i>, 5: 929–934. Tuteja, G.; Rout, C. and Bishhnoi, N.R. (2011). Quantification of polycyclic aromatic hydrocarbons in leafy and underground vegetables: A case study around Panipat City, Haryana, India. <i>Journal of Environmental Science and Technology</i>, 4: 611-620. Walker, J.D. and Cooney, J.J. (1973). Aliphatic hydrocarbons of <i>Cladosporium resinae</i> cultured on glucose, glutamic acid, and hydrocarbons. <i>Journal of Applied Microbiology</i>, 26: 705–8. Weete, J.D.; Laseter, J.L.; Weber, D.J.; Hess, W.M. and Stocks D.L. (1969). Hydrocarbons, fatty acids, and ultrastructure of smut spores. <i>Phytopathology</i>, 59 :545–51. 	5-9				
3.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Authors:</td> <td>I. Yugashini, S. Vidhyasri, K. Gayathri Devi</td> </tr> <tr> <td>Paper Title:</td> <td>Design and Implementation of Automated Door Accessing System With Face Recognition</td> </tr> </table> <p>Abstract: In the last two decades face recognition has received significant attention and an important issue in many applications such as access control, security systems, credit card verification and criminal identification. This paper proposes three main sub systems namely face recognition, face detection and automatic door access control. The face recognition and detection process is implemented by modifying principal component analysis (PCA) approach to fast based principal component analysis (FBPCA) approach, by which the captured image is detected using a web camera and compared with the image in the database. If the image is an authenticated one the door will be opened automatically else an SMS will be generated using a GSM modem to the user that an unauthorized person has entered home.</p> <p>Keywords: Face recognition (FR), Face detection (FD), Fast Based Principle Component Analysis (FBPCA) algorithm, GSM.</p> <p>References:</p> <ol style="list-style-type: none"> John See and Sze-Wei Lee, “An Integrated Vision-based Architecture for Home Security System,” <i>IEEE Transactions on Consumer Electronics</i>, Vol. 53, pp: 489-498, No. 2, May 2007. Y.-K. Choi, K.-M. Kim, J.-W.Jung, S.-Y.Chun, and K.-S. Park, “Acoustic intruder detection system for home security,” <i>IEEE Trans.Consumer Electron.</i>, vol. 51, no. 1, pp: 130-138, Feb. 2005. F. Zuo, and P. H. N. de With, “Real-time embedded face recognitionfor smart home”, <i>IEEE Trans. Consumer Electron.</i>, vol. 51, no. 1, pp.183-190, Feb. 2005. Y. Zhao and Z. Ye, “A Low Cost GSM/GPRS Based Wireless Home Security System”, <i>IEEE Trans. Consumer Electron.</i>, vol. 51, no. 1, pp. 567-572, May. 2008. I.Kramberger, M.Grasic, and T.Rotovnik, “Door Phone Embedded System for Voice Based User Identification and Verification Platform”, <i>IEEE Transactions on Consumer Electronics</i>, Vol. 57, No. 3, pp:1212-1217, August 2011 Malik Sikandar Hayat Khoyal, Aihab Khan, and ErumShehzadi, “SMS Based Wireless Home Appliance Control 	Authors:	I. Yugashini, S. Vidhyasri, K. Gayathri Devi	Paper Title:	Design and Implementation of Automated Door Accessing System With Face Recognition	10-13
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	<p>System(HACS) for Automating Appliances and Security,” IEEE Issues in Informing Science and Information Technology, Volume 6, 2009.</p> <ol style="list-style-type: none"> 7. Ratnawati Ibrahim and Zalhan Mohd Zin, “Study of Automated Face Recognition System for Office Door Access Control Application”, IEEE 3rd Conference on Communication Software and Networks, Pg no:132-136, May 2011. 8. Haitao Zhao, Pong Chi Yuen, and James T. Kwok, “A Novel Incremental Principal Component Analysis and Its Application for Face Recognition”, IEEE Transactions On Systems, Man, And Cybernetics—Part B: Cybernetics, Vol. 36, No. 4, pp. 873-886, August 2006. 9. Dong-Ju Kim, Kwang-Woo Chung, and Kwang-Seok Hong, “Person Authentication using Face, Teeth and Voice Modalities for Mobile Device Security”, IEEE Trans. Consumer Electron., vol. 56, no. 4, pp. 2678-2685, Nov. 2010. 10. WANG Liting , DING Xiaoqing and FANG Chi, “Face Live Detection Method Based on Physiological Motion Analysis”, Tsinghua Science and Technology, Volume:14, Issue: 6 pp: 685 – 690, Dec 2009. 11. Il-Kyu Hwang, Member, IEEE and Jin-Wook Baek, “Wireless Access Monitoring and Control System based on Digital Door Lock”, IEEE Transactions on Consumer Electronics, Vol. 53, No. 4, pp:1724-1730, Nov 2007. 12. Faundez-Zanuy, M. ; Escola Universitaria Politecnica de Matard, Barcelona, “A Door-Opening System Using A Low-Cost Fingerprint Scanner and a PC”, IEEE Magazine on Aerospace and Electronic Systems, Vol:19 , Issue: 8, pp:23-26, Aug. 2004. 					
4.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Authors:</td> <td>Rameshr T. Murade, MD. Manan Mujahid, M. A. M. Sabir</td> </tr> <tr> <td>Paper Title:</td> <td>The Design and Implementation of a Programmable Cyclic Redundancy Check (CRC) Computation Circuit Architecture Using FPGA</td> </tr> </table> <p>Abstract: Many communication systems use the cyclic redundancy code (CRC) technique for protecting key data fields from transmission errors by enabling both single-bit error correction and multi-bit error detection.[6] Cyclic redundancy check (CRC) coding is an error-control coding technique for detecting errors that occur when a message is transmitted. Data integrity is imperative for many network protocols, especially data-link layer protocols.[4] Techniques using parity codes and Hamming codes can be used for data verification, but CRC is the preferred and most efficient method used for detecting bit errors produced from medium related noise. For example, Ethernet uses a 32-bit CRC polynomial for error detection. Data storage is another area where CRC error detection is becoming increasingly important. iSCSI implementations that utilize the TCP/IP protocol to implement Storage Area Networks (SANs) require error detection to be deployed. These operate using multi-gigabit connection speeds and thus require CRC checks to be executed at high speed as well. [9]</p> <p>Keywords: CRC, Error Correction, implementation with CRC 32, FPGA CRC.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Analysis of an error detecting code in block based transmissionB. RAMYA SREE1, B. MANJULA2, K. MURALI KRISHNA2, B. V. RAMA MOHANA RAO3 2. FPGA Implementation of CRC with Error CorrectionWael M El-Medany 3. VLSI Implementation of Parallel CRC Using Pipelining, Unfolding and Retiming Sangeeta Singh1, S. Sujana2, I. Babu3, K. Latha4 4. Design and Synthesis of a Field Programmable CRC Circuit Architecture K.V.GANESH*,D.SRI HARI**,M.HEMA*** 5. CHIPSCOPE Implementation of CRC circuit architecture G.Shanthi1, Dr.L.Padmasree 6. CRC Look-up Table Optimization for Single-Bit Error CorrectionPAN Yun , GE Ning , DONG Zaiwang 7. IEEE 802.3 Cyclic Redundancy Check Author: Chris Borrelli 8. 32-Bit Cyclic Redundancy Codes for Internet Applications Philip Koopman ECE Department & ICES 9. Design and Implementation of a Field Programmable CRC Circuit Architecture Ciaran Toal, Kieran McLaughlin, Sakir Sezer, and Xin Yang 10. Information theory by Ass.Prof.Dr. Thamer 11. References for Xilinx,inc. at www.xilinx.com/support <ol style="list-style-type: none"> 1. SP006: LocalLink Interface Specification 2. UG189: Virtex-5 FPGA CRC Wizard v1.3 User Guide 3. UG196: Virtex-5 FPGA RocketIO GTP Transceiver User Guide 4. DS100: Virtex-5 Family Overview 12. IEEE 802.3 Cyclic Redundancy Check Author: Chris Borrelli 	Authors:	Rameshr T. Murade, MD. Manan Mujahid, M. A. M. Sabir	Paper Title:	The Design and Implementation of a Programmable Cyclic Redundancy Check (CRC) Computation Circuit Architecture Using FPGA	14-19
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	<p>lifting scheme is that the inverse transform is a mirror of the forward transform.</p> <p>Keywords: Discrete Wavelet Transform, Lifting schemes, VLSI architectures, Inverse lifting scheme.</p> <p>References:</p> <ol style="list-style-type: none"> 1. S.Mallat, (1989), "A theory for multiresolution signal decomposition: the wavelet representation", IEEE Trans. Pattern Anal. Mach. Intel.11, 674–693. 2. Chao Cheng and Keshab K. Parhi,(2008), "High-Speed VLSI Implementation of 2-D Discrete Wavelet Transform", IEEE Transactions on Signal Processing, Vol. 56, No. 1. 3. Usha Bhanu.N and Dr.A. Chilambuchelvan," A Detailed Survey on VLSI Architectures for Lifting based DWT for efficient hardware implementation" International Journal of LSI design & Communication Systems (VLSICS) Vol.3, No.2, April 2012 4. C.J Lian, K.F. Chen, H.H. Chen, and L.G. Chen,(2001), "Lifting Based Discrete Wavelet Transform Architecture for JPEG2000", IEEE International Symposium on Circuits and Systems, Sydney, Australia. 5. Naseer M. Basher, Mustafa Mushtak Mohammed," Design and FPGA Implementation of a Lifting scheme 2D DWT Architecture" International Journal of Recent Architecture for Image Processing" Progress In Electromagnetic Research Symposium Proceedings, Moscow, Russia, August 18-21 Technology and Engineering (JRTE) Volume-2, Issue- 1, March 2013 6. Karthikeyan A , Saranya P, Jayashree N ,” An Efficient VLSI Architecture for 3D DWT Using Lifting Scheme”, International Journal of Engineering Science and Innovative Technology (IJESIT) Volume 2, Issue 1, January 2013 7. Cheng-yi Xiong,a,b,?, Jian-hua Hou,a,b, Jin-wen Tian,b,Jian Liub ,” Efficient array architectures for multi- dimensional lifting-based discrete wavelet transforms”, signal Processing 87 (2007) 1089–1099 8. I. Daubechies, W. Sweldens,(1998), " Factoring wavelet transform into lifting steps", J. Fourier Anal. Appl. 4, 247– 269 					
6.	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Authors:</td> <td>Mukesh, Sanjeev Sharma</td> </tr> <tr> <td>Paper Title:</td> <td>Effect of Parameters on Weld Pool Geometry in 202 Stainless Steel Welded Joint Using Tungsten Inert Gas (TIG) Process</td> </tr> </table> <p>Abstract: Tungsten inert gas welding is found important in those applications where it is required to control the weld bead shape and metallurgical characteristics. To consider the quality characteristics, Taguchi method is applied in order to analyze the effect of each welding process parameters on the weld geometry. Orthogonal array L9 is applied for conduct the experimentation. Three input machine parameters namely current, welding speed and gas flow rate were varied at three different levels to find out the influence of parameters on weld bead geometry i.e. weld bead width and weld bead height. The quality and accuracy of the weld joint was studied along with microstructure. This paper deals with the study of weld bead geometry of austenitic stainless steel 202 using tungsten inert gas (TIG) welding. Experimental results are provided to illustrate the proposed approach and an optimal value of 0.35 mm is obtained in case of weld bead height and 8.63 mm in weld bead width. Microstructure of weld metal structure shows delta ferrite in matrix of austenite.</p> <p>Keywords: GTAW welding, Stainless steel 202, TIG welding, Weld bead geometry, Taguchi method.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Raafal M. Molak, Krystian Paradowski, Measurement of mechanical properties in 316L stainless steel welded joint, Int. J. Pressure vessels an piping, 86 (2009) 43-47. 2. Lothongkum G, Vivanit E, Bhandhubanyong P. Study on the effects of pulsed TIG welding parameters on delta-ferrite content, shape factor and bead quality in orbital welding of stainless steel plate. J Mater Process Technol 110 (2001) 233-238. 3. Ahmet Durgutlu, Experimental investigation of the effect of hydrogen in argon as a shielding gas on TIG welding of austenitic stainless steel, Materials and Design 25 (2004) 19-23. 4. Juang SC, Tarng YS. Process parameter selection for optimizing the weld pool geometry in the tungsten inert gas welding of stainless steel. J Mater Process Technol 122 (2002) 33-37. 5. Cary HB. 2nd ed. Modern welding technology.AWS,(1981). 82-85. 6. X.M. Zeng, J. Lucas M.T.C. Fang, Use of neural networks for parameter prediction and quality inspection in tungsten inert gas welding, Trans. Inst. Measur. Contr. 15 (2) (1993) 87-95 7. Y.M. Zhang, R. Kovacevic, L. Li. Characteristics and real time measurement of geometrical appearance of weld pool, Int. J. Mach. Tools Manf. 36 (1996) 799-816 8. Y.S. Tarng, H.L. Tsai, S.S. Yeh, Modelling, optimization and classification of weld quality in TIG welding, Int. J. Mach Tools Manf. 39 (9) (1999) 1427-1438. 9. S.C. Jaung, Y.S. Tarng, Process parameter selection for optimizing the weld pool geometry in the tungsten inert gas welding of stainless steel, J. of Material Processing Technology 122 (2002) 33-37 10. Tsann-Shyi Chern, Kuang-Hung Tseng and Hsien-Lung Tsai, Study of the characteristics of duplex stainless steel activated tungsten inert gas welds, J Materials and Design 32 (2011) 255-263. 11. Yan Jun, Gao Ming, Zeng Xiaoyan, Study microstructure and mechanical properties of 304 stainless steel joints by TIG, laser and laser-TIG hybrid welding, J Optics and Lasers in Eng 48 (2010) 512-517. 12. Morisada Yoshiska, Fujii Hidetoshi, Inagaki Fuminori, Kamai Masayoshi, Development of high frequency tungsten inert gas welding method, J Materials and Design, 44 (2013) 12-16. 13. Durgutlu Ahmet, Experimental investigation of the effect of hydrogen in agron as a shielding gas on TIG welding of austenitic stainless steel, Turk J Materials and Design 25 (2004) 19-23. 14. Kang B.Y, Prasad Yarlagadda K.D.V, Kang M. J, Kim H.J, Kim I.S, The effect of alternate supply of shielding gases in austenitic stainless steel GTA welding, J Mat Process Techn 10 (2009) 4722-4727. 15. G. Taguchi, Introduction to quality Engineering, Asian Productivity Organisaition, Tokyo, 1990. 16. P.J. Ross, Taguchi Techniques for Quality Engineering, McGraw Hill, New York, 1988. 17. G.S.Peace, Taguchi Methods: A hand-on Aproach, Assison- Wesley, Reading, M.A, 1993. 	Authors:	Mukesh, Sanjeev Sharma	Paper Title:	Effect of Parameters on Weld Pool Geometry in 202 Stainless Steel Welded Joint Using Tungsten Inert Gas (TIG) Process	25-31
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Paper Title:	Economic Dispatch Problem Using Shuffled Frog Leaping Algorithm					

Abstract: A new evolutionary algorithm known as the shuffled frog leaping algorithm is presented in this paper, to solve the economic dispatch (ED) problem of thermal plants. The proposed optimization technique can take care of economic dispatch problems involving constraints such as transmission losses, power balance and generation capacity. The feasibility of the proposed method is demonstrated for three units and six units systems, and is compared with Particle Swarm Optimization (PSO) and Genetic Algorithm (GA) and methods in terms of the solution quality and computation efficiency. Compared with the other existing techniques, the proposed algorithm has been found to perform better in a number of cases. Considering the quality of the solution obtained, this method seems to be a promising alternative approach for solving the ED problems in practical power system.

Keywords: Shuffled frog leaping algorithm (SFLA), Economic Dispatch (ED), Particle Swarm Optimization (PSO), Genetic Algorithm (GA).

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32-37

7.

Authors: Divya Mittal, Sukhjinder Kaur

Paper Title: Enhanced Location-Aware Routing Protocol for Wireless Sensor Network

Abstract: Minimizing Energy consumption is considered as one of the most important principles in the development of routing protocols for Wireless Sensor Networks (WSN). In this, we propose a Location based Energy-Aware Reliable routing protocol (LEAR) for WSN based on sensor position and clustering. Clustering-based routing protocols are more useful in the context of energy efficiency where several sensor nodes in the communication range of one another form a cluster. Each cluster has a cluster head (CH), which coordinates all the nodes of a cluster. There may be a number of base stations (BS) also known as sink in a WSN that communicate with other networks. Most of the existing geographic routing protocols make use of greedy routing to forward packets from source to destination. Enhance Greedy Forwarding is proposed to perform a geographic, efficient and reliable routing for WSN. A comprehensive simulation study illustrates that the lifetime of WSN can be consequentially extended with LEAR. Finally, LEAR algorithm has been developed, tested and validated through a set of experiments to illustrate the relative advantages and capabilities of a proposed algorithm. Existing cluster-based mobile routing protocols such as LEACH-Mobile, LEACH-Mobile-Enhanced and CBR-Mobile consider only the energy efficiency of the sensor nodes. However, reliability of routing protocols by incorporating fault tolerance scheme is significantly important to identify the failure of

data link and sensor nodes and recover the transmission path. In this study the authors, we propose a location-aware and fault tolerant clustering protocol for mobile WSN (LFCP-MWSN) that is not only energy efficient but also reliable. LFCP-MWSN also incorporates a simple range free approach to localize sensor nodes during cluster formation and every time a sensor moves into another cluster.

Keywords: Wireless Sensor Network, Location Based Energy Aware Reliable Routing Protocol (LEAR), Base Station.

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Authors:	Usha Rani K. R, Ravishankar S, H. M. Mahesh, Nandan Nayak, Vijay Singh
Paper Title:	Broad Band Transmission Over Residential Power Lines Employing VDSL2: The Channel Capacity Analysis

Abstract: Bridging and Transmission of VDSL2 broadband over power lines has received considerable attention recently to cater to broadband distribution within the premises of a residence. Power lines are fundamentally different from telephone lines both in topology and load impedance. Power lines have a thicker gauge and shorter straight lengths, apart from a large number of bridge taps (BT) with inductive load terminations, which are not matched to line impedances. In this paper ABCD parameters of the individual sections are used to analyze the power line channel of upto 10 bridge taps over a 600 meter length. The noise profiles considered include periodic impulse noise which is predominant over power line sections, apart from AWGN. Impulse noise PSD has been computed. Tone loading profiles have been obtained using Discrete Multitone Transmission (DMT) as in VDSL2 over a bandwidth of 30 MHz. This analysis points to the fact that lower Transmit PSD would suffice to match the rates achievable by traditional VDSL2 when bridge taps are open. However with inductive loads in the BTs as is typical in residences, we recommend a two-step approach of (a) equipping existing VDSL2 modem front end hybrids with settable impedances that would approach a conjugate match of the loaded line along with (b) capability to nominally increase the Transmit PSD and added subbands to achieve the desired rates in a seamless manner as in VDSL2.

Keywords: Channel modelling, discrete multitone, Power line communication.

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10.	<table border="1"> <tr> <td>Authors:</td> <td>C. Veeramani, G. Mohan</td> </tr> <tr> <td>Paper Title:</td> <td>Dynamic Performance Analysis and Voltage Regulation of a Wind Energy Conversion System with STATCOM</td> </tr> </table> <p>Abstract: Aim of this paper is to present the model and control design of a conventional wind energy system by employing induction generator. The system is divided into three stages whereas stage one consists of induction generator engendered by horizontal axis wind turbine and bordered to function by a twofold overhead transmission line. Second stage is to interface a static synchronous compensator (STATCOM) with the induction generator's terminal in order to regulate its voltage level. The third stage deals with controlling the mechanical power unit by blade pitch-angle. The proposed system has been evaluated using MATLAB/SIMULINK software. The simulation result proves the efficiency of the closed loop system beneath various sorts of disturbances.</p> <p>Keywords: Induction generator, Static synchronous compensator (STATCOM), Wind turbine, PI controller.</p> <p>References:</p> <ol style="list-style-type: none"> 1. O. Wasynczuk, D. T. Man, and J. P. Sullivan, "Dynamic behavior of a class of wind turbine generators during random wind fluctuations," IEEE Trans. on PAS, vol. 100, no. 6, pp. 2837–2845, June 1981. 2. J. R.Winkelman and S. H. Javid, "Control design and performance analysis of a 6 MW wind turbine generator," IEEE Trans. on PAS, vol. 102, no. 5, pp. 1340–1347, May 1983. 3. B. S. Borowy and Z. M. Salameh, "Dynamic response of a stand-alone wind energy conversion system with battery energy storage to a wind gust," IEEE Trans. on EC, vol. 12, no. 1, pp. 73–78, Mar. 1997. 4. F. P. de Mello, J.W. Feltes, L. N. Hannett, and J. C. White, "Application of induction generators in power system," IEEE Trans. on PAS, vol. 101, no. 9, pp. 3385–3393, 1982. 5. I. Boldea and S. A. Nasar, Electric Machine Dynamics. NewYork, NY: Macmillan Publishing Company, 1986 6. Hingorani N.G. and Gyugyi, L. (2000), "Understanding FACTS", The Institute of Electrical and Electronics Engineers, New York. 7. Sen, K.K., (1999), "STATCOM-static synchronous compensator theory, modelling and applications", IEEE PES Winter Meeting 2, pp.1177-1183. 8. Krause, P.C., O. Wasynczuk, and S.D. Sudhoff, Analysis of Electric Machinery, IEEE Press, 2002. 	Authors:	C. Veeramani, G. Mohan	Paper Title:	Dynamic Performance Analysis and Voltage Regulation of a Wind Energy Conversion System with STATCOM	54-59
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	Authors: Shaik Nahid, Srinivas Padala, V. Samson Deva Kumar	
	Paper Title: Design and Development of Train Tracking System in South Central Railways	
11.	<p>Abstract: Rail tracking system (RTS) is an advanced method used to track and monitor any train equipped with a MCU unit that receives and transfers signals through GPS satellite. RTS is a combination of Global Positioning System (GPS) that provides actual geographic real time position of each train. The entire transmission mechanism of RTS setup depends on GPS satellite, a receiver on the train, a GSM system and controller based tracking for dispatch. The GSM communication system is generally the same as cellular phone network. The two most common RTS systems are like GPS based and Signpost based. The Signpost-based RTS system was used earlier but with the development of modern satellites GPS used technology is more use now. This Automatic rail Tracking system is now widely used in a variety of market system that offers excellent communication or train tracking solution. This project is aimed to track the vehicles that which mean to locate the position of the train. The location of the train is indicated using GPS (global positioning system) technology. Communication link is made possible through a GPS receiver. GPS will give the information of parameters like longitude, latitude and attitude. Here the communication takes place between GPS receiver and GPS satellite. GPS satellite continuously tracks the missing train and the position of the train is send to the controller from GPS receiver. train is associated with LCD display which sends the continuous information about the position of the train to the control unit and the train position should be send to the GSM.</p> <p>Keywords: The entire transmission mechanism of RTS setup depends on GPS satellite.</p> <p>References:</p> <ol style="list-style-type: none"> 1. ITSR, Driver Safety Systems Discussion Paper, 2006, Australia/New South Wales Independent Transport Safety Regulator: Sydney, p.32. 2. Whitlock, Driver vigilance devices: systems review (and RSSB response) 2002, Rail Safety and Standards Board/Quintec, p.105. 3. Santosh B. Patil, Rupal M. Walli, "Design and Develop- ment of Fully Automatic AT89C52 Based Low Cost Embedded System For Rail Tracking", International Journals of Electronics, Communication and Soft Computing Science and Engineering (IJECSCE), Vol.1,Issue 1,Pg 9-14. 4. M. A. Mazidi, "The 8051 Microcontroller & Embedded Systems", Pearson Education Asia, India, 2nd edition, 2008. 5. Raj Kamal, "Embedded System- Architecture, Program- ming and Design", Tata McGraw Hill Publisher, 2nd edition, 2008. 6. GSM User Manual, SIMCOM LTD, August 2006. 7. http://www.atmel.com 8. http://www.simcom.com 9. Sky Traq Venus 6 GPS Module ST22 Data Sheet. 	60-64