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1.

Authors: Shyam Perugu, Harika Jalli, Manjula Bhanoori

Paper Title: SSViewer: Sequence Structure Viewer

Abstract: An important aspect of bioinformatics is sequence. Sequence is a discrete function which contains the combinations of amino acids in proteins and nucleotides in Dna. Important functions of Amino Acids are to serve as the building blocks of proteins, which are linear chains of amino acids. Amino acids can be linked together in varying sequences to form a vast variety of proteins. Twenty-two amino acids are naturally incorporated into polypeptides and are called protein-o-genic or standard amino acids. Of these, 20 are encoded by the universal genetic code. In the case of the DNA sequence A, T, G, C is used to represent DNA. This sequence information is analysed to determine genes that encode polypeptides (proteins), RNA, genes, regulatory sequences, structural motifs, repetitive sequences and DNA sequences can be accurately analysed using computational techniques like BLAST, FASTA which is not possible manually.
In the present study we developed a tool to visualize the 3D structure for a given sequence by using programming language Java and HTML.

Keywords: Java, HTML, Sequence, PDB, Molecular visualizaion.

References:

1. Hall, Allen & Brown, Rasmol, Acta Crystallographica Section, 1991.
2. Rhonald C. Lua, Olivier Lichtarge, PyETV: a PyMOL evolutionary trace viewer to analyze functional site predictions in protein complexes. Bioinformatics,Volume26, Issue 23,PP. 2981-2982.
3. Kengo Kinoshita, Haruki Nakamura, eF-site and PDBjViewer: database and viewer for protein functional sites, Oxford Journals,Bioinformatics, Volume 20, Issue 8, PP. 1329-1330.
4. Pettersen EF, Meng EC, Couch GS, Huang CC, Ferrin TE. Tools for integrated sequence-structure analysis with UCSF Chimera. BMC Bioinformatics. 2006 Jul 12;7:339.
5. Guilhem Faure, Aurélie Bornot, Alexandre G. de Brevern, Protein contacts, inter-residue interactions and side-chain modeling. Biochimie 2008;90(4):626-39.
6. H. B. F. Dixon, A. Cornish-Bowden, nomenculature of aminoacids, Pure & Appi. Chem., Vol. 56, No. 5, pp. 595-624, 1984. 0033-4545/84.
7. Babbitt PC, Hasson MS, Wedekind JE, Palmer DR, Barrett WC, Reed GH, Rayment I, Ringe D, Kenyon GL, Gerlt JA. The enolase superfamily: a general strategy for enzyme-catalyzed abstraction of the alpha-protons of carboxylic acids. Biochemistry. 1996 Dec 24;35(51):16489-501.
8. Vincent Catherinot, Gilles Labesse, Valentin A. Ilyin, Ursula Pieper, Ashley C. ViTO: tool for refinement of protein sequence-ModView, visualization of multiple protein sequences and structures, Bioinformatics. (2003) 19(1): 165-166.
9. A Java tool for dynamic web-based 3D visualization of anatomy and overlapping gene or protein expression patterns Bioinformatics (2005) 21(7): 1278-1279, November 5, 2004.
10. Voro3D: 3D Voronoi tessellations applied to protein structures Bioinformatics 21(8): 1715-1716 first published online June 24, 2004.
11. Sean I. Donoghue, Joachim E. W. Meyer, Andrea Schafferhans and Karsten Fries, The SRS 3D module: integrating structures, sequences and features Bioinformatics (2004), Volume 20, Issue 15,Pp. 2476-2478.
12. Tolga Can, Yujun Wang, Yuan-Fang Wang, and Jianwen Su, FPV: fast protein visualization using Java 3D,Bioinformatics (2003) 19(): 913-922.
13. W J Lin and, M J Hwang, VHMPT: a graphical viewer and editor for helical membrane protein

2.

Authors: R.Rajalakshmi, M.K.Jeyakumar

Paper Title: A Novel Approach to Face Recognition with Pose and Illumination Variation Using Support Vector Machine as Classifier

Abstract: Human face recognition has attracted significant consideration as one of the most effective applications of image analysis and understanding. Face recognition is one among the diverse techniques used to identify an individual. Pose and Illumination are the two major challenges, among the several factors that influence face recognition. The objective of this paper is to implement an automated machine supported Face recognition System that recognizes well the identity of a person in the images that were not used in a training phase That is an initialization and training by representative sample of images precede an evaluation phase. Pose and illumination variations severely affect the performance of face recognition. Feature Extraction and Dimensionality Reduction is applied using Principal Component Analysis(PCA) and Linear Discriminant Analysis(LDA). During Recognition phase different classifiers such as ANFIS(Adaptive Neuro Fuzzy Inferrence Engine), NN(Neural Network), SVM (Support Vector Machine), K-NN(K- Nearest Neighbourhood) algorithms are used to the analyze and evaluate the Recognition Rate.

Keywords: Eigen Vector, Recognition Rate, Training Sets, Testing Set

References:

1. J. Shermina and V. Vasudevan ,"An Efficient Face Recognition System Based on the Hybridization of Invariant Pose and Illumination Process ,"European Journal of Scientific Research,Vol. 64 , pp. 225-243,2011.
2. Klare, B.F. Burge , M.J , Klontz, J.C , Vorder Bruegge , R.W. and Jain, A.K ,"Face Recognition Performance: Role of Demographic Information ,"IEEE Transactions on Information Forensics and Security ,Vol. 7,pp. 1789-1801,2012.
3. Adélaïde de Heering , Bruno Rossion and Daphne Maurer ,"Developmental changes in face recognition during childhood: Evidence from upright and inverted faces ,"Cognitive Development ,Cognitive Development ,Vol. 27,pp. 17-27,2012.
4. Cong Geng and Xudong Jiang ,"Face recognition based on the multi-scale local image structures ,"Pattern Recognition , Vol. 44,pp. 2565-2575,2011.
5. Mr. Hamid M. Hasan , Prof. Dr. Waleed A. AL.Jouhar and Dr. Majid A. Alwan ,"Face Recognition Using Improved FFT Based Radon by PSO and PCA Techniques ,"International Journal of Image Processing (IJIP) ,pp. 26-37,2012.

6. Shaohua Kevin Zhou and Rama Chellappa ,"Image-Based Face Recognition under Illumination and Pose Variations ,"Journal of the Optical Soceity of America A ,Vol. 22,pp. 217-229,2004.
7. V. Blanz , S. Romdhani , and T. Vetter ,"Face Identification across Different Poses and Illuminations with a 3D Morphable Model," Fifth IEEE International Conference on Automatic Face and Gesture Recognition , pp. 192-197, 2002.
8. Jen-Mei Chang, Michael Kirby, and Chris Peterson ,"Set-to-Set Face Recognition Under Variations in Pose and Illumination ,"Biometrics Symposium , pp. 1- 6 , 2007.
9. Ying-Nong Chen, Chin-Chuan Han, Cheng-Tzu Wang And Kuo-Chin Fan,"A Novel Scheme for Face Recognition and Authentication Against Pose, Illumination and Expression Changes ,"Journal Of Information Science And Engineering ,Vol. 27, pp. 369-380,2011.
10. Roy-Chowdhury , A. & Xu , Y," Pose and Illumination Invariant Face Recognition Using Video Sequences. Face Biometrics for Personal Identification ," Multi-Sensory Multi-Modal
11. Sushma Jaiswal, Dr. Sarita Singh Bhadauria, Dr.Rakesh Singh Jadon, "Evaluation Of Face Recognition Methods", Journal of Global Research in Computer Science, vol 2, No. 7, July 2011.
12. Yuchun Fang, Tieniu Tan, Yunhong Wang, "Fusion of Global and Local Features for Face Verification",
13. M. Sifuzzaman, M.R. Islam and M.Z. Ali, "Application of Wavelet Transform and its Advantages Compared to Fourier Transform", Journal of Physical Sciences, Vol. 13, 2009, 121-134
14. Sang-Il Choi, Chong-Ho Choi and Nojun Kwak, "Face recognition based on 2D images under illumination and pose variations", Pattern Recognition Letters,Vol.32, pp. 561–571, 2011
15. Ralph Gross, Simon Baker, Iain Matthews and Takeo Kanade, "Face Recognition Across Pose and Illumination", Vol. 12, no. 1-2, pp.193-216, Handbook of Face Recognition, 2005.
16. Kailash J. Karande and Sanjay N.Talbar, "Face Recognition under Variation of Pose and Illumination using Independent Component Analysis", ICGST-GVIP, Vol. 8, No. IV, pp. 1-6, December 2008
17. Fatih Kahraman, Binnur Kurt and Muhittin Gokmen, "Robust Face Alignment for Illumination and Pose Invariant Face Recognition", IEEE Conference on Computer Vision and Pattern Recognition, pp. 1-7, 2007.
18. Manjunath, Chellappa and von der Malsburg, "A feature based approach to face recognition," In Proc. of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR '92), pp. 373–378, June 1992.
19. Sushma Jaiswal, Dr. Sarita Singh Bhadauria, Dr.Rakesh Singh Jadon," Evaluation of face recognition methods", Journal of Global Research in Computer Science, Volume 2, No. 7, July 2011
20. Sujata G. Bhele and V. H. Mankar, "A Review Paper on Face Recognition Techniques", International Journal of Advanced Research in Computer Engineering & Technology ,Volume 1, Issue 8, October 2012

3.	**Authors:**	**B.Vijaya Babu, G.Deepthi, Ch.Veena**
	Paper Title:	**A Heuristic Algorithmic Approach to Estimate the Offline Browsing Efficiency of a Crawler Based Web Archiving System**

Abstract: In this paper, the effect of heuristic graph search algorithms like best first and A* best first search on the offline browsing efficiency is studied. A web crawler based multithreaded web archiving system is designed using these heuristic graph search algorithms and the offline browsing efficiency of the web archiving system is estimated.

Keywords: Offline browsing efficiency, heuristic graph search algorithms, multithreaded, web archiving system.

References:

1. Masanès, J: Web Archiving, Berlin: Springer-Verlag. ISBN 3-540-23338-5, 2006.
2. Filip Boudrezand Sofie Van den Eynde: Archiving Website , DAVID ,2002
3. Brügger, N :Archiving Websites. General Considerations and Strategies, The Centre for Internet Research. ISBN 87-990507-0-6, 2005.
4. Nina Tahmasebi, Sukriti Ramesh and Thomas Risse : First Results on Detecting Term Evolutions , In the Proceedings of the 9th International Web Archiving Workshop (IWAW 2009) Corfu, Greece, September/October, 2009
5. Day, M. Preserving the Fabric of Our Lives: A Survey of Web Preservation Initiatives, Research and Advanced Technology for Digital Libraries: Proceedings of the 7th European Conference (ECDL): 461–472, 2003.
6. Eysenbach, G. and Trudel, M.: Going, going, still there: using the WebCite service to permanently archive cited web pages, Journal of Medical Internet Research, vol 7, 2005
7. James Lee: Database Archiving: A Critical Component of Information Lifecycle Management, Data Base Journal, April 21, 2004.
8. Lyman, P : Archiving the World Wide Web: Building a National Strategy for Preservation: Issues in Digital Media Archiving, 2002
9. Andrei Broder, Ravi Kumar, Farzin Maghoul, Prabhakar Raghavan, Sridhar Rajagopalan, Raymie Stata, Andrew Tomkins, and Janet Wiener : Graph structure in the web: experiments and models, In the Proceedings of the Ninth International World-Wide Web Conference, Amsterdam, Netherlands, May 2000.
10. Sergey Brin and Lawrence Page: The anatomy of a large-scale hyper textual web search engine, In the Proceedings of the Seventh International World-Wide Web Conference, Brisbane, Australia, April 1998.
11. Junghoo Cho and Hector Garcia-Molina. The evolution of the web and implications for an incremental crawler. In the Proceedings of the Twenty-sixth International Conference on Very Large Databases, Cairo, Egypt, September 2000.
12. Filippo Menczer, Gautam Pant, and Miguel E. Ruiz: Evaluating topic-driven web crawlers. In the Proceedings of the Twenty-Fourth Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, New Orleans, LA, September 2001.
13. Mircea-Dan Antonescu, Mark Guttenbrunner and Andreas Rauber : Documenting a Virtual World - A Case Study in Preserving Scenes from Second Life, In the Proceedings of the 9th International Web Archiving Workshop (IWAW 2009) Corfu, Greece, September/October, 2009.
14. Myriam Ben Saad, Stéphane Gançarski and Zeynep Pehlivan :A Novel Web Archiving Approach based on Visual Pages Analysis, In the Proceedings Of the 9th International WebArchiving Workshop (IWAW 2009) Corfu,Greece,September/October, 2009
15. Rui Cai, Jiang-Ming Yang, Wei Lai, Yida Wang, and Lei Zhang : iRobot: An Intelligent Crawler for Web Forums , In the proceedings of WWW, Beijing, China 2008 .
16. Junghoo Cho, Hector Garcia-Molina, and Lawrence Page: Efficient crawling through URL ordering. In the Proceedings of the Seventh International World- Wide Web Conference, Brisbane, Australia, April 1998.
17. M.A'ngeles Serrano, Ana Maguitman, Mari ´ An Bogu˜n, Santo Fortunato and Alessandro Vespignani : Decoding the Structure of the WWW: A Comparative Analysis of Web Crawls, In the ACM Transactions on the Web, Vol. 1, No. 2, Article 10, August 2007.
18. Bernard J. Jansen, Tracy Mullen, Amanda Spink, and Jan Pedersen : Automated Gathering of Web Information: An In-Depth Examination of Agents Interacting with Search Engines , In the ACM Transactions on Internet Technology, Vol. 6, No. 4, Pages 442–464, November 2006 .
19. www.cs.cmu.edu/~rcm/websphinx
20. Robert C. Miller and Krishna Bharat : SPHINX: A Framework for Creating Personal, Site-Specific Web Crawlers, In Proceedings of WWW7, Brisbane Australia, April 1998.

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4.	**Authors:**	**Kalyan Prasad Das, Pradeep Kumar Raut**
	Paper Title:	**Skill Development Training Programme: A New Horizon in Mass Training Programme for Enhancement of Employability**

Abstract: The paper describes a case study on Skill Development Training Programme(SDP) which was conducted in the state of Odisha, India between Feb'2009 to Dec'2009.The paper discusses the different aspects of training in context of mass training programme like this. The training outcomes provide encouraging dimensions which can be considered while designing such training programme in future in any developing and developed area.

Keywords: Skill development training, employability, e-literacy.

References:

1. Al-Khayyat, R. (1998) , 'Training and Development Needs Assessment: A Practical Model for Partner Institutes', Journal of European Industrial Training, 22(1),18–28.
2. Bee, F. and Bee, R. (1997), Training Needs Analysis and Evaluation.London: Institute of Personnel and Development.
3. Berntson, E., Sverke, M., & Marklund, S. (2003). Predicting perceived employability: Human capital or labour market opportunities? Economic and Industrial Democracy, 27(2), 223–244.
4. Brown, P., Hesketh, A., & Williams, S. (2003, June). Employability in a knowledge-driven economy.Journal of Education and Work, 16(2), 107–126.
5. Brown, P., Hesketh, A., & Williams, S. (2003, June).Employability in a knowledge-driven economy.Journal of Education and Work, 16(2), 107–126.
6. Buckley, R. and Caple, J. (1991) La formacio´n: Teorı´a and pra´ctica. Madrid: Dı´az de Santos.
7. Casio, W.F. (2000). Costing Human Resources: The Financial Impact of Behavior in Organizations, (4th Ed), (Cincinnati, OH: South-Western).
8. Chapple, K. (2006). Networks to Nerdistan: The role of labor market intermediaries in the entry-level IT labor market. International Journal of Urban and Regional Research, 30(3), 548–563.
9. de Grip, A., & Zwick, T. (2005). The employability of low-skilled workers in the knowledge economy. Unpublished manuscript, Maastricht, the Netherlands. Retrieved from http://rlab.lse.ac.uk/lower/ final_papers/grip.pdf 2005
10. Dickenson, P. and Blundell, B. (2000) 'Transferring Quality Management Experience to the Russian Aerospace Industry', Total Quality Management, 11(3): 319–27.
11. Doms, M., Dunne, T., & Troske, K. R. (1997, February).Workers, wages, and technology. The Quarterly Journal of Economics, 112(1), 253–290.
12. Dowling, P.J., and Welch, D.E. (2005), International Human Resource Management: Managing People in a Multinational Context. (4th Ed), (Mason, O.H: Thomson South-Western).
13. European Commission. (2004). E-skills for Europe: 2010 and beyond. Brussels: European Commission, Enterprise and Industry Directorate General. Retrieved from http://ec.europa.eu/enterprise/ict/ policy/doc/e-skills-forum-2004-09-fsr.pdf
14. Fan, M., Dey, D., & Peng, G. (2006). How do computers and Internet affect employee compensation? Report submitted to Harry Bridges Center for Labor Studies, University of Washington, Seattle.
15. Foot, M. and Hook, C. (1996), Introducing Human Resource Management. Singapore: Longman.
16. Frazis, H., Gittleman, M. and Joyce, M. (2000) 'Correlates of Training: An Analysis Using Both Employer and Employee Characteristics', Industrial & Labor Relations Review, 53(3): 443–62.
17. Frazis, H., Gittleman, M., Horrigan, M. and Joyce, M. (1998) 'Results from the 1995 Survey of Employer-Provided Training', Monthly Labor Review, 121(6): 3–13.
18. Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004).Employability: A psycho-social construct, its dimensions and applications. Journal of Vocational Behavior, 65, 14–38.
19. Go´mez-Mejı´a, L.R., Balkin, D.B. and Cardy, R.L. (1996) Gestio´n de recursos humanos. Madrid: Prentice Hall.
20. Goldstein I. L., "Training in work organizations. In M. D. Dunnette &L. M. Hough (Eds.)", Handbook of industrial and organizational psychologists Press, Palo Alto CA: Consulting Psychologists Press, 1991, 507-619.
21. Granovetter, M. (1973). The strength of weak ties. American Journal of Sociology, 78(6), 1360–1380.
22. Gray, G.R. and Hall, M.E. (1997) 'Training Practices in State Government Agencies', Public Personnel Management, 26(2): 187–203.
23. Green, F. (2009). Employee involvement, technology, and job tasks (NIESR Discussion Paper No. 326). London.
24. Green, F., Ashton, D., & Felstead, A. (2001). Estimating the determinants of supply of computing, problem solving, communication, social, and team working skills. Oxford Economic Papers, 3, 406–433.
25. Green, F., Felstead, A., Gillie, D., & Zhou, Y. (2007, July). Computers and pay. National Institute Economic Review, 201(1), 63–75.
26. Holton, E.F. (2000) 'Large-scale Performance-Driven Training Needs Assessment', Public Personnel Management, 29(2): 249–67.
27. Hong, Y. (forthcoming). Debunking a myth of job creation—A critical analysis of China's ICT development from an employment perspective.
28. Houston, D. (2005). Employability, skills mismatch and spatial mismatch in metropolitan labour markets. Urban Studies, 42(2), 221–243.
29. Legare, T.L. (1999) 'Defining Training Roles and Responsibilities at Partners Healthcare System', National Productivity Review, 19(1): 5–13.
30. Lopez-Bassols, V. (2002). ICT skills and employment. (Organisation for Economic Co-operation and Development STI Working Papers). Paris.
31. Machin, S. (2001). The changing nature of labour market demand in the new economy and skill biased technology change. Oxford Bulletin of Economics and Statistics, 63(1), 753–776.
32. McGehee, W., & Thayer, P.W. (1961). Training in business and industry. Newyork: Wiley publications.
33. Pineda, P. (1995) Auditorı´a de la formacio´n. Barcelona: Gestio´n2000.
34. Riley, R. (2007, July). Introduction: Technology, jobs and skills. National Institute Economic Review, 201(1), 61–62.
35. Schware, R. (2009). Give for-prot rural business centres a chance to diversify into service-led employment and village BPOs. Information Technologies & International Development:Special Issue on ICT and Employability, 5(2),77–80.
36. Selmer, J. (2000) 'A Quantitative Needs Assessment Technique for Cross-Cultural Work Adjustment Training', Human Resource Development Quarterly, 11(3): 269–82.
37. Sole´ Parellada, F. and Mirabet Vallhonesta, M. (1997) Gui´a para la formacio´n en la empresa. Madrid: Civitas.
38. Stasz, C. (2001). Assessing skills for work: Two perspectives. Oxford Economic Papers, 3, 385–405.
39. Sullivan, J., Gordon, A., & Vander Leest, T. (2008). Boys & Girls Clubs of America: Technology skills, youth development and the 21st-century workforce. Center for Information and Society Working Papers, University of Washington, Seattle.
40. Van Welsum, W., & Vickery, G. (2005). New perspectives of ICT skills and employment. (Organizsation for Economic Co-operation and Development STI Working Papers). Paris.
41. Vigneswara, P. (2007). Exclusivity of the direct ICT employment: A case of Indian software. Proceedings of the 2007 International Conference on Information and Communication Technologies and Development, Bangalore, India.
42. Wexley K. N. & Latham G. P., "Developing and training human resources in organizations (2nd ed.)", New York: HarperCollins, 1991

5.	**Authors:**	**Nguyễn Thu Huyền, Lương Sỹ Ước, Rosaly B. Alday**
	Paper Title:	**Genetic Algorithm for Solving Balanced Transportation Problem**

Abstract: A Transportation Problem is one of the most typical problems being encountered in many situations and it has many practical applications. Many researches had been conducted and many methods had been proposed to

solve it. One of the most difficult challenge in solving the problem deals with inputting a very large volume of data. With the development of intelligent technologies, computers had already been used to solved this problem. This paper presents a method using Genetic Algorithm (GA) to provide a new tool that can quickly calculate the solution to the Balanced Transportation Problem.

The test results are compared with selected old methods to confirm the effectiveness of the use of GA. A mathematical model was used to represent the GA and be applied to solve it. Finally, the test results of the model were presented so show the effectiveness.

Keywords: Genetic Algorithm, Transportation Problem

References:

1. Anyong Qing (2009), "Differential Evolution: Fundamentals and Applications in Electrical Engineering" Wiley-Blackwell (an imprint of John Wiley & Sons Ltd), USA.
2. Arabas et al. (2006). "GAVaPS - a Genetic Algorithm with Varying Population size", International Conference on Evolutionary Computation, Springer. Bandyopadhyay, S., and Muthy, C.A. "Pattern Classification Using Genetic Algorithms", Pattern Recognition Letters, (1995).Vol. 16, pp. 801-808.
3. Bäck et al., (2000 a,b)," Evolutionary Computation 2: Advanced Algorithms and Operators" Institute of Physics Publishing, Bristol, UK.
4. Bandyopadhyay, S., and Muthy, C.A.(1995) "Pattern Classification Using Genetic Algorithms", Pattern Recognition Letters, Vol. 16, pp. 801-808.
5. Bodenhofer (2004), "Genetic Algorithms: Theory and Applications", Journal of Genetic Algorithms, Springer.
6. Cervantes et al (2008), "A dynamic population steady-state genetic algorithm for the resource constrained project scheduling problem", Journal of Systems Engineering and Electronics, Springer – Verlag Berlin Heideberg
7. Golden, B. L., Raghavan, S., & Wasil, E. A. (Eds.). (2008). The vehicle routing problem [electronic resource]: latest advances and new challenges (Vol. 43). Springer.
8. Omar, M., et al. (2006) A Job-Shop Sscheduling Problem(JSSP) Using Genetic GENETIC Algorithm (GA), Proceedings of 2nd IMGT Conference on Mathematics, Statistics and Applications, Pena, Malaysia.
9. Othman, Z. et. al (2011) Adaptive Genetic Algorithm for Fixed Charged Trasportation Problem, Proceedings of the International MultiConference of Engineers and Computer Scientists, IMECS 2011 Vol 1, Hongkong.
10. Pawan T, et al. Article: Development of an Algorithm for all Type of Transportation Problems. International Journal of Computer Applications 30(6):24-30, September 2011. Published by Foundation of Computer Science, New York, USA
11. Punch, W.F., et al (1993) "Further research on Feature Selection and Classification Using Genetic Algorithms", In 5th International Conference on Genetic Algorithm , Champaign IL, pp 557-564.
12. Skalak D. B. (1994). Using a Genetic Algorithm to Learn Prototypes for Case Retrieval an Classification. Proceeding of the AAAI-93 Case-Based Reasoning Workshop, pp. 64-69. Washigton, D.C., American Association for Artificial Intelligence, Menlo Park, CA.
13. Thomas Weise (2009), "Genetic Algorithms", University of Kassel, Gemarny.
14. Sayed A. Z. (2012 Efficient Multiobjective Genetic Algorithm for Solving Transportation, Assignment, and Transshipment Problems, Applied Mathematics, 2012, 3, 92-99 doi:10.4236/am.2012.31015 Published Online January 2012 (http://www.SciRP.org/journal/am)
15. Vignaux, G. A., & Michalewicz, Z. (1991). A genetic algorithm for the linear transportation problem. Systems, Man and Cybernetics, IEEE Transactions on, 21(2), 445-452.
16. Võ Văn Tấn Dũng, "Linear programming book", Publishing by Statistics, 2007.

6.

Authors: **Payal and Nikhil Aggarwal**

Paper Title: **Design of Microstrip Antenna using Sierpinski Carpet Fractal**

Abstract: In this paper authors propose a sierpinski carpet fractal rectangular microstrip antenna. By introducing sierpinski carpet fractal in the rectangular microstrip antenna, the size of the antenna is reduced significantly and the radiation characteristics like gain, directivity, antenna efficiency, radiation efficiency and impedance bandwidth are improved.

Keywords: Microstrip antennas, fractal geometry, sierpinski carpet fractal high gain and broad band.

References:

1. C.A. Balanis, "Antenna Theory", Second Edition, John Wiley & Sons, 2000.
2. Douglas H. Werner and Suman Ganguly, "An overview of fractal antenna engineering research", IEEE Antenna and Propagation Magazine, vol. 45, no 1, pp. 38-57, February 2003.
3. C. Puente et. al., "On behavior of the sierpinski multiband fractal antenna," IEEE Transactions on Antenna and Propagation, pp.517-24, 1998.
4. Kenneth Falconer, Fractal Geometry: Mathematical Foundations and Applications, 2nd edition, New York 2003.
5. C. Puente, J. Romeu, and R. Pous et al., "Small but long Koch fractal monopole," Electron. Lett, vol. 34, no. 1, pp. 9–10, 1998.
6. J. Romeu and J. Soler "On the behavior of the Sierpinski multiband fractal antenna," IEEE Trans. Antennas Propag., vol. 46, no. 4, pp. 517–524, Apr. 1998.
7. Mohammad R. Hajihashemi and Habibollah Abiri, "Parametric Study of Novel Types of Dielectric Resonator Antennas Based on Fractal Geometry", International Journal of RF and Microwave Computer-Aided Engineering, vol.17, no.4, pp. 416-424, 2007.

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7.

Authors: **Md Faran, Pardeep Mor**

Paper Title: **Comparison of Different Channel Estimation Techniques in OFDM Systems**

Abstract: The present work addresses channel estimation based on the Minimum Mean Square Error (MMSE) and Least Square (LS) criteria and also considers time-domain channel statistics. It presents an optimal criterion for the pilots, and corresponding optimal designs enabling complexity reductions. Using a general model for a slowly fading channel, the MMSE and LS estimators and a method for modifications compromising between complexity and performance is presented. The symbol error rate for a 16-QAM system is estimated by means of simulation results. MMSE (minimum mean square error) and LS (least square) estimators are also examined. The MMSE estimator has good performance but high complexity. The LS estimator has low complexity, but its performance is not as good as that of the MMSE estimator. Comparison is done for both types of estimators for channel estimation and the results are observed, considering the performances of channel estimators according to their behavior to symbol error rate and mean square error. Therefore, SNR of different estimators is studied corresponding to the particular SER value. OFDM-based systems are generally used in time varying frequency selective fading channels. In order to achieve the

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	potential advantages of OFDM-based systems, the channel coefficients should be estimated with minimum error. Finally, it is concluded that modified estimators give better performance than the ordinary estimators in OFDM systems. **Keywords:** (LS), 16 QAM, MMSE, OFDM. **References:** 1. J.K. Cavers, "An Analysis of Pilot-Symbol Assisted Modulation for Rayleigh-Fading Channels," IEEE Transactions on Vehicular Technology, Vol.40, no.4, pp.686- 693,1991. 2. OFDM and MC-CDMA for Broadband Multi-User Communications, WLANs and Broadcasting. Hanzo, L.Munster, M. Choi, B. Keller, T. Publication, Date: September 2003. 3. Mehmet Kemal Ozdemir, "Channel Estimator for Wireless OFDM Systems,"IEEE comm. Surveys,University of South Florida,Vol.9,no.2,2007. 4. D. Slock, "Signal Processing challenges for wireless Communication," in Proc. 1st Int. Sym. on Control, Communications and Signal Processing, Tunisia, pp.881-892,March 21-24, 2004. 5. N. Nefedov and M. Pukkila, "Iterative channel estimation for GPRS," Proc. IEEE Personnal and Mobile Radio Communication, pp. 999–1003, 2003. 6. M. J. F. Garcia, J. M. Paez-Borrallo and S.Zazo, "DFT-based channel estimation in 2D-pilot-symbolaided OFDM wireless systems," in Proc. IEEE VTC'01 Spring, pp.810–814, 2001. 7. W.D. Warner, and C. Leung, "OFDM/FM Frame Synchronization for Mobile Radio Data Communication," IEEE Transactions on Vehicular Technology, Vol.42, no.3, pp. 302-313,1993 8. Sarah Kate Wilson, R. Ellen Khayata and John M. Cioffi, "16-QAM modulation with orthogonal frequency-division multiplexing in a Rayleigh-fading environment", In Proc. VTC- 1994, Stockholm, Sweden,pp.1660-1664, June 1994. 9. Zijian Tang and paolo banelli, "Pilot-Assisted Time-Varying Channel Estimation for OFDM Systems,"IEEE trans. on signal Processing,Vol.55,no. 5,May 2007. 10. http://ethesis.nitrkl.ac.in/17/1/file1.pdf 11. http://www.wseas.us/elibrary/transactions/communications/2010/42-362.pdf 12. http://pure.ltu.se/portal/files/1705853/14-L-SE.pdf	
8.	**Authors:** **Hichame Chaalel, Hafida Belbachir** **Paper Title:** **An Optimized Vertical Fragmentation Approach** **Abstract:** Vertical fragmentation in databases is considered as a difficult problem; it has attracted the interest of many researchers and has been the subject of several studies. In the literature, these studies suggest approaches to solving the problem of vertical fragmentation, these approaches always provide a solution, but we find no indication about the relevance of solutions, nor any clue about their qualities. In this study we propose an algorithm that seems be best suited to the problem of vertical fragmentation and especially gives a best solution. To validate our approach we compared our solution to two existing algorithms based on two early studies (Genetic algorithm & Apriori algorithm). **Keywords:** Genetic Algorithm, Data mining, Physical Design, Vertical fragmentation. **References:** 1. Agrawal, R and Srikant, R. "Fast algorithms for mining association rules in large databases". in 20th International VLDB, pages 487-499, Santiago, Chile, September 1994. 2. Angel, F. & al. Taddei-Zavala "Simultaneous Vertical Fragmentation and Segment Assignment in Distributed Data Bases using Genetic Algorithms". 3. Cheng. C.H; & Lee, W-K; Wong, K-F, "A Genetic Algorithm-Based Clustering Approach for Database Partitioning" IEEE Transactions on Systems, Man, and Cybernetics, 32(3), 2002, 215-230. 33. 4. Gorla, N. & Pang Wing "vertical fragmentation in Databases Using Data-Mining technique", IGI Global Vol.4, Issue 3. 2008. 5. Gorla, N. "A Methodology for Vertically Partitioning in a Multi-Relation Database Environment", JCS&T Vol.7 No. 3 October 2007. 6. Hammer, M. & Niamir, B. "A heuristic approach to attribute partitioning. In Proceedings ACM SIGMOD Int. Conf. on Management of Data", (Boston, Mass., 1979), ACM, New York. 7. Hoffer, J. & Severance,D. "The Uses of Cluster Analysis in Physical Database Design", Proc in 1st International Conference on VLDB, Framingham, MA, 1975. 8. Navathe, S. & Ceri,S. & Weiderhold,G. and Dou,J. "Vertical Partitioning Algorithms for Database Design" ACM Transactions on Database Systems, Vol. 9, No. 4, 1984. 9. Navathe, S. & Ra, M. "Vertical Partitioning for Database Design: A Graphical Algorithm". ACM SIGMOD, Portland, Juin 1989. 10. Song, S.K. & Gorla, N., "A genetic Algorithm for Vertical Fragmentation and Access Path Selection," The Computer Journal, vol. 45, no. 1, 2000, pp 81-93. 11. TPCH: ad-hoc, decision support benchmark. " Transaction Processing Performance Council (TPC)" http://www.tpc.org/tpch. 12. Yao, S. B. (1977). "Approximating block access in data-base organization. Communications of the ACM", 20(4), 260-261.	**33-39**
9.	**Authors:** **Sunil Ganpat Mahadik, Pankaj P. Bhangale** **Paper Title:** **Study & Analysis of Construction Project Management with Earn Value Management System** **Abstract:** As India is one of the fastest developing countries in the world, remarkable achievements have been made in the construction field. Construction companies in India are now facing new opportunities and challenges. In last few decades concept of project management has gained increasing demand among big construction industries. Now a day's customer and client are demanding higher level of performance with respect to schedule, cost from construction organization, at the same time available to fulfill the client's requirements are becoming crucial to complete project within agreed schedule and cost. In this research / thesis mentioned, knowledge about concept of construction project management with the application of Earned Value Management System. It also includes schedule monitoring, controlling, cost monitoring, controlling with respect to established baseline standards, and various elements of project management. The observations and knowledge from literature review are applied to analyze the construction project management using earned values analysis and management in Indian construction industry.	**40-44**

General information regarding project - a management in Indian construction industry including challenges for schedule and cost control management will be presented in this research to give some idea regarding difference between Indian construction industry and western countries.
The mentioned objectives are to be tested through the experimental and field methods like case study.
By using the knowledge from literature review and results from case study analysis some measures to improve project management with earned value management in Indian construction industry are recommended

Keywords: Construction management, Earned Value, Earned Schedule, Project Management

References:

1. Humphreys, Kenneth; Bent, James A., Effective Project Management Through Applied Cost and Schedule Control, Marcel Dekker , Inc, New York, USA, 1996.
2. Humphreys, Kenneth; Wellman, Paul, Basic Cost Engineering., 3rd Ed.,Marcel Dekker Inc, New York, USA, 1996.
3. Humphreys, Kenneth; English, Lloyd M., Project and Cost Engineers HandBook, 3rd Ed.,Marcel Dekker Inc, New York, USA, 1993.
4. Humphreys, Kenneth ; Jelen's Cost and optimization Engineering", 3rd. Edition, MacGraw-Hill Inc., New Yourk, USA, 1991
5. Flemming, Quentin W.; Koppelmann, Joel M., Earned Value Project Management, Project Management Institute – PMI, 2nd. Ed., 1999.
6. Flemming, Q. W. Cost / Schedule Control Systems Criteria. The Management Guide to C/SCSC.England: Probus Publishing Company, 1988.
7. Smith, Nigel J., Project Cost Estimating, Ed. Thomas Telford, London, UK, 1995
8. Kerzner, Harold, Project Management, A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, 6ª Edição, Van Nostrand Reinhold, 1998.
9. American National Standards Institute/Electronic Industries Alliance (1998). ANSI-EIA-748-98, Earned Value Management Systems. Arlington, VA: Electronic Industries Alliance; USA, 1998
10. PMI - Project Management Institute - Practice Standard for Earned Value Management http://www.pmi.org, access in November 15th, 2004.
11. YIN, Robert.; Case Study Research and Design, SAGE Publications, Thousand Oaks, California, USA,1994
12. YOUNG, S. David; O'BYRNE, Stephen F. Eva and value-based management. United States of America: McGraw-Hill Book, New York, USA,2001.
13. DOD/500-2R Department of Defense - Earned Value Management http://www.acq.osd.mil/pm –access in November 15th, 2004.
14. CHECKLAND Peter e HOLWELL Sue. "Action Research: Its Nature and Validity", Systemic Practice and Action Research, 11, 1, 1998, pp.13-16.
15. DICK Robert. What is Action Research, 1999, disponível em http://www.scu.edu.au/schools/gcm/ar/whatisar.html, access in July, 29th, 2002.
16. EINSENHARDT Karen M. "Building Theories from Case Study Research", Academy of Management Review, vol. 14, No. 4, pp. 532-550, 1989.

10	**Authors:**	**Amit Shukla, Vineeta Saxena Nigam**
	Paper Title:	**PAPR Reduction in OFDM System Based on SLM Technique**

Abstract: The term OFDM is a special type of FDM which has very vast application in the field of wired and wireless communication systems. In this paper we are discussing about the main problem of OFDM i.e. Peak to Average Power Ratio (PAPR) which affects the performance and efficiency of Power Amplifier. We also discuss various reduction techniques of PAPR for Selective Mapping (SLM) with Inverse Discrete Fourier Transform (IDFT) and Selective Mapping (SLM) with Inverse Fast Fourier Transform (IFFT). In this paper we are dealing with most promising reduction technique SLM with IFFT, its non-uniform phase factor for PAPR reduction in OFDM system. In addition, approximate expression for the complementary cumulative distribution function (CCDF) of the PAPR of the modified SLM technique is derived and compared with the simulation results.

Keywords: Frequency Division Multiplexing (FDM), Orthogonal Frequency Division Multiplexing (OFDM), Peak to Average Power Ratio (PAPR), Selective Mapping (SLM)

References:

1. Y.Wu and W. Y. Zou, "Orthogonal frequency division multiplexing: A multi-carrier modulation scheme," IEEE Trans. Consumer Electronics, vol. 41, no. 3, pp. 392-399, Aug. 1995.
2. T. Jiang, W. Xiang, H. H. Chen, and Q. Ni, "Multicast broadcasting services support in OFDMA-based WiMAX systems," IEEE Communications Magazine, vol. 45, no. 8, pp. 78-86, Aug. 2007.
3. S. Hee Han and J. H. Lee, "An overview of peak to average power ratio reduction techniques for multicarrier transmission," IEEE Wireless Communication, vol. 12, no. 2, pp. 56-65, Apr. 2005.
4. T. Jing and Y. Wu, "An overview: peak to average power ratio reduction techniques for OFDM signals," IEEE Transactions on Broadcasting, vol. 54, no. 2, pp. 257-268, Jun. 2008.
5. R. J. Baxley and G. T. Zhou, "Power savings analysis of peak-to-average power ratio reduction in OFDM," IEEE Trans. Consumer Electronics, vol. 50, pp. 792-798, Aug. 2004.
6. T. Jiang and G. Zhu, "Complement block coding for reduction in peak to average power ratio of OFDM signals," IEEE Radio Communications, vol. 43, no. 9, pp. s17-s22, Sept. 2005.
7. J. Tao, Z. Guangxi and Z. Jianbin, "Block coding scheme for reducing PAPR in OFDM systems with large number of subcarriers," Journal of Electronics (China), vol. 21, no. 6, pp. 482-489, Nov. 2004.
8. J. Das, S. K. Mullick and P. K. Chatterjee, "Principles of Digital Communication," Wiley, The University of California, Mar. 2008.
9. T. Jiang and G. Zhu, "OFDM peak to average power ratio, reduction by complement block coding scheme and its modified version," IEEE 60th Vehicular Technology Conference, vol. 1, pp. 448-451, Jul. 2004.
10. Hyunseuk Yoo, Frederic Guilloud and Ramesh Pyndiah "Amplitude PDF Analysis Of OFDM Signal Using Probabilistic PAPR Reduction Method". 19 January 2011.
11. T Chalapathi, M. Madhu Babu. "A low computational complexity algorithm for PTS based PAPR reduction scheme in OFDM system,IJERT vol.1 3 May 2012.

11.	**Authors:**	**Shingare Vidya Marshal**
	Paper Title:	**Secure Audit Service by Using TPA for Data Integrity in Cloud System**

Abstract: Cloud computing is the vast computing utility, where users can remotely store their data into the cloud so

to have the benefit of the on-demand availability of huge and different applications and services from a shared pool of configurable computing resources.
Cloud-based outsourced storage space reduces the patron load of storage management. It also reduces the maintenance load of customer by providing a comparably low-cost, scalable, location-independent platform.
This new model of data hosting service commence a new security challenges, which requires an independent auditing service which audit the data integrity of cloud. There are different existing auditing services available in cloud which audit data integrity remotely in static motion but these are not applicable whenever data is dynamically updated in cloud. Since it require efficient and secure dynamic auditing method for data owner. However in cloud, the clients no have direct physical possession of data. It shows client faces different formidable risk like missing or corruption of data. To keep away from the security and integrity risk of data, audit services are essential to ensure the integrity and availability of outsourced data and to achieve digital forensics and credibility on cloud computing.
Provable data possession (PDP), which is a cryptographic technique for verifying the integrity of data without retrieving it at an untrusted server, can be used to realize audit services. In this paper, profiting from the interactive proof system, we address the construction of an interactive PDP protocol to prevent the fraudulence of prove (soundness property) and the leakage of verified data (zero-knowledge property) [1] [17] [20].

Keywords: Data integrity, Storage auditing, dynamic auditing, privacy-preserving auditing, cloud computing, zero knowledge.

References:

1. Yan Zhua,b, Hongxin Huc, Gail-Joon Ahnc, Stephen S. Yauc. "Efficient audit service outsourcing for data integrity in clouds". In "The Journal of Systems and Software 85 (2012) 1083– 1095".
2. M. Armbrust, A. Fox, R. Griffith, A.D. Joseph, R.H. Katz, A. Konwinski, G. Lee, D.A. Patterson, A. Rabkin, I. Stoica, and M. Zaharia, "A View of Cloud Computing," Comm. ACM, vol. 53, no. 4, pp. 50-58, 2010.
3. T. Velte, A. Velte, and R. Elsenpeter, Cloud Computing: A Practical Approach, first ed., ch. 7. McGraw-Hill, 2010.
4. A. Juels and B.S. Kaliski Jr., "PORs: Proofs of Retrievability for Large Files," Proc. 14th ACM Conf. Computer and Comm. Security (CCS '07), pp. 584-597, Oct. 2007.
5. G. Ateniese, R. Burns, R. Curtmola, J. Herring, L. Kissner, Z. Peterson, and D. Song, "Provable Data Possession at Untrusted Stores," Proc. 14th ACM Conf. Computer and Comm. Security (CCS '07), pp. 598-609, Oct. 2007.
6. M.A. Shah, M. Baker, J.C. Mogul, and R. Swaminathan, "Auditing to Keep Online Storage Services Honest," Proc. 11th USENIX Workshop Hot Topics in Operating Systems (HotOS '07), pp. 1-6, 2007.
7. G. Ateniese, R. Burns, R. Curtmola, J. Herring, L. Kissner, Z. Peterson, and D. Song, "Provable Data Possession at Untrusted Stores," Proc. 14th ACM Conf. Computer and Comm. Security (CCS '07), pp. 598-609, 2007.
8. M.A. Shah, R. Swaminathan, and M. Baker, "Privacy-Preserving Audit and Extraction of Digital Contents," Cryptology ePrint Archive, Report 2008/186, 2008.

A. Juels and J. Burton, S. Kaliski, "PORs: Proofs of Retrievability for Large Files," Proc. ACM Conf. Computer and Comm. Security (CCS '07), pp. 584-597, Oct. 2007.

9. Q. Wang, C. Wang, K. Ren, W. Lou, and J. Li, "Enabling Public Auditability and Data Dynamics for Storage Security in Cloud Computing," IEEE Trans. Parallel Distributed Systems, vol. 22, no. 5, pp. 847-859, May 2011.
10. C. Wang, Q. Wang, K. Ren, and W. Lou, "Privacy-Preserving Public Auditing for Data Storage Security in Cloud Computing," Proc. IEEE INFOCOM, pp. 525-533, 2010.
11. C. Wang, K. Ren, W. Lou, and J. Li, "Toward Publicly Auditable Secure Cloud Data Storage Services," IEEE Network, vol. 24, no. 4, pp. 19-24, July/Aug. 2010.
12. K. Yang and X. Jia, "Data Storage Auditing Service in Cloud Computing: Challenges, Methods and Opportunities," World Wide Web, vol. 15, no. 4, pp. 409-428, 2012.
13. Q. Wang et al., "Enabling Public Verifiability and Data Dynamics for Storage Security in Cloud Computing," Proc. ESORICS '09, Sept. 2009, pp. 355–70.
14. C. Erway et al., "Dynamic Provable Data Possession," Proc. ACM CCS '09, Nov. 2009, pp. 213–222.
15. C. Wang et al., "Privacy-Preserving Public Auditing for Storage Security in Cloud Computing," Proc. IEEE INFOCOM '10, Mar. 2010.
16. Cong Wang and Kui Ren, Illinois Institute of Technology Wenjing Lou, Worcester Polytechnic Institute Jin Li, Illinois Institute of Technology "Toward Publicly Auditable Secure Cloud Data Storage Services". 0890-8044/10/2010 IEEE.
17. Cong Wang, Student Member, IEEE, Qian Wang, Student Member, IEEE, Kui Ren, Senior Member, IEEE, Ning Cao, and Wenjing Lou, Senior Member, IEEE "Toward Secure and Dependable Storage Services in Cloud Computing" IEEE TRANSACTIONS ON SERVICES COMPUTING, VOL. 5, NO. 2, APRIL-JUNE 2012.
18. Kan Yang, Student Member, IEEE, and Xiaohua Jia, Fellow, IEEE "An Efficient and Secure Dynamic Auditing Protocol for Data Storage in Cloud Computing" IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, VOL. 24, NO. 9, SEPTEMBER 2013.
19. Cong Wang, Member, IEEE, Sherman S.M. Chow, Qian Wang, Member, IEEE, Kui Ren, Senior Member, IEEE, and Wenjing Lou, Senior Member, IEEE "Privacy-Preserving Public Auditing for Secure Cloud Storage" IEEE TRANSACTIONS ON COMPUTERS, VOL. 62, NO. 2, FEBRUARY 2013.

12.

Authors: **Padmavathi A.V. Thangella, Shyam Perugu, Manohar Rao Daggu**

Paper Title: **In Silico Characterization of 14 – 3 – 3 Protein Identified In Peanut (Arachis Hypogaea L.) Under Drought Stress**

Abstract: Peanut, an important oil and food crop frequently encounter drought stress which limits its productivity. Of the many proteins synthesized in response to drought, 14-3-3 proteins are highly conserved regulatory proteins and involved in many biological processes. In the present investigation, peptides of 14-3-3 protein isolated and sequenced from ICGV 91114 peanut cultivar were employed. The physico-chemical and secondary structural properties indicated this protein as hydrophilic, soluble and stable. Since 3D structure of peanut 14-3-3 protein is not available in public domain to elucidate its regulatory role, the present investigation was initiated to build a homology model, using 2o98 protein of tobacco as a template and validated through Ramachandran plot. A hypothesis was built on the role of peanut 14-3-3 protein in regulating 3 other drought tolerant proteins in silico; Late Embryogenesis Abundant protein-1, Ascorbate peroxidase-1 and Calcium ion binding protein, by identifying protein binding sites, validating and molecular docking. The results indicated its maximum interaction with calcium binding protein indicating its probable role in signaling other proteins in silico during drought stress.

Keywords: Peanut, 14-3-3 Protein, Multiple Sequence Alignment, Homology Modeling, Ramachandran plot, Molecular Docking.

References:

1. Knauft DA, Ozias-Akins P (1995) Recent methodologies for germplasm enhancement and breeding, pp. 54–94. In Advances in Peanut Science (Pattee HE and Stalker HT, eds). Stillwater, OK: American Peanut Research and Education Society.Aitken A (1992) 14-3-3 proteins on the MAP. Trends in Biochemical Science 20:95–97.
2. Shinde BM , Limaye AS, Deore GB, Laware SL (2010) Physiological Responses of Groundnut (L.) Varieties to Drought Stress. Asian J Exp Biol Sci spl: 65-68
3. Skriver K, Mundy J (1990) Gene expression in response to abscisic acid and osmotic stress. Plant Cell 2: 503-512
4. Chandler PM, Robertson M (1994) Gene expression regulated by abscisic acid and its relation to stress tolerance. Annu Rev Plant Physiol Plant Mo1 Biol 45: 113-141
5. Ramanjulu S, Bartels D (2002) Drought and desiccation-induced modulation of gene expression in plants. Plant Cell Environ 25: 141-151
6. Komatsu S, Hossain Z (2013) Organ-specific proteome analysis for identification of abiotic stress response mechanism in crop Front Plant Sci 4: 71
7. Ingram J, Bartels D (1996) The molecular basis of dehydration tolerance in plants. Ann Rev Plant Physiol Plant Molecular Biology 47: 377-403
8. Reddy AR, Chaitanya KV, Vivekanandan M (2004) Drought induced responses of photosynthesis and antioxidant metabolism in higher plants. J Plant Physiol 161: 1189–1202
9. Bray E, Bailey SE, Weretilnyk E (2000) Responses to abiotic stresses In: Biochemistry and Molecular Biology of Plants. Buchanan W Gruissem R Jones (Eds.) American Society of Plant Physiologists pp1158-1176.
10. Ferl RJ (1996) 14-3-3 proteins and signal transduction. Annual Review of Plant Physiology and Plant Molecular Biology 47:49–73.
11. Liu D, Bienkowska J, Petosa C, Collier RJ, Fu H, Liddington R (1995) Crystal structure of the zeta isoform of the 14-3-3 protein. Nature 376:191–194.
12. Xiao B, Smerdon SJ, Jones DH, Dodson GG, Soneji Y, Aitken A, Gamblin SJ (1995) Structure of a 14-3-3 protein and implications for coordination of multiple signalling pathways. Nature 376:188–191.
13. Chung HJ, Sehnke PC, Ferl RJ (1999) The 14-3-3 proteins: cellular regulators of plant metabolism. Trends in Plant Science 4:367–371.
14. Finnie C, Borch J, Collinge DB (1999) 14-3-3 proteins: eukaryotic regulatory proteins with many functions. Plant Molecular Biology 40:545–554.
15. Van Hemert MJ, Steensma HY, van Heusden GP (2001) 14-3-3 proteins: key regulators of cell division, signalling and apoptosis. Bioessays 23:936–946.
16. Sehnke PC, DeLille, J.M. and Ferl, R.J. (2002) Consummating signal transduction: the role of 14-3-3 proteins in the completion of signal-induced transitions in protein activity. Plant Cell 14: S339–S354.
17. Muslin AJ, Tanner JW, Allen PM, Shaw AS. Interaction of 14-3-3 with signaling proteins is mediated by the recognition of phosphoserine. Cell. 1996; 84: 889–897.
18. Yaffe MB, Rittinger K, Volinia S, Caron PR, Aitken A, Leffers H, Gamblin SJ, Smerdon SJ, Cantley LC. The structural basis for 14-3-3: phosphopeptide binding specificity. Cell. 1997; 91: 961–971.
19. Rittinger K, Budman J, Xu J, Volinia S, Cantley LC, Smerdon SJ, Gamblin SJ, Yaffe MB. Structural analysis of 14-3-3 phosphopeptide complexes identifies a dual role for the nuclear export signal of 14-3-3 in ligand binding. Molecular Cell 1999; 153–166.
20. Muslin AJ, Xing H. 14-3-3 proteins: regulation of subcellular localization by molecular interference. Cellular Signaling. 2000;12:703–709.
21. Van Der Spoel D, Lindahl E, Hess B, Groenhof G, Mark AE (2005) GROMACS: Fast, Flexible and Free. J Comp Chem 26:1701-1718.
22. Ramachandran GN, Ramakrishnan C, Sasisekhran V (1963) Stereochemistry of polypeptide chain confi guarations. J Mol Biol 7:95-99.
23. Laskowski RA, Rullmannn JA, MacArthur MW, Kaptein R, Thornton JM (1996) AQUA and PROCHECK-NMR: programs for checking the quality of protein structures solved by NMR. J Biomol NMR 8:477-486.
24. Gasteiger E, Gattiker A, Hoogland C, Ivanyi I, Appel RD, Bairoch A. ExPASy: the proteomics server for in-depth protein knowledge and analysis. Nucleic Acids Res 2003; 31(13): 3784-3788.
25. Gill SC and von Hippel PH. Calculation of protein extinction coefficients from amino acid sequence data. Anal. Biochem 1989; 182: 319-326.
26. Guruprasad K, Reddy BVB and Pandit MW. Correlation between stability of a protein and its dipeptide composition: a novel approach for predicting in vivo stability of a protein from its primary sequence. Protein Eng 1990; 4: 155-161.
27. Ikai AJ Thermostability and aliphatic index of globular proteins. J. Biochem 1980; 88: 1895-1898.
28. Kyte J and Doolittle RF. A simple method for displaying the hydropathic character of a protein. J. Mol. Biol 1982; 157: 105-132.
29. Geourjon C, Deleage G. SOPMA: significant improvements in protein secondary structure prediction by consensus prediction from multiple alignments. Comput Appl Biosci 1995; 11(6):681-684.
30. Wang J, Zhang H, Allen RD (1999) Overexpression of an Arabidopsis putative peroxisomal ascorbate peroxidase gene in tobacco increases protection against oxidative stress. Plant Cell Physiol 40: 725–732
31. Yan J, Wang J, Tissue D, Holaday AS, Allen RD, Zhang H (2003) Photosynthesis and seed production under water-deficit conditions in transgenic tobacco plants that overexpress an Arabidopsis ascorbate peroxidase gene. Crop Science 43: 1477–1483
32. Zhang H, Wang J, Goodman HM (1995) Isolation and expression of an Arabidopsis 14-3-3-like protein gene. Biochim. Biophys. Acta 1266:113–116
33. Zhu JK, Hasegawa PM, Bressan RA (1997) Molecular aspects of osmotic stress in plants. Crit Rev Plant Sci 16:253–277.
34. Close TJ (1996) Dehydrins: emergence of a biochemical role of a family of plant dehydration proteins. Physiol Plantarum 4:795–803.

13.

Authors:	**Md Shahabul Alam, Md Abul Hossain**
Paper Title:	**Impact Analysis of PMD and GVD on the Performance of Optical Fiber Communication Employing OFDM - QAM Technique**

Abstract: In this paper the performance of optical fiber communication system is analytically investigated on account of fiber chromatic and polarization mode dispersion employing OFDM-QAM. The influence of the dispersions on the signal spectrum is determined as a function of fiber length, Bit rate and dispersion parameters for intensity modulation/ direct-direct (IM/DD) receiver. It is found that the bit error rate (BER) performance of the system is highly dependent on fiber length, bit rate and dispersion parameters. The power penalty suffered by the system is evaluated at BER=10-09 for single mode fiber operating at 1.55 μm wavelength. It is found that the proposed system performance mainly degrades due to dispersion when the system operates at higher bit rates.

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Keywords: OFDM-QAM, communications system performance, group-velocity dispersion, polarization-mode dispersion, Chromatic dispersion, Bit Error Rates.

References:

1. Rongqing Hui, Senior Member, IEEE, Benyuan Zhu, Renxiang Huang, Christopher T. Allen, Senior Member, IEEE,Kenneth R. Demarest, Senior Member, IEEE, and Douglas Richards, "Subcarrier Multiplexing for High-Speed Optical Transmission" JOURNAL OF

LIGHTWAVE TECHNOLOGY, VOL. 20, NO. 3,pp 417-427, MARCH 2002.
2. Jin Wang, Student Member, IEEE, and Joseph M. Kahn, Fellow, IEEE, "Impact of Chromatic and Polarization-Mode Dispersions on DPSK Systems Using Interferometric Demodulation and Direct Detection" JOURNAL OF LIGHTWAVE TECHNOLOGY, VOL. 22, NO. 2, FEBRUARY 2004, p-362-371.
3. A. O. Lima, I. T. Lima, T. Adali, and C. R. Menyuk, "Comparison of power penalties due to first- and all-order PMD distortions," presented at the ECOC, Copenhagen, Denmark, Sept. 2002, Paper 7.1.2.
4. M. Karisson, et al., Optics Lett., vol.24, pp.939-941,1999.
5. R. M. Jopson, L. E. Nelson, H. Kogelnik, and G. J. Foschini, "Polarization mode dispersion beyond first order," in Tech. Dig. IEEE LEOS 12th Annual Meeting LEOSP9, pp. 149-150, (1999).
6. P. Ciprut, B. Gisin, N, Gisin, R. Passy, J. P. Von der Weid, F. Prieto, and C. W. Zimmer, "Second-order polarization mode dispersion: Impact on analog and digital transmissions," J. Light. Tech., vol. 16, pp. 757-771, (1998).
7. E. Forestieri, "Evaluating the error probability in lightwave systems with chromatic dispersion, arbitrary pulse shape and pre-and postdetection filtering," J. Lightwave Technol., vol. 18, pp. 1493–1503, Nov. 2000.
8. R. Hofstetter, H. Schmuck, and R. Heidemann, "Dispersion effects in optical millimeter-wave systems using self-heterodyne method for transport and generation," IEEE Trans. Microwave Theory Tech., vol. 43, pp. 2263-2269, (1995).
9. O. H. Adamczyk, A. B. Sahin, Q. Yu, S. Lee, and A. E. Willner, "Statistics of PMD-induced power fading for double sideband and single sideband subcarrier-multiplexed signals" (060.2330) Fiber optics communications, (350.4010) Microwaves, MO5-(1-3).
10. Ezra Ip and Joseph M. Kahn, Fellow, IEEE Digital Equalization of Chromatic Dispersion and Polarization Mode Dispersion JOURNAL OF LIGHTWAVE TECHNOLOGY, VOL. 25, NO. 8, AUGUST 2007 pp-2033-2043
11. Winters J.H. and Santoro M.A.: Photon. Technol. Lett.,vol2, no. 8, 1990, pp. 591 – 593
12. Biilow H.: Proc. ECOC96, Oslo, TuD.3.6, 1996, pp 221 1-2214
13. Hakki B.W.: Photon. Technol. Lett., vo1.9, no. 1, 1997, pp. 121 - 123
14. Bulow H.,et al.: OFC '98, San Jose, 1998, WI1
15. D. Schlump, B.Wedding, and H. Bülow, "Electronic equalisation of PMD and chromatic dispersion induced distortion after 100 km standard fibre at 10 Gb/s," in Proc. ECOC, Madrid, Spain, 1998, pp. 535–536.
16. A. F. Elrefale, R. E. Wagner, D. A. Atlas, and D. G. Daut, "Chromatic dispersion limitations in coherent lightwave transmission systems," J. Lightwave Technol., vol. 5, pp. 704–709, May 1988.
17. C. Glingener et al., 'Polarisation mode dispersion compensation at 20Gb/s with a compact distributed equalizer inLiNbOJ', PD29, OFC, San Diego, USA, 1999.
18. S. Lanne, D. Penninckx, J.-P. Thiery, and J.-P. Hamaides, "Extension of polarization-mode dispersion limit using optical mitigation and phaseshaped binary transmission," in Proc. OFC'00, Baltimore, MD, Mar. 7–10, 2000, ThH3.
19. F. Roy et al., 'Simple dynamic polarization mode dispersion compensator', TuS4, OFC. San Diego, USA, 1999.
20. R. Noé, D. Sandel, M. Yoshida-Dierolf, S. Hinz, V.Mirvoda, A. Sch˘opflin, C. Glingener, E. Gottwald, C. Scheerer, G. Fischer, T. Weyrauch, and W. Haase, "Polarization mode dispersion compensation at 10, 20, and 40 Gb/s with various optical equalizers," J. Lightw. Technol., vol. 17, no. 9, pp. 1602–1616, Sep. 1999.
21. Arthur James Lowery and Jean Armstrong, "Orthogonal –Frequency - Division – Multiplexing for Dispersion Compensation of Long-haul Optical Systems", Optics Express 2080, Vol.14, No. 6 ,20March ,2006.
22. Brendon J. C. Schmidt, Arthur James Lowery and Jean Armstrong, "Experimental Demonstrations of 20 Gbit/s Direct – Detection Optical OFDM and 12 Gbit/s with a Colorless Transmitter", Optical Society of America, OCIS Codes: (060.2330) , 2007.
23. Arthur James Lowery, Liang Du and Jean Armstrong, "Orthogonal Frequency Division Multiplexing for Adaptive Dispersion Compensation in Long Haul WDM Systems", Optical Society of America, PDP39, 2006.
24. Arthur James Lowery and Jean Armstrong, "Orthogonal-Frequency-Division Multiplexing for Optical Dispersion Compensation", Optical Society of America, OCIS Codes: (060.2330), 2007.
25. Daniel J. F. Barros and Joseph M. Kahn, "Optimized Dispersion Compensation Using Orthogonal Frequency – Division Multiplexing", Journal of Lightwave Technology, Vol. 26, No.16, 15August, 2008.
26. Khalid A. S. Al-Khateeb, Fowzia Akhter and Md. Rafiqul Islam, "Impact of Fiber Optic Dispersion on the Performance of OFDM-QAM System" ICCCE 2010), 11-13 May 2010, Kuala Lumpur, Malaysia.
27. Herbert Taub and Donald L. Schilling, "Principles of Communication Systems", McGraw-Hill Higher Education, 1986.
28. Ezra Ip and Joseph M.Kahn, Fellow, IEEE,"Digital Equalization of Chromatic Dispersion and Polarization mode dispersion" JOURNAL OF LIGHTWAVE TECHNOLOGY, VOL, 25, N0.8, AUGUST 2007
29. Jin Wang, Student Member, IEEE and Joseph M. Kahn, Fellow, IEEE,"Impact of Chromatic and Polarization Mode Dispersion on DPSK Systems Using Interferometric Demodulation and Direct Detection" JOURNAL OF LIGHTWAVE TECHNOLOGY VOL, 22 NO 2 FEBRUARY 20.
30. RongqingHui,SeniorMember,IEEE,BenyuanZhu,RenxiangHuang,ChristopherT.Allen,Senior Member,IEEE, KennethR.Demarest, Senior Member, IEEE, and Douglas Richards," Subcarrier Multiplexing for High-Speed Optical Transmission" JOURNALOFLIGHTWAVETECHNOLOGY,VOL.20,NO.3,MARCH2002 417
31. "Principle of digital communication",J. Das, S. K Mallik and P. K Chatterjee,New Age International Limited,1986.

14.

Authors:	**A.B. Shinde**
Paper Title:	**Structural and Electrical Properties of Cobalt Ferrite Nanoparticles**

Abstract: Cobalt ferrite nano-powders were obtained by sol-gel auto-combustion method using citric acid as a fuel. The metal nitrate to citric acid ratio was taken as 1:3. The as prepared powder of cobalt ferrite nanoparticles is annealed at 5500C for 4 hrs and the same powder was used for characterization and investigations of structural and electrical properties.The structural characterization of cobalt ferrite nanoparticles were done by X-ray diffraction technique. Micro-structural and morphological studies were carried out by scanning electron microscope technique and energy dispersive spectrum. The average crystallite size obtained by Scherrer's formula is of the order of 34 nm. The grain size and specific surface area of the cobalt ferrite nanoparticles is 34 nm and 55 respectively. The lattice constant determined from XRD data is in the reported range (8.3783 A.U.). The porosity estimated from X- ray density and bulk density shows large value of the order of 47 %. The D.C electrical resistivity was investigated from room temperature to 850 K using two probe technique. The variation of dc electrical resistivity with temperature is explained in this work.

Keywords: Cobalt ferrite, Nanoparticles, Sol-gel auto- combustion.

References:

1. A.V. Kadu, S.V. Jagtap and G.N. Chaudhari, "Studies on the preparation and ethanol gas sensing properties of spinel Zn0.6Mn0.4Fe2O4 nanomaterials" Current Applied Physics 9 (2009) 1246–1251.
2. H. Nathani, S. Gubbala, and R.D.K. Misra , "Magnetic behavior of nanocrystalline nickel ferrite Part I. The effect of surface roughness" Materials Science and Engineering B 121 (2005) 126–136.
3. M.R. Anantharaman, S. Jagatheesan, K.A. Malini, S. Sindhu, A. Narayanasamy, C.N. Chinnasamy, J.P. Jacobs, S. Reijne, K. Seshan,

R.H.H. Smits and H.H. Brongersma, "On the magnetic properties of ultra-fine zincferrites" Journal of Magnetism and Magnetic Materials 189 (1998) 83-88.
4. Rudraji B. Tangsali Satish H. Keluskar Ganpat K. Naik Æ J. S. Budkuley, Shenoy, S.D., Joy, P.A. and M.R. Anantharaman (2004). "Effect of mechanical milling on the structural, magnetic and dielectric properties of coprecipitated ultrafine zinc ferrite" Journal of Magnetism and Magnetic Materials (269) 217-226.
5. Mukta V. Limaye, Shashi B. Singh, Sadgopal K. Date,Deepti Kothari, V. Raghavendra Reddy, Ajay Gupta,Vasant Sathe, Ram Jane Choudhary, and Sulabha K. Kulkarni. "High coercivity of oleic acid CoFe2O4 nanoparticles at room temperature" J. Phys. Chem. B 113, (2009), 9070-9076.
6. I.C.Nlebedimn,N.Ranvah,P.I.Williams,Y.Melikhov,J.E.Snyder, A.J.Moses and D.C.Jiles, "Effect of heat treatment on the magnetic and magnetoelastic properties of cobalt ferrite" J Magn. Magn. Mater 322 (2010) 1929–1933
7. S. S. Shinde and K. M. Jadhav, "Bulk magnetic properties of cobalt ferrite doped with Si4+. Ions", J. Mater Sci. Lett. 17 (1998) 849.
8. Sasmita Mohapatra , Smruti R. Rout , Swatilekha Maiti , Tapas K. Maiti and Asit B. Panda, "Monodisperse mesoporous cobalt ferrite nanoparticles: synthesis and application in targeted delivery of antitumor drugs" J. Mater. Chem., 21 (2011) 9185.
9. K. Maaz, S.Karim, A.Mumtaz, S.K.Hasanain, J.Liu, J.L.Duan, "Synthesis and magnetic characterization of nickel ferrite nanoparticles prepared by co-precipitation route" J Magn. Magn. Mater. 321 (2009) 1838.
10. Y. Ichiyanagi, M. Kubota, S. Moritake, Y. Kanazawa, T. Yamada and T. Uehashi, "Magnetic properties of Mg-ferrite nanoparticles" J. Magn. Magn. Mater. 310 (2007) 2378.
11. Lawrence Kumar and Manoranjan Kar, "Influence ofAl3+ion concentration on the crystal structure and magnetic anisotropy of nanocrystalline spinel cobalt ferrite" J. Magn. Magn. Mater. 323 (2011) 2042.
12. N.M. Deraz "Glycine-assisted fabrication of nanocrystalline cobalt ferrite system" J. Analyt. Appl. Pyro. 88 (2010) 103–109
13. B. D. Cullity, Elements of X-ray Diffraction (Addison-Wesley, London), 1978.
14. Sagar E. Shirsath , B.G. Toksha and K.M. Jdha substituted NiFe2O4" Mat. Chem. Phys. 117 (2009) 163-168.
15. N. M. Deraz, and A. Alarif, " Processing and Evaluation of Alumina Doped Nickel Ferrite Nano- Particles" Int. J. Electrochem. Sci., 7 (2012) 4585 – 4595
16. P. Jeppson, R. Sailer, E. Jarabek, J. Sandstrom, B. Anderson, M. Bremer, D. G. Grier, D. L. Schulz, and A. N. Carusoa "Cobalt ferrite nanoparticles: Achieving the superparamagnetic limit by chemical reduction" J. Appl. Phys. 100, 114324 (2006).

15.

Authors:	**Pankaj Vijay Naphade, Pankaj P. Bhangale**
Paper Title:	**To Study on the Risk Management, Risk Treatment Strategies and Insurance in Construction Industries**

Abstract: This study is concerned with the assessment of risk for major construction activities. Risk has been defined as a measure of the probability, the severity, and the exposure of all hazards of an activity.
Risk management is at the core of any business or organization, and construction industry and construction companies are no exception to this. This is central to any business regardless of size, activity, or sector. Construction industries can lose substantial sums of money as a result of failure to identify and evaluate risk in time. Industries may even forego their opportunity to take advantage of potentially beneficial opportunities arising in the course of their activities if risks are not recognized in good time. Risk management is, therefore, as much about looking ahead to identify further opportunities as it is about avoiding or mitigating losses.

Keywords: Risk management, Risk identification, Risk treatment strategies & Insurance in construction.

References:

1. Construction Project management by Kumar Neeraj Jha.
2. Advanced Study Group No, B. (1999) Construction Insurance, the Chartered Insurance Institute, London.
3. Anderson, J. M. (2000) the identification and control of risk in underground Construction, University of London, London.
4. Baartz, J. and Longley, N. (2003) Construction and infrastructure projects- risk Management through insurance, Allens Arthur Robinson. http://www.aar.com.au/pubs/pdf/insur/ins6augs.pf
5. Baur, E. and Schanz, K.-U. (Eds.) (1999) Alternative risk transfer (ART) for corporations:
6. A passing fashion or risk management for the 21st century?, Swiss Re.
7. Boothroyd, C. and Emmett, J. (1996) Risk management: a practical guide for Construction professionals, Witherby & Company Ltd, London.
8. AS/NZS 4360 — 1999: Australian Standard on Risk Management, Standards Association of Australia, Sydney, 1999.
9. HB 142 — 1999: A Basic Introduction to Managing Risk Using the Australian and New Zealand
10. Risk Management Standard AS/NZS 4360 — 1999, Standards Association of Australia, Sydney, 1999.
11. Aalto, P., Järvinen, P., Tuovinen, M, 2003, Riskijatkumot projektiliiketoimintaverkostossa: teoriaa ja käytäntöä, Teknillinen korkeakoulu, TAI tutkimuslaitos, Espoo, 157 p.
12. Artto, K., Kähkönen, K., Management of Uncertainty, yet unpublished
13. Artto, K., Kähkönen, K., Pitkänen P.J., 2000, Unknown Soldier Revisited: A
14. Story of risk Management, Project Management Association Finland, Helsinki, 114
15. Project Management Institute. (2000). A Guide to the Project Management Body of knowledge (PMBOK guide) 2000 Edition. Pennsylvania.
16. . Husnan, Suad dan Suwarsono Muhammad. (2000). Studi Kelayakan Proyek. Yogyakarta,

68-74

16.

Authors:	**Ritika Bansal, Sonal Chawla**
Paper Title:	**Semantic Web Tool: For Efficient Retrieval of Links and Required Information**

Abstract: Web, which grows significantly, becomes a need for modern society to make transactions, search the information, and spread the information. This paper presents the prototype for the semantic web based tool for efficient retrieval of links and required information. By using this tool, users can easily access the information without technical knowledge on RDF. This paper has fourfold objective. Firstly, paper throws light on the need of the proposed semantic web based tool. Secondly, paper proposes the semantic web based tool and its adaptive view. Thirdly, paper highlights the importance of ontologies and comparison of various tools for ontology development. Lastly, paper also throws light on java based frameworks for developing semantic web based tools.

Keywords: Semantic Web, Ontology, SPARQL, RDF, Jena, Sesame, OWL API , Protégé.

References:

1. Dwipa Search engine: When E-Tourism meets the semantic web,G.P.Kuntarto,.Gunawan, Department of Information System and Computer Science Universitas Bakrie and Universitas Multimedia Nusantara,2012.

75-78

2. Semantic Web E-Portal for Tourism, F.F.Ahmed,S.F.Hussain,S.Hameed,S.M.Ali, Sir Syed University, Karachi, Pakistan,2012.
3. A Semantic Web browser for novice users, Y.Kim,S.Yoo,S.Park,Computer Science Education, Korea Univeersity,2012.
4. http://protege.stanford.edu/
5. Wikipedia http://en.wikipedia.org/wiki/Semantic_Web
6. RDF Primer. W3C Recommendation. Feb, 2004. http://www.w3.org/TR/rdf-primer/
7. http://jena.apache.org/about_jena/architecture.ht
8. http://www.openrdf.org/about.jsp
9. http://owlapi.sourceforge.net/
10. Ontology Development Tools for ontology-based knowledge management, S.Youn, D.McLeod, University of southern California,2006.

17.

Authors:	**G.Gopal, B.Shankaraiah, M.Chinnalal, K.Lakshmi Ganesh, G.Satyanarayana, D.Sreenivasa Naik**
Paper Title:	**A New topology of Single-Phase Seven-Level Inverter with Less Number of Power Elements for Grid Connection**

Abstract: Recently, the evolution of single phase multilevel inverters has been escalation due to its preference over traditional one. In this paper proposed a new topology of single phase seven level inverter with less number of power elements for grid connection. In this proposed inverter have eight switches and their switches operate with fundamental frequency. The proposed inverter produced seven level output voltage from two input voltage sources. The proposed inverter reduced the switching losses (because of all switches operate with fundamental frequency), complexity, control circuit and place requirement. The proposed inverter compared to a single-phase five level pulse width modulation (PWM) inverter for grid connection. The proposed inverter compared to conventional inverter has PWM technique have two triangular carrier signals identical to each other with an offset equivalent to the amplitude of the reference signal were used to generate PWM signals for the switches. The proposed inverter compared to conventional inverter has some switches operate at fundamental frequency and other operates at switching frequency.

Keywords: Multilevel inverters, Grid connection, Pulse generation, PWM.

References:

1. Nabae.A., Takahashi.I., and Akagi. H., "A new neutral-point clamped PWM inverter", IEEE transactions on Industrial Applications, Vol. IA-17, pp. 518-523, September/October 1981.
2. Siriroj Sirisukprasert, Jih-Sheng Lai and Tian-Hua Liu, "Optimum harmonic reduction with a sied range of modulation indexes for multilevel converters", IEEE Transactions on Industrial on Electronics, Vol.49,Issue 4, pp.875-881,August-2002.
3. Brendan Peter McGrath and Donald Grahame Holmes, "Multicarrier PWM strategies for multilevel inverters", IEEE Transactions on Industrial Electronics, Vol.49, Issue4, pp.858-867, August 2002.
4. Lai.J.S., and Peng, F.Z., "Multilevel converter- a new breed of power converters, "IEEE Transactions on Industrial Applications, vol.32, Issue3. Pp.509-517, May/Jun 1996.
5. Villanueva. F, Correa, P, Rodriguez. J, Paca. M, "Single-phase Cascaded H-bridge Multilevel inverter for Grid connected photovoltaic systems:, IEEE Transactions on Industrial Electronics, Vol.56, Issue 11,2009,pp 4399-4406.
6. Lee, S.J.; Bae, H.S.; Cho, B.H., "Modeling and control of the single phase photovoltaic grid-connected cascaded H-bridge multilevel inverter", IEEE on Energy Conversion Congress and Exposition (ECCE), 2009, pp. 43-47.
7. José Rodríguez, Jih-Sheng Lai and Fang Zheng Peng, "Multilevel inverters: a survey of topologies, controls, and applications", IEEETransactions on Industrial Electronics, Vol. 49, Issue 4, pp. 724- 738, August 2002.
8. Sung-Jun, Park,Feel-Soon Kang, Man Hyung Lee, and Cheul-U Kim, "A New Single-Phase Five-Level PWM Inverter Employing a Deadbeat Control Scheme", IEEE Transactions on power electronics, Vol. 18, No. 3, May 2003, pp: 831-843
9. Agelidis, V. G., Baker, D. M., Lawrance, W. B., andNayar, C.V.,"A multilevel PWM inverter topology for photovoltaic applications," Proceedings of the IEEE International symposium on Industrial Electronics, Vol. 2, pp. 589-594, July 1997, Portugal, Guimaraes.
10. Gui-Jia Su, "Multilevel DC-Link Inverter", IEEE Transactions on Industry Applications, Vol. 41, No. 3, May/June 2005, pp. 848-854.
11. U. Indoo Niehaarika, P. Alekya Rani, K. Lakshmi Ganesh "A NewHybrid Multilevel Inverter with Reduced Number of Switches" in the journal of IJIRD, Vol 2 Issue 3, March, 2013.
12. K.Lakshmi Ganesh, U.Chandra Rao, "Performance of Symmetrical andAsymmetrical Multilevel inverters", IJMER, vol.2, issue.2,Mar-April 2012, pp-1819-1827.

79-84

18.

Authors:	**Alex Cohen, Payam Forghani, Wang Xing**
Paper Title:	**Networked Distributed Optimization for Demand Response in Residential Load Control**

Abstract: Demand response (DR) will be one of the most important components in future smart grids. DR in a smart grid can reduce peak load and adapt flexible demand to generation fluctuations. Although DR reduces the energy bills for consumers of loads, the utility will also be reduced because of the load reduction. Centralized and distributed control algorithms have been proposed to minimize the utility loss for the consumers, while achieving the load management target. We propose a multi-level distributed load optimization system that serves this purpose. The optimization problem is formulated and solved using primal-dual decomposition. When the number of consumers in the system is very large, an event-triggered method is used to guarantee system performance by reducing the communication frequency.

Keywords: smart grid, demand response, event-triggered control, optimization.

References:

1. Taqqali, W.M.; Abdulaziz, N., "Smart Grid and demand response technology," IEEE International EnergyCon, pp.710-715, 2010
2. Rahimi, F.; Ipakchi, A., "Overview of Demand Response under the Smart Grid and Market paradigms," Innovative Smart Grid Technologies (ISGT), pp.19-21, 2010
3. Xiaofeng Wang, Yu. Sun, Naira Hovakimyan: Asynchronous task execution in networked control systems using decentralized event-triggering. Systems & Control Letters 61(9), pp. 936-944, 2012
4. G. N. Nair & R. J. Evans, "Stabilization with data-rate-limited feedback: tightest attainable bounds", Systems & Control Letters, vol. 41, no. 1, pp. 49-56, 2000.
5. Sun Yu, Prashant G. Mehta, "Fundamental performance limitations with Kullback-Leibler control cost," IEEE Conference on Decision & Control, pp.7063-7068, 2010.
6. Sun Yu, Prashant G. Mehta, "Bode-Like Fundamental Performance Limitations in Control of Nonlinear Systems". IEEE Transaction on Automatic Control, vol. 55, pp.1390-1405, 2010.
7. Wang, J.; Kennedy, S.; Kirtley, J., "A new wholesale bidding mechanism for enhanced demand response in smart grids," Innovative Smart

85-88

Grid Technologies (ISGT), pp.19-21, 2010
8. Cobelo, Inigo; Boyra, Maialen; Castellanos, Antonio, "Commercial building load modelling for demand response applications," CIRED 2009, pp.1-4, 2009
9. Wang, J.; Biviji, M.; Wang, W.M., "Case studies of smart grid demand response programs in North America," Innovative Smart Grid Technologies (ISGT), 2011 IEEE PES, pp.1-5, 2011
10. Sekhar Tatikonda, S. Mitter, "Control Over Noisy Channels", IEEE Transactions on Automatic Control, 49, 1196-1201, 2004,
11. Pu Wan; Lemmon, M.D., "Event-triggered distributed optimization in sensor networks," IPSN 2009. pp.49-60, April 2009
12. Bing Dong, "Non-linear optimal controller design for building HVAC systems," Control Applications (CCA), pp.210-215, 2010
13. Tabuada, P., "Event-Triggered Real-Time Scheduling of Stabilizing Control Tasks", IEEE Transactions on Automatic Control, 52(9), pp.1680-1685, 2007
14. Nicola Elia: Remote stabilization over fading channels. Systems & Control Letters, vol.54, no.3, pp. 237-249, 2005.
15. Martins, Nuno C., Dahleh, Murither A., "Feedback Control in the Presence of Noisy Channels: 'Bode-Like' Fundamental Limitations of Performance", IEEE Transactions on Automatic Control, vol.53, issue.7, pp. 1604 – 1615, 2008
16. Yu. Sun and P. G. Mehta, "Fundamental performance limitations via entropy estimates with hidden Markov models," IEEE Conference on Decision & Control, pp. 3982–3988, 2007.
17. Mak, S.T., "A synergistic approach to implement demand response, asset management and service reliability using smart metering, AMI and MDM systems," IEEE PES '09, pp.1-4.
18. Wang, Xiaofeng; Yu. Sun; Hovakimyan, N., "Relaxing the consistency condition in distributed event-triggered networked control systems," IEEE Conference on Decision and Control (CDC) pp.4727-4732, 2010
19. Arasteh, H. R.; Moghaddam, M. Parsa; Sheikh-El-Eslami, M. K., "Bidding strategy in demand response exchange market," Proceedings of 17th Conference on Electrical Power Distribution Networks (EPDC), 2012

19.

Authors: **Asim Kumar, Madan Je**

Paper Title: **Nanotechnology: A Review of Applications and Issues**

Abstract: Nanotechnology literally means any technology on a nanoscale that has applications in the real world. It is a relatively a new word, but it is not an entirely new field. It is widely felt that nanotechnology is the next Industrial Revolution since it has a profound impact on our economy and society in the early 21st century, comparable to that of semiconductor technology, information technology, or cellular and molecular biology. The purpose of this paper is to look into the present aspects of "Nanotechnology". This paper gives a brief description of what nanotechnology is and its application in various fields viz. computing, medicine, food technology, robotics, solar cells etc. It also deals with the future perspectives of nanotechnology, risks in advanced nanotechnology.

Keywords: Nanotubes, NanoFilms, Grey Goo, Nanoelectronics, Nanomedicine

References:
1. Handbook on Nanoscience, Engineeering and Technology, 2nd Ed., Taylor and Francis, 2007.
2. Centre Responsible For Nanotechnology, http://www.crnano.org/whatis.html
3. National Nanotechnology Initiative. http://www.nano.gov International Journal of u- and e- Service, Science and Technology
4. Nanotechnology: A Brief Literature Review M.Ellin Doyle, Ph.D Food Research Institute, University of Wisconsin–Madison, Madison, WI 53706.
5. NASA Institute for Advanced Concepts report: The Space Elevator. http://www.nanotech-now.com
6. Nanoelectronics: Nanotechnology in electronics. http://www.understandingnano.com
7. http:/www.nanotechproject.org/inventories/medicine and Nanotechnology in medicine, http://www.nanomedjournal.com
8. Chris Phoenix and Mike Treder, "Safe Utilization Of Advanced Nanotechnology", Center for Responsible Nanotechnology (CRN), January 2003, Revised on December 2003. http://www.crnano.org/safe.htm
9. Laura Wright. "Nanotech Safety: More on How Little We Know" , OnEarth Magazine, December 12, 2007.
10. Nanotechnology Risks-the real issues. http://www.nanowerk.com

20.

Authors: **S.R. Chaudhari**

Paper Title: **Speech Analysis of Throat Infected People Using DSO**

Abstract: There are various ways of communication. Two people may communicate with each other through speech, gestures or graphical symbols. Man's most natural way of communication is through speech. Though writing seems to be important means of communication and written words, appear to be more efficient means of transmitting intelligence, the amount of intelligence exchanged by speech is beyond comparison. Considering the importance of speech ,the speech analysis is carried out .Speech analysis is used in innovative way to find out parameters like Amplitude, frequency, energy and power, when throat gets infected because of viral infections or due to any other cause. Speech quality changes which changes the parameters.
An experiment is carried out with the instrument DSO (Digital signal oscilloscope). Speech analysis of normal and infected throat that is performed without any treatment. The word "Hello" pronounced by 4 different persons in Normal health condition and when person when has infected throat. The main aim of this project is to compare signals of speech of normal throat person and infected throat person by analyzing Amplitude and frequency parameters which are obtained from DSO.The instrument set up consist of Input Module with Microphone (ST2108), DSO(Agilent Infiniti Vision 2000 X-Series oscilloscope). FFT software installed in computer for speech recording.

Keywords: DSO (Digital storage oscilloscope), FFT(Fast Fourier Transforms)

References:
1. Ludman, L.C. "Fundamental of Digital Signal Processing"Harper and Row, publication, New York, 1986
2. Gold. B and C. Radar."Digital Processing of signal", McGraw-Hill, New York, 1986
3. A.M.Nolly, J. acoustic. Soc.America Vol.-41, pp 293-309(1967)
4. "Introduction to Digital Signal Processing"by John G. Proakis, Dmitri's G. Manolakis.
5. Signal and System for Bio-Engineer, a MATLAB Based introduction, John Semmlow, second edition.
6. Digital signal processing second edition, wileg India, Dr. Shaila D. Apte.
7. http://en.wikipedia.org/wiki/Fast_Fourier_transform
8. http://en.wikipedia.org/wiki/Respiratory_system

9. www.praat.org
10. www.linguistlist.org
11. www.fftinc.com
12. www.fftw.org/links.html
13. www.kidsbiology.com

21.

Authors: **Asen Petkov Iliev**

Paper Title: **Formal Description of Components In Operating Systems**

Abstract: The contemporary development of hardware components is a prerequisite for increasing the concentration of computing power. System software is developing at a much slower pace. To use available resources efficiently modeling is required. Formalization of elements, present in the material, provides the basis for modeling. Examples are presented to demonstrate the efficiency of the concept.

Keywords: Operating systems, modeling, formal description, system programming

References:

1. Tanenbaum A, Wetherall D., Computer Networks (5th Edition), Pearson Education Imc. 2011, ISBN 978-0-13-212695-3
2. Kalfa W., Betriebssysteme, TU-Chemnitz, 2002
3. Bryant B., O 'Hallarion D., Computer Systems: A Programmer Perspective 2nd Edition, Prentice Hall 2011, ISBN-13: 978-0-13-610804-7
4. Pl. Borovska, O. Nakov, D. Ivanova, K. Ivanov, G. Georgiev, Communication Performance Evaluation and Analysis of a Mesh System Area Network for High Performance Computers, 12-th WSEAS International Conference on Mathematical Methods, Computational Techniques and Intelligence Systems (MAMECTIS'10), Kantaoui, Sousse, Tunisia, May 3-6, 2010, ISBN: 978-960-474-188-5, pp. 217-222
5. Kurose J., Ross K., Computer Networking: A Top-Down Approach (5th Edition), Pearson Education Imc. 2010, ISBN 978-0-13-607967-5
6. S. Simeonov, Katarov P. Modern computer communications, APN, 2002, 954-725-022-11
7. Easley D., Kleinberg J., Networks, Crowds, and Markets, Cambridge University Press (2010), ISBN: 9780521195331
8. Hennessy J., Patterson D., Computer Architecture, Fifth Edition: A Quantitative Approach, Elsevier Inc. 2012, ISBN 978-0-12-383872-8
9. Germanov, V., Simeonov, S., Simeonova, N., Graphical Interface for Visually Impaired People Based on Solenoids., JOHN ATANASOFF CELEBRATION DAYS, INTERNATIONAL CONFERENCE "ROBOTICS, AUTOMATION
10. Simeonov S., Karastoyanov D, Simeonova N., TEXT AND SPEECH CONVERSATION TECHNOLOGIES FOR HELPING VISUALLY IMPAIRED PEOPLE., JOHN ATANASOFF CELEBRATION DAYS, INTERNATIONAL CONFERENCE "ROBOTICS, AUTOMATION AND MECHATRONICS" RAM 2011, Sofia, 3-7 October 2011, pp i-13 – i-16

22.

Authors: **Ritwik.A, Ginu Paul**

Paper Title: **A Heuristic Algorithm for Resource Constrained Project Scheduling Problem with Discounted Cash Flows**

Abstract: Project management is a complex decision making process involving the unrelenting pressures of time and cost. A project management problem typically consists of planning and scheduling decisions. The planning decision is essentially a strategic process wherein planning for requirements of several resource types in every time period of the planning horizon is carried out. Scheduling involves the allocation of the given resources to projects to determine the start and completion times of the detailed activities. Extensive research works have been carried out in Resource constrained project scheduling problems (RCPSP) and its variants. This paper mainly focuses on a resource constrained project scheduling problem with discounted cash flows (RCPSPDCF) as its variant. The study aims at providing fast heuristic solution for RCPSPDCF by utilizing the features of Particle Swarm Optimization (PSO).

Keywords: Project management; Scheduling; RCPSP; RCPSPDCF; PSO

References:

1. Bell CE, Han J, (1991) A new heuristic solution method in resource-constrained project scheduling. Naval Research Logistics, 38, pp. 315-31.
2. Davis EW, Patterson JH (1975). A comparison of heuristic and optimum solutions in resource-constrained project scheduling. Manage Sci, pp. 944-55.
3. Eberhart RC, shi Y. (1998) Comparison between genetic algorithms and particle swarm optimization. In: Evolutionary programming VII: proceedings of the seventh annual conference on evolutionary programming, San Diego, CA, pp .611-6.
4. Glover F. (1989) Tabu search-part I. ORSA Journal on Computing 1, pp. 190-206.
5. Hong Zhang, Heng Li, Tam CM. (2006) Particle swarm optimization for resource constrained project scheduling, International Journal of Project Management, pp. 83-92.
6. Icmeli O, Erengue SS, (1999) Integrating quality as a measure of performance in resource-constrained project scheduling problems. In: Weglarz J, editor Project Scheduling-recent models, algorithms and applications, Boston: Kluwer Academic, pp. 433-50.
7. Kennedy J, Eberhart RC. (1995) Particle swarm optimization. In: Proceedings IEEE conference on neural networks, Vol. IV, Piscataway, NJ, pp. 1942-48.
8. Kolish R. (1996) Serial and Parallel resource constrained project Scheduling methods revisited; theory and computation, European Journal of Operational Research, pp. 320-33.
9. Lee JK, Kim YD. (1996) Search heuristic for resource constrained project scheduling. J Operat Res Soc; 47(5): pp. 678-89.
10. Sylverin Kemmoe Tchomte, Michel Gourgand, Alain Quilliot. (2007) Solving resource-constrained project scheduling problem with particle swarm optimization, MISTA.
11. Talbot F. (1982) Resource-constrained project scheduling with time-resource tradeoffs: the non pre-emptive case. Manage Sci; 28(10):pp. 1197-210.
12. Vanhoucke M, Erik Demeulemeester, Willy Heeroelen, (2001) On Maximizing the Net Present Value of a project Under Renewable Resource Constraints, Management Science, pp. 1113-1121.

23.

Authors: **Jan Haase**

Paper Title: **UNDERWARE - A Layer for Homogeneous Access to Heterogeneous Multi - Core Processors**

Abstract: This paper proposes a new way to tackle the problem of using the existing resources of multi-core

processors with different types of cores, like PowerPC, Intel, ARM, DSPs, FPGA areas, etc. Applications for these heterogeneous multi-cores are difficult to write, as most programmers and programming tools target one platform only and in many cases single-cores only.
The way to accomplish this is by creating a new layer, which is located between the operating system and the underlying heterogeneous hardware. In analogy to the middleware between applications and the OS it is called "underware". The underware layer itself consists of two sublayers: The lower "adapter layer" builds a uniform interface for any underlying processor-core-configuration; above it lies the "scheduling layer", which automatically distributes applications to the corresponding core or cores (if parallel execution is possible) or even to several different idle cores if the application is available in different platform executables. Research on the approach described in this paper is yet in an early stage; the corresponding project "UNDERWARE" just started. Therefore no preliminary results can be given. However the concept is sound and it can therefore be expected to get a first prototype soon.

Keywords: Multi-core, heterogeneous, middleware, underware

References:

1. Tong Li; Brett, P.; Knauerhase, R.; Koufaty, D.; Reddy, D.; Hahn, S.; , "Operating system support for overlapping-ISA heterogeneous multi-core architectures," High Performance Computer Architecture (HPCA), 2010 IEEE 16th International Symposium on, pp.1-12, 9-14 Jan. 2010
2. Werner, S.; Oey, O.; Gohringer, D.; Hubner, M.; Becker, J., "Virtualized on-chip distributed computing for heterogeneous reconfigurable multi-core systems," Design, Automation & Test in Europe Conference & Exhibition (DATE), 2012 , vol., no., pp.280,283, 12-16 March 2012
3. Yu-Sheng Lu; Chin-Feng Lai; Yueh-Min Huang, "Parallelization of DVFS-enabled H.264/AVC Decoder on Heterogeneous Multi-core Platform," Computer, Consumer and Control (IS3C), 2012 International Symposium on , vol., no., pp.157,160, 4-6 June 2012
4. Nimer, B.; Koc, H., "Improving reliability through task recomputation in heterogeneous multi-core embedded systems," Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE), 2013 International Conference on , vol., no., pp.72,77, 9-11 May 2013
5. Jan Haase, Mario Lang, Christoph Grimm, "Mixed-Level Simulations of Wireless Sensor Networks", Proceedings of Forum on Specification & Design Languages (FDL), IET Digital Library, 2010
6. Pernice, M.; , "PVM: Parallel Virtual Machine-A User's Guide and Tutorial for Networked Parallel Computing [Book Rev," Parallel & Distributed Technology: Systems & Applications, IEEE, vol.4, no.1, pp.84, Spring 1996
7. Santos, C.M.P.; Ande, J.S.; , "PM-PVM: A portable multithreaded PVM", Parallel and Distributed Processing, 1999. 13th International and 10th Symposium on Parallel and Distributed Processing, 1999. 1999 IPPS/SPDP. Proceedings , pp.191-195, 12-16 Apr 1999
8. J.Haase, F.Eschmann, B.Klauer, and K.Waldschmidt, "The SDVM: A Self Distributing Virtual Machine for computer clusters", In Organic and Pervasive Computing -- ARCS 2004, International Conference on Architecture of Computing Systems, volume 2981 of Lecture Notes in Computer Science. Springer Verlag, 2004
9. Guerin, X.; Petrot, F.; , "A System Framework for the Design of Embedded Software Targeting Heterogeneous Multi-core SoCs," Application-specific Systems, Architectures and Processors, 2009. ASAP 2009. 20th IEEE International Conference on , pp.153-160, 7-9 July 2009
10. Venkateswaran, N.; Saravanan, K.P.; Nachiappan, N.C.; Vasudevan, A.; Subramaniam, B.; Mukundarajan, R.; , "Custom Built Heterogeneous Multi-core Architectures (CUBEMACH): Breaking the conventions," Parallel & Distributed Processing, Workshops and Phd Forum (IPDPSW), 2010 IEEE International Symposium on , pp.1-15, 19-23 April 2010
11. Jian Chen; John, L.K.; , "Efficient program scheduling for heterogeneous multi-core processors," Design Automation Conference, 2009. DAC '09. 46th ACM/IEEE , pp.927-930, 26-31 July 2009
12. Pericas, M.; Cristal, A.; Cazorla, F.J.; Gonzalez, R.; Jimenez, D.A.; Valero, M.; , "A Flexible Heterogeneous Multi-Core Architecture," Parallel Architecture and Compilation Techniques, 2007. PACT 2007. 16th International Conference on , pp.13-24, 15-19 Sept. 2007
13. Li, Liang; Zhang, Xingjun; Feng, Jinghua; Dong, Xiaoshe; , "mPlogP: A Parallel Computation Model for Heterogeneous Multi-core Computer," Cluster, Cloud and Grid Computing (CCGrid), 2010 10th IEEE/ACM International Conference on, pp.679-684, 17-20 May 2010
14. J.Haase, F.Eschmann, and K.Waldschmidt, "The SDVM - an Approach for Future Adaptive Computer Clusters", In 10th IEEE Workshop on Dependable Parallel, Distributed and Network-Centric Systems (DPDNS 05), Denver, Colorado, USA, Apr. 2005
15. Jan Haase, Andreas Hofmann, Klaus Waldschmidt: "A Self Distributing Virtual Machine for Adaptive Multicore Environments", International Journal of Parallel Programming, DOI: 10.1007/s10766-009-0119-4, Springer, ISSN 0885-7458
16. Andreas Hofmann, Jan Haase, Klaus Waldschmidt: "SDVM^R - Managing Heterogeneity in Space and Time on Multicore-SoCs", Proceedings of NASA/ESA Conference on Adaptive Hardware and Systems (AHS 2010), Anaheim, USA

24.

Authors:	**Ahmed Yahfdhou, Abel Kader Mahmoud, Issakha Youm**
Paper Title:	**Modeling and Optimization of a Photovoltaic Generator with Matlab/Simulink**

Abstract: The output power of a photovoltaic generator is related to many climatic factors like temperature and solar illumination; it is then necessary to track the maximum power point in real time to optimize the photovoltaic system efficiency. This work presents the modeling of a photovoltaic system with a maximum power point tracking (MPPT).
The operating of the photovoltaic system and the improvement of its efficiency taking into account rapid variations of meteorological conditions is presented with a MPPT based on perturb and observe (P&O) strategy, both implemented using Matlab. Simulation results showed that operating point oscillates around maximum power point and these oscillations are proportional to the variations of the incident illumination.

Keywords: Photovoltaic generator, MPPT, Matlab.

108-111

References:

1. Askarzadeh, A. Razazadeh, "Extraction of maximum power point in solar cells using bird mating optimizer-based parameters identification approach", Solar Energy 90, pp. 123-133, 2013.
2. M. R. Alrashidi, M. F. Alhajri, K.M. El-naggar, A. K. Al-othman, "A new estimation approach for determining the I-V characteristics of solar cells", Solar Energy 85, pp. 1543-1550, 2011.
3. M. Seifi, A. B. Chesoh, N. I. Abdwahab, M.KB. Hasan, "A comparative study of PV models in Matlab/Simulink", Word Academy of Science, Engineering and Technology 74, pp. 108-113, 2013.
4. M. Yahya, I. Youm, A. Kader, "Behavior and performance of a photovoltaic generator in real time", International Journal of the Physical

Science 6(18),pp. 4361-4367, 2011.
5. D. Bonkoungou, Z. Koalaga, D. Njomo, "Modeling and simulation of photovoltaic module considering single-diode equivalent circuit model in Matlab", International Journal of Emerging Technology and Advanced Engineering 3(3), pp. 493-502, 2013.
6. Salas, E. Olias, A. Barrado, A. Lazaro, "Review of the maximum power point tracking algorithms for stand-alone photovoltaic systems", Solar Energy Material & solar cells 90, pp.1555-1578, 2006.
7. T. Papaioannou, A. Purvins, "Mathematical and graphical approach for maximum power point modeling", Applied Energy 91, pp. 59-66, 2012.
8. B. Amrouche, A. Guessoum, M. Belhamel, "A simple behavioral model for solar module electric characteristics based on the first order system step response for MPPT study and comparison" Applied Energy 91, pp. 395-404, 2012.
9. N. Femia, G. petrone, G. Spagnulo, M. Vitelli, "Optimization of perturb and observe maximum power point tracking method", IEEE Transactions on power Electronics 20, pp. 963-973, 2005.
10. S.Lal, R.Dhtash, S.Sinha, "Analysis different MPPT technique for photovoltaic system, International Journal of Engineering and Innovative Technology 06, pp. 1-3, 2012
11. Yadav, S. Thirumaliah, G. Haritha, "Comparison of MPPT algorithms for dc-dc converters based PV systems", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, PP. 18-23, 2012.
12. S.Brunton, C.Rowley, S.Kulkani , C.Clarkson, "Maximum power point tracking for photovoltaic optimization using ripple-based extremum seeking control", IEEE transactions on power electronics, PP. 1-20, 2010.

25.

Authors:	**G.K.Viju, Mohammed Jassim Mohammed, Khalid Ahmed Ibrahim**
Paper Title:	**Discovery of Network Resources for Better Quality of Service**

Abstract: Knowledge of physical topology of an Internet Protocol (IP) network is very important to a number of critical network management tasks like reactive-proactive resource management, event correlation and root cause analysis. Thus automatically discovering the physical topology is necessary. The present work is mainly concentrated on discovering Physical Topology (ie, layer 2) as well as layer 3 topology in heterogeneous IP networks. This mainly relies on Simple Network Management Protocol Management Information Base (SNMPMIB) information that is widely supported by IP networks and requires no modifications to the operating system software running on elements or hosts.

Keywords: Network Resources, Quality of Service, Internet Protocol, Communication Network,.

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References:
1. Y. Bejerano, Y. Breitbart, M. Garofalakis, and R. Rastogi, "Physical topology discovery for large multi-subnet networks," in Proc. IEEE INFOCOM, 2003, pp. 342–352.
2. A. Bierman and K. Jones, "Physical topology MIB," IETF, InternetRFC-2922, Sept. 2000
3. Y. Breitbart, M. Garofalakis, C. Martin, R. Rastogi, S.Seshadri, and A. Silberschatz, "Topology discovery in heterogeneous IP networks,"in Proc. IEEE INFOCOM, 2000, pp. 265–274.
4. H. Burch and B. Cheswick, "Mapping the Internet," IEEE Computer,vol. 32, pp. 97–98, Apr. 1999.
5. K. Calvert, M. B. Doar, and E. Zegura, "Modeling Internet topology,"IEEE Commun. Mag., vol. 35, pp. 160–163, June 1997.
6. J. Case, M. Fedor, M. Schoffstall, and J. Davin, "A simple network management protocol (SNMP)," IETF, Internet RFC-1157, May 1990.

26.

Authors:	**Niousha Hormozi, Seyed Amirhassan Monadjemi, Gholamali Naderian**
Paper Title:	**Retinal Vessel Detection in Retinopathy of Prematurity Using Butterworth High-pass Filters and SVM**

Abstract: Retinopathy of prematurity (ROP) is an eye disease in premature infants. It mostly happens in babies weighing less than 0011 g and gestational age less than 10 weeks. The growth of retinal vessels are interrupted in premature infants and the retina has been unable to get enough oxygen and food. So, the delay in diagnosis may lead to blindness. Therefore it is necessary to follow the premature infants in regular checkups to assure that their vessel structure is growing normal. In this paper a high pass filter is used to track the retinal vessels and the energy criterion is computed for finding the percentage of area which is covered with blood vessels. The algorithm has been applied on 011 images including both mature and premature infants. The pictures are taken with a Retcam and labeled by an ophthalmologist. The result of this study was compared with ophthalmologist's hand labels of diagnosis and it can detect the prematurity with a high specificity of 0111, sensitivity of %29.61 and accuracy of %59101.

Keywords: Butterworth high-pass filter, ROP, SVM.

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References:
1. W. A. Silverman, Retrolental fibroplasia: a modern parable: Grune & Stratton New York, 1283.
2. J. Chen and L. E. Smith, "Retinopathy of prematurity," Angiogenesis, vol. 13, pp. 100-143, 2332.
3. L. Xu and S. Luo, "A novel method for blood vessel detection from retinal images," Biomedical engineering online, vol. 2, p. 14, 2313.
4. C. Heneghan, et al., "Characterization of changes in blood vessel width and tortuosity in retinopathy of prematurity using image analysis," Medical Image Analysis, vol. 0, pp. 432-422, 2332.
5. L. Gang, et al., "Detection and measurement of retinal vessels in fundus images using amplitude modified second-order Gaussian filter," Biomedical Engineering, IEEE Transactions on, vol. 42, pp. 108-122, 2332.
6. M. Sofka and C. V. Stewart, "Retinal vessel centerline extraction using multiscale matched filters, confidence and edge measures," Medical Imaging, IEEE Transactions on, vol. 25, pp. 1501-1540, 2330.
7. S. Chaudhuri, et al., "Detection of blood vessels in retinal images using two-dimensional matched filters," IEEE Transactions on medical imaging, vol. 8, pp. 200-202, 1282.
8. J. Lee, et al., "Morphologic edge detection," Robotics and Automation, IEEE Journal of, vol. 0, pp. 142-150, 1282.
9. L. Zhou, et al., "The detection and quantification of retinopathy using digital angiograms," Medical Imaging, IEEE Transactions on, vol. 10, pp. 012-020, 1224.
10. Y. A. Tolias and S. M. Panas, "A fuzzy vessel tracking algorithm for retinal Retinal Vessel Detection in Retinopathy of Prematurity Using Butterworth High-pass Filters and SVM images based on fuzzy clustering," Medical Imaging, IEEE Transactions on, vol. 12, pp. 200-220, 1228.
11. S. R. Aylward and E. Bullitt, "Initialization, noise, singularities, and scale in height ridge traversal for tubular object centerline extraction," Medical Imaging, IEEE Transactions on, vol. 21, pp. 01-25, 2332.
12. R. Nekovei and Y. Sun, "Back-propagation network and its configuration for blood vessel detection in angiograms," Neural Networks, IEEE Transactions on, vol. 0, pp. 04-22, 1225.
13. J. J. Leandro, et al., "Blood vessels segmentation in retina: Preliminary assessment of the mathematical morphology and of the wavelet

transform techniques," in Computer Graphics and Image Processing, 2331 Proceedings of XIV Brazilian Symposium on, 2331, pp. 84-23.
14. K. Vermeer, et al., "A model based method for retinal blood vessel detection," Computers in Biology and Medicine, vol. 04, pp. 232-212, 2334.
15. L. Sukkaew, et al., "Automatic tortuosity-based retinopathy of prematurity screening system," IEICE transactions on information and systems, vol. 21, pp. 2808-2824, 2338.
16. L. Sukkaew, et al., "Comparison of edge detection techniques on vessel detection of infant's retinal image," Proceeding of ICIM2335, pp. 0.1-0.5, 2335.
17. C. M. Wilson, et al., "Computerized analysis of retinal vessel width and tortuosity in premature infants," Investigative ophthalmology & visual science, vol. 42, pp. 0522-0585, 2338.

27.

Authors:	**N. K. Sharma, S. P. Singh, Vikash Sharma,K. P. Yadav**
Paper Title:	**High Security Vehicle Plate (HSVP) – A Combined approach for RTO, Traffic Police and Insurance Industries Issues Related to Vehicle Security**

Abstract: The system available for the identification of a motor vehicle is the registration number plate which is mounted on the vehicle. This plate helps the different agencies having concern with the vehicle to identify it. Additional to it the different agencies like RTO, Traffic Police and Vehicle Insurance Companies work on the vehicles separately.
The system proposed in the paper High Security Vehicle Plate (HSVP) provides a common platform to work all these different agencies by taking the help of a microprocessor chip. Moreover it provides a better security to the vehicles and easier tracking system for the stolen vehicles. The features provided by the HSVP system enhance the efficiency of all these different agencies and automate the working culture of them.

Keywords: HSNP, HSRP, HSVP, SVM, SIM, UID, RTO, Microprocessor.

References:

1. http://www.highsecurityplates.com/2012/04/high-security-number-plates-is-starting.html
2. http://www.jagran.com/delhi/new-delhi-city-9704256.html
3. http://noida.newzstreet.com/news.php?slug=no-easy-way-for-noidaites-to-install-high-security-number-plates-in vehicles&news_id=10359
4. http://www.jharkhand.gov.in
5. Coifman, B., "Vehicle Reidentification and Travel Time Measurement in Real-time on Freeways Using the Existing Loop Detector Infrastructure," Transp. Res. Rec. 1643, pp. 181-191.
6. Kim, S.W., Y. Eun, H. Kim, J.I. Ko, W.J. Jung, Y.G.. Choi, Y.G.. Cho and D. Cho, Performance Comparison of Loop/Piezo and Ultrasonic Sensor-based Detection Systems for Collecting Individual Vehicle Information," Proc. 5th World Congr. Intell.Transp. Syst.,Seoul, Korea.
7. License Plate Recognition Using Image Processing Techniques & SVM Classifier by Shemesh and David Arieh Fellman
8. Yung, N.H.C., K.C. Chan and A.H.S. Lai, "Vehicletype Identification through Automated Virtual Loop Assignment and Block-based Direction Biased Motion Estimation," Proc. IEEE/IEEJ/JSAI Int. Conf. Intell. Transp. Syst., Tokyo, Japan.
9. Kim, S.W., J.I. Ko, H. Kim, I. Cho and D. Cho, "A New Loop-detector Circuit for Improving lowspeed Performance," Proc. 6th World Congr. Intell. Transp. Syst., Toronto, Canada.
10. Passino, K.M. and S. Yurkovich, Fuzzy Control, Addison-Wesley, Reading, MA.
11. Lai, M., M. Nakano and G. Hsieh, "Application of Fuzzy Logic in the Phase-Locked Loop Speed Control of Induction Motor Drive," IEEE Trans. Ind. Electron., Vol. 43, No. 6, pp. 630-639.

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28.

Authors:	**M.Geetha, Bezawada Sreenivasulu, G. Harinath Gowd**
Paper Title:	**Modeling & Analysis of performance characteristics of Wire EDM of SS304**

Abstract: Wire electrical discharge machining (WEDM) allowed success in the production of newer materials, especially for the aerospace and medical industries. Using WEDM technology, complicated cuts can be made through difficult-to-machine electrically conductive components. The high degree of the obtainable accuracy and the fine surface quality make WEDM valuable. WEDM is so complex in nature that the selection of appropriate input parameters is not possible by the trial-and-error method. The selection of machining parameters in any machining process significantly affects production rate, product quality and production cost of a finished component. WEDM process involves a large number of variables that affect its performance. However, based on the literature survey and the pilot experiments, five process variables, viz., pulse-on time, pulse-off time, wire tension, and water pressure are taken into consideration for the research. In the present work Response Surface Methodology (RSM) is used to develop the quantitative relationships between the input and the output responses for the experimental data collected as per the DOE. Also the effects of the input process parameters over the MRR and Ra were plotted and studied. Later the developed models can be utilized for optimization.

Keywords: WEDM, DOE, RSM, Optimization.

References:

1. D. V. S. S. S. V. Prasad & A. Gopala Krishna, Empirical modeling and optimization of wire electrical discharge machining, Int J Adv Manuf Technol, DOI 10.1007/s00170-008-1769-x.
2. D. V. S. S. S. V. Prasad1, *A. Gopala Krishna2, Analysis of performance characteristics of wire electrical discharge machining, Journal of manufacturing, 2009, Vol.4, Issue.3, pp 205-211.
3. M.S. Hewidy, T.A. El-Taweel ∗, M.F. El-Safty, Modelling the machining parameters of wire electrical discharge machining of Inconel 601 using RSM , Journal of Materials processing Technology 169 (2005) 328-336.
4. S Mahapatraa & Amar Patnayakb, Optimization of wire electrical discharge machining (WEDM) process parameters using genetic algorithm, Indian Journal of Engineering & Materials Sciences, Vol. 13, December 2006, pp. 494-502.
5. H K Kansala*, Sehijpal Singhb & Pradeep Kumarc, Performance parameters optimization (multi-characteristics) of powder mixed electric discharge machining (PMEDM) through Taguchi's method and utility concept, Indian Journal of Engineering & Materials Sciences Vol. 13, June 2006, pp. 209-216.
6. A.K.M. Asif Iqbal and Ahsan Ali Khan, Influence of Process parameters on Electrical Discharge Machined Job Surface Integrity, American J. of Engineering and Aplied Sciences (2): 396-402, 2010 ISSN 1941-7020.
7. Nihat Tosuna,*, Can Cogunb, Gul Tosuna, A study on kerf and material removal rate in wire electrical discharge machining based on Taguchi method, Journal of Matrerials Processing technology 152 (2004) 316-322

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