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1.	Authors:	Mohammad Faraji, Mohammad Norouzi Fard, Saeed Mirghasemi		
	Paper Title:	A New System for Measuring the Auto-Fluo Changes in Age-Related Macula Degeneration after Intravenous Injection of Bavecizumab Medicine		
	<p>Abstract: In aged people, age-related macula degeneration is the second prevalent disease after diabetes which causes blindness. The only cure for age-related macula degeneration is the Bavecizumab intravenous medicine injection. To prove this treatment, the number of dead cells in macula area should be considered. In this paper, to obtain the number of dead cells, a novel system has been presented for measuring the existing auto fluorescence in macula area of retinal images. This combinational system is composed from three parts; pre-processing of retinal, processing the images, and understanding the images. The pre-processing level, includes eliminating margins, and reversing retina image. In processing level, the image is segmented, and features are extracted, where the segmentation has been done using techniques like morphology, dynamic thresholding and connected components. The specifications of target areas are the Euclidian distance to the center of the image, and density. In the understanding level of image, collecting the specifications of each class, macula area and the measurable parameter for evaluating the amount of auto fluorescence is obtained which is useful for determining the number of dead cells in macula area. The results are concluded using probabilistic analysis including linear regression and correlation between data. The method is tested on a database composed of 34 retina images belonging to patients of age-related macula degeneration.</p> <p>Keywords: Age-related macula degeneration, Connected components, Morphology, Macula, , Retina image.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Z. Liu, C. Opas, S. Krishnan, "Automatic image analysis of fundus photograph", In proceedings of 19th IEEE Int. Conf. on Eng. in Medicine and Biology Society, pp.524-525, 1997. 2. B. Ege, O. Larsen, O. Hejlesen, "Detection of abnormalities in retinal images using digital image analysis", In proc. of the 11th Scandinavian Conf. on Ima. Proc., pp.833-840, 1999. 3. T. Walter, J. Klein, P. Massin, A. Erginary, "A contribution of image processing to the diagnosis of diabetic retinopathy, detection of exudates in colour fundus images of the human retina", IEEE Trans. on Media Imaging., 21(10):1236-1243, 1998. 4. N. Otsu, "A threshold selection method from gray-level histograms", IEEE Trans. on Systems, Man, and Cybernetics., Vol.9, No.1, pp.62-66, 1979. 5. R. M. Rangayyan, "Biomedical image analysis", University of Calgary, Alberta, Canada,'book', 2005. 6. R. C. Gonzalez, R. E. Woods, "Digital image processing", 2nd.Ed., Prentice Hall Upper Saddle River, New Jersey, 2001. 7. Li. Huiqi, Opas Chutatape, "Automated feature extraction in color retinal images by a model based approach", IEEE Trans. on Bio. Engi., Vol.51, No.2, Feb. 2004. 8. N. Katz, M. Goldbaum, et al., "An image processing system for automatic retina diagnosis", SPIE, Vol.902, 1988. 9. J. Hope Mccoll, "Multivariate probability", Paperback – Jan. 2002. 10. Z. Peebles Peyton, "Probability, random variables and random signal principles", 2009. 		1-6	
2.	Authors:	Prahlad Patel		
	Paper Title:	Control Systems for Heating, Ventilating & Air Conditioning Systems: Prediction		
	<p>Abstract: In this paper, we challenges on performance prediction for control systems in HVAC systems that contains predicting resistance, predicting output voltage, predicting output Pressure, inaccuracies in pneumatic and electronic measuring instruments. Performance prediction is applicable to electric, electronic, and pneumatic type automatic temperature control (ATC) systems. Performance prediction is the process of calculating what the output of the controller should be, based on the conditions being sensed and controlled. Performance prediction is one step in the overall calibration procedure</p> <p>Keywords: HVAC, ATC.</p> <p>References:</p> <ol style="list-style-type: none"> 1. R. W. Hains, Control Systems For Heating, Ventilating, and Air Conditioning, Sixth Eition , Springer, 2006. 2. J. E. Haines, Automatic Control of Heating and Air Conditioning, McGraw Hill Book Co., New York, 2007. 3. HVAC System Control, A publication of Trane American Standard Inc 2008. 		7-10	
3.	Authors:	Bikram Das, Suvamit Chakraborty, Abanishwar Chakraborti, Prabir Ranjan Kasari		
	Paper Title:	Performance Analysis of BLDC Motor Using Basic Switching Converters		
	<p>Abstract: In this paper a comparative study of CSI fed BLDC motor using Boost and Buck Converter are presented. Traditionally BLDC motor drives are fed by Voltage Source Inverters (VSI). Current Source Inverters (CSI) on the other hand does not require the huge DC link capacitor thereby reducing the cost and losses in the system. The large value of the inductor can be replaced using suitable Boost and Buck converter. In this paper a basic structure of a DC boost converter and a basic structure of a DC buck converter are proposed in PSIM to provide the nominal power to BLDC motor from a fixed DC source and to control the speed of the system. The effectiveness of proposed system is validated by simulation results.</p> <p>Keywords: BLDC, Boost, Buck, CSI, VSI, PSIM;</p> <p>References:</p> <ol style="list-style-type: none"> 1. J.Karthikeyan and Dr.R.Dhanasekran,"DC-DC Converter CSI fed BLDC Motor for Defense Applications"2011 International Conference on Recent Advancement in Electrical,Electronics and Control Engineering. 		11-14	

	<ol style="list-style-type: none"> 2. G.Prasad,etc”Mathematical Modelling and Simulation Analysis of Brushless DC Motor by using SI 3. MULINK.” International Journal of Electronics Communication and Computer Engineering Volume 3, Issue 5, 4. BikramDas, SuvamitChakraborty, Prabir Rn. Kasari, Abanishwar Chakraborti &Manik Bhowmik” Speed Control of BLDC Motor using Soft Computing Technique and its Stability Analysis” International Journal of Electronics Communication and Computer Engineering Volume 3, Issue 5, 5. Bhim Singh, Sanjeev Singh.”State of the Art on Permanent Magnet Brushless DC Motor Drives” Journal of Power Electronics, Vol. 9, No. 1, January 2009.. 6. Simulation model for Brushless DC Motors”.JPE 11-2-8 7. PSIM User’s Guide Version 6.1 Release 3 February 2005. 8. Simulation software-Powersim\PSIM9.0.4_Network. 													
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	<p>opinion from other doctors images are send using electronic media. As the file of images is very large to send, we require to have compression for images but with compression there is loss of information in the image. To minimize the loss and to increase the quality of image and requires compression is also to be done, wavelet transformation technology plays a vital role. So, in this paper we consider that multi wavelet with Region of Interest (ROI) selecting portion will not only give the quality but also reduce the loss of information from image. And we are going to implement the multi wavelet transformation with Modified Fast Haar Wavelet Transform (MFHWT) in Set Partitioning in Hierarchical Trees algorithm.</p> <p>Keywords: Medical Image, MFHWT, Multi wavelet, ROI, SPIHT.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Kaur Navjot, Singh Preeti, (2012), "A new method of image compression using improved SPIHT and MFHWT", IILRST, Vol.1, Pp-124-126. 2. Liu Bo, Wang Jianjun, (2009), "Modified SPIHT based image compression algorithm for hardware implementation", IEEE, Pp-572-576. 3. Bell .E Amy, Martin .B Michael, (2001), "New image compression techniques using multi wavelet and multi wavelet packets", IEEE, Vol.10, Pp-500-510. 4. Adams Damien, Patterson Halsey, (2006), "The haar wavelet transform: Compression and Reconstruction". 5. U. S. Ragupathy, D. Baskar, A. Tamilarasi, (2008), "New method of image compression using multiwavelets and set partitioning algorithm", IEEE. 6. Kalpana .E, Sridhar .V, (2012), "ECG data compression using SPIHT algorithm and transmission using Bluetooth technology", IJARECE, Vol.1, Pp-21-29. 7. Amin .H, Dehmeshki .J, Dehkordi .M, Firoozbakht .M, Martini .M, Qanadli .SD, Youannic .A, (2010), "Compression of digital medical images based on multiple regions of interest", IEEE, Pp-260-263. 					
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Authors:	KarunaKumar.G, K.Ramteja					
Paper Title:	Modal Analysis of Porosity Defects in High Pressure Die Casting with a Neural Network					
	<p>Abstract: High Pressure Die Casting (HPDC) is a complex process that results in casting defects if configured improperly. However, finding out the optimal configuration is a non-trivial task as eliminating one of the casting defects (for example, porosity) can result in occurrence of other casting defects. The industry generally tries to eliminate the defects by trial and error which is an expensive and error-prone process. This paper aims to improve current modelling and understanding of defects formation in HPDC machines. We have conducted conventional die casting tests with a neural network model of HPDC machine and compared the obtained results with the current understanding of formation of porosity. While most of our findings correspond well to established knowledge in the field, some of our findings are in conflict with the previous studies of die casting.</p> <p>Keywords: Artificial Neural Network, High Pressure Die Casting, Porosity.</p> <p>References:</p> <ol style="list-style-type: none"> Andresen W. T. and Guthrie B., "Using Taguchi and Metflow to Determine Relationships Between Process Variables and Porosity", 15th International Die Casting Congress and Exposition, St. Louis, MO, October 1989. Asquith, B. M., "The Use of Process Monitoring to Minimize Scrap in the Die Casting Process", NADCA Transactions, T97-063, 1997. Elkan, C., "The Paradoxical Success of Fuzzy Logic", Proceedings of the Eleventh National Conference on Artificial Intelligence, AAAI Press, pp.698-703, 1993. Garber, L. W., "Filling of Cold Chamber during Slow-Shot Travel", DieCasting Engineer, July-August 36-38, 1981. Garber, L. W., "Theoretical Analysis and Experimental Observation of Air Entrapment during Cold Chamber Filling", DieCasting Engineer, May-June, 14-22, 1982. Huang J., Callau P. and Conley J. G., "A Study of Neural Networks for Porosity Prediction in Aluminium Alloy A356 Castings", in B. G. Thomas and C. Beckermann, (Eds), Modelling of Casting, Welding, and Solidification Processes, VIII, TMS, June, 1998, pp.1111-1118. Jain A. S. and Meeran S., "A state-of-the-art review of job-shop scheduling techniques", Technical report, Department of Applied Physics, Electronic and Mechanical Engineering, University of Dundee, Dundee, Scotland, 1998. Kong L. X., Nahavandi S., and Baliga B., "Defect analysis of high pressure die castings with artificial intelligence technology", Pacific Conference on Manufacturing, 506-511, Lawrence Technological University, USA, 2000. Plauchniak M. and Millage B. A., "New Closed Shot Control System Features Total Integration", Die Casting Engineer, 1993. Pomerleau D. A., "Neural Network Perception for Mobile Robot Guidance", PhD Thesis, The Robotics Institute, Carnegie Mellon University, 1992. Rumelhart D., Hinton G., and Williams R., "Learning Internal Representations by Error Propagation", in D. Rumelhart et al (eds), Parallel Distributed Processing 1, MIT Press, 318-362, 1986. Thome M. and Brevicek J. R., "Optimal Slow Shot Velocity Profiles for Cold Chamber Die Casting", NADCA Transactions, 1995. Yarlagadda P. K. D. V. and Chiang E. C., "A neural network system for the prediction of process parameters in pressure die casting", Journal of Materials Processing Technology, vol. 89-90, pp. 583-590, 1999. 	38-42				
10.	<table border="1"> <tr> <td>Authors:</td> <td>Madhura Tilak</td> </tr> <tr> <td>Paper Title:</td> <td>An Area Efficient, High Speed Novel VHDL Implementation of Linear Convolution of Two Finite Length Sequences Using Vedic Mathematics</td> </tr> </table> <p>Abstract: This paper presents a novel method of implementing linear convolution of two finite length sequences (N×N) in hardware using hardware description language (VHDL). The proposed method uses modified design approach by replacing the conventional multiplier by Vedic multiplier internally in the implementations. The proposed method is efficient in terms of computational speed, hardware resources and area significantly. The efficiency of the proposed algorithm is tested by simulations and comparisons with different design approaches using</p>	Authors:	Madhura Tilak	Paper Title:	An Area Efficient, High Speed Novel VHDL Implementation of Linear Convolution of Two Finite Length Sequences Using Vedic Mathematics	43-45
Authors:	Madhura Tilak					
Paper Title:	An Area Efficient, High Speed Novel VHDL Implementation of Linear Convolution of Two Finite Length Sequences Using Vedic Mathematics					

	<p>XILLINX software. The presented circuit consumes less power and has a delay of 17ns from input to output. The proposed circuit is also modular, expandable and regular which provides flexibility to form different number of bits.</p> <p>Keywords: N×N, VHDL, XILLINX.</p> <p>References:</p> <ol style="list-style-type: none"> 1. K.Mohammad,S.Agaian,“Efficient FPGA implementation of convolution”, Proceedings of the 2009 IEEE International Conference on Systems, Man, and Cybernetics San Antonio, TX, USA - October 2009 2. Swami Bharati Krshna Tirthaji,“Vedic Mathematics.” Delhi: Motilal Banarsidass Publishers, 1965. 3. V.Kunchigi,L.Kulkarni,S.Kulkarni-“High Speed and Area Efficient Vedic Multiplier” 4. P.Mehta,D.Gavli,“Conventional versus Vedic mathematical method for Hardware implementation of a multiplier”, 2009 International Conference on Advances in Computing, Control, and Telecommunication Technologies. 	
11.	<p>Authors: Devajit Mahanta, Majidul Ahmed</p> <p>Paper Title: E-Learning Objectives, Methodologies, Tools and its Limitation</p>	
	<p>Abstract: E-Learning is the use of technology to enable people to learn anytime and anywhere. E-Learning can include training, the delivery of just-in-time information and guidance from experts. It has become an increasingly popular learning approach in higher educational institutions due to the rapid growth of Internet technologies. E-Learning allows users to fruitfully gather knowledge and education both by synchronous and asynchronous methodologies to effectively face the need to rapidly acquire up to date know-how within productive environments. There is also present various limitations in E-Learning. This review work discusses on various E-Learning Objectives, methodologies and tools and limitation of E-Learning. The main focus of e-learning methodologies is on both asynchronous and synchronous methodology. The paper looked into the three major e-learning tools .The paper also looked E-Learning limitation in particular related with technologies, personal issues, comparison with traditional campus learning, design issues, and other issues .Finally the paper suggests that synchronous tools should be integrated into asynchronous environments to allow for “any-time” learning model and also given a remark that E-Learning needs to improve from various barriers.</p> <p>Keywords: E-learning; Methodology; Tools; Limitation; Synchronous tools</p> <p>References:</p> <ol style="list-style-type: none"> 1. Tavangarian D., Leybold M., Nölting K., Röser M.,(2004). Is e-learning the Solution for Individual Learning? Journal of e-learning, 2004. 2. Ajayi, I.A. (2008). Towards effective use of information and communication technology for teaching in nigerian colleges of education. Asian J. Inf. Technol. 7(5): 210 - 214. 3. Bayne, S. and Cook, J.(2006). "WebCT vs BlackBoard? 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Dringus, L.P., (2003), ‘From both sides now : On being an Online Learner and Online Instructor’, E-Learn Magazine, Association of Computing Machinery, [online assessed 25 April 2003]. URL:http://www.elearnmag.org/subpage/sub_page.cfm?section=3&list_item=1&page=1 20. Evans, C. & Fan, J.P., (2002), ‘Lifelong Learning through the Virtual University’, Campus-Wide Information Systems, vol.19, no.4, pp.127-134. 21. Evans, J.R. & Haase, I.M., (2001), ‘Online business education in the twenty-first century: an analysis of potential target markets’, Internet Research: Networking Applications and Policy, vol.11, no.3, pp.246-260. 	46-51
12.	<p>Authors: Zimwara, D., Goriwondo, W.M, Mhlanga, S., Chasara, T., Chuma, T., Gwatidzo, O. and Sarema, B.</p> <p>Paper Title: World Class Manufacturing status Assessment for a Margarine Producing Company in Zimbabwe</p> <p>Abstract: The world has become global in the way goods and services are produced and marketed. The stiff global competition faced by these companies necessitates a need to embark on radical strategies in the form of World Class manufacturing philosophies to survive, make profit and remain competitive. While companies in developing countries strive to adopt these World Class Manufacturing (WCM) philosophies into their production process, there is often lack of a measure on their progress towards world class manufacturing status besides the improvement in</p>	52-57

productivity. This paper's focus is on how companies can assess their progress in terms of achieving a world class manufacturing status. The research starts with an assessment of the world class status of the company that has adopted best manufacturing practices. A Current State Radar Chart (CSRC) is drawn to see the company's position on the radar. Researches methods (questionnaires, interviews, company audit) are used to identify wastes according to WCM. WCM techniques were used to minimise wastes. A Future State Radar Chart (FSRC) is drawn to assess the improvements made. The company was operating its margarine production process at 35% of a world class process. The major waste identified was the downtime. Downtime contributed to 74% of the total available time leaving production only 26% of the available time. WCM techniques realised a reduction in downtime by 30% and increased the available time for production to 56%. These changes achieved a 56% of a world class process on the FRC drawn.

Keywords: Lean manufacturing, Margarine Production, World Class Manufacturing.

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Authors:	Dillip Kumar Mahapatra, Tanmaya Kumar Das
Paper Title:	Prioritizing SCM for Managing Inconsistency in Distributed Software Project Development

Abstract:

The evolution of software engineering has been constant over the past four decades. Some major technological discontinuities, however, can be identified in this progress, which caused a more radical rethinking of the previous established approaches. This, in turn, generated research for new methods, techniques and tools to properly deal with the new challenges.

Distributed Software Development (DSD) has recently evolved, resulting in an increase in the available literature. Organizations now have a tendency to make greater development efforts in more attractive zones. The main advantage of this lies in a greater availability of human resources in decentralized zones at less cost. There are, however, some disadvantages which are caused by the distance that separates the development teams. Coordination and communication become more difficult as the software components are sourced from different places, thus affecting project organization, project control, and product quality. New processes and tools are consequently necessary.

13. This paper highlights the software engineering process for distributed software development and related topics in coordination of projects and project artifacts. Different configuration management systems (CMS) approaches and techniques are discussed; these include client-server, k-mutual exclusion, and distributed configuration management systems. New trends in CMS technologies and approaches are also outlined here. Some major areas are addressed in this paper like: how does CMS enable collaborative work; information exchange among clients at different geographical areas and the knowledge management across distributed clients.

58-64

Keywords: Aggregation, Co-operative, Collaborative, Editors, Knowledge Management, Milestones, SCM, Release, Version, Version-Control.

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14.	Authors:	Jadhav Mahesh V, Zoman Digambar B, Y R Kharde, R R Kharde		65-67
	Paper Title:	Performance Analysis of Two Mono Leaf Spring Used For Maruti 800 Vehicle		
	<p>Abstract: In this paper we look on the suitability of composite leaf spring on vehicles and their advantages. Efforts have been made to reduce the cost of composite leaf spring to that of steel leaf spring. The achievement of weight reduction with adequate improvement of mechanical properties has made composite a very replacement material for convectional steel. Material and manufacturing process are selected upon on the cost and strength factor. The design method is selected on the basis of mass production.</p> <p>From the comparative study, it is seen that the composite leaf spring are higher and more economical than convectional leaf spring. After prolonged use of conventional metal Coil Spring, its strength reduces and vehicle starts running back side down and also hits on the bump stoppers (i.e. Chassis). This problem is entirely removed by our special purpose Composite leaf Springs.</p> <p>Keywords: Ansys 14.0, Mono composite leaf Spring, Pro-E Wildfire 4.0</p> <p>References:</p> <ol style="list-style-type: none"> 1. Mallick PK. Composite engineering handbook. New York: Marcel Dekker; 1997. 2. Katz H.S., Mileski J.V. Handbook of Fillers for Plastics, (1987), November 30, A Von Nostrand Reihold book. 3. Al-Quershi HA. Automobile leaf springs from composite materials. J Mater Process Technology 2001; 108: Pg. no. 58–61 4. Senthil kumar and Vijayarangan, "Analytical and Experimental studies on Fatigue life Prediction of steel leaf spring and composite leaf multi leaf spring for Light passenger vehicles using life data analysis" ISSN 1392 1320 material science Vol. 13 No.2 2007. 5. Shiva Shankar and Vijayarangan "Mono Composite Leaf Spring for Light Weight Vehicle Design, End Joint, Analysis and Testing" ISSN 1392 Material Science Vol. 12, No.3, 2006. 6. Rajendran I., Vijayarangan, S. Design and Analysis of a Composite Leaf Spring Journal of Institute of Engineers India 82 2002: pp. 180 – 187. 7. Pro-E Wildfire 4.0 and ANSYS 14.0 help. 8. ASME standard specifications of handbook. 			

15.	Authors:	Ankita Sancheti		68-72
	Paper Title:	Pixel Value Differencing Image Steganography Using Secret Key		
	<p>Abstract: In this paper, secure steganography is used to obtain high capacity of image for data hiding. Both color and gray scale images have been used as cover file for PVD method. Then a secret key is used to control the message embedding process. To estimate how many secret bits will be embedded into the pixel, largest difference value between the other three pixels close to the target pixel is used. This makes edge areas of image to be used for higher embedding capacity. In order to avoid the need of a copy of cover file at receiver, size of message file is also embedded in stego file. Thus only stego-image is required at receiver. Peak signal to noise ratio (PSNR) is used to measure the quality of stego images.</p>			

Keywords: Steganography, PVD, PSNR, Cryptography	
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Authors:	M. S. Vanjale, R. D. Joshi, S. B. Vanjale
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Paper Title:	Network Lifetime Extension by DSR Modification in Mobile Ad Hoc Networks
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Abstract: Mobile Ad hoc Network (MANET) is self-organizing and self-configuring network that provides mobile users with communication facility and information access regardless of location and any centralized control. The most important characteristic of such networks is the independence of any fixed infrastructure. Therefore, it can be rapid and easily deployed. The typical application of Ad Hoc networks includes battle field communication, emergency relief, information sharing at conference or classroom etc. Routing is one of the important issues in MANETs due to their highly dynamic and distributed nature. Also nodes in MANET are usually battery powered. Draining out of a node can partition the network and result into reduced packet delivery and network lifetime. In this paper one of the existing protocols is selected and modified to make it energy efficient. The modified algorithm tries to increase network lifetime by implementing few modifications to basic DSR protocol. Remaining node energy is used to implement energy conservation. It is observed from the simulations that this algorithm improves network lifetime of MANETs.

Keywords: Routing, DSR, AODV, DSDV, MANET

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