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S. No			Page No.
1.	**Authors:**	**Washimraja Sheikh, P. N. Awachat, S. M. Sheikh**	
	Paper Title:	**Failure and Stresses Develop in Insulated Rail Joints: General Perspective**	
	Abstract: Rail joints are use for the purpose of joining the two rails. Due to large number of drawbacks and for safety purpose the number of joint in mainline track has been minimized by the widespread use of continuously welded rail (CWR) .For automated block signaling it is required to have sections of track electrically insulated from each other, disallowing the rail to be continuously welded as is done where possible ,this joint is called as insulated rail joint(IRJ).The IRJ is however substantially weaker than the rail and so is subjected to large stresses, causing failure. This paper is part of study into various stresses develop in various components of IRJ and future scope in it so that performance of assembly can be improve. **Keywords:** Insulated rail joint, stresses, wheel rail contact, en. **References:** 1. Elements of Railway Signaling. 1954, General Railway Signal Company: Rochester, NY. 2. Robinson.W., United States Patent Number 130661, 1872. 3. N. K. Mandal And B Peach. "3d Stress Analysis Of Insulated Rail Joints", 9th International Heavy Haul Conference, Shangshi, China, (2009), Pp. 237-245. 4. Peltier,Chistopher,P.I.Barkan ".modeling the effects of epoxy debonding on bonded insulated rail joints subjected to longitudinal loads. 5. Muhammad Akhter and David Davis. "Effects of track parameters on rail joint bar stresses and crack growth ,"AREMA Annual Conference and Exposition Orlando, Florida 2010 6. Nannan Zong, Manicka Dhanasekar. "Analysis of rail ends under wheel contact loading," International Journal of Mechanical and Aerospace Engineering 6, 2012. 7. DanielPeltier,Chistopher,P.I.Barkan. "Measuring degradation of bonded insulated rail joints, University of Illinois at Urbana-Champaign Urbana ,2004 8. Y.C. Chen. "The effect of proximity of a rail end in elastic-plastic contact between a wheel and a rail," Part F: J. Rail and Rapid Transit. (2003) 189-201.	**1-3**
2.	**Authors:**	**Suresh S. Zadage, G. U. Kharat**	
	Paper Title:	**A No Reference Image Blur Detection using CPBD Metric and Deblurring of Gaussian Blurred Images using Lucy-Richardson Algorithm**	
	Abstract: This paper addresses sharpness of a no-reference image based on Cumulative Probability of Blur Detection (CPBD) metric and also deals with removal of this blur. CPBD considers prediction of human blur at different contrasts. The probabilistic model that calculates probability of blur detection at edges in the image are taken into consideration by CPBD [1]. This data is then spread over the entire image by calculating CPBD. The CPBD is tested by comparing it with different sharpness metrics for LIVE database images. Then the process of blur removal is done by reading the Gaussian blur image from LIVE database. The standard deviation for the test image is calculated while computing CPBD. Adjustment of standard deviation is followed by estimation of point spread function (PSF) and finally deconvlucy function is used to restore the image using Lucy-Richardson algorithm of deblurring. **Keywords:** No reference, Image Quality, Gaussian blur, blurred image, deblurring, deconvlucy, Point Spread Function (PSF). **References:** 1. Suresh S. Zadage and G.U.Kharat ."Blur Detection of a No Reference Image Using CPBD Metric", IJMER, vol. 3,issue 5(3). 2277-7881, May 2014. 2. Salem saleh al-amri, N.V Kalyankar ."Deblurred guassian blurred images", Journal of computing, vol. 2,issue 4.ISSn 2191-9617, 2012. 3. Niranjan D. Narvekar and Lina J. Karam ."No-reference Image Blur Metric Based on the Cumulative Probability of Blur Detection (CPBD)", IEEE Trans. Image Process., vol. 20, no. 9, pp. 2678-2683, Sep. 2011. 4. Rania Hassen, Zhou Wang and Magdy Salama, "No reference image sharpness assessment based on local phase coherence measurement", IEEE international conference on acoustics,speech and signal processing (ICASSP10),Dallas,TX,MAR.2010. 5. R. Ferzli and L.J. Karam ," A no-reference objective image sharpness based on the notion of just noticeable blur (JNB)," IEEE Trans. Image Process., vol. 18, no. 4, pp. 717-728, Apr.2010. 6. N. D. Narvekar, and L. J. Karam, "A No-Reference Perceptual Quality Metric based on cumulative probability of blur detection," First International Workshop on Quality of Multimedia Experience-09, pp. 87-91, July 2009. 7. L.J. Karam, T. Ebrahimi, S.S. Hemami, T. N. Pappas, R. J. Safranek, Z. Wang and A.B. Waston ,"Introduction to the issue on visual media quality assessment," IEEE Trans. Signal process. , vol. 3, no. 2, pp. 189-192, Apr. 2009. 8. Niranjan D. Narvekar ," Objective no-reference visual blur assessment," M.S. thesis Dept. Electrical Eng., Arizona State Univ., Tempe, 2009 9. Z. Wang, G. Wu, H. R. Sheikh, E. P. Simoncelli, E. Yang, and A. C. Bovik, "Quality-aware images," IEEE Trans. Image Process., vol. 15, no. 6, pp. 1680–1689, Jun. 2006. 10. R. Ferzli and L. J. Karam, "No-reference objective wavelet based noise immune image sharpness metric," IEEE international Conference on Image Processing,vol. 1, pp. 405-408, Sept. 2005. 11. H. R. Sheikh, A. C. Bovik, and L. Cormack, "No-reference quality assessment using nature scene statistics: JPEG 2000," IEEE Trans. Image Process., vol. 14, no. 11, pp. 1918–1927, Nov. 2005.	**4-8**
	Authors:	**Goodhead T. O, Abowei M. F. N**	

3.	**Paper Title:**	**Design of Isothermal Plug Flow Reactor Adsorption Tower for Sulphur Trioxide Hydration using Vanadium Catalyst**	**9-16**

Abstract: An isothermal plug flow reactor for the production of sulphuric acid over a range of degree of conversion ,XA = 0.95 to 0.99 and reactor diameter, Di = 0.05 to 0.1m have been designed. The reactor which operates at atmospheric pressure is capable of producing 10,000 metric tons per annum. This reactor is designed with hastelloy because it possesses an excellent corrosion and sulphuric acid resistance properties. The reactor performance models are simulated with the aid of a Computer using MATLAB (R2007b).The results provided information for the functional parameters for the reactor which include; the reactor volume, space time, space velocity, rate of heat generation per unit volume of reactor, pressure drop, and length of reactor. The relationship between these parameters and the degree of conversion are presented graphically.

Keywords: About four key words or phrases in alphabetical order, separated by commas.

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4.

Authors: **Chhaya Singh, B. G. Hogade**

Paper Title: **Implementation of an Adaptive Beam Forming Antenna for Radio Technology**

Abstract: Beamforming antennas for fixed and mobile wireless communications have received enormous interest worldwide in recent decades, and a wide variety of approaches for smart antenna design and application. Smart antenna techniques at the base station can dramatically improve the performance of the mobile radio system by employing spatial filtering. The wideband smart antennas are widely used antennas. A wideband beamforming algorithm which is derived from spatial signal processing technique is considered in this technique. We will be using circular array geometry for the wideband smart antenna. A well known LMS algorithm will be applied to the circular array geometry. The DOA/validation component uses a MATLAB script to implement the MUSIC algorithm to estimate the DOA for both incoming sources. In this paper directional beam pattern for the given design parameters will be displayed.

Keywords: Wireless communication, Smart antenna, Circular array goemetry, DOA estimation, MATLAB.

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5.

Authors: **S. Islam, A. J. Khan**

Paper Title: **Strain Rate Sensitivity of Jute Geotextile in Uniaxial Tension**

Abstract: Use of synthetic geotextile for embankment stabilization, reinforcement of soil, grade separation of road layers is a common practice for many years. Woven Synthetic geotextiles are not environmental friendly and as imported these are often found to be costly. Jute geotextiles (JGT) are indigenous and have got enough potential for use as initial reinforcement and moisture absorption accelerator in road subgrades, for river bank protection via facilitating establishment of inverted filter formation and for top soil erosion control of exposed slope surfaces. By employing different modification techniques, JGTs may be converted into designed biodegradable material without changing its environmental friendly properties. In the present study two types of JGTs (untreated 627gsm and untreated 724gsm) have been used. The samples are supplied by Bangladesh Jute Mills Corporation (BJMC) and Bangladesh Jute Research Institute (BJRI). The most important properties of JGT, i.e., tensile strength and strain at maximum load have been evaluated for both types of samples at different strain rate. This paper presents the rate sensitivity of JGT through the test results of these two types (untreated, 627gsm and untreated 724gsm) of JGTs.

Keywords: Jute geotextiles (JGT), uniaxial tensile strength, strain, strain rate sensitivity.

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