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1.	**Authors:**	**Vamsi Krishna Pelluru**	
	Paper Title:	**Application Detection System**	
	Abstract: Across the Globe companies are finding ways to maximize their productivity with infrastructure and Resources, Application Detection system helps companies achieve it, it also helps administrators in identifying which are the applications that are more commonly used across the corporate, those applications can be blocked to use from the networks, Most of the employees spent considerable time in office on Browsing Social Networking sites eg; Face Book, Orkut, LinkedIn etc, Application Detection system helps administrators in identifying the Source machines from which these requests arise, it generates the logs with the source machine IP, Application name , its pattern etc, based on the pattern the corresponding signature will be triggered and it will either block or allow the application based on the configuration provided to it. **Keywords:** Application detection System, Signatures. **References:** 1. http://www.pcworld.com/article/249137/what_is_deep_packet_inspection_.html 2. http://www.deeppacketinspection.ca/	**1-3**
2.	**Authors:**	**Vivek Hanumante, Rubi Debnath, Disha Bhattacharjee, Deepti Tripathi, Sahadev Roy**	
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	Abstract: This paper aims at providing design and development solution of an Android application whose objective is to provide a solution to overcome the barrier of languages by implementing text to speech conversion in different languages. The Android application developed text to speech conversion to facilitate the translation of English language text into speech output in different languages. We have also proposed few improvements which can further advance this system to include more target audiences so as to make it more beneficial and useful. The proposed English Text to Multilingual Speech Translator using Android (T2MSTA) aims at providing assistance to the people lacking the power of speech or non-native speakers like people who do not share a common language. **Keywords:** Android, T2MSTA, Text to Speech conversion, Intent, MATLAB. **References:** 1. El-Imam, Y.A.; Banat, K., "Text-to-speech conversion on a personal computer," Micro, IEEE , vol.10, no.4, pp.62,74, Aug. 1990 2. O'Malley, M.H., "Text-to-speech conversion technology," Computer, vol.23, no.8, pp.17-23, Aug. 1990. 3. Santos, J.; Nombela, J., "Text-to-speech conversion in Spanish a complete rule-based synthesis system," Acoustics, Speech, and Signal Processing, IEEE International Conference on ICASSP '82. , vol.7, no., pp.1593-1596, May 1982. 4. Sadeque, F.Y.; Yasar, S.; Islam, M.M., "Bangla text to speech conversion: A syllabic unit selection approach," International Conference on Informatics, Electronics & Vision (ICIEV), 2013, pp.1-6, 17-18 May 2013. 5. Bothe, K.; Joachim, S., "Interactive tool-based production of multilingual teaching and learning materials," Fifth IEEE International Conference on Advanced Learning Technologies, ICALT, pp.516,518, 5-8 July 2005. 6. Nowak, G.; Grabowski, S.; Draus, C.; Zarebski, D.; Bieniecki, W., "Designing a computer-assisted translation system for multi-lingual catalogue and advertising brochure translations," Proceedings of VIth International Conference on Perspective Technologies and Methods in MEMS Design (MEMSTECH), pp.175,180, 20-23 April 2010. 7. Linsi Xia; Yamashita, N.; Ishida, Toru, "Analysis on Multilingual Discussion for Wikipedia Translation," Second International Conference on Culture and Computing (Culture Computing), pp.104, 109, 20-22 Oct. 2011. 8. Yuqing Gao; Bowen Zhou; Liang Gu; Sarikaya, R.; Hong-Kwang Kuo; Rosti, A.-V.I.; Afify, M.; Weiihong Zhu, "IBM Mastor: Multilingual Automatic Speech-To-Speech Translator," ICASSP 2006 Proceedings. 2006 IEEE International Conference on Acoustics, Speech and Signal Processing, 2006. , vol.5, 14-19 May 2006. 9. Liang Gu; Yuqing Gao; Liu, F.-H.; Picheny, Michael, "Concept-based speech-to-speech translation using maximum entropy models for statistical natural concept generation," Processing, IEEE Transactions on Audio, Speech, and Language , vol.14, no.2, pp.377-392, March 2006. 10. Evandro Franzen1 and Dante Augusto Couto Barone, "Automatic Discovery of Brazilian Portuguese Letter to Phoneme Conversion Rules through Genetic Programming", Springer-Verlag Berlin Heidelberg, pp. 62–65, 2003. 11. Hertz, S.R., "English text to speech conversion with delta," Acoustics, Speech, and Signal Processing, IEEE International Conference on ICASSP '86. , vol.11, pp.2427, 2430, Apr 1986. 12. MATLAB and Simulink Release 2013a, The MathWorks, Inc., Natick, Massachusetts, United States, 2013.	**4-9**
	Authors:	**Manmohan Soni, Sankalp Verma**	
	Paper Title:	**Thermal Analysis of Blast Furnace Cooling Stave Using CFD**	
	Abstract: Blast furnace Cooling Systems have been developing since 1884. Earlier (till 1920's) the cooling was applied only to hearth and bosh areas. By 1930's and 1940's, cooling was also applied to the shaft. Simultaneously, external cooling methods like shower and jacket cooling of the furnace shell were tried. This method relied on extracting the heat through the furnace shell to the cooling medium, generating high thermal stresses during the heat transfer and hence jeopardizing the integrity of the shell. The main purpose of cooling system is to enhance the furnace campaign life. If heat transfer, thermal stress and furnace campaign life all such parameters should not be analyzed it may lead to catastic failure of Blast furnace. This Paper deals with the computational analysis of three-dimensional model of blast furnace stave, using FEV tool ANSYS FLUENT. Where the inner wall are heated up linearly, due to molten metal inside the furnace and the outer wall is been exposed to ambient condition with the maximum temperature TH and the minimum temperature with Tc The present computational investigation deals with Heat transfer analysis in blast furnace cooling stave and the parametric analysis such as the cooling channel inter-distance and diameter, coating layer on the external surface, cooling water velocity, etc is been done and the effect of	

them in heat transfer of stave or stave performance is been justified. The temperature distribution and flow pattern across the cavities were visualized. The FEV results are validated with well published results in literature and furthermore with experimentation. Results are first presented in the form of streamlines, isotherm contours, thermal stress, and Temperature difference.

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Keywords: Blast Furnace Stave, CFD, Heat Transfer.

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4.

Authors: **Kriti Bhargava, Nisheeth Saxena**

Paper Title: **Membrane Computing and Its Applications**

Abstract: There are two types of computing; one is conventional and another is unconventional. Turing machine is a hypothetical device and a conventional model, model of computation; it is not a random access machine, so to simulate current day's basis systems; in a exact manner register machine had been defined, so they are conventional model of computing. Paradigms like DNA computing, Quantum computing, Membrane Computing, they are model of unconventional computing. These have comes an existence in their resent times and we have found a certain problems can tackle in a very efficient manner using this. The practical use of this is still a question and it's being exploded. Membrane computing which biologically inspired and mathematically motivated. Membrane structure is an essential ingredient of a membrane computing, having hierarchical arrangement of membranes, like a cell or tree. This mainly deals with distributed and parallel computing models. Parallelism is restricted in classical computers bounded by 'n' (16/64) number of processors. But when size of problems increases, then the number of processors can't increases. Unbounded parallelism is exists in DNA, Membrane computing. Because of unbounded parallelism, you can have DNA strands and they can exist within one cubic centimeter of a solution; millions of DNA strands can exists. Because of that the action state place parallel and you can have a number of operations performed simultaneously. The basic features are evolution rules and evolving objects encapsulated in compartments of membranes. These evolution rules are applied on multisets. It is a framework to reflecting a limb of a system model. Inspiration of membrane computing is the process which takes place in a cell, the reaction which develops in cell region. The processing of substances, energy and information in these regions, through the membranes which delimit them are computational processes. We try to simulate these processes and see that anything we can define in a formal manner using this model of computation. In this paper, briefly discuss about membrane computing applications like global clock, L system, solving optimization problems, solving SAT, HPP etc.

Keywords: Membrane Computing, P system, HPP, SAT, L system.

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