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1.	<b>Authors:</b>	<b>Bhavana Arora, Shakti Kumar</b>	
	<b>Paper Title:</b>	<b>Study of Non Point Pollution of Water Resources of Kaithal District</b>	
	<p><b>Abstract:</b> Kaithal district is one of the 21 districts of Haryana state in northern India. Kaithal town is the district headquarters. Kaithal district is situated in the North- West of the state . The district occupies an area of 2317 km<sup>2</sup> located between 29°31' : 30°12' north latitudes and 76°10' : 76°42' east longitudes. The Kaithal city, occupies an area of 43.76 sq. km within the municipal limit. This district came into existence on 1 November 1989. There are 277 villages and 253 Panchayats in Kaithal districts. Kaithal district comprises of five administrative blocks including Pundri, Rajaund, Kaithal, Kalayat and Siwan.. According to the 2011 census Kaithal district has a population of 1,072,861. This gives it a ranking of 423rd in India (out of a total of 640). The study is carried in the Kaithal district of Haryana. Since the Kaithal district in Haryana state of India .The district has a population density of 463 inhabitants per square kilometre (1,200 /sq mi). Its population growth rate over the decade 2001-2011 was 13.39%. Mainly villages of Pundri block showed problem of Total dissolved solids and Hardness in water samples. One or two villages showed high value of fluoride content also.Five to six villages out of fifteen villages chosen showed high content of total dissolved solids , sulphates and alkalinity. In Rajaund block out of seven sample stations two to three stations showed high values of alkalinity and sulphates. Two villages had high fluoride content..In Kalayat block out of four village stations one station showed high value of hardness, total dissolved solids ,sulphates and fluorides.</p> <p><b>Keywords:</b> Pollution, Ground Water, River, Contaminated, Sub Area: Civil Engineering, Broad Area: Environment Engineering</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. APHA (2005). Standard Methods for the Examination of Water and Waste Water (21th ed.). Washington DC: American Public Health Association.</li> <li>2. Bishnoi, M., and Malik, R. (2008) "Ground water quality in environmentally degraded localities of Panipat city, India", Journal of Environmental Biology, Vol 29(6), pg 881-886.</li> <li>3. Goyal, S.K, and Chaudhary , B.S., (2010), "GIS based study of Spatio-Temporal changes in groundwater depth and quality in Kaithal district of Haryana, India", Journal of Ind. Geophysics Union, Volume 14(2), pg 75-87.</li> <li>4. Gupta, D. P., Saharan, S., and Saharan, J. P., (2009) "Physico chemical analysis of ground water of selected area of Kaithal city (Haryana, India)", Researcher, Vol. 1(2), pg1-5.</li> <li>5. Jain, C.K., Bhatia, K.K.S., and Vijay, T. (1994-1995) Technical Report, CS (AR) 172, National Institute of Hydrology, Roorkee.</li> <li>6. Mittal, S., and Sharma, S. (2008) "Assessment of drinking ground water quality at Moga, Punjab (India): An overall approach", Journal of Environmental Research And Development, Vol 3(1), pg 129-136.</li> <li>7. Mukherjee, S., and Nellyat, P., (2007) "Ground Water Pollution and Emerging Environmental Challenges Of Industrial Effluent Irrigation: A Case Study Of Mettupalayam Taluk, Tamilnadu", IWMI-(Comprehensive Assessment of Water Management in Agriculture Discussion Paper 4).</li> <li>8. Rajmohan, N., and Elango, L. (2005) "Nutrient chemistry of groundwater in an intensively irrigated region of southern India", Environmental Geology, Vol 47, pg 820-830.</li> <li>9. Rao, N. S. (2006) "Seasonal variation of groundwater quality in a part of Guntur District, Andhra Pradesh India", Environmental Geology, Vol. 49, pg 413-429.</li> <li>10. Reza, R., and Singh, G. (2010) "Heavy metal contamination and its indexing approach for river water", International Journal of Environmental Science and Technology, Vol 4, pg 785-792.</li> <li>11. Singh, B., and Garg, V.K. (2012) "Fluoride Quantification in Groundwater of Rural Habitations of Faridabad, Haryana, India", International Journal of Environmental Protection, Vol. 2 (10), pg. 8-17</li> <li>12. Singh, M.K., Jha, D., and Jadoun, J. (2012) "Assessment of Physico-chemical Status of Groundwater Samples of Dholpur District, Rajasthan, India", International Journal of Chemistry, Vol 4, No 4, pg 96-104</li> <li>13. Trivedi, R.K., and Goel, P.K. (1984) "Chemical and biological methods for pollution", Karad (INDIA): Environmental publication.</li> </ol>		1-7
2.	<b>Authors:</b>	<b>Abhishek Shah, Rushabha Maru, Kinjal Shah, Khushali Deulkar</b>	
	<b>Paper Title:</b>	<b>Generation of Pathology Reference Intervals for Indian Population</b>	
	<p><b>Abstract:</b> Almost all reference intervals currently used in India are developed by Western, European and other Asia Pacific countries. The use of these reference intervals can be misleading as India is a huge nation with enormous racial and ethnic diversity. The international guidelines on reference intervals suggest the generation of new reference intervals for local homogeneous population. This paper illustrates the literature review done on various papers having similar subject and also enlightens a solution for generation of new reference interval. General Terms- Big data processing, Data mining, Hadoop application for clinical laboratory</p> <p><b>Keywords:</b> CLSI, clinical laboratory, Reference Interval Generation, Reference Population</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. "Defining, Establishing, and Verifying Reference Intervals in the Clinical Laboratory", Third Edition, C28 – A3c, Vol. 28 No. 30.</li> <li>2. T Malati, "Whether Western Normative Laboratory Values Used For Clinical Diagnosis Are Applicable To Indian Population? An Overview On Reference Interval", Indian Journal of Clinical Biochemistry, 2009.</li> <li>3. Abhijit Banerjee, Diganta Dey, Parbati Banerjee, Sudarshan Ray, Ratnamala Ray, Banasri Hazra, "CLSI-Derived Hematology Reference Intervals for Healthy Males in Eastern India", Global Journal Of Medicine And Public Health, 2013.</li> <li>4. Tanzeel Huma, Usman Waheed , "The Need To Establish Reference Ranges", Journal of Public Health and Biological Sciences, Vol. 2, No. 2, ISSN 2305-8668 (Print) 2307-0625 (Online), 2013</li> <li>5. Yuthika Agrawal, Vipin Goyal, Kiran Chugh, Vijay Shanker , "Reference Values of Lipid Profile for Population of Haryana Region", Scholars Journal of Applied Medical Sciences, 2014.</li> <li>6. Alex Katayev, MD, Claudiu Balciua, and David W. Seccombe, MD, PhD , "Establishing Reference Intervals for Clinical Laboratory Test Results - Is There a Better Way?", American Journal for Clinical Pathology, 2010.</li> </ol>		8-11

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3.	<p><b>Authors:</b> Ebru Alp, Tamer Dag, Taner Arsan</p>	
	<p><b>Paper Title:</b> Indoor Positioning System by Using Triangulation Algorithm</p>	
	<p><b>Abstract:</b> In this paper, a Wi-Fi based indoor positioning system (IPS) is developed. IPSs are expected to be used in a vast variety of environments such as shopping malls, hospitals, airports and campuses for navigation purposes, real-time location based advertisements, efficient emergency handling situations. Due to the rapid growth of wireless access points in urban areas and the booming usage of smart phones, Wi-Fi has become one of the key technologies to enable location based services for indoors where GPS technology would not work. This paper introduces least square method based triangulation algorithm for IPSs. The implemented system has been tested under various circumstances in order to achieve the minimum error possible. Wi-Fi channel optimization, filtering, calibration of the relation between the signal strength and distance, using more Wi-Fi modems and the least square method are some of the improvements made on the implemented system. The results show that the location accuracy is significantly improved when compared with the simple triangulation algorithm.</p> <p><b>Keywords:</b> Indoor Positioning Development, Triangulation Algorithm, Least Square Method</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Z. Selvi, 'Konum Tabanlı Hizmetler Teknolojisi İle Yönlendirme', 2011.</li> <li>2. R. Jain, 'Survey of Wireless Based Indoor Localization Technologies', pp. 1–17, 2014.</li> <li>3. C. Chen, J. Yang, G. Tseng, Y. Wu, and R. Hwang, 'An Indoor Positioning Technique Based on Fuzzy Logic', Int. MultiConference Eng. Comput. Sci., vol. II, pp. 17–20, 2010.</li> <li>4. M. Fak and B. Ya, 'Mühendislikte Olasılık, İstatistik, Risk ve Güvenilirlik', pp. 1–6, 2001.</li> <li>5. J. Xu, W. Liu, F. Lang, Y. Zhang, and C. Wang, 'Distance Measurement Model Based on RSSI in WSN', vol. 2010, no. August, pp. 606–611, 2010.</li> <li>6. 'Wireless sistem - Kablosuz Ağ Sistemleri Kurulumları - internet wireless çözümleri - satışı.' [Online]. Available: <a href="http://www.wirelessistem.net/Kablosuz-LAN-WLAN-RF-Guc-Degerlerin-Tanimi,DP-10.html">http://www.wirelessistem.net/Kablosuz-LAN-WLAN-RF-Guc-Degerlerin-Tanimi,DP-10.html</a>.</li> <li>7. 'Normal Distribution.' [Online]. Available: <a href="https://en.wikipedia.org/wiki/Normal_distribution">https://en.wikipedia.org/wiki/Normal_distribution</a>.</li> <li>8. 'The Normal Distribution.' [Online]. Available: <a href="http://www.stat.yale.edu/Courses/1997-98/101/normal.htm">http://www.stat.yale.edu/Courses/1997-98/101/normal.htm</a>.</li> <li>9. 'NORMINV function - Office Support.' [Online]. Available: <a href="https://support.office.com/en-us/article/NORMINV-function-87981ab8-2de0-4cb0-b1aa-e21d4cb879b8">https://support.office.com/en-us/article/NORMINV-function-87981ab8-2de0-4cb0-b1aa-e21d4cb879b8</a>.</li> <li>10. S. Friedfeld, 'Tahmin - EKK yöntemi', no. 2004, pp. 141–143, 2010.</li> <li>11. Y. Wang, S. Susheng, X. Yang, and A. Ma, 'Bluetooth Indoor Positioning using RSSI and Least Square Estimation', in IEEE IC FCC, 2010, pp. 837 – 842.</li> <li>12. 'Kablosuz ağınıza extra güç!' [Online]. Available: <a href="http://www.chip.com.tr/haber/kablosuz-aginiza-ekstra-guc-1-farkli-kanallari-deneyin_45119_2.html">http://www.chip.com.tr/haber/kablosuz-aginiza-ekstra-guc-1-farkli-kanallari-deneyin_45119_2.html</a>.</li> <li>13. 'Why Channels 1, 6, and 11?' [Online]. Available: <a href="http://www.metageek.com/training/resources/why-channels-1-6-11.html">http://www.metageek.com/training/resources/why-channels-1-6-11.html</a>.</li> <li>14. 'FTP Server Hacking: Brute Force Algorithm', IJCSMC Journal. [Online]. Available: <a href="http://www.academia.edu/7514911/FTP_Server_Hacking_Brute_Force_Algorithm">http://www.academia.edu/7514911/FTP_Server_Hacking_Brute_Force_Algorithm</a>.</li> <li>15. D. J. Bernstein, 'Understanding brute force', ECRYPT STVL Work. Symmetric Key Encryption, pp. 10–19, 2005</li> </ol>	12-18
4.	<p><b>Authors:</b> Najmuddin Aamer, S. Ramachandran</p>	
	<p><b>Paper Title:</b> Pipelined, High Speed, Low Power Neural Network Controller for Autonomous Mobile Robot Navigation Using FPGA</p>	
	<p><b>Abstract:</b> The demand for autonomous robots which incorporates efficient path planning and obstacle avoidance is increasing rapidly. In this paper, we have proposed a neural network based hardware architecture for autonomous mobile robot which is able to detect and avoid obstacles by using prediction model of neural network and distribution computation techniques using FPGA. Learning and prediction is implemented by using back propagation method on FPGA Virtex-II pro kit. For flexibility and accuracy of the neural network, floating point based computation method is applied. The proposed model uses the principle of reconfigurability which reduces the implementation cost and area. In this proposed architecture of autonomous mobile robot, pipelined architecture is used which increases the speed and reduces the delay for the prediction. Simulation is performed by using Xilinx 14.3 ISE simulator. Place and Route results exhibit high throughput and low power consumption achieved using this proposed model for controlling the autonomous robot.</p> <p><b>Keywords:</b> Autonomous Mobile Robot, FPGA, Neural Network, Pipeline, Reconfigurability, Path Planning and Obstacle Avoidance.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Chakravarthy, N. and Jizhong Xiao, "FPGA-based Control System for Miniature Robots," International Conference on Intelligent Robots and Systems 2006 IEEE/RSJ, pp. 3399-3404, 9-15 Oct. 2006.</li> <li>2. Guanghua Zong, Luhua Deng and Wei Wang, "A Method for Robustness Improvement of Robot Obstacle Avoidance Algorithm," IEEE International Conference on Robotics and Biomimetics, ROBIO-06, pp. 115-119, 17-20 Dec. 2006.</li> <li>3. Ziemke, T, "Remembering How to Behave-Recurrent Neural Networks for Adaptive Robot Behavior", in Recurrent Neural Networks: Design and Applications, CRC Press 2000. ISBN 0849371813. pp. 355–390.</li> <li>4. Laboratory of Intelligent Systems, Ecole Polytechnique Fédérale de Lausanne, Switzerland [online]. [quoted 2008-08-21].</li> <li>5. Amosov, N. M., Kussul, E. M., Fomenko and V. D.: "Transport Robot with a Neural Network Control System", Advance papers of the Fourth Intern Joint Conference on Artificial intelligence, pp. 1-10, 1975.</li> <li>6. Brooks R., "A Robust System Layered Control System for a Mobile Robot" IEEE Trans. on robotics and automation RA-2, 14-23, 1986.</li> <li>7. Janglova, D, "Neural Networks in Mobile Robot Motion", in International Journal of Advanced Robotic Systems 1(1) (2004) 15-22</li> </ol>	19-24



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<b>Authors:</b>	<b>Nasser Rostam Afshar, Ev Rochelle Ashzana Roger Sumail</b>	
<b>Paper Title:</b>	<b>Pipelined, High Speed, Low Power Neural Network Controller for Autonomous Mobile Robot Navigation Using FPGA</b>	
5.	<p><b>Abstract:</b> The construction industry nowadays has higher complexities with increased scope of work, number of parties involved and is technically more advanced. However, the industry does not give adequate attention to proper delay management. The causes of delay need to be identified and assessed. The methods on delay mitigation need to be mapped out to cater for these delays. Even the smallest mistake or unforeseen causes can lead to major lost and even bankruptcy to construction firms. Therefore, the aim of this study is to provide a compilation of causes and effects of delay data for Malaysian construction industry. The discussions related the field of causes and effects of delay in construction projects has been reviewed. Result of delay identification from other countries have been studied and compared to make this paper more comprehensive. The overall discussion will focus on the causes of delay related to each specific group; the direct effects of these delay, and also the correlation between the causes and effects. The data is collected by conducting structured questionnaire surveys and distributing it out to government agencies, consultants, and contractors involved in the construction industry. An in depth study is also done on different methods of delay identification available in project management.</p> <p><b>Keywords:</b> Delay causes, Delay Effects, Construction Industry, Malaysia, Correlational Analysis</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Enas Fathi Tsher, R. P. ,Study of Delay in Project Planning and design Stage of Civil Engineering Projects, International Journal of Engineering and Advanced Technology (IJEAT), Vol 3, 2013, pp,457-458.</li> <li>2. Frank D.K, F. a.-B., Delays in Building Construction Project in Ghana. Australian Journal of Construction Economics and Building, vol 10, 2010, pp,104-106.</li> <li>3. Murali Sambasivan, Y. W., Causes and Effects of delays in Malaysian construction Industry, International Journal of Project Management, 2007, pp. 518-520.</li> <li>4. Ismail, T. P., Significant Factors Causing and Effects of Delay in Iranian Construction Projects, Australian Journal of Basic and Applied Science, vol 7, 2011, pp,450-451.</li> <li>5. Abisuga A.O, Amusu O.R.O, Salvador K.A, Construction Delay in Nigeria: A Perception of Indigenous and Multinational Construction Firms, Journal of Emerging Trends in Economics and Management Sciences (JETEMS) 5(3), ISSN: 2141, 2014, pp371-378.</li> <li>6. Omayma Motaleb1 and Mohammed Kishk2, An investigation of construction delay and effects in UAE , The Scott Sutherland School of Architecture and Built Environment, Robert Gordon University, Aberdeen AB10 7QB, UK, 2010, pp.1149-1157.</li> <li>7. Bharath, S. K., Analysis of Critical Causes of Delay in Indian Infrastructure Project. International Journal of Innovative Research &amp; Development, vol 3, 2013, pp.254-260.</li> </ol>	25-27