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Authors: Priyanka R. K. Shrivastava, Shraddha Panbude, Geeta Narayanan

Paper Title: Digitization of ECG Paper Records using MATLAB

Abstract: Electrocardiogram (ECG) is the most important and widely used method to study the heart related diseases. The detailed study of ECG graph by the medical practitioner helps him to understand and identify the condition of the heart. Based on the information retrieved from the ECG graph the patient can be given proper treatment. The person having a medical history of heart ailments will have to maintain a record of all the ECG papers for timely analysis and diagnosis of the diseases. This process requires large storage space and extensive manual effort. The present work has analyzed and discussed the effect of gravitational force on the walk-run transition speed on the planets of the solar system. A walk-run transition speed at different gravity level has been calculated. Our results suggested that by increasing gravity level, the walk-run transition speed occurred at faster speed whereas the corresponding Froude numbers remain constant in normal and high gravities. The most significant effect of gravity on the Froude number was observed for the planets with gravity lower than the earth. In addition, the rates of oxygen consumption at the walk-run transition speed for these celestial objects have been predicted. The results showed that the rate of oxygen consumption for the planets are at the highest for those which have a gait transition at Froude number of greater than 0.5.

Keywords: Froude numbers, solar system, walk-run transition, oxygen consumption.

References:

Authors: Hossien Hossieni, Kani M. Rauf, Gulstan S. Ezat, Nzar R. Abdullah

Paper Title: Estimation of Walk-Run Transition Speed and Oxygen Consumption on Planets of Solar System

Abstract: The present work has analyzed and discussed the effect of gravitational force on the walk-run transition speed on the planets of the solar system. A walk-run transition speed at different gravity level has been calculated. Our results suggested that by increasing gravity level, the walk-run transition speed occurred at faster speed whereas the corresponding Froude numbers remain constant in normal and high gravities. The most significant effect of gravity on the Froude number was observed for the planets with gravity lower than the earth. In addition, the rates of oxygen consumption at the walk-run transition speed for these celestial objects have been predicted. The results showed that the rate of oxygen consumption for the planets are at the highest for those which have a gait transition at Froude number of greater than 0.5.

Keywords: Froude numbers, solar system, walk-run transition, oxygen consumption.

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Paper Title: Design and Implementation of a Novel Combined CFAR/SLB System

Abstract: In this paper, a novel approach of combined Cell Averaging-Constant False Alarm Rate (CA-CFAR) detector and Sidelobe Blanking (SLB) system is proposed. CFAR based threshold estimation using a Generalized Automatic Sliding Window technique (GASW) is proposed to reduce the memory access and exploits pre-computed values for setting the new threshold for adjacent cell. The designed architecture is fully reconfigurable in terms of the number of reference and guard cells as well as the sampling frequency and the coherent processing interval (number of integrated pulses).

Keywords: CA-CFAR, SLB, GASW, architecture, reconfigurable, Generalized.

References:
4. Magaz, B. and Benchekih, M. L. "Real Time Implementation of The Combined SLB/CA-CFAR System with Non Coherent Integration".

Authors: Jagadesh T, Nanammal V

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Paper Title: Study of Hadoop Features for Large Scale Data

Abstract: The data from hospitals around the area (city, state or country) is huge. Handling it through traditional RDBMS will be inefficient and cumbersome because the data from various hospitals won’t be in the same format. Another reason is RDBMS doesn’t offer an efficient way to handle unstructured data (i.e. Media files). Thirdly, as the data becomes voluminous the time for retrieval increases exponentially. Hadoop has many advantages if used to store all the medical data of the patient and also media files related to it (i.e. X-Ray reports, sonography reports and videos of operation). This paper gives overview of Hadoop and its components and also comparison between Hadoop and RDBMS.

Keywords: HDFS, Mapreduce, Hbase

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8. Sorting, Searching, and Simulation in the MapReduce Framework by Michael T. Goodrich from University of California, Nodari Sitchinava from Aarhus University, Qin Zhang from Aarhus University

Authors: Dipali Salunkhe, Devendra Bahirat, Neha V. Koushik, Deepali Javale

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Paper Title: A Blind Digital Image Watermarking using Joint DCT-DWT and Twin Encoding Methodology

Abstract: Digital Image Watermarking is the method that embeds knowledge known as a watermark or digital signature or tag or label into a transmission object such watermark may be detected or extracted later to form associate assertion regarding the ob-ject. There square measure varied techniques with that the method of watermarking may be performed. we've summarized these techniques in brief. In this work, we tend to square measure presenting few recent watermarking algorithms. One ofthem may be a sturdy digital image watermarking algorithmic program supported Joint DWT-DCT Transformation. This methodology exploits strength of 2 common frequency domains method; DCT and DWT, to get more physical property and hardiness. the thought of inserting watermark within the combined rework is predicated on the very fact that joint rework may eliminate the downside of every alternative. then, associate elective watermarking methodology may be obtained. the opposite is powerful Blind Digital Image Watermarking mistreatment DWT and twin coding Technique. This algorithmic program exploits the random sequence generated by Arnold and Chaos transformations. separate ripple transformation of third level decomposition is employed to convert the image into its frequency domain.

References:

Authors: Poonam H. Mahajan, Pramod B. Bhalerao

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References:

Authors: Anass Ait Laachir, Tarik Jarou, Moulay Brahaim Sedra, Abderrahmane El Kachani, Abdelhamid Niaania

Paper Title: Fuzzy Logic Control for Maximum Power Point Tracking of a Photovoltaic Field

Abstract: Maximizing the power point tracking of photovoltaic systems is currently the purpose of several researches in the context of renewable energies improvement. In this work we optimize and enhance the maximum power point tracking algorithm based on fuzzy logic controller. Our approach focuses on determining the maximum power point in a minimal time in order to get the lowest possible energy loss. The fuzzy logic controller presented in this work provide fast response and good performance against the climatic and load change and uses directly the power point in a minimal time in order to get the lowest possible energy loss. The fuzzy logic controller provides better tracking compared to Perturb and observe despite the climatic change (solar insolat...)

Keywords: DC-DC converter, fuzzy logic, MPPT, perturb and observe, Photovoltaic.

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Authors: Mohan B. Raut, S. N. Shelke

Paper Title: Optimization of Special Purpose Rotational MIG Welding by Experimental and Taguchi Technique

Abstract: This paper presents the case study to find the design optimization for special purpose MIG welding operation. The MIG Welding parameters are the most important factors affecting the quality, productivity and cost of welding. This paper presents the effect of welding parameters like welding current, welding voltage, welding speed, gas flow rate, rotational speed of work piece, filler wire feed rate on MIG welding. Experiments are conducted based on Taguchi Technique to achieve the required data. An Orthogonal Array, Signal to Noise (S/N) ratio and analysis of variance (ANOVA) are used to find out the welding characteristics and optimization parameters. Finally the confirmations tests have been carried out to compare the predicted values with the experimental values.

Keywords: MIG welding, optimization, Design of Experiments (DOE), Analysis of Variance (ANOVA), Signal to Noise (SNR) ratio

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1. A Review on Optimization of MIG Welding Parameters using Taguchi’s DOE Method - Satyaduttisinh P. Chadva, Jayesh V. Desai, Tushar
2. Design optimization of Process Parameters for TIG Welding based on Taguchi Method - Nirmalendu Choudhury, A. Ramesh Rudrapati and Asish Bandayopdhayya A. AmChemoical Engineering Department, Jadavpur University, Kolkata - 700032, India.

3. OPTIMIZATION OF MIG WELDING PARAMETERS FOR IMPROVING STRENGTH OF WELDED JOINTS - S. R. Patil, C. A. Waghmare 2-Mechanical Engineering Dept., Rajarambapu Institute of Technology, Sakhare, Maharashtra, India.

4. Optimization of Process Parameters of Gas Metal Arc welding to improve quality of weld bead geometry-S.R. Meshram1, N.S. Pohokar2-Department of Mechanical Engineering, Prof. Ram Meghe Institute of Technology & Research. Bhandera, Amravati (MS), India.

5. OPTIMIZATION OF WELD BEAD GEOMETRICAL PARAMETERS FOR BEAD ON PLATE SUBMERGED ARC WELDS DEPOSITED ON IS-2062 STEEL USING TAGUCHI METHOD - Meenu Sharma and Dr. M. I. Khan Department of Mechanical Engineering, Integral University, Lucknow, India.

6. Optimization of weld bead bead penetration geometrical parameters for bead on plate submerged arc welds deposited on IS-2062 Steel using Taguchi Method

7. Parameter Condition of Being Optimized For MIG Welding Of Austenitic Stainless Steel & Low Carbon Steel Using Taguchi Method - Sonu Prakash Sharma1 Amti Bhudhijara2 Post graduate student, SBMN College Ashtal Bohari(Rohtak) 2MDU Rohtak(Haryana)INDIA


9. PARAMETRIC OPTIMIZATION OF MIG PROCESS PARAMETERS USING TAGUCHI AND GREY TAGUCHI ANALYSIS - Dinesh Mohan Arya* Vedansh Chaturvedi** Jyoti Vimal*


11. EFFECT OF MIG WELDING INPUT PROCESS PARAMETERS ON WELD BEAD GEOMETRY ON HSLA STEEL-CHANDRESH.PATEL, Assistant Professor, Department of Mechanical Engineering, S.P.B Patel Engineering College Linch, Mehsana, Gujarat (India), PROF. SANDIP CHAUDHARY Assistant Professor, Department of Mechanical Engineering, S.P.B Patel Engineering College Linch, Mehsana, Gujarat (India)

12. INFLUENCE OF PROCESS PARAMETERS ON DEPTH OF PENETRATION OF WELDED JOINT IN MIG WELDING PROCESS - Bisswajit Das 1, B. Debbarma 2, R. N. Rai 3, S. C. Saha 4 1Research Scholar, 2Assistant Professor, 3Associate Professor, 4Professor, National Institute of Technology, Agartala, India

13. Optimization of Weld Bead Width in Tungsten Inert Gas Welding of Austenitic Stainless Steel Alloy - Vinod Kumar, Mechanical Engineering Department, Thapar University, Patiala, India


15. Through Factorial Design Experiments -OMAR BATAINEH first and corresponding author; ANAS AL-SHOUBAKI; OMAR BARQAWI 1Department of Industrial Engineering Jordan University of Science and Technology

16. Parameters Optimization for Gas Metal Arc Welding of Austenitic Stainless Steel (AISI 304) & Low Carbon Steel using Taguchi’s Technique- Pawan Kumar, Dr.B.K.Roy, Nishant3 Post Graduate Student, Om Institute of Technology & Management Hisar, Haryana, INDIA.


18. PARAMETRIC OPTIMIZATION OF WELDING PROCESS OF LOW CARBON STEEL (AISI 1019) BY USING TAGUCHI’S APPROACH - S. Naveen Kumar 1, Dr. K. SoonyaPrakash 2, G. Gokulakrishnan 3, N. V. Kamelech 4, 1,2,3,4 Assistant Professor, Department of Mechanical Engineering 1, 3, 4 Sri Eshwar College of Engineering, Coimbatore, India. 2 Anna University Coimbatore, India.

19. PARAMETRIC OPTIMIZATION OF TIG WELDING PARAMETERS USING TAGUCHI METHOD FOR DISSIMILAR JOINT (Low carbon steel with AA1050) - J. Pasupathy, V. Ravisankar

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Authors: Leelavathy S. S, Sophia S

Paper Title: Providing Localization using Triangulation Method in Wireless Sensor Networks

Abstract: The application of sensor networks which are developed require the location of wireless devices, and localization technique has been developed to meet this requirement. The wireless sensor networks have been proven useful in many applications, like environment monitoring and military surveillance and many more. Triangulation is one such method that will be examined for localization. For the triangulation based localization uses the geometric properties of triangle to estimate locations, which relies on angle measurements.

Keywords: localization, triangulation, triangulation, time of arrival (toa) time difference of arrival (tdoa.)

References:

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Authors: Shikha Bharti

Paper Title: New Technique of Edge Detection based on FIS

Abstract: Edge detection of images is an important aspect in the field of image processing. Edges can be detected from the images by using various derivative edge detection methods, such as Sobel operator, Prewitt operator, Roberts operator, Laplacian operators and Canny operators. With these different approaches the edges are detected but somehow false edges are also detected or some important edges are missed due to the presence of noise. Therefore a new technique of artificial intelligence called fuzzy inference system is used in order to reduce these types of effects. This paper presents a novel edge detection algorithm based on fuzzy inference system. The proposed
**Abstract:** This project is to be produced a software simulation of an ARM processor. A hardware simulator is a piece of software that emulates specific hardware devices, enabling execution of software that is written and compiled for those devices, on alternate systems. Aim of this project is to develop an ARM simulator using C++ and Multithreading, the same is tested with ‘GDB’ tool in Linux 2.6.37.4. The main feature of the project is the implementation of the ARM simulation with multi-threading. The analysis phase of the project involved detailed studies of different ARM architectures and ARM assembly language. Most of the decisions about hardware components to include in the simulation and assembly instructions to support were to be made during this stage. This phase also involved identifying the requirements of the simulator. The next stage was design, in which the major parts are identified to develop the simulation part of an ARM processor. The implementation phase involved turning the major parts into code, following the design as closely as possible. C++ programming language is to be used as it is object oriented programming language to implement the project. Multithreading concept is to be adopted to execute decoding function and execute function, so that execution will become faster. GDB is to be used to debug the project.

**Keywords:** ARM, Simulation, thumb, multithreading

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4. MTDM][ARM Processors User’s Manual, Advanced Risc Machines Ltd
6. POSIX Threads Programming, Author: Blaise Barney, Lawrence Livermore National Laboratory

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**Abstract:** This paper proposes a protection scheme for three phase induction motors against single-phasing faults. Dynamic model of the induction motor in the stationary reference frame was adopted and modified to reflect single-phasing fault. A simulation algorithm was proposed, which can help determine the impact of single-phasing on any three phase induction motor. A case study simulation was carried-out with sudden single-phasing using MATLAB/SIMULINK software. A single-phasing protection by means of contactors was reviewed before an enhanced single-phasing protection was designed. A prototype of the enhanced protection method was implemented by the use of ac to dc converter, PIC16F877A and DC relays. The latter, in additional to offering protection against single-phasing, also protects the motor from under-voltage, over-voltage and voltage unbalance.

**Keywords:** Single-phasing, Three-phase induction motor, PIC16F877A, ADC, contactor
In this paper, the Formal Verification (FV) approach is implemented on a scalable arbiter. Arbiter is a critical component in systems containing shared resources. FV is an approach using mathematical proof of ensuring that a design's implementation matches its specification, and utilizes formal analysis techniques targeted at assertions within the RTL, to find design errors. The FV requires, properties and coverage to be written and the same is tabulating the results, to ensure successful implementation. The results are analyzed by running the incisive formal verifier, (ifv), tool and checking for the properties and coverage which are written in SVA, for pass or fail.

Keywords: Data Mining, Credit card fraud, Credit Card Fraud Detection, E-Commerce Security, ID3 Decision Tree, Internet, online shopping, Visual Cryptography.

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17. V. S. Srinivasan and E. Duman “Detecting Credit Card Fraud by Decision Trees and Support Vector Machines”
**Keywords:** Formal Verification FV, Time to market, system verilog assertions – SVA, Bug free silicon, resusability.

**References:**