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Paper Title: Wavelet Transform for Denoising Audio Watermarking

Abstract: Audio Watermarking is the process of embedding information into a signal in a way that is difficult to remove. If the signal is copied, then the information is also carried in the copy. Audio Watermarking has become increasingly important to enable copyright protection and ownership verification. This paper investigates the use of wavelet transform for denoising audio signals contaminated with noises.

Keywords: Wavelet transform, watermarking, attacks, de-noising.

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Paper Title: Power Consumption in the Embedded System

Abstract: In the embedded system the Processors are the computing elements. Most of the embedded systems are portable battery powered systems. The system depends on the battery life, which is determined by the power consumption of the entire system. So This paper Shows and presents -from starting of the embedded system definition- the factors of power consumption of an embedded system Processor.

Keywords: Introduction, Embedded systems characteristics, Low Power Design, Average Power Optimization, Memory System, FPGA, Power Reduction Techniques, Conclusion, References

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3.

Authors: **Anurag Sharama**

Paper Title: **Design Study of 5 DOF Robotic Manipulator (Kinematicaly)**

Abstract: Robots are used in industries for fast, accurate, precise and mass production with in specified close tolerance limits. Robotic manipulator has rigid bodies i.e. links which is connected by articulations i.e. joints is segmented in to an arm which ensures mobility and rechability. This search ability is very much important in knowing the exact position and limit for placing the job or working piece either on working table or on conveyor belt. This can be easily done by forward kinematics to know min. to max. Workspace limit

Keywords: Robot, DOF, manipulator, forward kinamatics, DH notations.

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4.

Authors: **Anurag Sharma**

Paper Title: **Conversion of Solar Energy into Electric Energy**

Abstract: Energy is used in our daily life in one or another way. Without energy our life is nothing. Energy sources can be broadly classified as conventional or non-conventional sources/ Non-Renewable or Renewable energy. Conventional sources of energy or non-renewable sources are going to be exhausted and become nil in coming future. Whereas the renewable sources of energy are abundant in quantity and will always present. The idea is to make changes in selecting the source of energy so, that we become eco-friendly and prevent ourself in going towards the dark & grim end of conventional sources of energy.

Keywords: Renewable energy, solar photo voltaic modules, solar voltaic cells, rechargeable batteries

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5.

Authors: **Akshara Sasidharan, Biju V. G**

Paper Title: **Local Edge Preserving Filter Based Image Fusion and Change Detection in SAR Images Using Fuzzy Clustering Algorithm**

Abstract: Change detection plays a vital role in overseeing the transformations on the earth surface. Due to the existence of speckle noise in SAR (Synthetic Aperture Radar) images, change detection becomes a challenging problem. Modified change detection in SAR images is proposed in this paper. It consists of four steps: Difference image generation using Gauss-log ratio operator and Log-ratio operator, image fusion using LEP (Local Edge Preserving) filter, image de-noising using Frost filter and to differentiate changed and unchanged regions in the fused image by using Reformulated Fuzzy Local Information C-Means (RFLICM)clustering. The proposed method is compared with Discrete Wavelet Transform (DWT) based change detection method using synthetic and real SAR images. The performances are evaluated by means of Overall Error (OE), Percentage Correct Classification (PCC), Kappa Coefficient (KC), Mean Square Error (MSE), Peak Signal to Noise Ratio (PSNR) and Segmentation Matching Factor (SMF). The results show that combination of gauss-log ratio operator and image fusion using LEP Filtering performs better than dwt based change detection.

Keywords: change detection, gauss-log ratio, frost filter, local edge preserving (LEP), synthetic aperture radar (SAR).

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6.

Authors: **Rawaz H. Abdullah**

Paper Title: **Design and Implementation of Ultrasonic Based Distance Measurement Embedded System with Temperature Compensation**

Abstract: This work presents the design and practical implementation of an embedded system which can measure temperature of the environment and uses an ultrasonic sensor to measure the distance of objects ranging from 2 cm to 400 cm. The measured temperature is compensated to find the speed of the ultrasonic wave to obtain a more accurate distance measurement. The heart of the embedded system is a low-cost, low-power, and high-performance ATmega328P microcontroller from Atmel. The results showed that, using the TMP36 for temperature compensation improves the accuracy of the designed system.

Keywords: Distance measurement, embedded system, microcontroller, temperature sensor, ultrasonic sensor.

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7.

Authors: **Trayan Ganev Stamov**

Paper Title: **Shapes Applicable in Design of Contemporary Vehicles: Differences in Emotional Impact and Applications**

Abstract: In this study, a connection is considered between vehicles shapes and emotions. Some investigations are presented in order to apply the methods and techniques of measuring the emotional power of selected shapes and specify the reasons of differences in emotional reactions elicited by one and the same shape. The obtained results can support designers in manipulating the emotional impact of the contemporary vehicles, and they are applicable in training of new designers.

Keywords: Emotional impact of shapes of contemporary vehicles, differences, training of new designers

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