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Authors: Hassan Ali Salman  
Paper Title: A Digital Meter for Measuring the Rate of Heat Transferred Through Walls  
Abstract: Heat transfers through a wall are one of the most important parameters that must be considered in designing systems for heating or cooling building. In this paper a digital meter for measuring the rate of heat transferred through Walls have been designed to measure Time rate of heat transfer through the wall which gives an indication of the amount of energy lost through this path.

Keywords: transfers, Heat, measure, Walls, systems for heating.

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Paper Title: Interoperability Between Product Life Cycle Management (PLM) & Electronic Lab Note Book (ELN) for Chemical Companies to Accelerate Product Development  
Abstract: Many companies struggle to integrate various system & sub-system used for their Product development. Even though product lifecycle Management System are claimed to be eco-system to integrate all systems & sub-system into one place but that is still not reached to a certain level of maturity. There are challenges being faced by companies. Information are still available on island of silos. These Island of Silos impacts business productivity, time to market, cost, rework etc. This paper presents need & challenges of the interoperability between Electronic Lab note book (ELN) used by R & Din design & develop phase of product life cycle management (PLM).Earlier there wireless focus on ELN software integration with PLM in context to process industries like Chemicals. ELN plays a significant role to complete the product evolution chain. In context to discrete industry like automobile & aerospace, PDM (Product Data Management) is handled through design tools like CAD / CAM. These tools are sufficiently integrated with PLM and resulting into higher productivity, better collaboration, less product cost & launch time. Whereas in case of chemical industry, CAD/CAM role is played by ELN. ELN is not sufficiently integrated with PLM. The purpose of this paper is to study, how to realize interaction & integration between ELN & PLM. Find out “what data” need to be exchanged between ELN & PLM. There is possibility to increase productivity, better collaboration between different stages of PLM which may result into reduction in product launch time & cost.

Keywords: (ELN), (PLM), PLM, ELN & PLM, CAD/CAM, (Product Data Management).

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Authors: Abdulhassan Nasayif Aldujaili  
Paper Title: Low Error Down Sampling Filter for Mobile System  
Abstract: This paper present, the design and simulation of decimation filter to work with wireless mobile system under software defined radio (SDR) technology. The decimation filter is designed with three stages of decimation filter that consists of Cascaded Integrated Comb (CIC) decimation filter, Compensating Finite Impulse Response (CFIR) filter and Programmable Finite Impulse Response (PFIR) filter. The three cascaded filters could operate to reduce the intermediate frequency from 100MHz to 100 KHz baseband signal in order to more processing. System Generator offers the multiplier less Multiply-Accumulate (MAC) Finite Impulse Response block which reduce the implementation area. The three filters has been verified in investigated by mean of fixed point and floating point values using matlab 7.4 and Xilinx Sys. Gen. The simulation and verification results achieved minimum error of approximately 2x10-4. Therefore, the introduced techniques support the current and future wireless generation in
intermediate frequency up to 100 MHz.

Keywords: Decimation Filter, SDR, MATLAB, System Generator

References:

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Paper Title: Saliency Based Ulcer Detection using Wireless Capsule Endoscopy Diagnosis

Abstract: Ulcer is one of the most common indications of many serious diseases in the human digestive tract. Especially for ulcers in the small intestine where other methods may not display properly, capsule endoscopy (WCE) is increasingly used in the diagnosis and clinical management. Since WCE generates lots of images of the entire inspection process, computer-aided detection ulcer is considered an essential relief for clinicians. In this work, a CAD system is proposed for fully automated computer in two stages to detect images WCE ulcer. In the first step, a detection method based on the effective prominence superpixel multilevel outline representation candidates proposed ulcer. To find the perceptual and semantically meaningful salient regions, the first image segment in multi-level superpixel segmentations. Each level corresponds to different initial sizes of super pixels region. Then the corresponding prominence according to the characteristics of color and texture of each level superpixel region is evaluated. At the end, we merge the salience maps of all levels together to obtain the final saliency map. The experiment results achieved promising accuracy 94.72% 94.63% sensitivity and, validating the effectiveness of the proposed method. Moreover, the results of the comparison show that our detection system outperforms the methods of prior art in the detection task of the ulcer.

Keywords: linear-town with limited coding (LLC), multilevel superpixel representation, prominence and the max-sharing method based on prominence.

References:

Authors: Song-Woo Sok, Young-Woo Jung, Cheol-Hun Lee

Paper Title: ViMo-S: A Lightweight Hypervisor based on ARM Virtualization Extensions

Abstract: The ViMo-S, a type 1 hypervisor for ARMv7 and ARMv8-based ARM server systems, supports full virtualization to run existing operating systems and applications unmodified. It uses ARM hardware virtualization extensions to optimize the performance of virtual machines. Therefore, its virtual machines’ system call latency is near physical machine’s, while other hypervisors like Xen and KVM show relatively slower and unstable performances in benchmark tests.
Keywords: ARM, Hypervisor, Virtualization.

References: