

Following the Advent of the Internet, the Blockchain May Revolutionize Consumer Electronics

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The theme of this July 2018 issue of Consumer Electronics Magazine is dedicated to blockchain. Blockchain is essentially a distributed peer-to-peer ledger in cloud which is shared by every participant and keeps records of the complete transactions. Blockchain showed its impact in 2008 when it was first used for cryptocurrency called bitcoin. Since then blockchain has been explored to be used in various applications including smart Internet of Things (IoT), Smart Healthcare, Smart Government, Smart Property, and Finance Services. The unique and exceptional characteristics of blockchain include immutability, irreversibility, decentralization, persistence and anonymity attracts researchers to explore more and more applications every day.

NEWS – GENERAL

Experience and Skills Obtained by Young Professionals in ICCE 2018: This article presents Young Professionals activities which took place during ICCE 2018 annually held at Las Vegas.

ARTICLES – GENERAL

Everything You Wanted to Know about the Blockchain: This article presents a detailed overview of blockchain including its working principles, components, advantage/disadvantages, and applications.

Personal Active Choreographer, a new method to improve learners' performance of hand-waving dance: This article presents a personal active choreographer system for hand-waving dance learning using a game-based learning concept.

Implementation and Evaluation of a Collaborative Conversational Recommender in a 3D Virtual World: This article presents a state-based model of user-recommender interaction for allowing users for different states of interaction in a 3D virtual world facility.

Different Types of Users, Different Types of Immersion - A User Study on Interaction Design and Immersion in Consumer Virtual Reality: This article discusses the user experiences with different interaction designs and different virtual environments to explore the user preferences towards immersion.

On the Effect of Social Context in Virtual Reality: This article presents the effects of social context on the user-perception of the virtual body and investigates the parameters of human behavior in shared immersive virtual environments.

Leap Motion Targeting Performance in an Augmented Reality Workspace: This article presents the evaluations of a controller in an augmented reality (AR) environment to determine its performance on a mobile platform.

How much smart is too much: This article discusses the pros and cons of smart consumer electronics with respect to the users' experiences in using them.

REGULAR COLUMNS

Bits Vs. Electrons -- Got API?: This article presents big perspective of Application Program Interface (API) provided by various companies alongwith their products.

Storage -- Is MRAM in Your Embedded Product Future: This article discusses a new type of memory called magnetic random access memory (MRAM).

Hardware Matters -- Optimizing DSP Cores using Design Transformation: This article presents a methodology for digital signal processing (DSP) core optimization using transformations during architectural synthesis.

Professional Development Corner -- Stories of recent entrepreneurs in Consumer Electronics: This article interviews entrepreneurs who are at early stage of their career.

SOCIOECONOMIC IMPACT

Brain Pacemakers as Consumer Electronics for Patient Care: Benefits, Risks and Challenges (Part 1): This presents the interview of Emeritus Professor Gary Olhoeft (at the Colorado School of Mines) who received a deep brain stimulation (DBS) device on September 8, 2017.

SPECIAL SECTION

This special section titled “Blockchain Technologies for Consumer Electronics” presents a selected set of articles which present various advances in research related Blockchain which can have impact on the CE systems. I would like to thanks the Guest Editor for all the hard work for this strong special section on this hot topic which has triggered multifront research in various industry and academia and will be a good reading for CE community.

LOOKING FORWARD

I hope this issue dedicated to blockchain helps a wider set of CE community to advance their knowledge. More and more themes will be covered in future in this CE magazine on the latest hot topics with the help of editorial board and authors around the globe, readers please stray tuned!