Smart Healthcare is Here to Improve Quality of Life

By Saraju P. Mohanty

I welcome the readers to the first 2018 issue of CE magazine. This is issue is significant one of the reason is that this is first issue when CE magazine goes for 6 issues per year. I think CE magazine will reach its readers more frequently with latest technical trend as well as activities and news from CE society. I would like to thank CE society president and VP publication for the support. I am sure you are aware of the fact the CE magazine has an impressive impact factor of 1.153 as determined by Clarivate Analytics (formerly IP Science of Thomson Reuters).

The current issue is dedicated for smart healthcare. Smart healthcare is a concept encompassing various entities including conventional healthcare, smart biosensors, wearable devices, Internet of Things (IoT), and smart ambulance systems. The key idea of smart healthcare is that with limited resources and ever increasing demand, the conventional healthcare needs to be intelligent and efficient for sustainable which can be provided by the smart healthcare through the use of frameworks like IoT. Smart healthcare can be helpful to improve quality of life for citizens as well as can be provide healthcare to remote places. Several articles of this issue present various aspects of smart healthcare.

NEWS – GENERAL

Inaugural Startup Pitch Event by CE Society and Young Professionals of Santa Clara Valley: This article presents an event of CE Society and Young Professionals of Santa Clara Valley which was well-attended by a dozen of start-ups.

Experience and Skills Obtained by Young Professionals in GCCE: This article presents Young Professionals activities which took place during Global Conference on Consumer Electronics (GCCE) which is annually held in Japan.

NEWS – CONFERENCES

A Sneak Preview of ICCE 2018: This article presents a technical overview of ICCE 2018. As the Chair of ICCE 2018, let me add that ICCE 2018 will have a very strong technical program with 8 keynotes, 2 experts' panels and 3 days of technical sessions from 13 regular tracks, 8 special session tracks, and 8 co-sponsored tracks.

FUTURE DIRECTIONS

Why You Can't Always Get AM Radio in Your Electric Vehicle: This article discusses the electromagnetic interference (EMI) related challenges and solutions for electric and hybrid cars.

The driver must always come first – even when they're not doing the driving: This article presents the relationship between the self-driving cars and the consumers from connectivity, safety, and cybersecurity perspectives.

ARTICLES – GENERAL

Everything you want to know about Smart Healthcare: This article presents a comprehensive discussions of the smart healthcare covering from the basics to current state-of-art.

Smart Healthcare: An Edge-side Computing Perspective: This article presents discussions on smart healthcare with emphasis on edge computing which can lead to smaller communication overhead and lower energy consumption.

Consumer Healthcare: Current Trends: This article presents diverse aspects of the smart healthcare which can make use of the consumer grade health monitoring devices while discussing the overall scenario in the context of self-care.

A Comprehensive Review on Depth Sensors Applications for Older Adults: This article presents elaborative discussions on the usage of depth sensors for improving quality of older adults.

Authentication Protocols for Implantable Medical Devices: Taxonomy, Analysis and Future Directions: This article discusses various different authentication protocols for the Implantable Medical Devices which are surgically implanted into a human body.

Consumer Applications of Quantum Computing: This can be one of the earliest and high impact articles presenting the use of quantum computing for various consumer applications including cloud-based services, artificial intelligence, and on-line entertainment.

SOCIOECONOMIC IMPACT

Mobilizing Healthcare: Virtual Reality in the Home: This is an interesting which can be related to cover theme on the smart healthcare. This article discusses use of virtual reality in medical applications such as surgery.

REGULAR COLUMNS

Bits Vs. Electrons -- Assembly Required: Rods, Belts and Electrons: This article suggests to create CE systems by assembling available components and services rather to resorting to fully-custom design for each new CE system.

Storage -- A Solid-State Future: This article discusses various types of solid state storage and different aspects that drive growth of solid state storage.

Standards Corner -- IEEE P2048 standards paving the road for Virtual Reality and Augmented Reality: This article discusses various IEEE standards which are being developed for virtual reality and augmented reality.

Hardware Matters -- Framework for IP based Lossless Image Compression for Camera Systems: This article presents an approach for Intellectual Property (IP) based lossless image compression which can be used in digital camera systems.

CTA Insights -- ATSC 3.0 Begins Commercial Broadcasting: First IP-based Ultra High Definition TV Broadcasts on the Air: This article discusses an IP-based ultra-high definition TV broadcasting that uses ATSC 3.0 standards.

Professional Development Corner -- What do I look for, when I hire: This article presents professional tips for winning interviews which can be helpful for students and professionals.

SPECIAL SECTION

This special section titled "Recent Advances on IoT-based Consumer Electronics" presents selected articles which present various advances in research related IoT 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 which will be a good reading for CE community.

LOOKING FORWARD

I hope this issue dedicated to Smart Healthcare and IoT helps a wider set of CE community to advance their knowledge. I also hope 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.

I look forward to welcome CE community in person at ICCE 2018. The theme of ICCE 2018, the flagship conference of CE society, which is 36th version of the ICCE is "Cybersecurity". It will have a strong 3 days technical event consisting of keynotes, panels, and technical sessions, with ample opportunity for professional networking.