

Tentative Outline

Special Issue for Current Signal Transduction Therapy

Title: Emergence of Electrical & Electronic Systems on Health Industry

Guest Editors: Dr. G. Prabhakar, Dr. S. Selvaperumal and Dr. C. Christoher Asir Rajan

Objective and Scope: The latest trend in the field of Electrical & Electronics Engineering is automation of Health Industries. To automate the entire systems, network connectivity is needed to control and share the data among them. In the field of medical industry, Systems like ECG Monitoring, MRI Scanner, Defibrillator, Blood Gas analyzer, Cancer Treatment Instruments, Brain Wave Machine, Smart Power Systems, Embedded Systems and Special Electrical Machines for the Hospital are needed to upgrade for the purpose of automation. This automation leads to autonomous systems in health industry.

The emergences of autonomous systems are also needed in harvesting and sharing renewable energies to smart micro grids. The autonomous operations are performed through sensors, processors and actuators. New type of designs, algorithms, electrical and electronic circuits, sensor fusions, biosensor, Data Acquisition Systems and multifunction microcontrollers are needed to build the autonomous systems. Due to the process of automation of entire systems, cyber threat issue is also raised. Therefore, there is a need in the modernization of electrical and electronic systems with network connectivity and cyber security to ease the process.

This special issue acted as a forum for Electrical and Electronic industries, educational institutions and research communities working in this field and enhanced the interest in sharing the recent trends between them. It also provides a wide scope for better collaboration with experts from various Institution and Industries. It focuses on recent advancements, developments and state-of-the-art research to focus the future vision of the people in the emerging fields of Automation Control, Biosensors, and Vision based Electronic Systems, Sensor Fusion, Power– System Automation, Power Electronics and Smart Systems.

Any topics relevant to the domain of Electrical and Electronics engineering are under this scope of special issue.

Key Words: Biosensor, Non-linear systems, Imaging Sensors, Bio-Medical Instrumentation, Soft Computing Techniques, Machine Learning, ECG Monitoring, MRI Scanner, Defibrillator, Cancer Treatment Instruments, Brain Wave Machine, Smart Power Systems, Smart Grid, Embedded Systems, Control Engineering and Special Electrical Machines

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Schedule:

Manuscript submission deadline: 25th December 2020

Peer Review Due: 25th January 2021

Revision Due: 30th January 2021

Notification of acceptance by the Guest Editor: 15th March 2021

Final manuscripts due: 25th April 2021