



Special Issue on Emerging Trends in Internet of Things for e-health and medical supply chain systems

Overview

E-health terminology is a modern term for healthcare practice supported by electronic processes and the subsequent electronic communication. The term is interchangeably used with health informatics with a broad classification incorporating electronic/digital processes in health. The term can also be used in the narrow sense of healthcare practice using the Internet. A varying range of activities exist in relation to e-health. Some of the services and activities involved in e-health applications are maintenance of e-health records, electronic means of requesting diagnostic tests, online and electronic prescription of medicines, clinical decision support systems, telemedicine, complete health knowledge management, medical expert systems, medical image processing, virtual health care teams, health informatics, health oriented research in grid and cloud computing platforms. One of the major factors in e-health data exchange is the issue of privacy and the access mechanisms by the hierarchy of medical experts. Moreover, the main concern with Electronic Patient Record (EPR) is the confidentiality of the data. This becomes a very big concern when the high performance computing architectures evolved. Yet another concern with such medical data exchange is the existence and knowledge about the medical terms available in the medical vocabulary. Generating dictionary of thesaurus for the medical experts systems for instance is also a major challenge. The final milestone is the successful implementation of machine learning algorithms on such secured Electronic Patient Records (EPR), DNA sequencing, fusion between IoT and medical services/telemedicine and the latest services/platforms/applications in medical supply chain.

The field of information and communication technology is a highly dominating domain that refers to the convergence of use of sensitive information rich areas especially in e-health and medical supply chain applications. High performance computing like grid and cloud computing, big data analysis, Internet of Things (IoT) are widely prevalent domains in Information and Communication Technology, whose instances and their relationships can be combined to efficiently structure the future of e-health and medical supply chain systems. The focus of this special issue is to contribute recent intelligent, secure and optimized algorithms and research results based on e-health records management, distribution, analysis, technology development, and prototypes for ensuring efficiency, privacy and trust in real world

implementations especially in large scale computing environments. Hence the research articles might be pertaining to the papers on the above mentioned issues in e-health applications which would be a rich source of information in the field of next generation online medical systems. Top paper authors from IoTBDS 2020 <http://iotbds.org/>, COMPLEXIS 2020 <http://www.complexis.org/> (7-9 May, 2020, Prague, Czech Republic), FEMIB 2020 <http://femib.scitevents.org/> (5-6 May, 2020, Prague, Czech Republic) and IIoTBSDC 2020 <http://iiotbdsc.com/> (15-17 September, Macau, Special Administration Region of China) will be invited. The following topics of interest pertain to the main scope of the special issue but not limited with respect to the e-health applications and medical supply chain.

- ✓ ICT Infrastructure for connected health
- ✓ Protocols and Algorithms for connected health
- ✓ IoT, e-health and Cloud/Fog architectural fusion
- ✓ Internet of Things (IoT) and Robotics for connected health and assisted living
- ✓ Computer-Aided Diagnosis for e-health and supply chain
- ✓ IoT in e-health care applications and smart medical manufacturing
- ✓ Large scale patient services and big data analysis
- ✓ DNA sequencing and genome applications
- ✓ Biomedical Imaging and processing
- ✓ Quality of life for elderly: Data analysis and case studies
- ✓ Integrated Systems for Telemedicine and e-Health
- ✓ Clinical Practice and Technology Development
- ✓ Mobile and Cloud/Fog Computing for connected health
- ✓ Effectiveness, efficiency, and robustness of medical systems and supply chain
- ✓ Privacy, security and trust of medical systems and supply chain
- ✓ Key management and Key distribution protocols for Healthcare systems
- ✓ Machine learning algorithms and analysis of e-health and medical supply chain big data
- ✓ Innovative Data Science solutions for e-health and supply chain
- ✓ Data Science algorithms and real-world solutions for e-health and supply chain
- ✓ Data Analytics for e-health and medical supply chain
- ✓ Software engineering and systematic approaches for e-health and medical supply chain
- ✓ Platforms, services and applications for medical supply chain
- ✓ Challenges and recommendations for medical supply chain
- ✓ Performance issues related to Cloud/Fog/Edge computing

Submission Guidelines

The special issue (SI) seeks submission of papers that present novel original results and findings on Internet of Things related to e-health and medical supply chain. Solicited original submissions must not be currently under consideration for publication in other venues. Author guidelines and submission information can be found at Expert Systems, Wiley. All manuscripts should be submitted through portal and select our SI theme. Each paper will be reviewed rigorously, and possibly in two rounds, i.e., minor/major revisions will undergo another round of review. Prospective authors are invited to submit their papers directly via the online submission system at <https://onlinelibrary.wiley.com/journal/14680394> for this special issue: **Emerging Trends in Internet of Things for e-health and medical supply chain systems**

Important Dates (*Tentative*)

Paper submission Due:	October 31, 2020
Review notification (Accept/Reject/Revision):	February 28, 2021 or earlier
Revised paper submission:	May 16, 2021
Final acceptance notification:	May 31, 2021
Publication:	Autumn 2021

Papers suffering from the lower quality, high percentages of plagiarism and out of scope to this special issue will be desk rejected. We only select high quality papers for eventual publication.

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