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Special Issue on Multimedia-based Healthcare

Summary:
Computerized healthcare is emerging as a multidisciplinary area with fast development which is accelerating rapidly by the increasing technological capabilities and growing desire to enhance medical service and healthcare. The advances in multimedia computing stimulate smart healthcare to a new era by offering better insight of complex health related multimedia content to support decision making for effective healthcare. However, it remains a challenging task and is highly desired to develop new and powerful multimedia computing methods to embrace diverse health information with a general framework to facilitate data representation, storage, analysis and integration for healthcare applications with consistency, objectiveness scalability and cost-effectiveness.

This special issue aims to provide a central forum for researchers with different background and from the diverse fields of engineering, computing, medicine and health science to present the latest findings and the state-of-art methodologies for the cross-area research on computerized healthcare, which includes not only the fundamental issues on data analytics in the rich context of health related multimedia data, but also the crucial components such as health data representation, management, analysis, classification, bioinformatics, machine learning, ubiquitous computing and network technologies. The goal of this special issue is to foster the state-of-art research findings, methodologies, technologies and services on a general platform of multimedia computing for diverse cross area healthcare applications with the insight into the current advances, challenges and trends. Its coverage and impact is beyond the conventional medical imaging by providing more comprehensive health related content on the aspects of diversity, complexity and generalization.

Scope:
The topics of interest of this Special Issue include, but are not limited to:

- Computer-aided diagnosis and monitoring by multimedia biosignal integration
- Context-aware e-health multimedia services and applications
- Data mining and machine learning in multimedia computing for personalized healthcare
- Distributed multimedia applications of body area networks in healthcare
- Intelligent e-health multimedia service computing in mobile clouds
- Multimedia aided dietary management for healthcare
- Multimedia assisted online training for evidence-based treatments and rehabilitation
- Multimedia supported smart health care and monitoring with wearable sensors
- Medical informatics and bioinformatics
- Multimedia big data analytics for healthcare
- Multimedia communication networks and environment for healthcare information systems and telemedicine
- Multimedia computing and computational healthcare informatics
- Multimedia content indexing and retrieval for e-healthcare
- Multimedia streaming and information security for healthcare sensors/devices/systems
- Multimodal medical signal processing: Data acquisition, representation, fusion, classification
- Other multimedia computing techniques, algorithms and innovative methods for healthcare information management

Please note that the topic of medical imaging papers suitable for IEEE Transactions on Medical Imaging should not be included in this special issue.

Important Dates:

- Manuscript submission deadline: January 15, 2016
- First-round review notification: March 15, 2016
- Manuscript revision due: April 15, 2016
- Final acceptance notification: May 15, 2016
- Camera-ready manuscript due: June 1, 2016
- Publication: September 2016

Submission Procedure:
Prospective authors should submit original manuscripts that have not appeared, nor are under consideration, in any other journal. Prospective authors are required to follow the Author’s Guide for manuscript submission to the IEEE Transactions on Multimedia (TMM) at http://www.signalprocessingsociety.org/tmm/tmm-author-info/, and manuscripts should be submitted electronically through the online IEEE manuscript submission system at http://mc.manuscriptcentral.com/tmm-ieee. By submitting/resubmitting your manuscript to this transactions, you are acknowledging that you accept the rules established for publication of manuscripts, including agreement to pay all over-length page charges, color charges, and any other charges and fees associated with publication of the manuscript. Manuscripts (both 1-column and 2-column versions are required) should be submitted electronically through the online IEEE manuscript submission system at http://mc.manuscriptcentral.com/tmm-ieee. All the submitted papers will go through the same review process as that for the regular TMM paper submissions. Referees will consider originality, significance, technical soundness, clarity of exposition, and relevance to the special issue topics above.

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