

CBMS 2020: <http://cbms2020.org> (follow link for more information).

May 14, 2020

**A) List of regular papers (CBMS2020):**

- 3 Identification of Periodic Changes in Fetal Heart Rate Using Cardiotocograph
- 4 Intrinsic and Extrinsic Evaluation of the Quality of Biomedical Embeddings in Different Languages
- 5 Short Paper: Fall Detection in Clinical Notes using Language Models and Token Classifier
- 7 Machine Learning Early Warning System: a Multicenter Validation in Brazilian Hospitals
- 8 Gradient Boosting on Decision Trees for Mortality Prediction in Transcatheter Aortic Valve Implantation
- 10 BreastNet: Breast Cancer Categorization Using Convolutional Neural Networks
- 18 ToriNeko: A Serious Game Based on Go/NoGo Task to Estimate Inattentiveness and Impulsivity Symptoms
- 20 An Open Source Software Architecture and Ready-To-Use Components for Health IoT
- 21 The OCARIoT Data Acquisition App
- 22 Towards The Use of Smart Home Sensor Networks to Generate Predictive Activity Models
- 26 Analysis of new nosological models from disease similarities using clustering
- 27 O2PF: Oversampling via Optimum-Path Forest for Breast Cancer Detection
- 28 Augmentation techniques for sequential clinical data to improve Deep Learning prediction techniques
- 29 Mobile Fluorescence Imaging and Protein Crystal Recognition
- 32 DermaDL: advanced Convolutional Neural Networks for automated melanoma detection
- 33 Optimal spectral bands for instrument detection in microscope-assisted surgery
- 35 Semi-Automatic Ulcer Segmentation and Wound Area Measurement Supporting Telemedicine
- 36 iASiS Open Data Graph: Automated Semantic Integration of Disease-Specific Knowledge
- 37 Exploring Visual Attention and Machine Learning in 3D visualization of medical temporal data
- 38 Deep Learning-Based Estimation of Non-Specific Uptake in Amyloid-PET Images from Structural MRI for Improved Quantification of Amyloid Load in Alzheimer's Disease

- 43 InTracker: An Integrated Detector-tracker Framework for Cell Detection and Tracking
- 44 Improved deep learning classification of human sleep stages
- 52 Analysis of Scoliosis from Spinal X-Ray Images
- 54 Inter-center cross-validation and finetuning without patient data sharing for predicting transcatheter aortic valve implantation outcomes
- 55 Automatic Primary Gross Tumor Volume Segmentation for Nasopharyngeal Carcinoma using ResSE-UNet
- 57 3D Convolutional Neural Networks for Diagnosis of Alzheimer's Disease via structural MRI
- 58 Cross-Population Train/Test Deep Learning Model: Abnormality Screening In Chest X-rays
- 59 Real-time Feedback for Colonoscopy in a Multi-center Clinical Trial
- 61 MCRB: A multiclassifier tool for risk of bias assessment in a systematic review to produce health evidence to decision making
- 62 Segmentation of Anterior Tissues in Craniofacial Cone-Beam CT Images
- 66 Efficient Segmentation of Cell Nuclei in Histopathological Images
- 68 Nanodevices Based on Quantum Mechanics and Classical Electrodynamics as Vascular Endothelial Growth Blockers to Detain Angiogenesis
- 69 PROSISY: PROspective Stroke Identification SYstem Based on Cognitive Radio Theory and Machine Learning
- 71 Mobile Supported Health Services: Experiences in Orthopaedic care
- 72 The Feynman Propagator to Model Molecular Communications Between NanoDevice and Beta Cells
- 75 A Novel Approach on Segmentation of AgNOR-Stained Cytology Images Using Deep Learning
- 79 Image classification of cyanobacteria *Microcystis aeruginosa* in raw water samples in <hidden info> region
- 84 Towards Supporting Childhood Atopic Dermatitis Management: A User-Centered Design Approach
- 85 Event-Driven Framework for Detecting Unusual Patterns in AAL Environments
- 86 Mental Health Ubiquitous Monitoring: Detecting Context-Enriched Sociability Patterns Through Complex Event Processing
- 88 Creating a metamodel based on machine learning to identify the sentiment of vaccine and disease-related messages in Twitter: the MAVIS study
- 90 Enhancing Recall Using Data Cleaning for Biomedical Big Data
- 96 Improvement of skin disease identification system using Generative AI

- 98 Improving Data Quality in Medical Research: A Monitoring Architecture for Clinical and Translational Data Warehouses
- 99 A Deep Profiling and Visualization Framework to Audit Clinical Assessment Variation
- 100 B-Move: A transmission scheduler based on human body movements for WBANs
- 101 Obstructive Sleep Apnea compliance: modeling home care patient profiles
- 104 Strep Throat Detection Using Smartphone
- 105 Bag-of-Attributes Representation: a Vector Space Model for electronic health records analysis in OMOP
- 107 Nano Currents and the Beginning of Renal Damage: A Theoretical Model
- 108 A HW/SW system to detect Druses in retinal fundus image for the diagnostic of Age Related Macular Degeneration
- 110 Real-time detection of glomeruli in renal pathology
- 111 A Coarse-to-Fine Data Generation Method for 2D and 3D Cell Nucleus Segmentation
- 117 Grading Quality of Color Retinal Images to Assist Fundus Camera Operators
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- 15 Gamification of Balance Exercises with Intervention Techniques and Feedback System using Intervention, Motivation, and Game Design Analyses: A Pre-clinical Study
- 74 Segmentation, Detection and Classification of Cell Nuclei on Oral Cytology Samples Stained with Papanicolaou
- 87 Wearable Devices and Measurement Data: An Empirical Study on eHealth and Sharing
- 93 Identifying Post-Traumatic Stress Symptoms Using Physiological Signals and Data Mining
- 106 Lung Cancer Diagnosis Extraction from Clinical Notes written in Spanish
- 123 PRINCESS: Prediction of Individual Breast Cancer Evolution to Surgical Size
- 125 Exploring hippocampal asymmetrical features from magnetic resonance images for the classification of Alzheimer's disease
- 134 Evaluating Local Interpretable Model-Agnostic Explanations on Clinical Machine Learning Classification Models
- 135 PSYKOSE: A Motor Activity Database of Patients with Schizophrenia
- 136 Transfer Learning and Fine Tuning in Mammogram BI-RADS Classification
- 138 Ontology-Based Management of Cranial Computed Tomography Reports
- 140 A Computational Method for Breast Abnormality Detection Using Thermographs

- 146 OCTx: Ensembled Deep Learning Model to Detect Retinal Disorders
- 151 Epileptic Seizure Prediction based on Region Correlation of EEG Signal
- 155 Deep Learning Architectures for Medical Image Segmentation
- 157 Mobile-Augmented Smart Queue Management System for Hospitals
- 158 A Clustering Framework for Patient Phenotyping with Application to Adverse Drug Events
- 162 Using PAPAYA in eHealth - Use Case Analysis and Requirements
- 163 An Online Learning Approach for Dengue Fever Classification
- 164 Ensemble Learning based on Convolutional Neural Networks for the Classification of Retinal Diseases from Optical Coherence Tomography Images
- 167 DoubleU-Net: A Deep Convolutional Neural Network for Medical Image Segmentation
- 170 On using meta-features to learn under class skew in biomedical domains
- 174 Radiomics-based non-invasive lymph nodemetastases prediction in breast cancer
- 175 Accurate Chronic Wound Area Measurement using Structure from Motion
- 176 Sensory Effects in Cognitive Exercises for Elderly Users: Stroop Game
- 178 Classification of Electroencephalogram Signals for Detecting Predisposition to Alcoholism using Computer Vision and Transfer Learning
- 179 An approach to BI-RADS uncertainty levels classification via deep learning with transfer learning technique
- 184 Evaluation of Real-Time Remote 3D Rendering of Medical Images using GPUs
- 188 Adaptation of IDPT system based on patient-authored text data using NLP
- 189 Time-window SIQR analysis of COVID-19 outbreak and containment measures in Italy

**B) List of short papers (CBMS2020):**

- 13 Implementing equitable shared cancer patient care between general practitioners and radiation oncologists: the promise of technology.
- 19 Assessment of Medical Reports Uncertainty through Topic Modeling and Machine Learning

- 23 Utilizing Oncology-Related Social Media Content to Model Information-Seeking Behaviors towards a Model of Shared Decision Making
- 24 Protecting Electronic Health Records in Transit and at Rest
- 31 Lig-Doctor: real-world clinical prognosis using a bi-directional neural network
- 34 Pixel-Based Tool Segmentation in Cataract Surgery Videos with Mask R-CNN
- 40 Identification of Temporal Changes on Patients at Risk of LONS with TPRMine: A Case Study in NICU
- 41 Application of TPRMine method for Identification of Temporal Changes on Patients with COPD: A Case Study in Telehealth
- 64 Subgrouping Rare Disease Patients Leveraging the Human Phenotype Ontology Embeddings
- 65 Characterizing Sub-Cohorts via Data Normalization and Representation Learning
- 67 MATURE: Recommender System for MAndatory FeaTURE choices
- 73 The Benefits of Graph Databases for the Computation of Clinical Quality Measures
- 89 Mobile Health App Database - A Repository for Quality Ratings of mHealth Apps
- 92 A virtual assistant for cybersickness care
- 94 An m-health Application for Remote Monitoring of People with Bipolar Disorder through Digital Phenotyping and Smartphone Dependency
- 95 Cyber Autopsies: The Integration of Digital Forensics into Medical Contexts
- 97 Converting Clinical Pathways to BPM+ Standards: A Case Study in Stable Ischemic Heart Disease
- 103 Enrich Rare Disease Phenotypic Characterizations via a Graph Convolutional Network based Recommendation System
- 114 TremorTrack: A Privacy-Aware Solution for Monitoring Parkinsonian and Essential Tremors
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- 63 Deep Neural Networks for Foreign Object Detection in Chest X-rays
- 76 A Gamification-based Framework for mHealth Developers in the Context of Self-Care
- 126 A data-driven approach for analyzing healthcare services extracted from clinical records
- 141 A New Strategy for Detect Diabetic Retinopathy using a Smartphone App and Machine Learning Methods Embedded on Cloud Computer
- 148 Detection of muscle fatigue by fusion of agonist and synergistic muscle sEMG signals

- 149 Mining disproportional frequent arrangements of event intervals for investigating adverse drug events
- 154 Semantic Features Aided Multi-Scale Reconstruction of Inter-Modality Magnetic Resonance Images
- 159 Clinical Predictive Keyboard using Statistical and Neural Language Modeling
- 161 Towards monitoring patients with Alzheimer's Disease activity using distributed tangible tabletops and dual reality
- 171 Multi-language Concept Normalisation of Clinical Cohorts
- 173 A Recommender System to Help Discovering Cohorts in Rare Diseases

**Note:** If you find errors/typos and/or any kind of mistakes, please contact [santosh.kc@ieee.org](mailto:santosh.kc@ieee.org).

Registration link: <https://tinyurl.com/ydap6tnm>

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General Chairs and Program Chairs

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