

## Biomedical and Health Informatics (BHI) Workshop

December 16,17,18 (First Day)

Workshop Chairs: Illhoi Yoo

9:00-1:00pm	
	Welcome (Chair)
S12202 S	Ioannis Konstantoulas, Otilia Kocsis, Nikos Fakotakis, and Konstantinos Moustakas, <i>An approach for continuous sleep quality monitoring integrated in the SmartWork system</i>
S12205 F	Cristina Soguero-Ruiz, Natalia Alonso Arteaga, Sergio Muñoz-Romero, José Luis Rojo-Martínez, Manuel Rubio-Sánchez, Isabel Caballero López-Fajardo, and Inmaculada Mora-Jiménez, <i>Finding Associations among Chronic Conditions by Bootstrap and Multiple Correspondence Analysis</i>
S12207 S	Frederick Booth, Maurice Mulvenna, Raymond Bond, Kieran McGlade, and Debbie Rankin, <i>Examining the Effect of Deprivation on Prescribing Behaviours in Northern Ireland</i>
B482 S	Saša Čuković, Radu Emanuil Petrusse, Lea Buchweitz, and Gerrit Meixner, <i>Supporting Diagnosis and Treatment of Scoliosis: Using Augmented Reality to Calculate 3D Spine Models in Real-Time - ARScoliosis</i>
B648 S	Shelly Sachdeva, Disha Batra, and Shivani Batra, <i>Storage Efficient Implementation of Standardized Electronic Health Records Data</i>
S12208 F	Eva Lee and Jinha Lee, <i>Competition Strategy for Healthcare Insurance Plans</i>
B225 F	Maryam Tavakoli Hosseinabadi, Tianyi Xie, Jingyi Shi, Mirsad Hadzikadic, and Yaorong Ge, <i>Predicting Neural Deterioration in Patients with Alzheimer's Disease Using a Convolutional Neural Network</i>
B240 F	Nasibeh Zanjirani Farahani, Divaakar Siva Baala Sundaram, Moein Enayati, Shivaram Poigai Arunachalam, Kalyan Pasupathy, and Adelaide Arruda-Olson, <i>Explanatory Analysis of a Machine Learning Model to Identify Hypertrophic Cardiomyopathy Patients from EHR Using Diagnostic Codes</i>
B253 S	Ifeoma Anunoby, Vovanti Jones, Alexander Brown, and Carmen Cirstea, <i>Cortical tonic GABAergic inhibition – preliminary insights from MR Spectroscopy of subacute stroke</i>
B263 F	Somya Mohanty, Deborah Lekan, Thomas McCoy, Marjorie Jenkins, and Prashanti Manda, <i>A multi-modal machine learning approach towards predicting patient readmission</i>
S12201 S	Zhiwei LIANG, Pan ZHANG, Baoyan LIU, Nenggui XU, Lu TIAN, and Ying LU, <i>A data capture model and its associate study on the public web published COVID-19 data</i>
S12204 F	Wen-Yang Lin and Zhi-Xun Shen, <i>Embracing Differential Privacy for Anonymizing Spontaneous ADE Reporting Data</i>
B508 F	Jewel Mae Cadiz, Christine Joy Susana, Marla Endriga, and Enrique Jose Frio, <i>Molecular Docking of Traditional Chinese Medicinal Compounds Against Dengue Virus NS3 Protease and NS3 Helicase</i>
B544 F	Yang Wang, Yiping Lin, Guoli Ji, and Jinting Guan, <i>Gene Screening for Autism Based on Cell-type-specific Predictive Models</i>
B583 S	Zheng Chen, Naoaki Ono, MD Altaf-Ul-Amin, Shigehiko Kanaya, and Ming Huang, <i>iVAE: An Improved Deep Learning Structure for EEG Signal Characterization and Reconstruction</i>
B590 F	Shuai Wang and Junfei Liu, <i>ClinicNet: Clinical Practice Oriented Medical Representation Learning for Electronic Medical Records</i>

## Biomedical and Health Informatics (BHI) Workshop

December 16,17,18 (Second Day)

Workshop Chairs: Illhoi Yoo

10:00-1:00pm	
B539 F	Abolfazl Meyarian, Himan Namdari, Xiaohui Yuan, John Roeske, and Mark Albert, <i>Phantom Tumor Tracking in Dual-Energy Fluoroscopy using a Kalman Filter</i>
B552 S	Albert Park, Chuqin Li, Jessamyn Bowling, Yaorong Ge, and Michael Dulin, <i>Diet, Weight loss, Fitness, and Health related Image Sharing using Twitter: an Observation Study</i>

B566 F	Eva Lee and Karan Uppal, <i>OptSelect: an R package for ensemble feature selection and stability assessment</i>
B638 F	Shou-Jen Wang, Jeong-Ho Park, Hyung-Soon Park, Devak Nanda, and Mark V. Albert, <i>Wearable spasticity estimation and validation using machine learning</i>
B324 F	Alex Felmeister, Angela Waanders, Jennifer Mason, Jeff Stevens, L. Charles Bailey, Shiva Ganesan, and Ingo Helbig, <i>A Framework for Analysis, Ontological Evaluation, and Visualization in Preparation to Predictive Analytics in Pediatric Brain Tumor Research</i>
B405 F	Danielle Alves, Valeria Cesário Times, Amadeu Campos Filho, Fred Revoredo Rabelo Ferreir, Erika Maria Alves da Silva, and Magdala Araújo Novaes, <i>Analysis an Electronic Health Record based on Hedonic and Pragmatic Aspect of the User Experience</i>
B716 F	Yibin Wang, Christian Zamiela, Toms V. Thomas, William N. Duggar, P. Russell Roberts, Linkan Bian, and Haifeng Wang, <i>3D Texture Feature-Based Lymph Node Automated Detection in Head and Neck Cancer Analysis</i>
B679 S	Marcela de Oliveira, Felipe Balistieri Santinelli, Marina Piacenti-Silva, Fernando Coronetti Gomes Rocha, Fabio Augusto Barbieri, Paulo Noronha Lisboa-Filho, Jorge Manuel Santos, and Jaime dos Santos Cardoso, <i>Quantification of Brain Lesions in Multiple Sclerosis Patients using Segmentation by Convolutional Neural Networks</i>
S12206 F	Delong Zhang, Mengqun Jin, and Peng Cao, <i>ST-MetaDiagnosis: Meta learning with Spatial Transform for rare skin disease Diagnosis</i>
B265 F	Hang-Jin Yang, Yu-Ying Zhao, Jin-Xing Liu, Yu-Xia Lei, and Jun-Liang Shang, <i>Sparse Regularization Tensor Robust PCA Based on t-product and Its Application in Cancer Genomic Data</i>
B267 F	Haifeng Xu, Jianfei Pang, Xi Yang, Liqun Ma, Huajian Mao, and Dongsheng Zhao, <i>Applying clinical guidelines to conformance checking for diagnosis and treatment: a case study of ischemic stroke</i>
B284 F	Po-Yu Liang, Tun-Wen Pai, and Lee-Jyi Wang, <i>Prediction of patients with heart failure after myocardial infarction</i>
B297 F	Shuting Sun, Huayu Chen, Xuexiao Shao, Liangliang Liu, Xiaowei Li, and Bin Hu, <i>EEG Based Depression Recognition by Combining Functional Brain Network and Traditional Biomarkers</i>
B312 F	Songchun Yang, Xiangwen Zheng, Fan Tong, Huajian Mao, and Dongsheng Zhao, <i>A Novel Algorithm of Expansion Term Selection and Weight Assignment for Query Expansion of Chinese EMR Retrieval</i>
B664 S	Azni Nasuha Ngisa and Huey Fang Ong, <i>Identifying High-Risk Breast Cancer Patients Using Microarray and Clinical Data</i>
B591 S	Shuai Wang and Junfei Liu, <i>TAGNet: Temporal Aware Graph Convolution Network for Clinical Information Extraction</i>

## Biomedical and Health Informatics (BHI) Workshop

December 16,17,18 (Third Day)

*Workshop Chairs: Illhoi Yoo*

<b>10:00-1:00pm</b>	
B684 F	Nahom Kidane, Mohammad Obeid, Rick McKenzie, Robert Kelly, and Robert Obermeyer, <i>Statistical Chest Shape Modeling: Application to the Evaluation of Pectus Excavatum Treatment Outcomes</i>
B685 S	Ana Almeida, Francisco Oliveira, Rui Lebre, and Carlos Costa, <i>NoSQL distributed database for DICOM objects</i>
B692 S	Maira Moran, Marcelo Faria, Gilson Giraldo, Luciana Bastos, Bruno Inacio, and Aura Conci, <i>On using convolutional neural networks to classify periodontal bone destruction in periapical radiographs</i>
B694 F	Nuerzati Resuli, Marjorie Skubic, and Scott Kovaleski, <i>Learning Room Structure and Activity Patterns Using RF Sensing for In-Home Monitoring of Older Adults</i>
B705 S	Mingjia Li, Nishita Prasad, Dwight Hall, and Huanmei Wu, <i>Analysis of SARS-CoV-2 sequences reveals transmission path and emergence of SD 614G mutation</i>

B717 S	Yikuan Li, Hanyin Wang, and Yuan Luo, <i>A Comparison of Pre-trained Vision-and-Language Models for Multimodal Representation Learning across Medical Images and Reports</i>
B761 F	Ling Zheng and Joan Kapusnik-Uner, <i>Can MED-RT Summarization Support Missing Adverse Drug Reactions Discovery?</i>
B347 F	Xiaofang Sun, Bin Hu, Xiangwei Zheng, Cun Ji, and Yongqiang Yin, <i>Emotion Classification Based on Brain Functional Connectivity Network</i>
B375 F	Yue Fei, Xiaoqian Huang, Qinqun Chen, Jiamin Chen, Li Li, Jiaming Hong, Zhifeng Hao, and Hang Wei, <i>Automatic Classification of Antepartum Cardiotocography Using Fuzzy Clustering and Adaptive Neuro-Fuzzy Inference System</i>
B424 F	Lanting Li and Peng Cao, <i>A robust fuzzy clustering algorithm using spatial information combined with local membership filtering for brain MR images</i>
B444 F	Rui Cheng, Liming Yuan, Haixia Xu, Zhenliang Li, and Xianbin Wen, <i>Learnable Bag Similarity Based Deep Multi-Instance Network for Breast Cancer Diagnosis</i>
B447 F	Yu Yang, Haifeng Xu, Bin Qi, Xiaodong Niu, Mei Li, and Dongsheng Zhao, <i>Stroke screening data modeling based on openEHR and NINDS Stroke CDE</i>
B479 F	He Xiao, Qingfeng Wang, Zhiqin Liu, Jun Huang, Yuwei Zhou, Ying Zhou, and Weiyun Xu, <i>CSABlock-based Cascade RCNN for Breast Mass Detection in Mammogram</i>
B778 S	Junsol Kim, <i>Academic journal recommendation for human neuroimaging studies via brain activation-based filtering</i>
B608 F	Hang Chen, Leiting Chen, Yuchu Chen, Minghao Fan, and Chuan Zhou, <i>SEAUNet: Domain Adaptation for Biomedical Image Segmentation</i>
	<b>Closing Remarks</b>