Workshop Sessions on 13 December 2024

The International Workshop: Generative AI Empowers Brain Signal Processing (GAIEBSP 2024)

Chairs: Shuqiang Wang, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China, Sadia Shakil, The Chinese University of Hong Kong, Hong Kong & Baiying Lei, Shenzhen University, China

Location: KX Building (11th Floor) - Conference Room X01
Date: 13 December 2024
Time: 1:00 PM - 4:00 PM
Local Chairs: Titipat Achakulvisit, Department of Biomedical Engineering, Mahidol University, Thailand & Kejkaew Thanasuan, Media Technology Program and Neuroscience Center for Research and Innovation, KMUTT, Thailand

Schedule:

1:00 PM - 1:15 PM - Invited Talk
Title: AI for Brain Functionality under Naturalistic Stimulation
Speaker: Sadia Shakil
Institution: The Chinese University of Hong Kong, Hong Kong

1:15 PM - 1:30 PM - Paper Presentation
S02205: Brain Functional Topologies under Short Reel Stimuli
Author(s): Abdul Rehman Khan, Sadia Shakil, Raymond Kai Yu Tong
Institution(s): The Chinese University of Hong Kong, Hong Kong

1:30 PM - 1:45 PM - Paper Presentation
S02207: Exploring Default Mode Network Association with Naturalistic Stimuli Using Topological Data Analysis
Author(s): Iqra Ejaz and Sadia Shakil
Institution(s): BiCoNeS lab, Department of Electrical Engineering, Institute of Space Technology (IST), Islamabad, Pakistan; The Chinese University of Hong Kong, Hong Kong

1:45 PM - 2:00 PM - Paper Presentation
S02212: Comparative Analysis of Channel Selection Methods for EEG-Based Emotion Recognition Balancing Accuracy and Efficiency
Author(s): Xintong Li, Xiaofeng Liu, Xiang Zhang, Xu Zhou, Xiaoqin Zhou
Institution(s): Hohai University, China; University of North Carolina, USA

2:00 PM - 2:15 PM - Paper Presentation
S02210: NeuroNetGen: AI-Driven Construction of Structural Brain Networks from Diffusion Tensor Imaging
Author(s): Xuhang Chen, Yihang Dong, Shuqiang Wang
Institution(s): Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, China

2:15 PM - 2:30 PM: Coffee Break

2:30 PM - 2:45 PM - Paper Presentation
S02208: Federated Multi-source Domain Adaptation via Vision Transformer for Multi-site Alzheimer's Diagnosis
Author(s): Tuo Cai, Baiying Lei, Xueqin Yan, Cuimei Wei, Chunhua Liang, Xiaohua Xiao, Tianfu Wang, Yunzhu Yang, Peng Yang
Institution(s): Shenzhen University, China; Shenzhen Second People's Hospital, China; Affiliated Hospital of Shenzhen University, China

2:45 PM - 3:00 PM - Paper Presentation
S02204: Intelligent Diagnosis Platform for Alzheimer's Disease Based on Multimodal Knowledge Graph
Author(s): Jiaqiang Li, Peng Yang, Jiuwen Cao, Zhenghua Guan, Junlong Qu, Lei Dong, Xueqin Yan, Cuimei Wei, Chunhua Liang, Xiaohua Xiao, Tianfu Wang, Baiying Lei
Institution(s): Shenzhen University, China; Hangzhou Dianzi University, China; Shenzhen Second People's Hospital, China; Affiliated Hospital of Shenzhen University, China

3:00 PM - 3:15 PM - Paper Presentation
S02203: Spatiotemporal Feature Extraction and Fusion for Longitudinal Alzheimer's Disease Diagnosis
Author(s): Zhenghua Guan, Peng Yang, Haijun Lei, Bao Yang, Xuegang Song, Lei Dong, Xueqin Yan, Cuimei Wei, Chunhua Liang, Xiaohua Xiao, Tianfu Wang, Baiying Lei
Institution(s): Shenzhen University, China; Shenzhen Second People's Hospital, China; Affiliated Hospital of Shenzhen University, China

3:15 PM - 3:30 PM - Paper Presentation
S02201: Brain Causality Modeling Using Structure-guided Spatiotemporal Diffusion Model for MCI Analysis
Author(s): Yanfei Zhu, Jiangtao Wang, Xuan Cheng, Junyi Chen, Hui Wei, Libin Lu, Zhi Yang, Qiankun Zuo
Institution(s): Sun Yat-Sen University, China; Hubei University of Economics, China; Wuhan Polytechnic University, China; Sichuan University, China

3:30 PM - 3:45 PM - Paper Presentation
S02206: Feature Fused Attention CNN for Classification in Alzheimer's Disease
Author(s): Ziyin Ren, Shuqiang Wang, Sadia Shakil, Raymond Tong
Institution(s): The Chinese University of Hong Kong, Hong Kong; Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

3:45 PM - 4:00 PM - Paper Presentation
B279: DoA Assessment based on EEG DFA and Entropy Features
Author(s): Xing Chen, Bo Song, Peng Wen
Institution(s): University of Southern Queensland, Australia

Note: each paper presentation includes 12-min talk + 3-min Q&A

The 4th International Workshop on Environmental Adaptation and Mental Health (EAMH 2024)

Chairs (online): Yang Yang, Yidi Chen, Zelong Meng, & Huixin Hu, Beijing Forestry University, China

Location: KX Building (11th Floor) - Conference Room X02
Date: 13 December 2024
Time: 1:30 PM - 4:50 PM
Local Chairs: Singh Intrachooto & Sarigga Pongsuwan, Research and Innovation Sustainability Center, Thailand & Kanda Lertladaluck, Neuroscience Center for Research and Innovation, KMUTT, Thailand

Schedule:

1:30 PM - 1:40 PM - Opening (online)
Speaker: Yang Yang
Institution(s): Beijing Forestry University, China

1:40 PM - 2:20 PM: Invited Talk (online)
Title: The impact of online games and short videos on the emotion and cognitive function of adolescents
Invited Speaker: Shuping Tan, Director of the Mental Health Research Center,
Beijing Huilongguan Hospital, China

2:20 PM - 3:00 PM: Invited Talk (online)
Title: Human escaping decisions: Mechanistic insights from intracranial recordings
Invited Speaker: Haiyan Wu, Centre for Cognitive and Brain Sciences,
University of Macau, China

3:00 PM - 3:10 PM: Coffee Break

3:10 PM - 3:40 PM - Workshop Discussion (hybrid)

3:40 PM - 4:00 PM - Paper Presentation
S06203: The effect of color temperature on subjective rating and neural indexes of stress and behavioral performance in a virtual environment
Author(s): Nattapat Tanjariyporn, Supunnapong Raksawong, Napol Kieatkongmanee, Sittha Preedapirat, Singh Intrachooto, Sirawaj Itthipuripat, Sarigga Pongsuwan
Institution(s): Research & Innovation for Sustainability Center, Thailand; King Mongkut's University of Technology Thonburi, Thailand

4:00 PM - 4:20 PM - Paper Presentation (online)
S06201: The Role of Episode Simulation in Influencing Junior Middle School Students' Future Time Insight and Subjective Well-being
Author(s): Zixi Zong, Xiuya Lei, Yang Yang
Institution(s): National Center for Mental Health, China; Beijing Forestry University, China

4:20 PM - 4:40 PM - Paper Presentation (online)
S06202: Self-determined or non-self-determined? Research on the influence of internal and external motivations on fund investment decisions
Author(s): Junwen Mo, Yufei Chang, Chenxi Li, Meichen Wang, Yilin Meng, Yang Yang
Institution(s): Beijing Forestry University, China

4:40 PM - 4:50 PM: Closing

Note: each paper presentation includes 15-min talk + 5-min Q&A

Workshop Sessions on 14 December 2024

The International Workshop on Reconstruction and Modeling of the Brain at the Single-Cell Level (RMBSCL 2024)

Chairs: Yufeng Liu & Lijuan Liu, Southeast University,
Weiyao Lin, Shanghai Jiao Tong University & Guoqiang Yu, Tsinghua University, China

Location: KX Building (11th Floor) -Conference Room X11.7
Date: 14 December 2024
Time: 10:00 AM - 11:55 AM
Local Chairs: Duanghathai Wiwatratana, Neuroscience Center for Research and Innovation, KMUTT, Thailand & Tai Chaiamarit, Mahidol University, Thailand

Schedule:

10:00 AM - 10:20 AM - Invited Talk
Title: Cortical Dynamics and Underlying Mechanisms in Sleep Stage Transitions
Invited Speaker: **Yina Wei**
Institution: Zhejiang Lab, China

10:20 AM - 10:40 AM - Invited Talk
Hippocampal Sharp-Wave Ripple Transmission in Cortical Neural Networks
Invited Speaker: **Hao Si**
Institution: Zhejiang Lab, China

10:40 AM - 10:55 AM - Paper Presentation
S10205: High Throughput Training Label Generation from Whole Brain Images
Author(s): **Karl Marrett**, Keivan Moradi, Ming Yan, Chris Choi, Muye Zhu, Masood Akram, Sumit Nanda, Qing Xue, Hyun-Seung Mun, Adriana E. Gutierrez, Mitchell Rudd, Brian Zingg, Gabrielle Magat, Kathleen Wijaya, Hongwei Dong, X. William Yang, Jason Cong, Chris Sin Park
Institution(s): University of California, Los Angeles, USA

10:55 AM - 11:10 AM - Paper Presentation
S10201: BCF: An Integrated Framework to Reconstruct Whole-Brain Single-Neuron Connectivity in Mouse Brains
Author(s): **Feng Xiong**
Institution(s): Southeast University, China

11:10 AM - 11:25 AM - Paper Presentation
S10204: Smart Scope Platform (SSP): Enhancing Real-Time Microscopy Analysis Through Rapid Deep Learning Integration
Author(s): **Di Liu**
Institution(s): Southeast University, China
11:25 AM - 11:40 AM - Paper Presentation

S10203: Cell Typing and Sub-typing Based on Detecting Characteristic Subspaces of Morphological Features Derived from Neuron Images
Author(s): **Sujun Zhao**
Institution(s): Southeast University, China

11:40 AM - 11:55 AM: - Paper Presentation
S10202: Build Brain Atlases with Mobile Phones: A Crowd-Reconstructing and Cloud-Mapping Platform for Brain-Wide Neuron Morphologies
Author(s): **Lingli Zhang**
Institution(s): Southeast University, China

Note: each paper presentation includes 12-min talk + 3-min Q&A

The International Workshop on Elucidation of Mechanistic Information using Neuroimaging for Psychiatric Disorders (EMINPD 2024)

Chairs (online): Xiaofu He, Bin Xu & Xi Zhu, New York State Psychiatric Institute & Columbia University, USA & Yunyu Xiao, Cornell University, USA

Location: KX Building (11th Floor) -Conference Room X11.1
Date: 14 December 2024
Time: 09:00 AM - 11:00 AM (09:00 PM- 11:00 PM EST)
        Local Chair: Thitaporn Chaisilprungraung, Neuroscience Center for Research and Innovation, KMUTT, Thailand

Schedule:

9:00 AM - 9:05 AM - Opening (Online)
Speaker(s): Xiaofu He & Bin Xu
Institution(s): New York State Psychiatric Institute & Columbia University, USA

9:05 AM - 9:45 AM - Invited Talk (Online)
Title: Using multi-omic approaches to dissect brain cell types in serious mental illness
Invited speaker: Anton Schulmann
Institution: Columbia University Irving Medical Center, USA

9:45 AM - 10:00 AM - Paper Presentation (Online)
S14204: Imaging Analysis of Calcium Activities in Brain Organoid Model of Neuropsychiatric Disorder
Author(s): Xiaofu He, Yutong Gao, Yian Wang, Xuchen Wang, Qifan Jiang, Bin Xu
Institution(s): New York State Psychiatric Institute, USA; Columbia University, USA

10.00 AM - 10:15 AM - Paper Presentation (Online)

S14202: Predicting fMRI Signals from Single-Channel EEG Using Deep Learning

Author(s): Luyu Huang, Jingru Gong, Zhu Xi, Xiaofu He

Institution(s): New York State Psychiatric Institute, USA; Columbia University, USA

10:15 AM - 10:30 AM - Paper Presentation(Online)
S14201: Two neuroanatomical biotypes of schizophrenia identified by using machine learning on brain MR images from 11,260 individuals

Author(s): Yuchao Jiang, Cheng Luo, Dezhong Yao, Cheng Wei, Jianfeng Feng

Institution(s): Fudan University, China

10:30 AM - 10:45 AM - Paper Presentation (Online)

S14205: Multimodal Whole-Brain Trait-like and State-like Predictors for Prolonged Exposure Treatment

Author(s): Fatima Rizwan, Xi Zhu, Sigal Zilcha-Mano, Or Duek, Luyu Huang, Yuval Neria, Ilan Harpaz-Rotem

Institution(s): New York State Psychiatric Institute, USA; Ben-Gurion University of the Negev, Israel; Yale University, USA

10:45 AM - 11:00 AM - Paper Presentation (Online)

S14203: White Matter Integrity in Youth with Suicide Ideation/Suicide Attempt, Major Depressive Disorder, and Comorbidities: A Diffusion Tensor Imaging Study

Author(s): Yixuan Wang, Yue Wang, Yuan Meng, Yunyu Xiao, Xiaofu He

Institution(s): Columbia University, USA; Weill Cornell Medicine/NewYork-Presbyterian, USA; New York State Psychiatric Institute, USA

Note: each paper presentation includes 12-min talk + 3-min Q&A

The International Workshop on Computational Tools for Cognition (CTC 2024)

Chairs (online): Stephanie Neilli, Occidental College, USA,
Ioannis Pappas, University of Southern California, USA &
Nuttida Rungratsameetaweemana, Columbia University, USA

Location: KX Building (11th Floor) -Conference Room X11.2
Date: 14 December 2024
Time: 9:30 AM - 12:00 PM
Local Chairs: Titipat Achakulvisit, Department of Biomedical Engineering, Mahidol University, Thailand; Maytus Piriyajitakonkij, The University of Manchester, UK & Agency for Science, Technology and Research (A*STAR), Singapore

Schedule:

9.30-9.35AM - Opening Remark (online)
Speaker: Ioanis Pappas
Institution: University of Southern California, USA

9.35AM-9.55AM - Special Lecture (online)
Title: Cortical computations for adaptive cognition in humans and artificial networks
Speaker: Nuttida Rungratsameetaweemana
Institution: Columbia University, USA

9.55AM-10.15AM - Special Lecture (online)
Title: Elucidating the role of sensory cortical circuits in short-term memory
Invited Speaker: Robert Kim
Institution(s): Cedars-Sinai Medical Center & Columbia University, USA

10.15AM-10.35AM - Invited Talk (online)
Title: If deep learning is the answer, what is the question?
Speaker: Stephanie Neilli
Institution: Occidental College, USA

10.35AM-10.50AM - Paper Presentation (online)
S13201: Abstract learning in RNNs and Humans
Author(s): Qiyao Wang, Bansiya Pooja, Neda Rabii, Wilder Hartwell, Compton French, Stephanie Nelli
Institution(s): Occidental College, USA

10.50AM-11.05AM - Paper Presentation
S13203: What Makes a Face Look Like a Hat: Decoupling Low-level and High-level Visual Properties with Image Triplets
Author(s): Maytus Piriyajitakonkij, Sirawaj Itthipuripat, Ian Ballard, Ioannis Pappas
Institution(s): The University of Manchester, UK; Agency for Science, Technology and Research (A*STAR), Singapore; King Mongkut's University of Technology Thonburi, Thailand; University of California, Riverside; University of Southern California, USA

11.05AM-11.20AM - Paper Presentation (online)
B280: Probing cellular mechanisms for working memory computation
Author(s): Daria Kussovska, Poomirat Nawarat, James Yu, Nuttida Rungratsameetaweemana
Institution(s): Columbia University, USA; Rajamangala University of Technology Phra Nakhon, Thailand

11.20AM-11.35AM - Paper Presentation
B282: EEG-Based Detection of Epileptic Seizures Using Convolutional Neural Network
Author(s): Thitsanapat Siwarattanan, Surat Teerapittayanon, Airin Intaratat, Itthi Chatnuntawech
Institution(s): King Mongkut's University of Technology Ladkrabang, Thailand; National Nanotechnology Center, Thailand; Chonradsadornumrung School, Thailand

11.35AM-11.50AM - Paper Presentation
B283: Parkinson's Disease Classification Using Multi-Channel Recordings from VGRF Sensors and Optimal Sensor Pair Selection
Author(s): Santipab Tongchan, Surat Teerapittayanon, Airin Intaratat, Itthi Chatnuntawech
Institution(s): King Mongkut's University of Technology Thonburi, Thailand; National Nanotechnology Center, Thailand; Chonradsadornumrung School, Thailand

11.50AM-12.00 PM: Closing Remark
Speaker: Ioanis Pappas
Institution: University of Southern California, USA

Note: each paper presentation includes 12-min talk + 3-min Q&A

The International Workshop on Mesoscopic Brain-wide Connectivity Atlas (MBCA 2024)

Chairs: Anan Li (BI24 General Chair), Huazhong University of Science and Technology, China, Junjie Zhuo & Zhao Feng, Hainan University, China

Location: KX Building (11th Floor) -Conference Room X11.7
Date: 14 December 2024
Time: 1:00 PM - 5:35 PM
        Local Chairs: Duanghathai Wiwatratana, Neuroscience Center for Research and Innovation, KMUTT, Thailand & Tai Chaiamarit, Mahidol University, Thailand

Schedule:

Section I:
Chair: Anan Li (BI24 General Chair), Huazhong University of Science and Technology, China

1:00 PM - 1:30 PM - Special Lecture
Title: Computational neuroanatomy adventures in neuroinformatics
Invited Speaker: Ascoli Giorgio (BI24 General Chair)
Institution: George Mason University, USA

1:30 PM - 2:00 PM - Invited Talk (online)
Title: Efficient Storage and Sharing of Massive Biomedical Data Using Implicit Neural Representation
Invited Speaker: Jinli Suo
Institution: Tsinghua University, China

2:00 PM - 2:15 PM - Paper Presentation
S11202: Brain Region Recognition in Micro-Optical Images Based on Feature Database Retrieval
Author(s): Xin Liu, Zhao Feng, Anan Li
Institution(s): Huazhong University of Science and Technology, China; HUST-Suzhou Institute for Brainsmatics, China

2:15 PM - 2:30 PM - Paper Presentation
S11201: Mapping Sagittal-Plane Reference Brain Atlas of the Cynomolgus Macaque Based on Consecutive Cytoarchitectonic Images
Author(s) Yue Luo, Zhao Feng, Anan Li
Institution(s): Huazhong University of Science and Technology, China; HUST-Suzhou Institute for Brainsmatics, China

2:30 PM - 2:40 PM - Coffee Break

Section II
Chair: Junjie Zhuo, Hainan University, China

2:40 PM - 2:55 PM - Paper Presentation
S11211: Sex Differences in Brain Information Processing: Insights from Specific Brain Regions and Hemispheric Connectivity
Author(s): Ying Luo, Satoshi Nishida, Ichiro Kobayashi
Institution(s): Ochanomizu University, Japan; Center for Information and Neural Networks, Advanced ICT Research Institute,National Institute of Information and Communications Technology, Japan

2:55 PM - 3:10 PM - Paper Presentation
S11205: A High-Throughput Preprocessing Pipeline for Mesoscopic Optical Brain Imaging Leveraging Differential-Guided Filtering Convolutional Neural Networks
Author(s): Hong Zhang, Shilong Zhang, Peicong Gong, Zhikang Lu, Ganghua Huang, Zhao Feng, Anan Li, Chi Xiao
Institution(s): Hainan University, China; Huazhong University of Science and Technology, China

3:10 PM - 3:25 PM - Paper Presentation
S11210: Efficient Neuronal Soma Segmentation Based on Segment Anything Model
Author(s): Tianyu Hu
Institution(s): Hubei Engineering University, China

3:25 PM - 3:40 PM - Paper Presentation
S11204: Estimate the 3D Fiber Orientation Distributions of White Matter in the Mouse Brain by Integrating Mesoscopic Nissl-Staining with dMRI Data
Author(s): Zhikang Lu, Fengming Qin, Hong Zhang, Ganghua Huang, Zhanbo Zhang, Junjie Zhuo, Anan Li, Chi Xiao
Institution(s): Hainan University, China; Huazhong University of Science and Technology, China

3:40 PM - 3:55 PM - Paper Presentation
S11206: Weakly Supervised Automatic Recognition Technology for Neuron Image Big Data
Author(s): Ganghua Huang, Xinyi Cheng, Jiang Huang, Zhikang Lu, Hong Zhang, Anan Li, Chi Xiao
Institution(s): Hainan University, China; Huazhong University of Science and Technology, China

3:55 PM - 4:10 PM - Paper Presentation
S11209: BrainScope-SAM3D: An Automatic Segmentation Model for High-Throughput and High-Resolution Microscopic Brain Images
Author(s): Shilong Zhang, Hong Zhang, Peicong Gong, Chi Xiao, Zhao Feng
Institution(s): Hainan University, China

4:10 PM - 4:20 PM - Short Break

Section III:
Chair: Zhao Feng, Hainan University, China

4:20 PM - 4:50 PM - Invited Talk (online)
Title: Specialized Inputs and Outputs Patterns of Different Cerebellar Modules
Invited Speaker: Zhenyu Gao
Institution: Erasmus MC, Netherlands

4:50 PM - 5:05PM - Paper Presentation (online)
S11207: A Computational Pipeline for Spatial Distribution of the Whole-Mouse-Brain Vasculature
Author(s): Yuxin Li, Weijie He, Tao Jiang, Xiangning Li, Anan Li
Institution(s): Xi'an University of Technology, China; HUST-Suzhou Institute for Brainsmatics, China; Huazhong University of Science and Technology, China

5:05 PM - 5:20 PM - Paper Presentation
S11203: Characterization of AD Mice Brain Images Reveals Spatiotemporal Developmental Change Properties of Plaques Under Different Morphologic Classifications
Author(s): Guixuan Gong, Anan Li, Xiangning Li
Institution(s): Huazhong University of Science and Technology, China; Hainan University, China

5:20 PM - 5:35 PM - Paper Presentation
S11208: In Vivo MRI-Based Pipeline for Cross-Modality Macaque Brain Registration
Author(s): Junjie Zhuo, Zhanbo Zhang, Chi Xiao, Anan Li, Xiaoquan Yang, and Pengcheng Li
Institution(s): Hainan University, China; Huazhong University of Science and Technology, China

Note: each paper presentation includes 12-min talk + 3-min Q&A

The 2024 International Workshop: Web Intelligence meets Brain Informatics (WImeetsBI 2024 –Brain Informatics Edition)

Chairs: Jianzhuo Yan, Jianhui Chen & Jiajin Huang, Beijing University of Technology, China

Location: KX Building (11th Floor) -Conference Room X11.1
Date: 14 December 2024
Time: 2:00 PM – 4:45 PM

Local Chairs: Kajornvut Ounjai, Neuroscience Center for Research and Innovation, KMUTT, Thailand & Lalitta Suriya-Arunroj, Faculty of Medicine, Chulalongkorn University, Thailand

Schedule:

2:00 PM - 2:30 PM - Invited Talk
Title: Development of Foundational AI Models for Brain Source Imaging with Applications to Epileptogenic Zone Detection
Invited speaker: Feng Liu
Institution: Stevens Institute of Technology, USA

2:30 PM - 3:00 PM - Invited Talk
Title: Bridging Web Intelligence and Brain Informatics: Trustworthy AI for Cognitive Health Monitoring
Invited speaker**:** Angela Lombardi
Institution: Polytechnic University of Bari, Italy

3:00 PM - 3:30 PM - Invited Talk
Title: Never-Ending Learning for Systematic Understanding of High-Order Cognition
Invited speaker**:** Hongzhi Kuai
Institution: Maebashi Institute of Technology, Japan

3:30 PM - 3:45 PM - Paper Presentation
B270: Dual-Structural Representation Learning with Attention-Based Graph Fusion for Hierarchical MCI-AD Diagnosis
Author(s): Yu Cao, Hongzhi Kuai, Bixin Wang, Fengmei Fan, Guanqiao Peng, Ning Zhong
Institution(s): Beijing University of Technology, China; Maebashi Institute of Technology, Japan; Beijing Huilongguan Hospital, China; University of Illinois Urbana-Champaign, USA

3:45 PM - 4:00 PM - Paper Presentation (online)
B269: An Auxiliary Diagnosis Method for Mild Cognitive Impairment Based on Structural Magnetic Resonance Image
Author(s): Haiming Li, Linjin Wang, Jiangtao He, Xinwei Li
Institution(s): Chongqing University of Posts and Telecommunication, China

4:00 PM - 4:15 PM - Paper Presentation (online)
S03204: Differences in the Local Morphology of Bilateral Functional Brain Networks During the Visual Word Recognition Task
Author(s): Xiaofei Zhang, Lianfang Ma, Jianhui Chen
Institution(s): Jiangsu University of Science and Technology, China; Beijing University of Technology, China

4:15 PM - 4:30 PM - Paper Presentation (online)
S03203: A Multi-Loop Approach Reveals Differences Neural Mechanisms of Inductive Reasoning in DLPFC and SPL
Author(s): Lianfang Ma, Shiyun Chen, Jiajin Huang, Zhijiang Wang, Jianhui Chen
Institution(s): Beijing University of Technology, China; Peking University Institute of Mental Health (Sixth Hospital), China

4:30 PM - 4:45 PM - Paper Presentation (online)
S03202: Adaptive Connectivity-Driven Parallel Graph Convolution Transformer Network for EEG Emotion Recognition
Author(s): Qiang Li, Haiyan Zhou
Institution(s): Beijing University of Technology, China

Important Notice: This is Part 2 of WImeetsBI 2024, the Brain Informatics edition. We also invite you to explore Part 1, the WI-IAT edition, available at: www.wi-iat.com/wi-iat2024/.

Note: each paper presentation includes 12-min talk + 3-min Q&A

Workshop Sessions on 15 December 2024

The 6th International Workshop on Cognitive Neuroscience of Thinking and Reasoning (CNTR 2024)

Chairs: Peipeng Liang, Capital Normal University, China & Vinod Goel, York University, Canada

Location: KX Building (11th Floor) -Conference Room X11.1
Date: 15 December 2024
Time: 9:00 AM - 11.30 AM
    Local Chairs: Kajornvut Ounjai, Neuroscience Center for Research and Innovation, KMUTT, Thailand & Titipat Achakulvisit, Department of Biomedical Engineering, Mahidol University, Thailand

Schedule:

9:00 AM - 9:10 AM: Opening Remark
Speaker: Peipeng Liang
Institution(s): Capital Normal University, China

9:10 AM - 9:40 AM: Invited Talk (online)
Title: Prevalence of False Beliefs and Implications for Rationality
Invited Speaker: Vinod Goel
Institution: York University, Canada

9:40 AM - 10:10 AM: Invited Talk (online)
Title: Gödel Consciousness and Independent Statement
Invited Speaker: Yingrui Yang
Institution: Rensselaer Polytechnic Institute, USA

10:10 AM - 10:30 AM: Coffee Break

10:30 AM - 10:50 AM - Paper Presentation
B246: Evaluating Inductive Reasoning of Large Language Models: A Cognitive Psychology Approach Using Number Series Completion
Author(s): Yulong Gao, Ning Zhong, Peipeng Liang
Institution(s): Capital Normal University, China; Maebashi Institute of Technology, Maebashi, Japan

10:50 AM - 11:10 AM - Paper Presentation
S04201: The Influence of Stimulus Similarity and Reasoning Content on Inductive Reasoning Generalization: Behavioral and Neural Perspectives
Authors: Ke Jiang and Huiqing Shen
Institution: Teacher Education College of Lishui University, China

11:10 AM - 11:30 AM - Paper Presentation

S04203: The Contributions of Hippocampal Subregions in Transitive Inference
Author(s): Congcong Zhang, Jing Zhao, Xiangbing Bian, Lingyun Cai, Xin Lou, Peipeng Liang
Institution(s): Capital Normal University, China; Chinese PLA General Hospital, China

Note: each paper presentation includes 15-min talk + 5-min Q&A

The International Workshop on Multimodal Computational Approaches for Brain Biomarkers Discovery (MCABBD 2024)

Chairs: Hieu Pham, VinUniversity, Vietnam & Nguyen The Hoang Anh, Vietnam – Korea Institute of Science and Technology, Vietnam

Location: KX Building (11th Floor) -Conference Room X11.1
Date: 15 November 2024
Time: 1:00 PM - 3.00 PM

Local Chairs: Titipat Achakulvisit, Department of Biomedical Engineering, Mahidol University, Thailand & Duanghathai Wiwatratana, Neuroscience Center for Research and Innovation, KMUTT, Thailand

Schedule:

1:00 PM - 1:10 PM: Opening Remark
Speaker: Hieu Pham
Institution(s): VinUniversity, Vietnam

1:10 PM - 1:40 PM: Special Lecture (online)
Title: Brain-Computer Interface and Current State-of-the-Art
Speaker: Nguyen The Hoang Anh
Institution(s): Vietnam – Korea Institute of Science and Technology, Vietnam

1:40 PM - 2:10 PM: Special Lecture
Title: Multimodal AI in Medicine: Recent Advances, Future Perspectives and Applications to Neuroscience Research
Speaker: Hieu Pham
Institution(s): VinUniversity, Vietnam

2:10 PM - 2:20 PM: Break

2:20 PM - 2:35 AM - Paper Presentation
S09201: Development and Evaluation of Multimodal AI Framework for Mental Health Assessment: A Preliminary Study
Author(s): Cuong Pham, My Nguyen, Huy Hoang, Hung Nguyen, Luan Nguyen, Linh Tran, Bao Nguyen, Lua Ngo, Duy Le, Tan Le, Nghia Nguyen, Huong Ha, and Hieu Pham
Institution(s): VinUniversity, Vietnam

2:35 PM - 3.50 PM - Paper Presentation
S09202: Development of AI-Enhanced Prediction Tool for Individualized Psychopathological Profile in Low-and-Middle-Income Countries
Author(s): Hung Nguyen, Minh Khau, Huyen Nguyen, Hieu Pham
Institution(s): RMIT University Vietnam, Vietnam; University of Science, Vietnam National University HCMC, Vietnam; VinUniversity, Vietnam

Note: each paper presentation includes 12-min talk + 3-min Q&A

The 4th Special Session on Explainable Artificial Intelligence for Unveiling the Brain: From Black-Box to Glass-Box (XAIB 2024)

Chair (online): Chiara Camastra, Neuroscience Research Center, Department of Medical and Surgical Sciences, Magna Graecia University of Catanzaro, Italy

Location: KX Building (11th Floor) -Conference Room X11.1
Date: 15 December 2024
Time: 4:00 PM – 5:50 PM

Local Chairs: Titipat Achakulvisit, Department of Biomedical Engineering, Mahidol University, Thailand & Duanghathai Wiwatratana, Neuroscience Center for Research and Innovation, KMUTT, Thailand

Schedule:
4:00 PM - 4:15 PM (UTC+7) - Opening Remark (online)
Invited Speaker**:** Prof. Alessia Sarica
Neuroscience Research Center, Department of Medical and Surgical Sciences, Magna Graecia University of Catanzaro, Italy

4:15 PM - 4:45 PM (UTC+7) - Invited Talk (online)
Title: Supervised ML in Science - From interpretability to robustness
Invited Speaker**:** Christoph Molnar
Department of Statistics, LMU Munich, Munich, Germany
Leibniz Institute for Prevention Research and Epidemiology, Bremen, Germany

4:45 PM - 5:00 PM (UTC+7) - Invited Talk (online)
Title: Deep Learning and Explainability: How Far Are We?
Invited Speaker**:** Dr. Sanjay Ghosh
Department of Electrical Engineering, Indian Institute of Technology Kharagpur, West Bengal, India

5:00 PM - 5:15 PM (UTC+7) - Paper Presentation (online)
B278: A Convolutional Neural Network with Feature Selection for Generating Explainable 1D Image Information for Brain Disease Diagnosis
Author: Luna M. Zhang
Institution: Department of Computer Science, Stony Brook University, Stony Brook, NY

5:15 PM - 5:30 PM (UTC+7) - Paper Presentation (online)
B244: Probing Temporal Filters of Vision via a Falsifiable Model of Flicker Fusion
Authors: Keerthi S Chandran and Kuntal Ghosh
Institution: Indian Statistical Institute, India

5:30 PM - 5:45 PM (UTC+7) - Paper Presentation (online)
B212: A Comparison of ANN-Optimization and Logistic Regression – An Example of the Acceptance of EEG Devices
Authors: Tina Zeilner, Andreas Uphaus, Bodo Vogt
Institution: Otto-von-Guericke-Universität Magdeburg, Germany; Hochschule Bielefeld, Germany

5:45 PM - 5:50 PM (UTC+7): Closing Remark (online)
Invited Speaker: Prof. Alessia Sarica
Neuroscience Research Center, Department of Medical and Surgical Sciences, Magna Graecia University of Catanzaro, Italy

Note: each paper presentation includes 12-min talk + 3-min Q&A

The International Workshop on Application of Artificial Intelligence and Innovative Technologies in Brain Informatics and Health (AAIITBIH 2024)

Chair (online): Zhijiang Wan, Nanchang University, China

Location: KX Building (11th Floor) -Conference Room X11.2
Date: 15 December 2024
Time: 2:00 PM - 3.40 PM
Local Chairs: Kejkaew Thanasuan, Media Technology Program and Neuroscience Center for Research and Innovation, KMUTT, Thailand & Sittiprapa Isarangura, Mahidol University, Thailand

2:00 PM - 2:10 PM - Opening Remark (online)
Speaker: Zhijiang Wan
Institution(s): School of Information Engineering, Nanchang University, China

2:10 PM - 2:40 PM - Invited Talk
Title: The application of EEG-fMRI technology in brain function research
Invited Speaker: **Yang Bai, Wentao Zeng**
Institution(s): Affiliated Rehabilitation Hospital, Jiangxi Medical College, Nanchang University, Nanchang, China

2:40 PM - 3:10 PM - Special Lecture (online)
Title: The Application of Individual-Specific Functional Connectivity in the Classification of Disorders of Consciousness and Its Potential Biomarkers
Speaker: Zhijiang Wan
Institution(s): School of Information Engineering, Nanchang University, China

3:10 PM - 3.25 PM - Paper Presentation
B213: Integrating Multimodal Spatiotemporal Brain Data with Spiking Neural Networks
Author(s): Maryam Doborjeh, Zien Huang, Zohreh Doborjeh
Institution(s): Auckland University of Technology, New Zealand

3:25 PM - 3.40 PM - Paper Presentation
S07202: A VR–BCI System to Support Rehabilitation for Stroke Patients
Author(s): Nguyen Minh Kien, Vu Thanh Long, Ma Thi Chau, and Nguyen The Hoang Anh
Institution(s): University of Engineering and Technology, Vietnam National University

Note: each paper presentation includes 12-min talk + 3-min Q&A