Awards

 2024 – Silver Medal of the 49th International Exhibition of Inventions Geneva 2024 with silver medal

<u>The 49th International Exhibition of Inventions Geneva 2024 – Centre for Perceptual and Interactive Intelligence (CPII)</u>

Seminars

- 2024
 - Professor Helen Meng, "AI & Cognitive Health", Artificial Intelligence & Health Sciences Symposium 2024, 23 March 2024 https://drhomed.org.mo/wp-content/uploads/2024/03/Rundown-AI-Health-Symposium.docx
- 2023
 - Professor Helene Fung, "Culturally Sensitive Value-based Care and Quality Management", Institute of Gerontology, National Cheng Kung University of Taiwan, 30 May 2023
 - https://hss.cuhk.edu.cn/en/event/1310
 - Professor Man-Wai Mak, "Supervised and Self-Supervised Contrastive Learning for Speaker Verification Across Languages", IEEE Workshop on Deep Learning, Hong Kong, April 2023
 - https://cis.sfu.edu.hk/2023.workshop/index.html
 - Professor Helen Meng, "AI-enabled Spoken Language Technologies for Screening Neurocognitive Disorders", Innovation China: Second Hong Kong Forum, coorganized by the Society for Innovative Health Hong Kong, Hong Kong College of Health Service Executives, and the Greater Bay Area Medical Professional Study Group, Doctors Think Tank Academy and Cyclo Corporation, February 2023 https://www.cpii.hk/2023/02/18/innovation-china-second-term-hong-kong-forum/
- 2022
 - Professor Helen Meng, "Al for Dementia Detection", COLING 2022 (The 29th International Conference on Computation Linguistics), Gyeongju, Korea, October 2022
 - https://coling2022.org/g speaker
 - Professor Man-Wai Mak, "Spoken Language Biomarkers for Dementia Detection", International Convention on Rehabilitation Engineering and Assistive Technology (i-CREATe 2022), Hong Kong, August 2022
 https://www6.rs.polyu.edu.hk/icreate/wp-content/uploads/2022/09/i-CREATe-Programme-Book.pdf
 - Professor Xiaojuan Ma, "Towards a Future of Human-Engaged AI: Social Manifestation of Human-Robot Interaction", HKUST-Bright Dream Robotics Joint Research Institute (HBJRI), HBJRI Frontier Technologies Seminars (2022 February sessions), February 2022 https://calendar.hkust.edu.hk/events/frontier-technologies-seminars-2022-hkust-bdr-joint-research-institute-control-construction
- 2021

- Professor Helen Meng, "Ethical Perspective of AI applications", The Joseph Needham Foundation for Science and Civilisation Public Lectures on STEM Education, 15
 December 2021
 - https://www.ashk.org.hk/en/projectsEvents/details/72
- Professor Helene Fung, "Why and How should We Prepare for Our Aging?", SDGs Group 2021 Webinar, National Cheng Kung University, Taiwan, 10 December 2021 https://wunasiagroup.ncku.edu.tw/index.php?action=news-d&id=2&p=2
- Professor Helen Meng, Inaugural Lecture of Patrick Huen Wing Ming Professorship
 of Systems Engineering and Engineering Management by Professor Helen Meng, The
 Chinese University of Hong Kong, 7 December 2021
 https://www.cpr.cuhk.edu.hk/en/privatephotos/inaugural-lecture-of-patrick-huen-wing-ming-professorship-of-systems-engineering-and-engineering-management-by-professor-helen-meng/
- Professor Helen Meng, "Al for Cognitive Health", Seminar on "Future Health for You & Me", co-organized by the Society for Innovative Healthcare Hong Kong, Hong Kong College of Health Services Executives and Hong Kong College of Nursing and Healthcare Management, October 2021 https://www.hkchse.org/index.php?id=future-health-for-you-and-me
- Professor Helen Meng, "Al for Cognitive Health", Hong Kong Science & Technology Park Thought-Leadership Series (invited co-organization), 16 September 2021 https://www.cpii.hk/2021/09/10/ai-for-cognitive-health/
- Professor Helen Meng, "Advancing Technological Equity in Speech and Language Processing", The 59th Annual Meeting of the Association for Computational Linguistics (ACL) and the 11th International Joint Conference on Natural Language Processing (IJCNLP), Thailand, August 2021 https://2021.aclweb.org/program/overview/
- Professor Helen Meng, "Advancing Technological Equity in Speech and Language Processing", Afeka Centre for Language Processing, Tel-Aviv Academic College of Engineering, Annual Speech Conference on Speech Processing, Tel-Aviv and online, June 2021
 - https://www.2021.ieeeicassp.org/2021.ieeeicassp.org/Plenary/HelenMeng.html
- Professor Helen Meng, "Advancing Technological Equity in Speech and Language Processing", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Toronto, June 2021 https://ws.eventact.com/the12thannualspeechp21
- Professor Helen Meng, "Al for Cognitive Health", RGC Public Lectures on Medical Technology and Society, 10 April 2021 <a href="https://www.youtube.com/watch?reload=9&time_continue=1&v=JDqsA14BXns&embeds_referring_euri=https%3A%2F%2Fhealthybrainproject.com%2F&embeds_referring_origin=https%3A%2F%2Fhealthybrainproject.com&source_ve_path=Mjg2NjY

• 2020

- Professor Vincent Mok, "Diagnosing Early Alzheimer's Disease using AI", Dr. Stanley
 Ho Medical Development Foundation Symposium, January 2020
 https://drhomed.org.mo/en/dr-stanley-ho-medical-development-foundation-symposium-2020/
- Professor Helen Meng, "Artificial Intelligence in Extraction and Identification of Spoken Language Biomarkers for Screening and Monitoring of Neurocognitive

Disorders", Dr. Stanley Ho Medical Development Foundation Symposium, January 2020

https://drhomed.org.mo/en/dr-stanley-ho-medical-development-foundation-symposium-2020/

Publications

- 2024
 - Journal Papers
 - Xiaoquan Ke, Man-Wai Mak, Helen M. Meng, "Automatic Selection of Spoken Language Biomarkers for Dementia Detection", in Neural Networks, vol. 129, Jan. 2024, pp. 191–204. (JCR Q1, IF: 9.7) https://healthybrainproject.com/wp-content/uploads/2024/03/J5.Automatic-Selection-of-Spoken-Language-Biomarkers-for-Dementia-Detection.pdf
 - Sean Shensheng Xu, Xiaoquan Ke, Man-Wai Mak, Helen M. Meng, Timothy C.Y. Kwok, "Speaker-turn Aware Diarization for Speech-Based Cognitive Assessments", in Frontiers in Neuroscience, Jan. 2024. (JCR Q2, IF: 5.2). https://healthybrainproject.com/wp-content/uploads/2024/03/J6.Speaker-turn-Aware-Diarization-for-Speech-Based-Cognitive-Assessments.pdf
 - Conference Papers
 - Jiawen Kang, Junan Li, Jinchao Li, Xixin Wu, Helen, Meng, "Not All Errors Are Equal Investigation of Speech Recognition Errors in Alzheimer's Disease Detection", ISCSLP 2024, Beijing, November 2024
 - https://healthybrainproject.com/wp-content/uploads/2024/09/42.Not-All-Errors-Are-Equal-Investigation-of-Speech-Recognition-Errors-in-Alzheimers-Disease-Detection.pdf
 - Junan Li, Yuren Wang, Yunxiang Li, Xixin Wu, Helen Meng, "Devising a Set of Compact and Explainable Spoken Language Feature for Screening Alzheimer's Disease", ISCSLP 2024, Beijing, November 2024
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 - Yuejiao Wang, Xianmin Gong, Xixin Wu, Patrick Wong, Hoi-lam Helene Fung, Man Wai Mak2, Helen Meng, "Naturalistic Language-related Movie-Watching fMRI Task for Detecting Neurocognitive Decline and Disorder", ISCSLP 2024, Beijing, November 2024
 https://healthybrainproject.com/wp-content/uploads/2024/09/40.Naturalistic_Language-related_Movie-Watching_fMRI_Task_for_Detecting_Neurocognitive_Decline_and_Disorder_.pdf
 - Yuejiao Wang, Xianmin Gong, Lingwei Meng, Xinxin Wu, Helen Meng, "Large Language Model-based FMRI Encoding of Language Functions for Subjects with Neurocognitive Disorder", Interspeech 2024, Kos Island, Greece, September 2024

- https://healthybrainproject.com/wp-content/uploads/2024/08/35.Large-Language-Model-based-FMRI-Encoding-of-Language-Functions-for-Subjectswith-Neurocognitive-Disorder.pdf
- The Li, Man-wai Mak, Hung-yi Lee, Helen Meng, "Parameter-efficient Fine-tuning of Speaker-Aware Dynamic Prompts for Speaker Verification", Proc. Interspeech 2024, Kos Island, Greece, September 2024.
 https://healthybrainproject.com/wp-content/uploads/2024/08/36.Parameter-efficient-Fine-tuning-of-Speaker-Aware-Dynamic-Prompts-for-Speaker-Verification.pdf
- Lingwei Meng, Jiawen Kang, Yuejiao Wang, Helen Meng, "Empowering Whisper as a Joint Multi-Talker and Target-Talker Speech Recognition System", Interspeech 2024, Kos Island, Greece, September 2024. https://healthybrainproject.com/wp-content/uploads/2024/08/38.Empowering-Whisper-as-a-Joint-Multi-Talker-and-Target-Talker-Speech-Recognition-System.pdf
- The Li, Man-Wai Mak, Helen Mei-Ling Meng, "Dual Parameter-Efficient Fine-Tuning for Speaker Representation via Speaker Prompt Tuning and Adapters", ICASSP, Seoul, April, 2024
 https://healthybrainproject.com/wp-content/uploads/2024/08/37.DUAL-PARAMETER-EFFICIENT-FINE-TUNING-FOR-SPEAKER-REPRESENTATION-VIA-SPEAKER-PROMPT-TUNING-AND-ADAPTERS.pdf
- Jiawen Kang, Lingwei Meng, Mingyu Cui, Haohan Guo, Xixin Wu, Xunying Liu, Helen Meng, "Cross-Speaker Encoding Network for Multi-Talker Speech Recognition", ICASSP, Seoul, April, 2024
 https://healthybrainproject.com/wp-content/uploads/2024/08/39.Cross-Speaker-Encoding-Network-for-Multi-Talker-Speech-Recognition.pdf

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- Xiaoquan Ke, Man-Wai Mak, Helen M. Meng, "Jointly Modelling Transcriptions and Phonemes with Optimal Features to Detect Dementia from Spontaneous Cantonese", in Proc. 2023 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA 2023), Taipei, Taiwan, Nov 2023 https://healthybrainproject.com/wp-content/uploads/2024/03/Jointly-Modelling-Transcriptions-and-Phonemes-with-Optimal-Features-to-Detect-Dementia-from-Spontaneous-Cantonese.pdf
- Helen Meng, Brian Mak, Man-Wai Mak, Helene Fung, Xianmin Gong, Timothy Kwok, Xunying Liu, Vincent Mok, Patrick Wong, Jean Woo, Xixin Wu, Ka Ho Wong, Sean Shensheng Xu, Naijun Zheng, Ranzo Huang, Jiawen Kang, Xiaoquan Ke, Junan Li, Jinchao Li, Yi Wang, "Integrated and Enhanced Pipeline System to Support Spoken Language Analytics for Screening Neurocognitive Disorders", INTERSPEECH 2023, Dublin, Ireland, August 2023 https://healthybrainproject.com/wp-content/uploads/2024/03/33.Integrated-and-Enhanced-Pipeline-System-to-Support-Spoken-Language.pdf
- Shujie Hu, Xurong Xie, Zengrui Jin, Mengzhe Geng, Yi Wang, Mingyu Cui,
 Jiajun Deng, Xunying Liu, Helen Meng, "Exploring Self-supervised Pre-trained
 ASR Models For Dysarthric and Elderly Speech Recognition", IEEE

International Conference on Acoustics Speech and Signal Processing (ICASSP), Rhodes Island, Greece, June 2023
https://healthybrainproject.com/wp-content/uploads/2024/09/32.Exploring_Self-Supervised_Pre-
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- Xiaoquan Ke, Man-Wai Mak, and Helen M. MENG, "Feature Selection and Text Embedding for Detecting Dementia from Spontaneous Cantonese", Proc. IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Rhodes Island, June 2023 https://healthybrainproject.com/wp-content/uploads/2024/09/31.Feature_Selection_and_Text_Embedding_for_Detecting_Dementia_from_Spontaneous_Cantonese.pdf
- Liu, Helen Meng, "Leveraging Pretrained Representations with Task-related Keywords for Alzheimer's Disease Detection", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Rhodes Island, Greece, June 2023

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Jinchao Li, Kaitao Song, Junan Li, Bo Zheng, Dongsheng Li, Xixin Wu, Xunying

- Yi Wang, Jiajun Deng, Tianzi Wang, Bo Zheng, Shoukang Hu, Xunying Liu, Helen Meng, "Exploiting prompt learning with pre-trained language models for Alzheimer's Disease detection", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Rhodes Island, Greece, June 2023
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- Lingwei Meng, Jiawen Kang, Mingyu Cui, Yuejiao Wang, Xixin Wu, Helen Meng, "A Sidecar Separator Can Convert a Single-Talker Speech Recognition System to a Multi-Talker One," IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Rhodes Island, Greece, June 2023 https://healthybrainproject.com/wp-content/uploads/2023/09/28.A Sidecar Separator Can Convert a Single-Talker Speech Recognition System to a Multi-Talker -One.pdf
- Zhe Li, Man-Wai Mak, Helen Meng, "Discriminative Speaker Representation via Contrastive Learning with Class-Aware Attention in Angular Space", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Rhodes Island, Greece, June 2023 https://healthybrainproject.com/wp-content/uploads/2023/09/27.Discriminative Speaker Representation via Contrastive Learning with Class-Aware Attention in Angular Space.pdf

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 - Xianmin Gong, Patrick C. M. Wong, Helene H. Fung, Vincent C. T. Mok, Timothy C. Y. Kwok, Jean Woo, Ka Ho Wong, Helen Meng, "The Hong Kong Grocery Shopping Dialog Task (HK-GSDT): A Quick Screening Test for NCDs", IJERPH, Oct 2022

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Mengzhe Geng, Xurong Xie, Zi Ye, Tianzi Wang, Guinan Li, Shujie Wu, Xunying Liu and Helen Meng, "Speaker Adaptation Using Spectro-Temporal Deep Features for Dysarthric and Elderly Speech Recognition", IEEE/ACM Transactions on Audio, Speech and Language Processing, Volume 30, Pages 2597-2611, 2022

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- Jinchao Li, Xixin Wu, Xunying Liu, and Helen Meng, "Alzheimer's Disease
 Detection using Pretrained Acoustic Representations: A Comparison Study",
 CCF NCMMSC, Hefei, China, Dec 2022
 https://healthybrainproject.com/wp-content/uploads/2023/09/26.Alzheimers_Disease_Detection_using_Pretrained_Acoustic Representations_A Comparison_Study.pdf
- Zhe Li, Man-Wai Mak, "Speaker Representation Learning via Contrastive Loss with Maximal Speaker Separability", In 2022 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC) (pp. 962-967). IEEE.
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- stive Loss with Maximal Speaker Separability.pdf
 Jinchao Li, Shuai Wang, Yang Chao, Xunying Liu and Helen Meng, "Context-aware Multimodal Fusion for Emotion Recognition", ISCA Interspeech2022, Incheon, Korea.
 https://healthybrainproject.com/wp-content/uploads/2023/09/24.Context-
- Tianzi Wang, Jiajun Deng, Mengzhe Geng, Zi Ye, Shoukang Hu, Yi Wang, Mingyu Cui, Zengrui Jin, Xunying Liu, Helen Meng, "Conformer Based Elderly Speech Recognition System for Alzheimer's Disease Detection", Interspeech 2022, Sept 2022

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Yi Wang, Tianzi Wang, Zi Ye, Lingwei Meng, Shoukang Hu, Xixin Wu, Xunying Liu, Helen Meng, "Exploring linguistic feature and model combination for speech recognition based automatic AD detection, "Interspeech 2022, Sept 2022.

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- Shujie Hu, Shansong Liu, Xurong Xie, Mengzhe Geng, Tianzi Wang, Shoukang Hu, Mingyu Cui, Xunying Liu, Helen Meng, "Exploiting Cross Domain Acoustic-to-articulatory Inverted Features for Disordered Speech Recognition", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Singapore, May 2022
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- Junhao Xu, Jianwei Yu, Xunying Liu, Helen Meng, "Mixed Precision DNN Quantization for Overlapped Speech Separation and Recognition", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Singapore, May 2022
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- Guinan Li, Jianwei Yu, Jiajun Deng, Xunying Liu, Helen Meng, "Audio-visual multi-channel speech separation, dereverberation and recognition", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Singapore, May 2022
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- Naijun Zheng, Na Li, JianWei Yu, Chao Weng, Dan Su, XunYing Liu, Helen Meng, "Multi-Channel Speaker Diarization Using Spatial Features for Meetings", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), Singapore. May 2022
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- Jianwei Yu, Shi- Xiong Zhang, Bo Wu, Shansong Liu, Shoukang Hu, Mengzhe Geng, Xunying Liu, Helen Meng, Dong Yu, "Audio-Visual Multi-Channel Integration and Recognition of Overlapped Speech", IEEE/ACM Transactions On Audio, Speech, And Language Processing, vol. 29, pp. 2067-2082, May 2021

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- Sean Shensheng Xu, Man-Wai Mak, Ka Ho Wong, Helen Meng, Timothy C.Y. Kwok, "Speaker Turn Aware Similarity Scoring for Diarization of Speech-Based Cognitive Assessments," APSIPA, Tokyo, Dec 2021
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- Xiaoquan Ke, Man-Wai Mak, Jinchao Li, Helen M. Meng, "Dual Dropout Ranking of Linguistic Features for Alzheimer's Disease Recognition", APSIPA, Toyko, Dec 2021 https://healthybrainproject.com/wp-content/uploads/2023/09/12.Dual_Dropout Ranking of Linguistic Features for Alzheimers Disease Recognition.pdf
- Disong Wang, Liqun Deng, Yu Ting Yeung, Xiao Chen, Xunying Liu and Helen
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- Mengzhe Geng, Shansong Liu, Jianwei Yu, Xurong Xie, Shoukang Hu, Zi Ye, Zengrui Jin, Xunying Liu, Helen Meng, "Spectro-Temporal Deep Features for Disordered Speech Assessment and Recognition", Interspeech2021, Brno, Czech Republic, 30 Aug 3 Sep 2021
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- Zengrui Jin, Mengzhe Geng, Xurong Xie, Jianwei Yu, Shansong Liu, Xunying Liu, Helen Meng, "Adversarial Data Augmentation for Disordered Speech Recognition", ISCA Interspeech2021, Brno, Czech Republic, June 2021 https://healthybrainproject.com/wp-content/uploads/2023/09/11.Adversarial Data Augmentation for Disordered Speech Recognition.pdf
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- Naijun Zheng, Na Li, Bo Wu, Meng Yu, JianWei Yu, Chao Weng, Dan Su, XunYing Liu, Helen Meng, "A Joint Training Framework of Multi-Look Separator and Speaker Embedding Extractor for overlapped Speech", IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), 6-11 June 2021 https://healthybrainproject.com/wp-content/uploads/2023/09/6.A-Joint-Training-Framework-of-Multi-Look-Separator-and-Speaker-Embedding-Extractor-for-overlapped-Speech.pdf
- Sean Shensheng Xu, Man-Wai Mak, Ka Ho Wong, Helen Meng, and Timothy C.Y. Kwok, "Age-Invariant Speaker Embedding for Diarization of Cognitive Assessments", Proc. International Symposium on Chinese Spoken Language Processing (ISCSLP'2021), Hong Kong, Jan 2021
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