簡婉軒 Woan-Shiuan Chien (Winnie)

Incoming Assistant Professor,
EE, National Yang Ming Chiao Tung University

woanshiuanchien.github.io | wschien@gapp.nthu.edu.tw | Taiwan

Professional Interests

Multimodal Signal Processing (Speech · Physiology · Gesture) ·
Affective Computing · Trustworthy AI

My research interests center around the integration of *Affective Computing*, *Machine Learning*, and *Multimodal Signal Processing*, focusing on speech and physiological signals. I aim to build emotionally intelligent systems that not only recognize human affect but also operate responsibly in real-world, interactive contexts. This includes developing *Trustworthy AI* frameworks that support fairness across individuals, robustness under signal irregularities, and ethical deployment in applications such as mental health monitoring, education, and inclusive communication technologies.

Research Experiences

2025/05 – Present

Behavioral Information & Interaction Computation Lab, NTHU

Postdoctoral Researcher working with Professor Chi-Chun Lee (Jeremy)

Research in Modeling Emotions in Interactive and Multimodal Contexts

- Lead the development of a large-scale multimodal interaction corpus capturing co-speech gestures, full-body motion, and expressive speech during dyadic conversations, in collaboration with experts in acting and behavioral sciences.
- Design affective computing frameworks that move beyond static, unimodal processing by modeling dynamic emotion co-regulation, turn-taking cues, and gestural-prosodic synchrony in real-time interactions.

Research in Trustworthy AI on Emotion Recognition and Healthcare

- Advance fairness-aware learning across heterogeneous signals. Design and evaluate fairness-aware models for both speech and physiological signals, tackling demographic imbalance and individual variability.
- Mitigate reliability challenges under real-world data constraints and address incomplete or noisy input conditions through adaptive model design.
- Investigate how fairness and uncertainty modeling contribute to the trustworthiness of affective systems deployed in sensitive domains such as healthcare and mental wellbeing.

2019/08 – 2025/03

Graduate Researcher

Research in Trustworthy AI and Emotion Recognition

- Develop fairness-aware *Speech Emotion Recognition (SER)* models that address biases from both group and individual perspectives, including speaker and rater biases, to promote transparency and trust in affective AI systems.
- Advance fairness perception in emotion recognition by diagnosing and mitigating systemic and sample-level biases, ensuring equitable model performance across diverse demographic and linguistic groups.
- Design cross-corpus and multilingual SER frameworks by incorporating phonetic-aware features and constructing high-quality resources, including a large-scale Taiwanese Mandarin SER corpus.
- Coordinate a centralized research platform for affective database collaboration, fostering resource sharing and joint innovation across institutions within an affective computing consortium.

Research in Physiological-based Healthcare

- Employ innovative methods such as hypergraph neural networks and federated learning strategies to advance stress detection and emotion recognition, utilizing constraints like media content and demographic attributes.
- Develop novel machine learning and deep learning models tailored for in-the-wild physiological-based stress detection, addressing real-world variability and noise.
- Focus on understanding how missing data bias distorts outcomes in healthcare and developing strategies to mitigate its impact in health monitoring.

Research in Group & Team Dynamics

Analyze small-group interactions by quantifying physiological and acoustic features to predict group performance and emotional states, proposing new measures of physiological synchrony to assess group belonging and satisfaction.

2015/07 – 2017/07

Biomedical Signal Processing & System Design Lab, CCU

Graduate Researcher working with Professor Sung-Nien Yu

Research in Biomedical Signal Processing

- Convolutional Neural Networks for arrhythmia electrocardiogram classification.
- Developing blood pressure algorithm using the heart rate extracted from smart watches.
- Myocardial ischemic and infarction episode detection based on ST level and beat type re-attribution method.

EDUCATION

2019/09 – 2025/03
National Tsing Hua University (NTHU)
PH.D IN DEPARTMENT OF ELECTRICAL ENGINEERING; GPA: 3.88/4.3
Advisor: Professor Chi-Chun Lee, Behavior Information & Interaction Computation LAB (BIIC Lab)
Dissertation Title: **From Data Resource Impacts to Fairness Realization in Speech Emotion Recognition**

2015/09 – 2017/07
National Chung Cheng University (CCU)
M.S IN DEPARTMENT OF ELECTRICAL ENGINEERING; GPA: 4.02/4.3
Thesis Advisor: Professor Sung-Nien Yu, Biomedical Signal Processing & System Design Lab (BSP Lab)
Thesis Title: **Back-propagation and Convolutional Neural Networks for Arrhythmia Electrocardiogram Classification**

2011/09 – 2015/06
Chung Yuan Christian University (CYCU)
B.S IN DEPARTMENT OF ELECTRICAL ENGINEERING
Special Research Topic Advisor: Professor Kang-Ping Lin

HONORS AND AWARDS

AWARD

IEEE Best Doctoral Dissertation Award, IEEE Taipei Section (2025)
NTHU Outstanding Postdoctoral Research Fellow, National Tsing Hua University (2025)
The Rising Stars Women in Engineering Workshop – Shortlisted Participants (2025) – Shortlisted Candidate (2024)
The 18th TSC Thesis Award: AI Application Competition Finalist, Taiwan Management Institute, Taiwan (2025)
Merry Electronics Co., Ltd.: Electroacoustics Thesis Award Finalist, Taiwan (2024)
Industrial Patent Analysis and Strategy Competition – Second Place, Taiwan Intellectual Property Office, Taiwan (2024)

SCHOLARSHIP

Elite-Well Doctoral Scholarship, Elite-Well Education Foundation, Taiwan (2025 Spring/Fall)
NTHU International Visiting Scholarship, National Tsing Hua University, Taiwan (2024, 2023)
Google Conference Scholarships (APAC), Google (2024, 2023)
NSTC Outstanding Doctoral Students Fellowship, National Science and Technology Council (NSTC), Taiwan (2022-2023)
Rotary Education Scholarship, Chung Hwa Rotary Educational Foundation 2021-2022 (2021-2022)
Academic Excellence Scholarship (Taiwan Life, Cathay Life, Shin Kong Life), Taiwan (2022, 2021, 2016)
Nuvoton Crop. Scholarship, Taiwan (2016-2017)

TRAVEL GRANT

NSTC Outstanding Students Conference Travel Grant, National Science and Technology Council, Taiwan (2025, 2024, 2023, 2022, 2017)
IEEE BSN Travel Awards, IEEE Engineering in Medicine and Biology Society (EMBS) (2024)
ACLCLP Outstanding Students Conference Travel Grant, The Association for Computational Linguistics and Chinese Language Processing (ACLCLP) (2024, 2023)
ACII 2023 Travel Bursary, The Association for the Advancement of Affective Computing (AAAC) (2023)
ICASSP 2023 Conference Travel Grant, IEEE Signal Processing Society (SPS) (2023)
PROGRESS Student Travel Awards, IEEE PROmotinG DiveRsity in Signal ProcESSing (2023)
NTHU Outstanding Students Conference Travel Grant, National Tsing Hua University, Taiwan (2023, 2022)

TEACHING EXPERIENCES

Future Learn, Massive Open Online Course (MOCC)

TEACHING MATERIAL DESIGNING ASSISTANT

- Deconstructing Research Articles: How to Read and Write a Research Paper (2023, 2024)
  - LECTURER: Professor Yun-Yin Huang (CENTER FOR LANGUAGE EDUCATION, NTHU)

National Tsing Hua University, Taiwan

TEACHING ASSISTANT

- THC1024 Reliable Industrial Wireless Network Technology and Application (2023)
- EE 3700 Introduction to Machine Learning (2022)
- EE 3660 Introduction to Digital Signal Processing (2022)
- EE 3900 Special Topic on Implementation (2021, 2022, 2023, 2024)
- EECS 3010 Industry Internship (2021, 2022, 2023, 2024)
- EE 3662 Digital Signal Processing Laboratory (2020)

National Chung Cheng University, Taiwan

TEACHING ASSISTANT

- EE 4156114 Biomedical Signal Processing (2017)

- EE 4151004 Introduction to Computers (2016)
- EE 4153013 Digital Signal Processing Laboratory (2016)
- EE 4153213 Introduction to Digital Signal Processing (2016)

Working Experiences

2025/04 – 2025/12

National Tsing Hua University (NTHU)

Postdoctoral Researcher @ Behavioral Information & Interaction Computation Lab (BIIC Lab)

- **Lead Projects: Multimodal Multilingual Affective Computing: Database and Algorithms**
  Lead the design and execution of a large-scale dyadic emotion interaction corpus involving full-body motion and co-speech expression across multiple languages. Develop multimodal and multilingual emotion recognition algorithms that integrate speech, gesture, and conversational dynamics for culturally adaptive affective computing.
- **Lead NSTC Projects: Robust Longitudinal Stress Detection under Privacy Constraints**
  Direct research on stress detection algorithms for daily-life contexts under real-world data incompleteness. Develop robust longitudinal models and federated learning-based privacy-preserving techniques to support mental health monitoring using physiological signals.

2024/01 – 2024/03

National Institute of Advanced Industrial Science and Technology (AIST), Artificial Intelligence Research Center (AIRC), Japan

Visiting Scholar @ Intelligent Media Processing Research Team

- Develop CLAP Models and Task Vectors on Fair Speech Emotion Recognition

2021/06 – 2021/08

Industrial Technology Research Institute (ITRI)

AI Medical Imaging Algorithm Intern

- Implement Graph Neural Networks on Electric Health Records

2017/10 – 2019/09

Nuvoton Technology Corporation (Nuvoton Crop.)

Microcontroller System Application Engineer

- Mini-PCIe Expansion Adapter Boards (NB-IoT, LTE, LoRa Gateway)
- Key Word Spotting (Speech Recognition) featuring the NuMicro M480 series microcontroller
- Digital Image Recognition System featuring the NuMicro M480 series microcontroller

Cooperated Research Projects

2025/04 – Present

Interactive Content Design Laboratory (Icd Lab.), Tohoku University, Japan

Collaborator: Professor Miao Cheng, Chia-Huei Tseng (Research Institute of Electrical Communication, Tohoku University)

- Initiate a new collaborative project to collect a large-scale VICON-based 3D motion capture database focused on emotional expressions during naturalistic interactions, integrating body gestures, speech, and emotional annotations.
- Design continuous emotion annotation protocols across self, partner, and observer perspectives, aimed at enabling fine-grained multimodal analysis of dynamic emotional states for embodied AI applications.

2025/01 – Present

Multimodal Signal Processing Laboratory (MSP Lab.), Carnegie Mellon University (CMU), USA

Collaborator: Professor Carlos Busso (Language Technologies Institute (LTI), CMU)

- Work on developing a large language model (LLM)-based annotation framework to support emotion retrieval in dyadic interaction datasets.

2022/02 – 2025/07

National Science and Technology Council: AI Innovation Research Center Project

Collaborator: Professor Yao-Win Peter Hong (Dept. of EE, NTHU), Ming-Chun Hu (Dept. of CS, NTHU), Hung-Yu Chuang (Dept. of Law, NCCU)

- Advanced Technologies for Designing Trustable AI Services.
- Toward Realizing Into-Life Emotion AI through Robust, Scalable, and Trustworthy Affective Signal Modeling.

2021/03 – 2024/12

Multimodal Signal Processing Laboratory (MSP Lab.), UT Dallas, USA

Collaborator: Professor Carlos Busso (Dept. of Electrical and Computer Engineering, UT Dallas)

- Propose the design of the affective naturalistic database consortium (AndC) with a customizable-standard framework for intelligently-controlled emotional data collection.
- Present as a case study the development of a naturalistic large-scale Taiwanese Mandarin podcast corpus (BIIC-Podcast) using the customizable-standard intelligently-controlled framework.

2022/08 – 2024/06

Qualcomm Incorporation, USA

Collaborator: Professor Cheng-Hsin Hsu & Jerry Chi-Yuan Chou & Wei-Yu Chiu (NTHU)

- In-Vehicle Automatic Speech Recognition System
- Distributed learning for edge AI applications.
- Developing in-car automatic speech recognition and driver behavior recognition to enhance vehicle safety.

2022/01 – 2022/10
Qualcomm Incorporation, USA
- Stress prediction using bio-signals with federated learning.

2020/07 – 2021/01
C-Media Electronics Incorporation (C-Media Inc.), Taiwan
- Implement AI de-reverberation de-noise algorithm based on deep noise suppression.

2020/05 – 2020/11
Institute for Information Industry (III)
- Develop a computer vision-based video retrieval system speeding up the fakenews screening process.
- The system would be deployed by two NGO fakenews checkers Taiwan FactCheck Center and MyGoPen.

ACADEMIC SERVICES

COMMITTEE

Organizer of a tutorial on "Understanding and Mitigating Bias in Emotion Recognition Systems" at ACII 2025

INVITED REVIEWER

JOURNAL, IEEE Transactions on Affective Computing (2022-2025), IEEE Transactions on Audio, Speech and Language Processing (2025), Computers in Human Behavior Reports (2025), International Journal of Epidemiology (2024)
CONFERENCE, IEEE ICASSP (2023-2025), IEEE ICME (2025), IEEE ACII (2024, 2023), Interspeech (2024, 2023), IEEE BSN (2025) , IEEE ISBI (2025)

TECHNICAL SKILLS

DATA COLLECTION: Emotion Database (BIIC-Podcast), In-the-wild Workplace Stress Database (Firefighters)
MULTIMODALITY PROCESSING: Speech Signal Processing (Praat, openSMILE, librosa, Fairseq), Physiological Signal Processing (Neurokit)
MACHINE/DEEP LEARNING: Supervised learning methods (scikit-learn, Pytorch, Tensorflow (Keras)), Large Language Models (LLMs) (fine-tuning, prompt engineering, and deployment (HuggingFace Transformers, OpenAI API)
PROGRAMMING: Python, MATLAB, C, C++, HTML
OTHER TOOLS & FAMILIAR OS: LaTex, Git (Github and Gitlab), Linux (Ubuntu), Windows

INVITED TALKS

2026/01/14, Tohoku University, Sendai, Japan
Multimodal Interaction Modeling: From Dialogue Dynamics to Social Behaviors

2019/08/22, Industrial Technology Research Institute (ITRI), Hsinchu, Taiwan
Nuvoton Microcontroller Development, Implementation and Design for Smart Image Recognition

PUBLICATIONS (GOOGLE SCHOLAR PROFILE, SCOPUS)

Total citations: 272 (H index: 8, i10 index: 7, FWCI: 2.09, Top-1 FWCI: 7.32)

Patent

[1] Pin-Jhao Chen, **Woan-Shiuan Chien**, Chi-Chun Lee "Contrastive-based Identity Bias Disentanglement Using ADF Detrending", *(Submit applications for TW, CN and US, April, 2025)*

[2] Po-Chen Lin, Jeng-Lin Li, **Woan-Shiuan Chien**, Chi-Chun Lee "Method and System for Physiological-based Stress Detection", *(Submit applications for TW and US, July, 2024)*

[3] **Woan-Shiuan Chien**, Chi-Chun Lee "Method, model training method and computer program product for speech emotion recognition", *US Patent App. US18380847 (issued Dec 5, 2022), TW Patent App. TWI859906 (issued Oct 21, 2024) (Submission of applications for CN, May, 2023)*

[4] **Woan-Shiuan Chien**, "Microcontroller updating system and method", *CN Patent App. CN112925533A (issued Jun 8, 2021), TW Patent App. TW202123091A (issued Jun 16, 2021)*

[5] **Woan-Shiuan Chien** and Tzu-Lan Shen, "Recognition system and recognition method", *US Patent App. US11216729B2 (issued Jan 4, 2022), CN Patent App. CN111292764A (issued Jun 16, 2020), TW Patent App. TWI682325B (issued Jan 11, 2020)*

International Journal

[1] **Woan-Shiuan Chien** and Chi-Chun Lee, "Beyond Static Stress: Linking Daily Stress Fluctuations to HRV in Real-World Occupational Settings" in *IEEE Journal of Biomedical and Health Informatics (JBHI), 2025*. (Under Review, Manuscript Submitted in November, 2025)

[2] **Woan-Shiuan Chien** and Chi-Chun Lee, "Only Subsets Matters: The Effects of Dual Fairness Constraints in Speech Emotion Recognition" in *IEEE Transactions on Affective Computing, 2025*. (Under Review, Manuscript Submitted in March, 2025)

[3] Luz Martinez-Lucas, Ali Salman, Seong-Gyun Leem, **Woan-Shiuan Chien**, Shreya G. Upadhyay, Chi-Chun Lee and Carlos Busso, "Affective Priming in Emotional Annotations and its Effect on Speech Emotion Recognition" in *IEEE Transactions on Affective Computing, 2025*. (Accepted) *Impact Factor: 9.8 (2024)

[4] **Woan-Shiuan Chien**, Shreya G. Upadhyay, Wei-Cheng Lin, Carlos Busso and Chi-Chun Lee, "Differential Impacts of Monologue and Conversation on Speech Emotion Recognition." in *IEEE Transactions on Affective Computing, vol. 16, no. 2, pp. 485–498, 2024*. *Impact Factor: 9.8 (2024)

[5] Shreya G. Upadhyay, **Woan-Shiuan Chien**, Bo-Hao Su and Chi-Chun Lee, "Learning with Rater-Expanded Label Space to Improve Speech Emotion Recognition." in *IEEE Transactions on Affective Computing, vol. 15, no. 3, pp. 1539–1552, 2024*. *Impact Factor: 9.8 (2024)

[6] Hsing-Hang Chou, **Woan-Shiuan Chien**, Ya-Tse Wu and Chi-Chun Lee, "An Inter-Speaker Fairness-Aware Speech Emotion Regression Framework." in *International Journal of Computational Linguistics and Chinese Language Processing, 2024*. (Under Review)

[7] **Woan-Shiuan Chien** and Chi-Chun Lee, "Achieving Gender Neutrality in Speech Emotion Recognition by Balancing Fairness Between Speakers and Raters." in *International Journal of Computational Linguistics and Chinese Language Processing, 2024*. (Under Review)

[8] **Woan-Shiuan Chien** and Chi-Chun Lee, "A Two-Stage Learning Strategy for Fair Speech Emotion Recognition." in *International Journal of Computational Linguistics and Chinese Language Processing, vol. 29, no. 1, pp. 1–25, 2024*.

International Conference

[1] Huan-Yu Chen, **Woan-Shiuan Chien**, Ching-Heng Lin and Chi-Chun Lee, "From Realistic to Clinical Reasoning: LLM-Guided Tumor Image Synthesis with Anatomical Plausibility." in *Proceeding of the 23rd IEEE International Symposium on Biomedical Imaging (ISBI '26), 2026*. (Under Review)

[2] **Woan-Shiuan Chien**, Tomohiko Nakamura, Huan-Yu Chen, Satoru Fukayama, Hitoshi Suda, Jun Ogata and Chi-Chun Lee, "Inferring Gender-Neutral Speech Emotion Recognition Models in Attribute-Absent Domains." in *Proceeding of the 51st IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '26), 2026*. (Under Review)

[3] Huan-Yu Chen, **Woan-Shiuan Chien** and Chi-Chun Lee, "Audience-Aware Co-Speech Gesture Generation in Public Speaking via Anticipation Tokens." in *Proceeding of the 51st IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '26), 2026*. (Under Review)

[4] **Woan-Shiuan Chien**, Huan-Yu Chen, Shu-Ying Liu, Yuan-Liang An, Ching-Shin Hsiao, Yangyang Cai, Victor Pierre Schneider, Miao Cheng, Chia-Huei Tseng and Chi-Chun Lee, "Rethinking Multilingual and Multimodal Interactive Datasets: Challenges, Limitations and Potentials." in *2025 13th IEEE International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW '25), 2025*.

[5] **Woan-Shiuan Chien**, Mei-Yen Tsai and Chi-Chun Lee, "Graph Structure Learning with Local Connectivity Refinement for Improved Physiological Emotion Recognition." in *Proceeding of 2025 IEEE International Workshop on Machine Learning for Signal Processing (MLSP '25), 2025*.

[6] Huan-Yu Chen, **Woan-Shiuan Chien**, Yu-Fen Wang, Bor-Sheng Ko and Chi-Chun Lee, "Instrument-Aware Representation Learning for Robust Cross-Site Flow Cytometry Integration." in *Proceeding of 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '25), 2025*.

[7] **Woan-Shiuan Chien**, Huan-Yu Chen and Chi-Chun Lee, "Gradient-Aware Data Augmentation for Federated Stress Detection under Data Incompleteness." in *Proceeding of 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '25), 2025*.

[8] Huan-Yu Chen, **Woan-Shiuan Chien**, Ching-Heng Lin and Chi-Chun Lee, "Leveraging Foundation Models for Clinically Instructed Tumor Image Synthesis in Renal Cell Carcinoma." in *Proceeding of the 22nd IEEE International Symposium on Biomedical Imaging (ISBI '25), 2025*.

[9] Pin-Jhao Chen, **Woan-Shiuan Chien** and Chi-Chun Lee, "Disentangle Heart Rate Signals for Improved Stress Detection." in *Proceeding of the 50th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '25), 2025*.

[10] Jing-Chun Wang, **Woan-Shiuan Chien** and Chi-Chun Lee, "A Dynamic Edge-Selection Mechanism in HRV Hypergraph Learning for Improved Stress Detection." in *Proceeding of the 50th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '25), 2025*.

[11] Shreya G. Upadhyay, **Woan-Shiuan Chien** and Chi-Chun Lee, "Is It Still Fair? Investigating Gender Fairness in Cross-Corpus Speech Emotion Recognition." in *Proceeding of the 50th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '25), 2025*.

[12] **Woan-Shiuan Chien** and Chi-Chun Lee, "Understanding Missing Data Bias in Longitudinal Mental Stress Detection." in *Proceedings of IEEE 20th International Conference on Body Sensor Networks (BSN '24), 2024*.

[13] Pin-Jhao Chen, **Woan-Shiuan Chien**, Huan-Yu Chen and Chi-Chun Lee, "Stress Detection Using HRV Features Augmentation Based on Heart Rate Signal Transformation." in *Proceedings of IEEE 20th International Conference on Body Sensor Networks (BSN '24), 2024*.

[14] Jing-Chun Wang, **Woan-Shiuan Chien**, Huan-Yu Chen and Chi-Chun Lee, "In-The-Wild HRV-Based Stress Detection Using Individual-Aware Metric Learning." in *Proceedings of IEEE 20th International Conference on Body Sensor Networks (BSN '24), 2024*.

[15] **Woan-Shiuan Chien** and Chi-Chun Lee, "An Investigation of Group versus Individual Fairness in Perceptually Fair Speech Emotion Recognition." in *Proceeding of Conference of the International Speech Communication Association (Interspeech '24), 2024, pp. 3205-3209*.

[16] Hsing-Hang Chou, **Woan-Shiuan Chien**, Ya-Tse Wu and Chi-Chun Lee, "An Inter-Speaker Fairness-Aware Speech Emotion Regression Framework." in *Proceeding of Conference of the International Speech Communication Association (Interspeech '24), 2024, pp. 3190-3194*.

[17] **Woan-Shiuan Chien**, Shreya G. Upadhyay and Chi-Chun Lee, "Balancing Speaker-Rater Fairness for Gender-Neutral Speech Emotion Recognition." in *Proceeding of the 49th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '24), 2024, pp. 11861-11865*.
Merry Electro-Acoustic Thesis Award Finalist

[18] Po-Chen Lin, Jeng-Lin Li, **Woan-Shiuan Chien** and Chi-Chun Lee, "In-the-wild Physiological-based Stress Detection Using Federated Strategy." in *Proceeding of the 49th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '24), 2024, pp. 1681-1685*.

[19] Shreya G. Upadhyay*, **Woan-Shiuan Chien***, Bo-Hao Su, Lucas Goncalves, Ya-Tse Wu, Ali N. Salman, Carlos Busso and Chi-Chun Lee, "An Intelligent Infrastructure Toward Large Scale Naturalistic Affective Speech Corpora Collection." in *Proceeding of the 11th International Conference on Affective Computing & Intelligent Interaction (ACII '23), 2023, pp. 1-8*.

[20] **Woan-Shiuan Chien** and Chi-Chun Lee, "Achieving Fair Speech Emotion Recognition via Perceptual Fairness." in *Proceeding of the 48th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '23), 2023, pp. 1-5*.

[21] Shreya G. Upadhyay, Luz Martinez-Lucas, Bo-Hao Su, Wei-Cheng Lin, **Woan-Shiuan Chien**, Ya-Tse Wu, William Katz, Carlos Busso and Chi-Chun Lee, "Phonetic Anchor-Based Transfer Learning To Facilitate Unsupervised Cross-Lingual Speech Emotion Recognition." in *Proceeding of the 48th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP '23), 2023, pp. 1-5*.

[22] **Woan-Shiuan Chien**, Shreya G. Upadhyay, Wei-Cheng Lin, Ya-Tse Wu, Bo-Hao Su, Carlos Busso and Chi-Chun Lee, "Monologue versus Conversation: Differences in Emotion Perception and Acoustic Expressivity." in *Proceeding of the 10th IEEE International Conference on Affective Computing & Intelligent Interaction (ACII '22), 2022, pp. 1-7*.
Invited for Extension in "Best of ACII" of IEEE Transactions on Affective Computing

[23] **Woan-Shiuan Chien**, Huang-Cheng Chou and Chi-Chun Lee, "Self-assessed Emotion Classification from Acoustic and Physiological Features within Small-group Conversation." in *Companion Publication of the 23rd ACM International Conference on Multimodal Interaction (ICMI '21), 2021, pp. 230-239*.

[24] **Woan-Shiuan Chien**, Huang-Cheng Chou and Chi-Chun Lee, "Belongingness and Satisfaction Recognition from Physiological Synchrony with A Group-Modulated Attentive BLSTM under Small-group Conversation." in *Companion Publication of the 23rd ACM International Conference on Multimodal Interaction (ICMI '21), 2021, pp. 220-229*.

[25] Huang-Cheng Chou, **Woan-Shiuan Chien**, Da-Chen Juan and Chi-Chun Lee, ""Does it Matter When I Think You Are Lying?" Improving Deception Detection by Integrating Interlocutor's Judgements in Conversations." in *Findings of the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP '21), 2021, pp. 1846-1860*.
Merry Electro-Acoustic Thesis Bronze Award

[26] **Woan-Shiuan Chien**, Hao-Chun Yang and Chi-Chun Lee, "Cross Corpus Physiological-based Emotion Recognition Using a Learnable Visual Semantic Graph Convolutional Network." in *Proceedings of the 25th ACM International Conference on Multimedia (MM '20), 2020, pp. 2999-3006*.
Acceptance Rate: 27.8 %

[27] **Woan-Shiuan Chien** and Sung-Nien Yu, "Identification of Myocardial Ischemic and Infarction Episodes Based on ST Level and Beat Type Re-attribution Method." in *Proceedings of the 2nd International Conference on Biomedical Signal and Image Processing (ICBIP '17), 2017, pp. 81-84*.

Abstract Paper

[1] Tzu-Jai Liu, Chao-Jhun Yang, Yi-Chen Lee, **Woan-Shiuan Chien**, Chi-Chun Lee and Yen-Ping Chang, "Clicked! Advanced Quantifications of Couple Emotional Synchrony Using Electrodermal Data and Their Effects on Relationship Quality" in *Proceeding of the 10th European Conference on Positive Psychology (ECPP '22), Reykjavík, Iceland, 2022*.