



MUNKHJARGAL GOCHOO

ASSISTANT PROFESSOR



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Google Citations: 1500+, h-index: 23



Since 2019, Dr. Gochoo has held the position of Assistant Professor at the Department of Computer Science and Software Engineering, College of Information Technology, United Arab Emirates University (UAEU). He also serves as a Visiting Professor at the Department of Electrical Engineering, National Taipei University of Technology. Moreover, he holds the position of Editor-in-Chief of the international peer-reviewed journal ICTFocus published by the Mongolian University of Science and Technology. At UAEU, Dr. Gochoo directs the Embedded AI Unit and serves as a co-PI of the AI and Robotics Lab. His primary research interests encompass deep machine learning, embedded AI, computer vision, social robotics, and privacy-preserved action recognition. Notably, during the pandemic, Dr. Gochoo co-founded MetaTouch, a StartUp supported by UAEU, which introduced touchless elevator buttons, implemented in hundreds of buildings across the Abu Dhabi Emirates, aiming to reduce the spread of COVID-19.

EMPLOYMENT

| Institution | Department | Period | Position |
|--|--|----------------------------|------------------------------|
| United Arab Emirates University | Computer Science & Software Engineering | Aug. 2019 - present | Assistant Professor |
| National Taiwan Ocean University | Department of Computer Science and Engineering | 2018-2019 | Post Doc |
| National Taipei University of Technology | Electronic Engineering | 2017-2018 | Research Assistant Professor |
| Mongolian University of Science and Technology | Electronics Engineering | 2015-2016 | Senior Lecturer |
| | | 2008-2011 | Lecturer |
| | | 2005-2007 | Assistant Lecturer |
| Mongolian University of Science and Technology | Electronics Engineering | 2004-2005 | Assistant of professor |

EDUCATION

| Level | School/University | Year | GPA | Cert. Number |
|-------|--|------|------|--------------|
| Ph.D. | National Taipei University of Technology | 2017 | 3.96 | (106) 0039 |
| M.Sc. | Mongolian University of Science and Technology | 2005 | 3.7 | E20051786 |
| B.Sc. | Mongolian University of Science and Technology | 2004 | 3.66 | D200416703 |

OTHER AFFILIATIONS

- Visiting Professor at the Department of Electrical Engineering, National Taipei University of Technology. 2020 present.
- Former Co-Founder, MetaTouch StartUp, UAEU, UAE, 2020-2022.

JOURNAL PUBLICATION

- S. Khalid, F. Alnajjar, **M. Gochoo**, A. Renawi, and S. Shimoda, "Robotic assistive and rehabilitation devices leading to motor recovery in upper limb: a systematic review," *Disability and Rehabilitation: Assistive Technology*, vol. 18, no. 5. Informa UK Limited, pp. 658–672, 16-Apr-2021.
- T.-H. Tan, J.-Y. Shih, S.-H. Liu, M. Alkhaleefah, Y.-L. Chang, and **M. Gochoo**, "Using a Hybrid Neural Network and a Regularized Extreme Learning Machine for Human Activity Recognition with Smartphone and Smartwatch," *Sensors*, vol. 23, no. 6. MDPI AG, p. 3354, Mar. 22, 2023. doi: 10.3390/s23063354.
- P.-Y. Chen, J.-W. Hsieh, **M. Gochoo**, and Y.-S. Chen, "Mixed Stage Partial Network and Background Data Augmentation for Surveillance Object Detection," *IEEE Transactions on Intelligent Transportation Systems*, vol. 23, no. 12. Institute of Electrical and Electronics Engineers (IEEE), pp. 23533–23547, Dec. 2022. doi: 10.1109/tits.2022.3206709.
- W. Aditya, T. K. Shih, T. Thaipisutikul, A. S. Fitriajie, **M. Gochoo**, F. Utamingrum, and C.-Y. Lin, "Novel Spatio-Temporal Continuous Sign Language Recognition Using an Attentive Multi-Feature Network," *Sensors*, vol. 22, no. 17. MDPI AG, p. 6452, 26-Aug-2022;
- M.-E. Otgonbold, **M. Gochoo**, F. Alnajjar, L. Ali, T.-H. Tan, J.-W. Hsieh, and P.-Y. Chen, "SHEL5K: An Extended Dataset and Benchmarking for Safety Helmet Detection," *Sensors*, vol. 22, no. 6. MDPI AG, p. 2315, 17-Mar-2022. (**Corresponding author**);
- T.-H. Tan, J.-Y. Wu, S.-H. Liu, and **M. Gochoo**, "Human Activity Recognition Using an Ensemble Learning Algorithm with Smartphone Sensor Data," *Electronics*, vol. 11, no. 3. MDPI AG, p. 322, Jan. 20, 2022. doi: 10.3390/electronics11030322;
- A. Renawi, F. Alnajjar, M. Parambil, Z. Trabelsi, **M. Gochoo**, S. Khalid, and O. Mubin, "A simplified real-time camera-based attention assessment system for classrooms: pilot study," *Education and Information Technologies*, vol. 27, no. 4. Springer Science and Business Media LLC, pp. 4753–4770, 15-Nov-2021. [**Education-related**]
- B. Alsinglawi, O. Mubin, F. Alnajjar, K. Kheirallah, M. Elkhodr, M. Al Zobbi, M. Novoa, M. Arsalan, T. N. Poly, **M. Gochoo**, G. Khan, and K. Dev, "A simulated measurement for COVID-19 pandemic using the effective reproductive number on an empirical portion of population: epidemiological models," *Neural Computing and Applications*. Springer Science and Business Media LLC, 09-Oct-2021;
- T.-H. Tan, L. Badarch, W.-X. Zeng, **M. Gochoo**, F. S. Alnajjar, and J.-W. Hsieh, "Binary Sensors-Based Privacy-Preserved Activity Recognition of Elderly Living Alone Using an RNN," *Sensors*, vol. 21, no. 16. MDPI AG, p. 5371, 09-Aug-2021. (**Corresponding author**);
- S. Belbase, B. R. Mainali, W. Kasemsukpipat, H. Tairab, **M. Gochoo**, and A. Jarrah, "At the dawn of science, technology, engineering, arts, and mathematics (STEAM) education: prospects, priorities, processes, and problems," *International Journal of Mathematical Education in Science and Technology*, vol. 53, no. 11. Informa UK Limited, pp. 2919–2955, May 05, 2021. doi: 10.1080/0020739x.2021.1922943. [**Education-related**]
- **Munkhjargal Gochoo***, Fady Alnajjar, Tan-Hsu Tan, and Sumayya Khalid, "Towards Privacy-Preserved Aging in Place: A Systematic Review", *Sensors (IF 3.275, Top 25%)*, Apr. 2021. (**Corresponding author**);
- Luqman Ali, Fady Alnajjar, Hamad Al Jassmi, **Munkhjargal Gochoo**, Wasif Khan and M. Adel Serhani, "Performance Evaluation of Deep CNN-Based Crack Detection and Localization Techniques for Concrete Structures", *Sensors (IF 3.275)*, vol. 21, p. 1688, mar. 2021.
- S. Velmurugan, S. Palanisamy, T. C-K Yang, **M. Gochoo**, and S.-W. Chen, "Ultrasonic assisted functionalization of MWCNT and synergistic electrocatalytic effect of nano-hydroxyapatite incorporated MWCNT-chitosan scaffolds for sensing of nitrofurantoin," *Ultrasonics Sonochemistry (IF 7.279, Q1)*, vol. 62, p. 104863, Apr. 2020.

- A. Vogan, F. Alnajjar, **M. Gochoo** and S. Khalid, "Robots, AI, and Cognitive Training in an Era of Mass Age-Related Cognitive Decline: A Systematic Review," in *IEEE Access* (IF: 4.096, Q1), vol. 8, pp. 18284-18304, 2020, doi: 10.1109/ACCESS.2020.2966819.
- **Munkhjargal Gochoo**, Tan-Hsu Tan, Shih-Chia Huang, Alnajjar Fady, Yung-Fu Chen, and Batjargal Tsedevdorj, "Novel IoT-Based Privacy-Preserving Yoga Posture Recognition System Using Low-Resolution Infrared Sensors and Deep Learning", *IEEE Internet of Things Journal*, (IF 9.515, Q1), 6, 9. 2019;
- Tan-Hsu Tan, **Munkhjargal Gochoo**, Shih-Chia Huang, Yi-Hung Liu, Shing-Hong Liu and Yung-Fa Huang, "Multi-Resident Activity Recognition in A Smart Home Using RGB Activity Image and DCNN", *IEEE Sensors Journal*, vol. 18, issue 23, pages 9718-9727, 2018, SCI, IF: 3.06, Rank: 12/58 (Q1) in the category of Instrument and Instrumentation;
- **Munkhjargal Gochoo**, Tan-Hsu Tan, Shing-Hong Liu, Fu-Rong Jean, Fady S. Alnajjar, and Shih-Chia Huang, "Unobtrusive Activity Recognition of Elderly People Living Alone Using Anonymous Binary Sensors and DCNN", *IEEE Journal of Biomedical and Health Informatics*, pages 1-1, 2018, SCI, IF: 4.217, Rank: 57/642 (Q1) in the category of Electrical and Electronic Engineering;
- **Munkhjargal Gochoo**, Tan-Hsu Tan, Vijayalakshmi Velusamy, Shing-Hong Liu, Damdinsuren Bayanduuren, and Shih-Chia Huang, "Device-Free Non-Privacy Invasive Classification of Elderly Travel Patterns in A Smart House Using PIR Sensors and DCNN," *IEEE Sensors Journal*, vol. 18, issue 1, pages 390-400, SCI, IF: 3.06, Rank: 12/58 (Q1) in the category of Instrument and Instrumentation;
- Tan-Hsu Tan, **Munkhjargal Gochoo**, Fu-Rong Jean, Shih-Chia Huang, and Sy-Yen Kuo, "Front-door Event Classification Algorithm for Elderly People Living Alone in Smart House Using Wireless Binary Sensors," *IEEE Access*, vol. 5, pages 10734-10743, 2017, SCI, IF: 4.096, Rank: 54/260 (Q1) in the category of Engineering, Electrical & Electronic. (Corresponding author);
- Tan-Hsu Tan, **Munkhjargal Gochoo**, Yung-Fu Chen, Jin-Jia Hu, John Y. Chiang, Ching-Su Chang, Ming-Huei Lee, Yung-Nian Hsu, and Jiin-Chyr Hsu, "Ubiquitous Emergency Medical Service System Based on Wireless Biosensors, Traffic Information, and Wireless Communication Technologies: Development and Evaluation," *Sensors*, vol. 17, issue 1, no. 202, 2017, SCI, IF: 2.677, Rank: 10/58 (Q1) in the category of Instrument & Instrumentation. (Corresponding author);
- Bo-Hao Chen, Andrey Kopylov, Shih-Chia Huang, Oleg Seredin, Roman Karpov, Sy-Yen Kuo, K. Robert Lai, Tan-Hsu Tan, **Munkhjargal Gochoo**, Damdinsuren Bayanduuren, Cihun-Siyong Gong, "Improved global motion estimation via motion vector clustering for video stabilization," *Engineering Applications of Artificial Intelligence*, vol. 54, pages 39-48, 2016, SCI, IF: 2.894, Rank: 32/133 (Q1) in the category of Computer Science, Artificial Intelligence.

CONFERENCE PUBLICATION

- M. Abduljabbar, **M. Gochoo**, M. T. Sultan, G. Batnasan, M.-E. Otgonbold, J. Berengueres, F. Alnajjar, A. A. Rasheed, A. Alshamsi, and N. Alsaedi, "A Cloud-Based 3D Digital Twin for Arabic Sign Language Alphabet Using Machine Learning Object Detection Model," 2023 15th International Conference on Innovations in Information Technology (IIT). IEEE, 14-Nov-2023.
- A. A. Ahmed, **M. Gochoo**, M. Taghizadeh, M.-E. Otgonbold, and G. Batnasan, "ESL127: Emirate Sign Language Dataset(s) and e-Dictionary (Version 2.0) Utilizing Deep Learning Recognition Models," 2023 15th International Conference on Innovations in Information Technology (IIT). IEEE, Nov. 14, 2023. doi: 10.1109/iit59782.2023.10366479.
- C.-J. Huang, **M. Gochoo**, and T.-H. Tan, "Two-Stream Architecture Using RGB-based ConvNet and Pose-based LSTM for Video Action Recognition," 2023 15th International Conference on Innovations in Information Technology (IIT). IEEE, 14-Nov-2023.
- **M. Gochoo**, G. Batnasan, A.A. Ahmed, M.E. Otgonbold, F. Alnajjar, "Fine-Tuning Vision Transformer for Arabic Sign Language Video Recognition on Augmented Small-Scale Dataset", In *IEEE SMC2023*, Honolulu, October 2023, (Class B)
- P.-Y. Chen, J.-W. Hsieh, M.-C. Chang, **M. Gochoo**, F.-P. Lin, Y.-S. Chen, "Fisheye Multiple Object Tracking by Learning Distortions without Dewarping", In *ICIP2023*, Kuala Lumpur, October 2023. (Class A)

- **M. Gochoo**, et al., “FishEye8K: A Benchmark and Dataset for Fisheye Camera Object Detection”, In *CVPRW*, June, Vancouver, 2023. (**Class A***)
- G. Batnasan, **M. Gochoo**, M.-E. Otgonbold, F. Alnajjar, and T. K. Shih, “ArSL21L: Arabic Sign Language Letter Dataset Benchmarking and an Educational Avatar for Metaverse Applications,” 2022 IEEE Global Engineering Education Conference (EDUCON). IEEE, Mar. 28, 2022. doi: 10.1109/educon52537.2022.9766497. [**Education-related**] (**Corresponding author**);
- M. M. A. Parambil, L. Ali, F. Alnajjar, and **M. Gochoo**, “Smart Classroom: A Deep Learning Approach towards Attention Assessment through Class Behavior Detection,” 2022 Advances in Science and Engineering Technology International Conferences (ASET). IEEE, Feb. 21, 2022. doi: 10.1109/aset53988.2022.9735018. [**Education-related**]
- A. F. Alraeesi, H. F. Kharbash, J. S. Alghfeli, S. S. Alsaedi, and **M. Gochoo**, “Privacy-Preserved Social Distancing System Using Low-Resolution Thermal Sensors and Deep Learning,” 2021 IEEE International Conference on Systems, Man, and Cybernetics (SMC). IEEE, Oct. 17, 2021. doi: 10.1109/smc52423.2021.9659292. (**Corresponding author**);
- T.-H. Tan, C.-J. Huang, **M. Gochoo**, and Y.-F. Chen, “Activity Recognition Based on FR-CNN and Attention-Based LSTM Network,” 2021 30th Wireless and Optical Communications Conference (WOCC). IEEE, Oct. 07, 2021. doi: 10.1109/wocc53213.2021.9603203.
- C. Ping-Yang, J.-W. Hsieh, **M. Gochoo**, and Y.-S. Chen, “Light-Weight Mixed Stage Partial Network for Surveillance Object Detection with Background Data Augmentation,” 2021 IEEE International Conference on Image Processing (ICIP). IEEE, Sep. 19, 2021. doi: 10.1109/icip42928.2021.9506212.
- Pirdiansyah Hendri, Jun-Wei Hsieh, Ping-Yang Chen, **M. Gochoo**, Yong-Sheng Chen, “Deep Real-time Hand Detection Using CFPN on Embedded Systems”, appear in Proc. of International Conference on Pattern Recognition (*ICPR2021*) – January, Italy, 2021. (**Class A**)
- T.-H. Tan, **M. Gochoo**, H.-S. Chen, S.-H. Liu, and Y.-F. Huang, “Activity Recognition Based on DCNN and Kinect RGB Images,” presented at the 2020 International Conference on Fuzzy Theory and Its Applications (iFUZZY), Nov. 2020, doi: 10.1109/ifuzzy50310.2020.9297815.
- T. Habuza, K. Khalil, N. Zaki, F. Alnajjar, and **M. Gochoo**, “Web-based multi-user concurrent job scheduling system on the shared computing resource objects,” presented at the 2020 14th International Conference on Innovations in Information Technology (IIT), Nov. 2020, doi: 10.1109/iit50501.2020.9299110.
- **Munkhjargal Gochoo**, Fady Al Najjar, Tan-Hsu Tan, Jun-Wei Hsieh, and Ping-Yang Chen, “LowNet: Privacy Preserved Ultra-Low Resolution Posture Image Classification”, in Proc. of *IEEE ICIP 2020*, Abu Dhabi, UAE, 2020. (**Class A1**)
- C. C. Ki Chan, V. Kumar, S. Delaney, and **M. Gochoo**, “Combating Deepfakes: Multi-LSTM and Blockchain as Proof of Authenticity for Digital Media,” presented at the 2020 IEEE / ITU International Conference on Artificial Intelligence for Good (AI4G), Sep. 2020, doi: 10.1109/ai4g50087.2020.9311067.
- **Munkhjargal Gochoo**, Alistair Avery Vogan, Sumayya Khalid, Fady Alnajjar, “AI and Robotics-Based Cognitive Training for Elderly: A Systematic Review”, appear in Proc. of *2020 IEEE/ITU International Conference on Artificial Intelligence for Good*, Geneva, Switzerland, 2020. (**Class B2**)
- Ping-Yang Chen, Jun-Wei Hsieh, **Munkhjargal Gochoo**, Ming-Ching Chang, Chien-Yao Wang, Yong-Sheng Chen, and Hong-Yuan Mark Liao, “Drone-based Vehicle flow Estimation and Its application to Traffic Conflict Hotspot Detection at Intersections”, in Proc. of *IEEE ICIP 2020*, Abu Dhabi, UAE, 2020. (**Class A1**)
- **Munkhjargal Gochoo**, Jun-Wei Hsieh, Chien-Hung Lee, Yun-Chih Chen, and Yu-Chi Shih, “Chronic Kidney Disease Stage Classification Using Renal Artery Doppler-Derived Parameters”, In Proc. of *IEEE SMC2019*, Oct. 7-9, Bari, Italy, 2019. (**Class B2**)
- Ping-Yang Chen, Jun-Wei Hsieh, **Munkhjargal Gochoo**, Chien-Yao Wang, and Mark Hong-Yuan Liao, “Smaller Object Detection for Real-Time Embedded Traffic Flow Estimation Using Fish-Eye Cameras”, in Proc. of *IEEE ICIP 2019*, Sep. 22-25, Taipei, Taiwan, 2019. (**Class A1**);
- **Munkhjargal Gochoo**, Tan-Hsu Tan, Tsedevdorj Batjargal, Oleg Seredin, Shih-Chia Huang, “Device-Free Non-Privacy Invasive Indoor Human Posture Recognition Using Low-Resolution Infrared Sensor-Based Wireless Sensor Networks and DCNN”, in Proc. of *IEEE SMC2018*, Oct. 7-10, Miyazaki, 2018. (**Class B2**);

- **Munkhjargal Gochoo**, Tan-Hsu Tan, Shing-Hong Liu, Shih-Chia Huang, Fady S. Alnajjar, “DCNN-Based Elderly Activity Recognition Using Binary Sensors”, in *Proc. of ICECTA2017*, Nov. 21-23, Ras Al Khaimah, 2017;
- **Munkhjargal Gochoo**, Tan-Hsu Tan, Shing-Hong Liu, Vijayakshmi Velusamy, Damdinsuren Bayanduuren, Tsung-Yu Liu, “Deep Convolutional Neural Network Classifier for Travel Patterns Using Binary Sensors”, in *Proc. of the 8th International Conference on Awareness Science and Technology*, Nov. 8-10, Taichung, 2017;
- **Munkhjargal Gochoo**, Tan-Hsu Tan, Fu-Rong Jean, Shih-Chia Huang, Sy-Yen Kuo, “Device-free Non-invasive Front-door Event Classification Algorithm for Forget Event Detection Using Binary Sensors in the Smart House”, in *Proc. of IEEE International Conference on Systems, Man, and Cybernetics*, Oct. 5-8, Banff, 2017, (Class B2);
- **Munkhjargal Gochoo**, Damdinsuren Bayanduuren, Uyangaa Khuchit, Galbadrakh Battur, Sy-Yen Kuo, Tan-Hsu Tan, and Shih-Chia Huang, “Design and Application of Novel Morphological Filter used in Vehicle Detection,” in *Proc. of 15th IEEE/ACIS International Conference on Computer and Information Science*, June 26-29, Okayama, 2016. **(Corresponding author)**;
- Tan-Hsu Tan, **Munkhjargal Gochoo**, Ke-Hao Chen, Fu-Rong Jean, Yung-Fu Chen, Fu-Jin Shih, and Chiung Fang Ho, “Indoor Activity Monitoring System for Elderly Using RFID and FitBit Flex Wristband,” in *Proc. of 2nd IEEE EMBS International Conference on Biomedical and Health Informatics*, Valencia (Spain), June 1-4, 2014, **(Class A2) (corresponding author)**;
- Tan-Hsu Tan, **Munkhjargal Gochoo**, Ching-Su Chang, Chi-Ting Wu, John Y. Chiang, “Fall Detection for Elderly Persons Using Android-Based Platform,” in *Proc. of 8th International Forum on Strategic Technology*, June 28 – July 1, Ulaanbaatar, 2013. **(Corresponding author)**;
- Tan-Hsu Tan, **Munkhjargal Gochoo**, Sukhbaatar Bilgee, Ching-Su Chang *et al.*, “Development of an Emergency Medical Service System Based on Wireless Networks and Real-Time Traffic Information,” in *Proc. of International Conference on Computerized Healthcare*, Dec.17-18, Hong Kong, 2012. **(Corresponding author)**

SUPERVISION

GRADUATE

- Currently supervising a Ph.D. student at **United Arab Emirates University**;
- Currently co-supervising two Ph.D. students at **United Arab Emirates University**;
- **Supervised** two Master students at **United Arab Emirates University**, 2023;
- Currently supervising 1 Master student at **United Arab Emirates University**;
- Currently supervising a Ph.D. student at the Mongolian University of Science and Technology;
- **Co-supervised** 2 Master students at the National Taipei University of Technology, in 2021;
- Currently supervising 1 Master student at the Mongolian University of Science and Technology;
- **Supervised** 3 Master students at the Mongolian University of Science and Technology in 2022, 2023;

UNDERGRADUATE

- **Supervised** 15+ Senior Groups at **United Arab Emirates University**;
- **Supervised** 20+ UG students’ graduation projects during 2004-2011 at the Mongolian University of Science and Technology;

AWARDED GRANTS (PI)

- **Project Title:** Elderly Physical and Mental Health Monitoring and Anomaly Detection Based on the Daily Activities of Living using Deep Learning, **Role:** Lead Investigator, **Granting Source:** ZCHS, **Award Amount:** AED75’000, **Starting Date:** 2023.04.01, **Ending Date:** 2024.03.31;

- **Project Title:** Two-Handed Static and Dynamic Arabic Sign Language Translation System Integration Using Spatiotemporal and Machine Translation Models, **Role:** Lead Investigator, **Granting Source:** UPAR, UAEU, **Award Amount:** AED399'300, **Starting Date:** 2022.04.01, **Ending Date:** 2024.03.31;
- **Project Title:** Embedded Real-Time Wide Area Vehicle Detection and Tracking System for Traffic Safety & Monitoring Using Deep Learning, **Role:** Lead Investigator, **Granting Source:** Center-Based Grant, UAEU, **Award Amount:** AED293'250, **Starting Date:** 2021.02.01, **Ending Date:** 2023.01.31;
- **Project Title:** Non-Privacy Invasive Device-free Indoor Elderly Tracking and Accidental Fall Detection System Using Ultra-Low Resolution Infrared Sensors and Deep Learning, **Role:** Lead Investigator, **Granting Source:** Start-Up grant, UAEU, **Award Amount:** AED304'102, **Starting Date:** 2020.02.01, **Ending Date:** 2022.01.31;
- **Project Title:** "Device-Free Non-Privacy Invasive Activity and Anomaly Detection System of Elderly Living Alone using Low Resolution Infrared Array Sensor-based Wireless Sensor Network and Deep Learning Scheme", **Role:** Lead Investigator, **Granting Source:** Ministry of Science and Technology, Taiwan, Project No 106WFAA310008_BASE_EN, MOST, Taiwan, **Starting Date:** 2018.03.01, **Ending Date:** 2019.02.28.

AWARDED GRANTS (Co-PI)

- **Project Title:** Computer-/Robotic-based Cognitive Training System for Elderly People in UAE, **Role:** Co-Investigator, **Granting Source:** Center-Based, UAEU, UAE, **Award Amount:** NA, **Starting Date:** 2018.02.01, **Ending Date:** 2022.01.31.

US PATENTS

- Fady Alnajjar, Muthanna Ahmed Aziz, Waleed Khalil Ahmed, **Munkhjargal Gochoo**, "Arm motion sensor system", US11231437B1, Jan. 25, 2022, [Link](#);
- **Munkhjargal Gochoo**, Fady Alnajjar, Waleed Khalil Ahmed, Muthanna Ahmed Aziz, "System and method for social distancing compliance", US11080981B1, Aug. 03, 2021, [Link](#).

ACADEMIC MEMBERSHIPS

- Member, IEEE, since 2017;
- Board Member, Mongolian Researchers Society, since 2020.

HONORS & AWARDS

- Patent Award, UAEU, Co-Inventor, "Arm Motion Sensor System", US11231437, Jan. 25, 2022;
- "Senior Project II, "Third Prize Award", Supervisor, CIT, UAEU, 2023, Spring;
- "Senior Project II, Shortlisted as Best 5 Projects, Supervisor, CIT, UAEU, 2022, Spring;
- "Senior Project II, "The Second Prize Award", Supervisor, CIT, UAEU, 2021, Spring;
- Patent Award, UAEU, Lead Inventor, "System and method for social distancing compliance", US11080981B1, Aug. 03, 2021;
- "Senior Project II, "The First Prize Award", Supervisor, CIT, UAEU, 2020, Fall;
- Received the Ph.D. Fellowship, National Taipei University of Technology, 2011-2014;
- Received Best Lecturer, Mongolian University of Science and Technology, 2011.

- Honored Credential, Information, Communication and Post Authority (ICPA) of Mongolia, 2010;
- Team Instructor, 1st Place, 1st Place, 2nd Place, 2nd Place, National ABU Robocon Contest, in 2011, 2006, 2005, 2004, respectively;
- “Exceptional Diploma”, Mongolian University of Science and Technology, 2004;
- Two-time winner, Highschool Physics Olympiad, Bayangol District, Ulaanbaatar City, Mongolia.

KEYNOTES & INVITED TALKS

- Keynote, “FishEey8K Dataset and Benchmarking on Road Object Detection”, Consolidating International Standards, Practices and Research Directions for Autonomous Mobility, Emirates Center for Mobility Research, **UAEU**, 12.07.2023. [Social](#);
- “Fine-tuning Transformer Model on Sign Language Word Dataset”, World-Wide Network of AI Labs in Hospital, **IEEE IROS, Detroit**, 2023.10.01. [Link](#). [Social](#);
- “Fine-tuning Transformer Model on Sign Language Word Dataset”, Research Symposium between **UAEU** and **University of Malaya**, 2023.10.10. [Social](#);
- “How to Publish Good Conference and Journal Papers-Practical Advice on Own Experience”, **Tsinghua University**, Beijing, China, 2019.12.25;
- “Smaller Object Detection for Real-time Embedded Traffic flow Estimation Using Fish-eye Cameras”, **United Arab Emirates University**, Al Ain, UAE, 2019.10.28;
- “Novel Privacy-Preserving Yoga Posture Recognition System Using Low-Resolution Infrared Sensors and Deep Learning”, **National Taipei University of Technology**, Taipei, Taiwan, 2018.10.17;
- “DCNN-Based Elderly Activity Recognition Using Binary Sensors”, **National Taipei University of Technology**, Taipei, Taiwan, 2018.01.03;
- “Device-Free Non-Privacy Invasive Activity and Travel Pattern Detection Using DCNN and Binary Sensors”, **United Arab Emirates University**, Al-Ain, UAE, 2017.11.26.

EDITORSHIPS

- Editor-in-Chief, International peer-reviewed journal, ICT Focus, Mongolia, since 2022.

SERVICES & ACTIVITIES

- Member, University Innovation Team, UAEU, since 2023;
- Chair, College Innovation Support Team, CIT, UAEU, since 2021;
- Track Chair, IEEE IIT conference, UAEU, Nov, 2023;
- Chair, IT Showcase, IT Marathon, UAEU, Nov, 2023;
- Member, Curriculum Committee, CIT, UAEU, Since 2022;
- Member, Faculty Evaluation Committee, Department of Computer Science and Software Engineering, CIT, UAEU, Since 2022;
- Chair, Poster Session, JSSR2021, UAEU, 2021;
- Reviewer of IEEE Sensors, IEEE Internet of Things, IEEE Access, Nature Communications;
- Session Chair: Session 6-Data Analytics & Machine Learning Session with Dr. Mohammad Masud, UAEU. 14th International Conference on Innovations in Information Technology (IEEE IIT'20) November 17-18, 2020, Al Ain, UAE. <https://conferences.uaeu.ac.ae/iit20/en/index.shtml>
- TPC member: IEEE / ITU International Conference on Artificial Intelligence for Good <https://2020.ai4g.ieee-tems.org/>;
- Chair of the poster session in JSSR2020, February 2020. <https://conferences.uaeu.ac.ae/jssr2020/en/>

- Track Co-Chair of IEEE TEMS-ISIE 2019, Hangzhou, China;
- Chair, “Student Project Exhibition of School of Information and Communication Technology”, Dec 2008, Dec 2009, Dec 2010;
- Team Instructor, International ABU ROBOCON CONTEST in Kuala Lumpur, Malaysia in 2006, Bangkok, Thailand in 2011;
- Research experience in laboratory of Artificial Intelligence. Fukui University, Japan, 2007-2008;
- Team member, in “Robocup Japan Open 2008 Numazu”, a team member of the middle size league. May 2008;
- Chair, “Automatic robot competition of School of Information and Communication Technology”, May 2009, May 2010, May 2011.

QUALIFICATIONS

- Equivalency Certificate of PhD Diploma, Verification Number: 602505, MOE, UAE;
- Certificate, Mongolian Professional Engineer, ICT sector of Mongolia, No. 17-226, Ulaanbaatar, 2017.12.18;
- CDIO standard, I and II level training certificate, 2016.01.22;
- Certificate of Teaching Authority, SN:786/10, Ulaanbaatar, 2010.November;
- ICDL (International Computer Driving License) certificate for all modules, SN: MNIF00000066, Ulaanbaatar, 2009, August;
- MATLAB Programming and Application, Baotou, China, June.2010;
- ICDL certificate for 4 modules, SN: MNIF00000066, Ulaanbaatar, 2009, June.

SKILLS

- Excellent in teaching, supervising, leading, and mentoring;
- Excellent in time management, planning, innovation, and researching;
- Proficient in designing deep learning models such as CNN, LSTM, and GAN;
- Proficient in Assembly, Python languages;
- Excellent in prototyping an electronic circuit and software such as Workbench, Protell, Proteus, UMPS, Circuit Maker, MATLAB;
- Proficient in programming microprocessors and microcontrollers AVR, 8051 families;
- Instructing “High-tech” electronics club at the School of Information and Communication Technology;
- Advanced IT skills (Power Point, Microsoft Office, Microsoft Excel, Photoshop, Internet, Copy machine, Printer).

PROJECTS

- Co-PI, 31R178-Research Center-ZCHS-9-2018, UAE, 2018-2022;
- PI, Project № 106WFAA310008_BASE_EN, MOST, Taiwan, 2018-2019;
- Researcher, Project № MOST 106-WFAA350223, Taiwan, 2017-2018;
- Researcher, Project № MOST 105-2221-E-027-112. Taiwan, 2016-2017;
- Researcher, Taiwanese-Mongolian Scientific and Technological Joint Project, “Development and implement of A Traffic Surveillance System in Real-World Wireless Networks”, Project № 103WFA0150423, 2014-2017;
- Researcher, Project № MOST 103-2923-E-002-011-MY3M, Taiwan, 2014-2016;
- Researcher, Taiwanese-Mongolian Scientific and Technological Joint Project, “Development and application of ECG-based ubiquitous telemedicine system”, Project № 99WFAA300117, 2010-2013.

TEXTBOOKS (MONGOLIAN)

- Amartuvshin T., Enkhzul D., **Munkhjargal Gochoo**, Digital Design, 2nd Edition, 2016, Ulaanbaatar;

- Amartuvshin T., Enkhzul D., **Munkhjargal Gochoo**, Digital Design, 2012, Ulaanbaatar;
- Amartuvshin T., Enkhzul D., **Munkhjargal Gochoo**, Analog Electronics, 2012, Ulaanbaatar.

TRAINING DELIVERED/RECEIVED

- Personal Coaching sessions from world-level Personal Coach;
- Trainer: CETL, Artificial Intelligence Workshop-Starting on 17/11/2019 through 18/11/2019, Abu Dhabi, UAE;
- Received: Mandatory First Aid training by UAEU, 2020;
- CETL: Blended learning seminar – 2019.