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Profile

Highly accomplished academic and researcher with a Ph.D. in Information and Computer Sciences over 13 years of experience in teaching, research, and administrative roles. Specialized in IoT-based Systems, Digital Signal Processing, Bone Conducted Speech, AI, and Wireless Communications. Successfully supervised over 50 Master's and undergraduate students in Information and Communication Engineering department. Demonstrated a proven track record of publications in reputable journals and presentations at international conferences. Consistently taught in English, ensuring professional proficiency and effective communication in an academic environment.

Academic Credentials

I. **Doctor of Philosophy (PhD) in Information and Computer Sciences**

Saitama University, Japan, 2024

Degree Award Date: September 20, 2024

CGPA: 4.00 out of 4.00 (Course work)

Thesis: Enhancing Speech Emotion Recognition through Bone-Conducted Speech: Development, Dataset Creation, and Cross-Cultural Analysis

II. **Master of Philosophy (MPhil) in Information and Communication Engineering**

Pabna University of Science and Technology, Pabna, Bangladesh, 2019

Degree Award Date: December 23, 2019

Degree: Conferred

Thesis: Performance Assessment of Layered Space Time Encoded SC-FDMA
Wireless Communication System

III. **Master of Science (MSc) in Information and Communication Engineering**

University of Rajshahi, Rajshahi, Bangladesh, 2010

Result Date: October 12, 2012

CGPA: 3.86 out of 4.00

Thesis: Performance Analysis of Channel Equalization Techniques for MC-CDMA
Wireless Communication System with Various Modulation Schemes

IV. **Bachelor of Science (BSc) in Information and Communication Engineering**

University of Rajshahi, Rajshahi, Bangladesh, 2009

Result Date: August 24, 2011

CGPA: 3.79 out of 4.00

Thesis: Performance Evaluation of a Multi-user Orthogonal Frequency Division
Multiplexing Access based 3GPP LTE wireless communication system

Professional Experiences

I. **Associate Professor, Information and Communication Engineering**

Pabna University of Science and Technology, Pabna, Bangladesh

Oct 2025 – to Present

- Delivered high-quality instruction to undergraduate and graduate students.
- Led innovative research and published in esteemed journals and conferences.
- Mentored students in research projects, career development, and academic pursuits.
- Contributed to curriculum development and departmental activities.

II. **Associate Professor, Information and Communication Engineering**

Pabna University of Science and Technology, Pabna, Bangladesh

Oct 2021 – Oct 2025

- Delivered high-quality instruction to undergraduate and graduate students.
- Led innovative research and published in esteemed journals and conferences.
- Mentored students in research projects, career development, and academic pursuits.
- Contributed to curriculum development and departmental activities.

III. **Assistant Professor, Information and Communication Engineering**

Pabna University of Science and Technology, Pabna, Bangladesh

Sep 2015 – Oct 2021

- Conducted lectures, seminars, and practical sessions in computer science.
- Led research projects and published findings in respected journals.
- Provided guidance and mentorship to students.
- Actively contributed to curriculum development and collaborated on research initiatives.

IV. Lecturer, Information and Communication Engineering
Pabna University of Science and Technology, Pabna, Bangladesh
Sep 2013 – Aug 2015

V. Lecturer, Electrical and Electronic Engineering
Hamdard University Bangladesh, Munshiganj, Bangladesh
Mar 2013 – Aug 2013

VI. Lecturer, Electrical and Electronic Engineering
European University of Bangladesh, Dhaka, Bangladesh
Jan 2013 – Mar 2013

- Responsibilities include preparing hardware and software resources for PC setups, managing Packet Tracer software installations, assisting in practical networking setups, configuring routing protocols, designing network architectures, and maintaining lab equipment. Support students and faculty in troubleshooting network issues, conducting demonstrations, and ensuring the smooth functioning of the networking lab environment.

Awards and Memberships

- MEXT scholarship from Oct. 2021 to Sep. 2024
- Best Paper Award, ICOSP 2025
- Hossain Shaheed Suhrawardy Hall Gold Medal for Outstanding result in B.Sc. Examination-2009 from the University of Rajshahi, Bangladesh.
- Merit Scholarship for outstanding results in the B.Sc. Examination 2009 from the University of Rajshahi, Bangladesh.
- Member, IEEE
- Life Member, JUAAB

Courses Taught

- Advanced Cryptography
- Wireless Communication
- Satellite and Radar Communication
- Telecommunication
- Web Programming
- Digital Signal Processing
- Management Information System
- E-Commerce and E-Governance

- Computer Architecture and Organization
- Cryptography and Network Security
- Structure Programming
- Digital Image and Speech Processing

Skills

- Speech Emotion Recognition
- Bone Conducted Speech
- Deep learning
- Wireless Communication
- Image processing using machine learning
- Channel capacity and secrecy capacity analysis for wireless fading channels
- IoT-based applications for transportation and farming
- OBE-based Course Development

Contribution as a Reviewer

- ✚ International Conference on Computing Advancements (ICCA 2022, 2024), ACM Digital Library
- ✚ International Conference on Electrical, Computer and Communication Engineering (ECCE 2023), IEEE
- ✚ International Conference on Recent progress in Science, Engineering and Technology (ICRPSET 2024), IEEE
- ✚ More than 20 different reputed journals

Travel History

- Japan (November 2019, November 2021), USA (February 2024), Malaysia (2023), China (2019, 2024), Singapore (2021)

List of Publications

Journals

- ✚ M.Rashed, M. K.Hasan, M. I.Hossain, **M. S. Hosain**, A. H. A.Rahman, and S.Islam, “Trustworthy Deep Feature Extraction and Ensemble-Based Machine Learning Approach for Breast Cancer Detections.” *Healthcare Technology Letters*13, no. 1 (2026): e70062. <https://doi.org/10.1049/htl2.70062>
- ✚ **M. S. Hosain**, Y. Sugiura, M. S. Rahman and T. Shimamura, "EmoBone: A Multinational Audio Dataset of Emotional Bone Conducted Speech", *IEEJ Trans. Electrical and Electronic Engineering*, Publisher: IEEJ and Wiley, Vol. 19, No. 9, 2024.
- ✚ **M. S. Hosain**, Y. Sugiura, N. Yasui and T. Shimamura. Deep-Learning-Based Speech Emotion Recognition Using Synthetic Bone-Conducted Speech, *Journal of Signal Processing*, Vol. 27, No. 6, pp. 151-163, November 2023
- ✚ Hasan MK, **Hosain MS**, Ahmed MK, et al. Encrypted images in a V-BLAST assisted SC-FDMA wireless communication system. *Trans Emerging Tel Tech.* 2023;e4882. doi: 10.1002/ett.4882 21613915
- ✚ M. K. Hasan, **M.S. Hosain**, T. Saha, S.Islam, L.C. Paul, S.Khatak, H.M. Alkhasawneh, E.Kariri, E. Ahmed, R. Hassan, Energy efficient data detection with low complexity for an uplink multi-user massive MIMO system, *Computers and Electrical Engineering*, Volume 101, 2022, 108045, ISSN 0045-7906.
- ✚ Elfatih, N.M., Hasan, M.K., Kamal, Z., Gupta, D., Saeed, R.A., Ali, E.S., **Hosain, M.S.**: Internet of vehicle’s resource management in 5G networks using AI technologies: Current status and trends. *IET Commun.* 1–21 (2021).
- ✚ Abadin, A. F. M. Z., Sarker, S., **Hosain, M. S.**, Ahmed, M. M., & Imtiaz, A. (2021). A Comprehensive Study and Analysis of Different Routing Protocols for Enterprise LAN. *International Journal of Science and Business*, 5(8), 20-28.
- ✚ Ali MH, **Hosain MS**, and Hossain MA. (2021). Big data analysis using bigquery on cloud computing platform, *Aust. J. Eng. Innov. Technol.*, 3(1), 1-9.
- ✚ J.Rahman, J.J.Sadique, **M. S. Hosain** and S.E.Ullah “Secured Audio Signal Transmission in 5G Compatible mmWave Massive MIMO FBMC System with Implementation of Audio-to- Image Transformation Aided Encryption Scheme” *Global Journal of Computer Science and Technology: E Network, Web & Security*, Vol.18 no.1 Year 2018.

- ✚ T. Saha, **M. S. Hosain**, S. A. Istiaq, "Performance Analysis of Encrypted Color Image in a D-BLAST Aided LDPC Encoded MC-CDMA Wireless Communication System", *Advances in Networks*, 2016; 4(2):13-20. doi: 10.11648/j.net.20160402.11.
- ✚ L. C. Paul, **M. S. Hosain**, S. Sarker, M. H. Prio, M. Morshed, A. K. Sarkar, "The Effect of Changing Substrate Material and Thickness on the Performance of Inset Feed Microstrip Patch Antenna", *American Journal of Networks and Communications (AJNC)*, Vol. 4, No. 3, Pp. 54-58, May 2015, doi: 10.11648/j.ajnc.20150403.16.
- ✚ **M. S. Hosain**, S. E. Ullah, R. Yasmin, "Quality Assessment of Encrypted Color Image in a D-BLAST aided LDPC encoded SC-FDMA Wireless Communication System", *International Journal of Emerging Technologies in Computational and Applied Sciences (IJETCAS)*, Vol. 12, No. 1, March-May, 2015, pp. 58-64.
- ✚ **M. S. Hosain**, S. E. Ullah, R. Yasmin, "Performance analysis of D-BLAST aided Turbo Encoded SC-FDMA wireless communication system", *International Journal of Scientific & Engineering Research*, Volume 5, Issue 7, Pp. 744-749, July-2014, ISSN 2229-5518, <http://www.ijser.org>.
- ✚ M. H. Kafi, **M. S. Hosain**, S. S. Islam, "Impact of MGSTC BLAST spatial multiplexing scheme on performance assessment of MCCDMA wireless communication system", *International Journal of Emerging Technologies in Computational and Applied Sciences (IJETCAS)*, Vol. 12, No. 1, March-May, 2015, pp. 08-14.
- ✚ **M. S. Hosain**, M. Haque, S. E. Ullah, "Performance Assessment of Mimo Mccdma System on Video Signal Transmission with Implementation of Various Digital Signal Processing Techniques", *International Journal of Wireless Communications and Mobile Computing*, Vol. 3, No. 2, 2015, pp. 18-26, Published online April 17, 2015. doi: 10.11648/j.wcmc.20150302.12
- ✚ **M. S. Hosain**, M. Z. Hasan, R. Yasmin, "Impact of Iterative Channel Equalization Schemes on Text Message Transmission in a FEC Encoded Multi Carrier CDMA Wireless Communication System", *J. of Mobile Communication*, ISSN: 1990-794X, Vol. 7, No. 2, pp. 12-16, 2013.

International Conferences

- ✚ Md. Palash Bin Faruque, Saiful Islam, Most. Shabrina Afroz, Tanjina Khan, **Md. Sarwar Hosain** and Md. Kamruzzaman, "A Hybrid Machine Learning Analysis of Birth Order Interaction Effects on Malnutrition: SHAP-Based Insights from Bangladesh" in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Kamil Ahmad, Manob Chandra Chanda, Ariful Islam, Mst Munni Khatun, Sheikh Rashel Al Ahmed and **Md Sarwar Hosain**, "Rice Nutrient Deficiency Detection Using Vision Transformer for Precision Agriculture" in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Md. Najmul Hossain, Md. Taufiqur Rahman Abir, Md. Abdul Ahad, Md Abdur Rahim and **Md Sarwar Hosain**, "A Li-Fi-Based Smart Traffic Management System for Real-Time Adaptive Signal Control," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Sadia Afroz Oishi, Ariful Islam, Md. Akash Miya, Moumita Haque Mohona, Ohidujjaman, and **Md Sarwar Hosain**, "Comparative Evaluation of Deep Learning Architectures for Deepfake Detection under Image Degradation," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Md. Ibne Shihab Shad, Sayeeda Khan, **Md Sarwar Hosain**, Ohidujjaman, Md. Najmul Hossain and Tetsuya Shimamura, "Attention-Guided U-Net with DenseNet Encoder and Transformer Bottleneck for Multi-Label Chest X-Ray Segmentation," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.

- ✚ Nishat Tasnim Susmi, Manob Chandra Chanda, Shubail Haque Turza, Afsana Ferdaush, **Md Sarwar Hosain** and Mohammad Shorif Uddin, "ResNeXt50-Guided Hybrid CNN–Transformer Framework for Early Stroke Abnormality Detection: A Comparative Deep Learning Study," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Sayed Shifat Ahmed, Md. Najmul Hossain, **Md. Sarwar Hosain**, and Tetsuya Shimamura, "Performance Analysis of a Compact Slotted Microstrip Patch Antenna for X-Band Communication Applications," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ A F M Zainul Abadin, Rossilawati Sulaiman, Mohammad Kamrul Hasan, **Md. Sarwar Hosain**, Sohag Sarker and Ahmed Imtiaz, "A Novel Bee Colony Footprint Edge Optimization Algorithm for Image Steganography," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Zannatul Ferdous, Md. Anwar Hossain, and **Md. Sarwar Hossain**, "Machine-Learning Based Evaluation of ICT Awareness among Rural Bangladeshi Primary Students with Policy Recommendations," in Proc. 2026 IEEE International Conference on Power, Electronics, Communications, Computing, and Intelligent Infrastructure (PECCII 2026), PUST, Pabna, Bangladesh, 17-18 June, 2026.
- ✚ Md Uzzal Mia, Sajib Barua, Md. Taz Warul Mulk and **Md Sarwar Hosain**, Tetsuya Shimamura, "A Hybrid Deep Learning Approach for Real-Time Facial Emotion Recognition," in Proc. 2026 IEEE International Conference on Consumer Electronics – Taiwan (ICCE-TW 2026) , July 1-3 , Taoyuan, Taiwan.
- ✚ M. K. Saha, **M. S. Hosain**, M. N. Hossain, and M. S. Uddin, "An Interpretable Hybrid CNN–Vision Transformer Framework for Pneumonia Detection from Chest X-Ray Images," in Proc. 2026 IEEE 2nd International Conference on Quantum Photonics, Artificial Intelligence & Networking, CUET, Chottogram, Bangladesh, 16-18 April, 2026.

- ✚ S. Khatun, L. C. Paul, T. Rani, M. T. Ahmed, **M. S. Hosain**, A. K. Sarkar, "A UWB Compact Dual-Band 8-Element High-Isolation MIMO Antenna for Wi-Fi (5/6 GHz) and 5G NR (n46/47/96) Applications" in Proc. 2026 IEEE 2nd International Conference on Quantum Photonics, Artificial Intelligence & Networking, CUET, Chottogram, Bangladesh, 16-18 April, 2026.
- ✚ Shad Md. Ibne Shihab, Khan Sayeeda, **Hosain Md. Sarwar**, Shimamura Tetsuya, "BONE-CONDUCTED SPEECH EMOTION RECOGNITION VIA A HYBRID CNN-TRANSFORMER WITH MULTI-HEAD SELF-ATTENTION" in Proc. 32nd International Congress on Sound and Vibration (ICSV32), Istanbul, Türkiye, Jul. 5–10, 2026.
- ✚ Md. Najmul Hossain, Sayed Shifat Ahmed, **Md. Sarwar Hosain**, and Tetsuya Shimamura, "Design of a High-Efficiency Compact Four-Element Slotted MIMO Antenna for X-Band Wireless Communications" in Proc. 2026 12th International Conference on Computing and Artificial Intelligence (ICCAI 2026), Okinawa, Japan, April 24-27, 2026.
- ✚ Md. Rifat Hossen, **Md Sarwar Hosain**, Akif Mahdi, Tarun Debnath, Md. Najmul Hossain, "QCNN-SER: A Noise-Robust Quantum Convolutional Neural Network with Enhanced Cross-Domain Generalization for Speech Emotion Recognition" in Proc. 2025 28th International Conference on Computer and Information Technology (ICCIT 2025), Coxs bazar, Bangladesh, December 19-20, 2025.
- ✚ Manob Chandra Chanda, Nishat Tasnim Susmi, **Md. Sarwar Hosain**, Md. Najmul Hossain, Tetsuya Shimamura, "A Comparative Evaluation of CNN, ResNet, and Vision Transformers for Deepfake Detection" in Proc. 2026 6th International Conference on Electronic Engineering and Signal Processing (EESP 2026), Kobe, Japan, January 16-18, 2026.
- ✚ Md. Ibne Shihab Shad, **Md. Sarwar Hosain**, Md. Najmul Hossain, and Tetsuya Shimamura, "Speech Emotion Recognition with Bone-Conducted Speech Using CNN-Transformer and Multi-Head Self-Attention Mechanism" in Proc. 11th International Conference on Signal Processing (ICOSP 2025), Osaka, Japan, November 28-30, 2025.

- ✚ Md. Najmul Hossain , Sayed Shifat Ahmed , **Md. Sarwar Hosain**, and Tetsuya Shimamura, "Design and Performance Analysis of Slotted Patch Antenna for Sub-6 GHz 5G Communications" in Proc. IEEE International Conference on Signal Processing, Information, Communication and Systems, Rajshahi University, Rajshahi-6205, Bangladesh, 21-22 November 2025.
- ✚ Md. Ibne Shihab Shad, Sayeeda Khan, **Md. Sarwar Hosain**, and Akif Mahdi, "Speaker Identification from Bone-Conducted Speech via Dual Attention-Transformer Model: A Study with EmoBone Dataset" in Proc. IEEE International Conference on Signal Processing, Information, Communication and Systems, Rajshahi University, Rajshahi-6205, Bangladesh, 21-22 November 2025.
- ✚ Manik Kumar Saha, **Md. Sarwar Hosain**, Md. Rifat Hossen, Sajeeb Kumar Ray, Liton Chandra Paul and Mohammad Shorif Uddin, "Speech Emotion Recognition from Bone-Conducted Speech Using Wav2Vec2 Transformer Model" in Proc. 2025 IEEE 7th International Conference On Sustainable Technologies For Industry 5.0 (STI 2025), Green University of Bangladesh, 11-12 December, 2025.
- ✚ Md. Ibne Shihab Shad, Sayeeda Khan, **Md. Sarwar Hosain**, and Akif Mahdi, "Speaker Recognition from Bone-Conducted Speech via Transformer Models: A Study with EmoBone (Male) Dataset" in Proc. IEEE 7th International Conference on Electrical Information and Communication Technology, Khulna University of Engineering & Technology (KUET), Khulna-9203, Bangladesh, 18-20 December, 2025.
- ✚ Nishat Tasnim Susmi, Manob Chandra Chanda, **Md. Sarwar Hosain**, Md. Rifat Hossen, Md. Anwar Hossain and Abul Fazal Mohammad Zainul Abadin, "Enhancing DeepFake Classification Performance Using a CNN and XceptionNet-Based Pipeline" in Proc. IEEE 2nd INTERNATIONAL CONFERENCE ON COMPUTING, APPLICATIONS AND SYSTEMS (COMPAS 2025), Islamic University Kushtia, Bangladesh, October 2025.
- ✚ Md. Ibne Shihab Shad, Sayeeda Khan, **Md. Sarwar Hosain**, Akif Mahdi, Manob Chandra Chanda and Md. Rifat Hossain, "Attention-Based Deep Learning for Scalable Speech Emotion Recognition with Synthetic Bone-Conducted Speech" in Proc. IEEE 2nd INTERNATIONAL CONFERENCE ON COMPUTING, APPLICATIONS AND SYSTEMS (COMPAS 2025), Islamic University Kushtia, Bangladesh, October 2025.

- ✚ Md. Uzzal Mia, **Md. Sarwar Hosain**, Md. Taz Warul Mulk, Md. Noman Bhuiyan, Md. Rifat Hossen and Liton Chandra Paul, "Brain Tumor Detection in MRI Images with YOLOv12," in Proc. IEEE 2nd INTERNATIONAL CONFERENCE ON COMPUTING, APPLICATIONS AND SYSTEMS (COMPAS 2025), Islamic University Kushtia, Bangladesh, October 2025.
- ✚ Md. Rifat Hossen, Md. Uzzal Mia, Md. Noman Bhuiyan, Manik Kumar Saha, Rinku Islam and **Md. Sarwar Hosain**, "Explainable Machine Learning Framework for Detecting Lumpy Skin Disease with Environmental and Climate Factors," in Proc. IEEE 2nd INTERNATIONAL CONFERENCE ON COMPUTING, APPLICATIONS AND SYSTEMS (COMPAS 2025), Islamic University Kushtia, Bangladesh, October 2025.
- ✚ Md. Ibne Shihab Shad, Sayeeda Khan, **Md. Sarwar Hosain***, Akif Mahdi, Rinku Islam, and Liton Chandra Paul "Emotion Recognition from Bone-Conducted Speech Using Attention-Based CNN-Transformer Architecture on the EmoBone Dataset," in Proc. 3rd International Conference on Big Data, IoT and Machine Learning (BIM 2025), Springer Lecture Notes in Networks and Systems, Dhaka International University, Bangladesh, September 2025.
- ✚ Md. Rifat Hossen, Khairul Azmi Abu Bakar, Mohammad Kamrul Hasan, Md. Uzzal Mia, Md. Najmul Hossain and **Md. Sarwar Hosain**, "Enhancing Robustness and Accuracy of Bone-Conducted Speech Emotion Recognition via Transformer Models," in Proc. 2025 10th International Conference on Electrical Engineering and Informatics, Kuching Sarawak, Malaysia, November, 2025. Publisher: IEEE
- ✚ Humaira Helen, Md. Uzzal Mia, Mohammad Kamrul Hasan, Khairul Azmi Abu Bakar, Rinku Islam, **Md. Sarwar Hosain** and Md. Omar Faruk, "Real-Time Facial Expression Detection Using YOLOv12 Architecture," in Proc. 2025 10th International Conference on Electrical Engineering and Informatics, Kuching Sarawak, Malaysia, November, 2025. Publisher: IEEE
- ✚ M. H. Islam, S. S. Ahmed, T. Rani, M. A. Haque, L. C. Paul, and **M. S. Hosain**, "An IoT-based smart adaptive highway management system for sound pollution reduction and traffic control," in Proc. 2025 Int. Conf. Quantum Photon., Artif. Intell., Netw. (QPAIN), Rangpur, Bangladesh, Jul.–Aug. 2025. doi: 10.1109/QPAIN.2025.9798964.

- ✚ M. S. Pervez, L. C. Paul, T. Rani, Md. R. Kabir, **M. S. Hosain**, and M. A. Haque, "A low-cost, miniaturised, ultra-wideband antipodal Vivaldi MIMO antenna for satellite bands (X, Ku, K, Ka and Q) and mm-wave communication system," in Proc. IEEE 16th Int. Conf. Comput., Commun. Netw. Technol. (ICCCNT), Indore, India, Jul. 2025.
- ✚ M. M. Hasan, M. K. Hasan, N. H. Kamarudin, K. Azmi and **M. S. Hosain**, "Quantum Cryptography for Smart Grid Cyber-Physical Systems: A Comparative Review," 2025 3rd International Conference on Cyber Resilience (ICCR), British University in Dubai, July 3rd-4th, 2025, Publisher: IEEE
- ✚ Md. Rifat Hossen, Ekram Hossain, Jonayed Al-Faruk, Jahin Sultana, Md. Bodrul Islam, **Md. Sarwar Hosain**, "Tversky Loss Mechanisms: A ResUNet Approach to Improving Brain Tumor Segmentation," 2025 IEEE International Conference on Quantum Photonics, Artificial Intelligence, and Networking, Bangladesh Army University of Science and Technology (BAUST), Saidpur, Bangladesh, Jul. 31-Aug. 2, 2025
- ✚ **M. S. Hosain** and T. Shimamura, "Transformer-based speech emotion recognition using synthetic bone-conducted speech," in Proc. 31st Int. Congr. Sound Vib. (ICSV31), Incheon, Korea, Jul. 6–11, 2025.
- ✚ M. R. Hossen, M. U. Mia, R. Islam, **M. S. Hosain** and T. Shimamura, "Facial Expression Recognition: A Machine Learning Approach with SVM, Random Forest, KNN, and Decision Tree Using Grid Search Method", 2025 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing, Feb. 27 to Mar. 1, 2025, Pulau Pinang, Malaysia.
- ✚ **M. S. Hosain**, M. R. Hossen, M. U. Mia, Y. Sugiura and T. Shimamura, "Exploring the EmoBone Dataset with Bi-Directional LSTM for Emotion Recognition via Bone Conducted Speech", 2025 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing, Feb. 27 to Mar. 1, 2025, Pulau Pinang, Malaysia.
- ✚ **M. S. Hosain**, Y. Sugiura, M. Haque, M. S. Rahman and T. Shimamura, "Exploring the EmoBone Dataset with Bi-Directional LSTM and Attention for Emotion Recognition via Bone Conducted Speech", Proceedings of 27th International Conference on Computer and Information Technology-ICCIT 2024, December 20– 22, Cox's Bazar, Bangladesh.

- ✚ **M. S. Hosain**, Y. Sugiura, M. S. Rahman and T. Shimamura, "Cross-Cultural Analysis of Emotional Expression in a Multinational Speaker Dataset", 2024 ACM Symposium on Age of Computing and Augmented Life, September 05 – 06, 2024, AIUB, Dhaka, Bangladesh.
- ✚ **M. S. Hosain**, Y. Sugiura, M. S. Rahman and T. Shimamura, "Cross-Cultural Analysis of Emotional Expression in Bone-Conducted Speech", 2024 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing, Feb. 27 to Mar. 1, 2024, Honolulu, Hawaii, USA.
- ✚ M.A.Haque, L.C.Paul, S.Kumar, R.Azim, **M.S.Hosain**, M.A.Zakariya, "A Plowing T-shaped Patch Antenna for WiFi and C Band Applications," International Conference on Automation, Control and Mechatronics for Industry 4.0 (ACMI), 8-9 July 2021, Rajshahi, Bangladesh, Publisher: IEEE
- ✚ N. Halder, S. M. Rakibul Islam, **M. S. Hosain**, E. Ahmed, A. Islam and S. R. H. Noori, "Efficacy and Acceptance of Virtual Classrooms During COVID-19: Bangladesh Perspective," 2021 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA), 2021, Publisher: IEEE, pp. 1-6, doi: 10.1109/HORA52670.2021.9461390.

References:

1. Professor Dr. Rubaiyat Yasmin

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