



Md. Sipon Miah, Ph.D. (Ireland), Postdoc (Spain), SMIEEE

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Islamic University, Kushtia, 7003, Bangladesh.


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Postdoctoral Research Fellow

Communications Research Group (GCOM), Department of Signal Theory and Communications (TSC), University Carlos III of Madrid (UC3M), Leganes, Madrid, 28911, Spain.

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 www.iu.ac.bd, www.tsc.uc3m.es

 <https://scholar.google.com/citations?user=XhP8D5oAAAAJhl=en>

 <https://orcid.org/0000-0002-6986-1517>

 <https://www.researchgate.net/profile/Md-Sipon-Miah-2>

Born 04 January, 1982

RESEARCH SUMMARY

Currently, I am working on machine learning based cooperative spectrum sensing and sum rate analysis in cognitive radio-Internet of things (CR-LoT) networks for separating malicious users from normal users. During my previous postdoctoral fellowship, I worked on an energy efficient based spectrum sensing and throughput analysis in CR-LoT networks. My research is focused on machine learning/deep learning based spectrum sensing and sum rate analysis in CR-LoT networks using different optimization techniques. As a research output, I have published 55 peer reviewed journal papers, 28 conference papers, 2 book chapters, and 3 posters as a first author/co-author. Most of the research works have been done in collaboration with international research groups. I am self-motivated and have a dynamic approach to work and getting things done.

EDUCATION

Structured Doctor of Philosophy (Ph.D.)

Ph.D. in Computer Science

College of Science and Engineering, School of Computer Science, University of Galway (formally National University of Ireland Galway), Galway, Ireland.

Dissertation Title: "An Energy Efficient Spectrum Sensing Scheme for the Cognitive Radio Based Internet of Things"

Advisor: Prof. Dr. Michael Schukat

Co-Advisor: Prof. Dr. Enda Barrett

Examiners: Prof. Dr. Des Chambers & Prof. Dr. Ramona Trestian

Thesis-Defence: 24-09-2020

Awarded: Ph.D. Degree (09-12-2020)

Conferring: 15-06-2021

http://hdl.handle.net/10379/16347

Doctor of Philosophy (Ph.D.)

Ph.D. in Information and Communication Engineering

Department of Information & Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.

Dissertation Title: "A Cluster Based Cooperative Spectrum Sensing for Cognitive Radio Network using Eigenvalue Detection"

Advisor: Prof. Dr. Md. Mahbubur Rahman

Co-Advisor: Prof. Dr. Tapan Kumar Godder

Examiners: Prof. Dr. Mozaffar Hossain & Prof. Dr. Mohammad Abdur Razzaque

Awarded: Ph.D. Degree (14-10-2016)

Master of Science [M.Sc.(Thesis)] M.Sc. in Information and Communication Engineering
Department of Information & Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
Dissertation Title: "Performance Analysis of Fiber Optical Dispersion on OFDMA-QAM System"
Advisor: Prof. Dr. Md. Mahbubur Rahman
Result: A- (A minus) First position in order of merit (Class Size: 30)
Thesis Score: 3.65 out of 4.0
Awarded: M.Sc. Degree (08-11-2009)

Bachelor of Science [B.Sc.(Honours)] B.Sc. (Honours) in Information and Communication Engineering
Department of Information & Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
Project Title: "Simulation and Performance Analysis of WCDMA Systems"
Advisor: Prof. Dr. Md. Mahbubur Rahman
Result: First Class 2nd position in order of merit (Class Size: 40)
Project Score: 67 out of 100 (67%)
Awarded: B.Sc. Degree (13-11-2008)

Higher Secondary Certificate (HSC) Gaibandha Adarsha College, Gaibandha (Rajshahi Board, Rajshahi), 5700, Bangladesh, 2001.

Secondary School Certificate (SSC) Kuptala A. Q. High School, Gaibandha (Rajshahi Board, Rajshahi), 5700, Bangladesh, 1999.

RESEARCH INTEREST

Cognitive Radio Network, Wireless Communications, Wireless Sensor Networks, Internet of Things (IoT), Industrial Internet of Things (IIoT), Cognitive Radio Network based IoT, Massive Antennas based CR-IoT Networks, Machine-to-Machine (M2M) Communications, Cloud Computing and Security, Vehicle to Vehicle Communications, Wireless Communications in 5G & 6G, THz Communications, Machine Learning or Artificial Intelligence based Wireless Communications and Deep Learning based Image Processing.

PROSPECTIVE STUDENTS

We have several positions open for M.Sc & Ph.D. students. Highly ambitious and self-motivated students with wireless communication, signal processing, cybersecurity or machine learning background are encouraged to send their CVs, transcripts and representative publications to Prof. Dr. Md Sipon Miah (sipon AT ict.iu.ac.bd), specifying their key research interests as well as their academic credentials.

PROFESSIONAL EXPERIENCES

- Professor** 06.03.2022 – Present Department of Information and Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
- Associate Professor** 06.03.2017 – 05.03.2022 Department of Information and Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
- Assistant Professor** 18.04.2013 – 05.03.2017 Department of Information and Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
- Lecturer** 18.04.2010 – 17.04.2013 Department of Information and Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
- Foreign Expert Lecturer** 01.08.2022 – 31.08.2022 Internet of Vehicle to Road (IVR) Research Laboratory, Department of Automation, School of Electronics and Control Engineering, Chang'an University, ShaanXi Province, 710064, China.
- Foreign Expert** 01.09.2022 – 31.12.2022 Internet of Vehicle to Road (IVR) Research Laboratory, Department of Automation, School of Electronics and Control Engineering, Chang'an University, ShaanXi Province, 710064, China.

Assistant Programmer
01.07.2009 – 17.04.2010

Bangladesh Computer Council (BCC), Agargaon, Dhaka, 1207, Bangladesh.

RESEARCH EXPERIENCES

Research Associate
01.10.2021 – Present

Professor Dr. Ana Garcia Armada, Communications Research Group (GCOM), Department of Signal Theory and Communications, University Carlos III of Madrid (UC3M), Leganes, Madrid, Spain (<http://gcom.tsc.uc3m.es/en/home/>).

Research Associate
01.04.2023 – Present

Professor Dr. Mingbo Niu, Internet of Vehicle to Road (IVR) Low-Carbon Research Institute, Chang'an University, ShaanXi Province, 710064, China (<http://en.chd.edu.cn/>).

Research Associate
01.01.2021 – Present

Professor Dr. Mingbo Niu, Internet of Vehicle to Road (IVR) Research Laboratory, Department of Automation, School of Electronics and Control Engineering, Chang'an University, ShaanXi Province, 710064, China (<http://https://en.chd.edu.cn/>).

Research Assistant
01.09.2016 – Present

Professor Dr. Michael Schukat, Open Sensor Network Authentication (OSNA), University of Galway (UG), Galway, Ireland (<http://www.it.nuigalway.ie/mschukat/>).

Research Assistant
01.09.2019 – 08.09.2023

Professor Dr. Heejung Yu, Wireless Information Processing Laboratory (WIPL), Korea University, Sejon Campus, South Korea (<https://sites.google.com/site/heejung6149/>).

Research Assistant
01.01.2013 – 30.12.2019

Professor Dr. Heejung Yu, Wireless Communications and Networks (WCN), Yeungnam University, South Korea (<https://sites.google.com/site/heejung6149/>).

Research Assistant
01.03.2012 – 30.05.2013

Professor Dr. Insoo Koo, Multimedia Communication Systems Lab. (MCSL), Ulsan University, South Korea (<https://www.mcsul.ulsan.ac.kr/>).

Research Associate
01.03.2003 – Present

Professor Dr. Md. Mahbubur Rahman, Wireless Communication Lab.(WCL), Dept. of Information and Communication Technology (ICT), Islamic University, Kushtia-7003, Bangladesh (<https://www.iu.ac.bd/>)

TEACHING EXPERIENCES

Lecture in M.Sc., Dept. of Automation, Chang'an University, ShaanXi, China

Summer Lecture:- Probability Theory and Stochastic Process for Engineering I²⁰²², Probability theory and stochastic process for engineering II²⁰²², Optimization techniques in wireless communications research²⁰²², Technologies and Architectures for new terrestrial communication system²⁰²²

Lecture in M.Sc., Dept. of TSC, University Carlos III of Madrid (UC3M), Leganes, Spain

18229:- Simulation and Optimization of Communication Systems^{21/22,22/23,23/24}, 18227:- Technologies and Architectures for the New Terrestrial and Space Communications^{22/23,23/24}.

Lecture in B.Sc., Dept. of TSC, University Carlos III of Madrid (UC3M), Leganes, Spain

13497:- Communication Theory Laboratory^{2021/22,22/23,23/24}, 13842:- Digital Communications Laboratory^{22/23,23/24}, 15369:- Systems and Circuits^{23/24}.

Tutor in B.Sc. (Engg.), Dept. of Computer Science, University of Galway, Ireland

CT255:- Next Generation Technologies I, II & III²⁰¹⁶, CT331:- Programming Paradigm²⁰¹⁶, CT331:- Programming Paradigm²⁰¹⁶, CT248-345:- Introduction to Modelling²⁰¹⁷, CT209:- OOP-Data Structure & Algorithms²⁰¹⁷, CT807:- Internet Programming²⁰¹⁷, CT3535:- Object Oriented Programming III²⁰¹⁷, CT248:- Introduction to Modelling²⁰¹⁸, CT216:- Software Engineering²⁰¹⁸.

Lecture in M.Sc., Dept. of ICT, Islamic University, Bangladesh

Wireless Communications, Advanced Digital Communications, Convex Optimization²⁰²⁴ and Stochastic Process.

Lecture in M.Sc. (Evening), Dept. of ICT, Islamic University, Bangladesh

Internet Application & Security, Database Management, Systems and Cellular Mobile Communications, Data Communications & Computer Networking²⁰²⁰

Lecture in B.Sc. (Engg.), Dept. of ICT, Islamic University, Bangladesh

Digital Electronics^{2011,2012}, Discrete Mathematics²⁰¹⁶, Numerical Analysis²⁰²⁴, Data Communications and Networking, Computer Networking, Optical Communications²⁰¹⁶, Satellite Communications, Statistics for Communication Engineering²⁰¹⁵, AI and Interfacing and Telecommunication System Engineering, Signal and Systems²⁰²⁰, Programming Languages C²⁰¹⁹, Digital Signal Processing^{2018,19,20}, Operating Systems²⁰¹⁹.

ADMINISTRATIVE AND OTHER EXPERIENCES

Provost **Bangamata Sheikh Fazilatunnesa Mujib Hall (BSFMH)**, Islamic University, Kushtia, 7003, Bangladesh.
21.12.2023 – 03.01.2024

Member **Technical Sub-Committee, GST Combined Admission Examination**, Islamic University, Kushtia, 7003, Bangladesh.
2023 – 2024

SCHOLARSHIP AND AWARDS

Visiting Professor **Visiting Professor (Short-Term)**, Department of Energy and Electrical Engineering (EEE), Changan University, Xian, China (<https://enndxy.chd.edu.cn/>).
21.12.2023 – 03.01.2024

30 Postdoctoral Fellowship **Postdoctoral Research Fellow**, Department of Signal Theory and Communications (TSC), University Carlos III of Madrid (UC3M), Leganes, Madrid, Spain (<https://www.uc3m.es/empleo/en/estancias-postdoctorales>).
01.11.2021 – Present

Hardiman Scholarship **For Structured Ph.D. Degree**, Department of Information Technology (IT), University of Galway, Galway, Ireland (<https://www.universityofgalway.ie/hardiman-scholarships/>).
01.09.2016 – 30-08-2020

ICT Scholarship **For Ph.D. Degree**, the Ministry of Information and Communication Technology Division (ICTD), Dhaka, Bangladesh (<http://www.ictd.gov.bd/>).
01.01.2013 – 30-07-2016

Talent Pool Scholarship **For obtaining M.Sc. Degree with Grade: A- (1st Position in order of merit)**, Islamic University, Kushtia, 7003, Bangladesh (<https://www.iu.ac.bd>).
01-03-2006 – 30-02-2007

Talent Pool Scholarship **For obtaining B.Sc. Degree with First Class (2nd Position in order of merit)**, Islamic University, Kushtia, 7003, Bangladesh (<https://www.iu.ac.bd>).
01-03-2002 – 30-02-2006

EDITORIAL BOARD MEMBER/REVIEWER/TPC

Guest Editor International Conference on Artificial Intelligence and Manufacturing (AIAM2020), October, 15-17, Manchester, United Kingdom.

Invited Speaker Talk title "Machine Learning Aided Cognitive Radio based Internet of Things," - International Conference on Mechanical Electronics and Engineering, (ICMEE), 17-19, 2023, Xian, China.

Reviewer Journals

IEEE Transactions on Cognitive Communications and Networking
IEEE Transactions on Green Communications and Networking
IEEE Sensors Journal
ACM Transactions on Multimedia Computing, Communications, and Applications
IEEE Networking Letters
IEEE Access
Human-centric Computing and Information Systems (HCIS)[Elsevier]
EURASIP Journal on Wireless Communications and Networking (JWCN)
Computer Systems (CS) [Elsevier]
China Communications [Elsevier]
KSII Transactions on Internet and Information Systems [SCIE]
Sensors, Electronics, Symmetry, Remote Sensing, Big Data and Cognitive Computing, Internet of Things (IoT), Applied Sciences, Network, Biology [MDPI, SCIE]
Journal of Automatika [Johan Wiley & Sons]
International Journal of Imaging Systems and Technology [Johan Wiley & Sons, SCIE]
International Journal of Communication Systems [Johan Wiley & Sons, SCIE]
Wireless Communications and Mobile Computing [SCIE]
International Journal Engineering Review [SCOPUS]
Wireless Personal Communications [SCIE]

Conferences

26th International Conference on Computer and Information Technology (ICCIT), December 13-15, 2023, Long Beach Hotel, Cox's Bazar, Chittagong, Bangladesh
IEEE International Conference on Informatics, Electronics & Vision (ICIEV)

Session Chair 26th International Conference on Computer and Information Technology (ICCIT), December 13-15, 2023, Long Beach Hotel, Cox's Bazar, Chittagong, Bangladesh.
11th International Conference on Informatics, Electronics & Vision (ICIEV), October 26-29, 2023, University of East London, London, UK.
IEEE Computer Society Bangladesh Chapter Summer Symposium, June 9-10, 2023, Islamic University, Kushtia, Bangladesh.
1st International Conference on Next-generation Computing, IoT and Machine Learning (NCIM), June 16-17, 2023, DUET, Gazipur, Bangladesh.

TPC Members International Conference on Informatics, Electronics & Vision (ICIEV), 2012,13,14,15,16,17,18,19,20,21,22,23
International Conference on Sustainable Technologies for Industry 4.0 (STI), 2020,21,22,23,24
European Symposium on Software Engineering (ESSE), 2021
IEEE Symposium on Computers and Communications (ISCC), 2022
Symposium on Pattern Recognition and Applications (SPRA), 2021
International Conference on Machine Intelligence and Emerging Technologies (MIET), 2022, 2024
3rd International Conference on Intelligent Traffic Systems and Smart City (ITSSC), 2023
International Conference on Internet of Things and Intelligent Information Processing (IoTIIIP), 2024
The 9th International Conference on Computer and Communication Systems (ICCCS), 2024

Volunteers IEEE Global Communications (GLOBECOM) Conference, 7–11, December, Madrid, Spain, 2021
IEEE International Mediterranean Conference on Communications and Networking (MediCom), 8-11, July, Madrid, Spain, 2024.

COMPUTER SKILLS

Programming Languages C, C++, Java, C#.NET, Python

Simulation Tools MATLAB, OPNET, NS2

Web Applications HTML, ASP.NET, ASP

Database Software Oracle, SQL Server, Petri Nets, LaTeX

ACADEMIC ACTIVITIES

Academic Committee Member Department of Signal Theory and Communications, University Carlos III of Madrid (UC3M), Leganes, Madrid, 28911, Spain.
01-11-2021 – Present

Faculty Member Faculty of Engineering and Technology, Islamic University, Kushtia, 7003, Bangladesh.
18-04-2010 – 17-04-2012

Planning Member Department of Information and Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
18-04-2010 – 17-04-2012

Academic Committee Member Department of Information and Communication Technology, Islamic University, Kushtia, 7003, Bangladesh.
18-04-2010 – Present

Assistant Director ICT CELL (formerly Computer Centre), Islamic University, Kushtia, 7003, Bangladesh.
02-03-2014 – 06-04-2015

M.Sc. THESIS DEFENSE COMMITTEE

**Member, Dept. of TSC, UC3M,
Leganes, Spain**

05. Oscar Becerril Roman, M.Sc. (Thesis)

Title: Software-Defined Radio Experiments with USRP B210 Applied to Communication Subjects^{2022/23}.

04. Steven Jesús Paz Barrera, M.Sc. (Thesis)

Title: Visible Light Backscatter communication system for very-low power and tiny IoT devices^{2022/23}.

03. Shaya Ganji, M.Sc. (Thesis)

Title: Identification of Digital Modulation Using Discrete Wavelet Transform^{2022/23}.

02. Salhim Bohali Ali Mohamed, M.Sc. (Thesis)

Title: Performance Evaluation for PAPR Reduction Techniques in OFDM Systems: A Comparative Study of SLM and PTS^{2022/23}.

01. Ezeddine Amar, M.Sc. (Thesis)

Title: LTE Network for SCADA with the Polling Algorithm^{2022/23}.

WORKSHOP

Resource Person
08-11-2023

Title: Practicing Integrity to Improve the Quality of Education, Room No: 203, ICT Cell, Faculty of Applied Science and Technology (1st Science Building), Islamic University, Kushtia, 7003, Bangladesh.

PROJECT EVALUATION COMMITTEE

Examiner
Fiscal Year: 2021 – 2022

The project evaluation committee for research grants funded by the University Grant Commission (UGC) of Bangladesh, Islamic University, Kushtia, 7003, Bangladesh.

SUPERVISION

Doctor of Philosophy (Ph.D.)

01. Md. Khairul Islam, Assistant Professor, Dept. of Biomedical Engineering, Islamic University, Kushtia, 7003, Bangladesh.

Title: Improvement of Detection and Classification Abnormalities in Medical Images using Deep Convolutional Neural Network.

Master of Science (M.Sc.)

01. Md. Shamim Hossain, Lecturer, Dept. of Electrical and Electronics Engineering, Sonargaon University (SU), Dhaka, 1215, Bangladesh.

Title: Machine Learning-Based Malicious User Detection for Reliable Cooperative Radio Spectrum Sensing in Cognitive Radio-Internet of Things.

02. Md. Ruhul Amin, Lecturer, Dept. of Information and Communication Technology, Rabindra Maitree University, Kushtia, 7000, Bangladesh.

Title: Analysis of Energy-Efficient Resource Allocation Architecture in Heterogeneity Mobile Ad-hoc Cloud Computing.

Bachelor of Science (B.Sc.)

More than sixty undergraduate students completed their project for their partial fulfillment of the B.Sc. Degree in Information and Communication Technology under my supervision.

OTHER ACTIVITIES

IEEE Senior Member (SMIEEE)
25-02-2023 – Present

IEEE Professional Communication Society (PCS) (Member Number - 97540811).

IEEE Member
09-08-2012 – 24-02-2023

IEEE Professional Communication Society (PCS) (Member Number - 97540811).

BCS Member
31-12-2009 – Present

Bangladesh Computer Society (BCS) (Member Number - AM05540).

Publications Editor
22-12-2019 – Present

Bangabandhu Parishad, Islamic University, Kushtia, 7003, Bangladesh.

Member
18-04-2010 – Present

Bangabandhu Parishad, Islamic University, Kushtia, 7003, Bangladesh.

Member
18-04-2010 – Present

Shapla Forum, Islamic University, Kushtia, 7003, Bangladesh.

Advisor Student Association of ICT, Islamic University, 7003, Bangladesh.
18-04-2010 – Present

Advisor Gaibandha District Student Associations Islamic University, Kushtia, 7003, Bangladesh.
18-04-2010 – Present

Member Gaibandha District Student Associations Islamic University, Kushtia, 7003, Bangladesh.
21-03-2003 – 12-09-2009

Published Books

[1] R. V. Suganya, A. V. Senthil Kumar, **Md Sipon Miah** and Fahima Hajje, "AI-Driven Medical Imaging and Diagnosis," Edited book by **CRC Press**, 2024 (working on).

Published Book Chapters

[2] Md Shamim Hossain, Kazi Mowdud Ahmed, Md Khairul Islam, Md Mahbubur Rahman, **Md Sipon Miah**, Mingbo Niu, "Machine Learning and Blockchain-based Privacy-aware: Cognitive Radio Internet of Things," **Applied Intelligence for Industry 4.0 (Taylor & Francis Group)**, 2023, <https://doi.org/10.1201/9781003256083>.

[1] **Md. Sipon Miah**, Md. Mahbubur Rahman and Heejung Yu, "Towards 5G Wireless Networks - A Physical Layer Perspective," **InTech Publisher**, 2016, 10.5772/66047.

Published Journal Papers

[69] Priyanti Paul Tumpa, Md. Saiful Islam, **Md Sipon Miah**, Mohammad Alibakhshikenari, Syed Mansoor Ali, Bal S. Virdee, and Giovanni Pau "Machinery Bearing Fault Identification through Parallel Convolution Neural Network and Support Vector Machine Analysis." **Sensors (MDPI, SCIE)**, 2023 (Submitted).

[68] Md Masum Billah, Mohammad Nuruzzaman Bhuiyan, Md Akkas Ali, Farzana Bhuiyan, Azmery Sultana, Mohammad Shorif Uddin, **Md Sipon Miah**, Syed Mansoor Ali, Mohammad Alibakhshikenari, Farhad Arpanaei, and Giovanni Pau "A Decentralized Blockchain Oriented Security Model for the Internet of Things (IoT)-based Healthcare Monitoring System." **Radio Science**, 2023 (Submitted).

[67] Angona Biswas, Md. Saiful Islam, **Md Sipon Miah**, Mohammad Alibakhshikenari, Syed Mansoor Ali, Bal S. Virdee, and Giovanni Pau "Machinery Bearing Fault Identification through Parallel Convolution Neural Network and Support Vector Machine Analysis." **IEEE Access**, 2023 (Submitted).

[66] Angona Biswas, Md. Saiful Islam, **Md Sipon Miah**, Mohammad Alibakhshikenari, Syed Mansoor Ali, Bal S. Virdee, and Giovanni Pau "Hybrid Custom CNN-ML-Based Framework with Ensemble Technique for Brain Tumor Classification with Different Multiclass Datasets." **IEEE Access**, 2023 (Submitted).

[65] **Md. Sipon Miah**, Md. Amzad Hossain, Kazi Mowdud Ahmed, Md. Khairul Islam, and Md. Mahbubur Rahman "MU-MIMO Based Spectrum Sensing and Sum Rate in a Cognitive Radio for Internet of Vehicular Things." **IEEE Transactions on Communications and Networking**, 2023 (Submitted).

[64] He Huang, Kaiyi Hu, Mingbo Niu, Hui Feng Wang, and **Md. Sipon Miah**, "Single-Image Haze Removal Using Linear Adaptive Atmospheric Light and Dark Channel Prior." **IEEE Transactions on Geoscience and Remote Sensing**, 2022 (Submitted).

[63] Mohammad Amzad Hossain, Md. Murad Hossain, **Md. Sipon Miah**, Md. Bipul Hossain, Kazi Mowdud Ahmed, Md. Khairul Islam and Md. Mahbubur Rahman, "Digital Signature Based Secure Cooperative Spectrum Sensing for Cognitive Radio Enabled IoV Networks." **Journal of Cybersecurity and Privacy (MDPI)**, 2022 (Major revisions required).

[62] Mohammad Amzad Hossain, Michael Schukat, Enda Barrett, **Md. Sipon Miah**, Md. Mahbubur Rahman and Ming-bo Niu, "A Hybrid Spectrum Sensing Technique for Cognitive Radio Based Networks with Uncertain Noise Power." **Sensor (MDPI)**, 2022 (Submitted).

[61] Ming-Bo, Hu-Cheng Wang, Yipu Zhang, Biao Wang, **Md. Sipon Miah**, and He Huang, "Precise Error Performance of Coherent BPSK Modulated THz Wireless LOS Links with Pointing Errors." **Optics Letters**, 2022 (Submitted).

[60] Jie Li, Zhixin Zhang, Mingbo Niu, **Md. Sipon Miah** and Shiming Zhao, "On Predicting High-Power Lithium Battery Remaining Useful Life Using Improved GS-SVM Approach." **Energies [MDPI, SCIE, Q1, IF: 3.2]**, 2023 (Under review).

[59] Mingbo Niu, **Md. Sipon Miah**, Mohammad Amzad Hossain, Calhan Ali, and Murtaza Cicioglu, "LR-SVM-kNN Fusion-based Malicious Users Detection in Energy Harvested Cognitive Radio-Industrial Internet of Things." **IEEE Internet of things Journal [SCIE, Q1, IF:10.6]** 2024 (Under review).

[58] He Huang, Wen-long Li, Mingbo Niu, **Md. Sipon Miah**, Tao Gao, and Hui-feng Wang "A Long-term Vehicle

Tracking Algorithm of Correlation Filter Optimized by Swarm Intelligence Tracking Framework. **IEEE Transactions on Geoscience and Remote Sensing [SCIE, Q1, IF: 8.20]**, 2024 (Major Revision Required).

[57] Yi-qing Huang, He Huang, Mingbo Niu, **Md. Sipon Miah**, Hui-feng Wang and Tao Gao, "UAV Complex Scene Single Target Tracking based on Proved Re-detection Staple Algorithm." **Remote Sensing [MDPI, SCIE, Q1, IF: 5.00]**, 2024 (Accepted).

[56] He Huang, Feiyu Xie, Mingbo Niu, **Md. Sipon Miah**, Huifeng Wang, Panpan Zhang, and Jun Wang, "A heigh-measurement algorithm for roto UAVs based on multi-layer space-time fusion." **IEEE Sensors Journal [SCI, Q1, IF: 4.30]**, 2024.

[55] Md. Arju Hossain, **Md. Sipon Miah** and Md. Habibur rahman, "Screening out molecular pathways and prognostic biomarkers of ultra-violet mediated melanoma through computational techniques." **The International Journal of Biological Markers [SCIE, Q1, IF: 2.0]**, 2024.

[54] Md Khairul Islam, Md Mahbubur Rahman, Md Shahin Ali, SM Mahim and **Md. Sipon Miah**, "Enhancing lung abnormalities diagnosis using hybrid DCNN-ViT-GRU model with explainable AI: A deep learning approach." **Image and Vision Computing [Elsevier, SCI, Q1, IF: 4.7]**, 2024.

[53] SM Mahim, Md Shahin Ali, Md Olid Hasan, Abdullah Al Nomaan Nafi, Arefin Sadat, Shakib Al Hasan, Bryar Shareef, Md Manjurul Ahsan, Md Khairul Islam, **Md. Sipon Miah*** and Ming-bo Niu, "Unlocking the Potential of XAI for Improved Alzheimer's Disease Detection and Classification Using a ViT-GRU Model." **IEEE Access [SCIE, Q1, IF: 3.9]**, 2024.

[52] He Huang, Xialu Wen, Mingbo Niu, **Md. Sipon Miah**, Huifeng Wang and Tao Gao, "Multi-Objective Path Planning of Autonomous Underwater Vehicles Driven by Manta Ray Foraging." **Journal of Marine Science and Engineering [MDPI, SCIE, Q1, IF: 2.90]**, 2024.

[51] Md. Khairul Islam, Md. Mahbubur Rahman, Md. Shahin Ali, **Md. Sipon Miah** and Md. Habibur Rahman "An enhanced technique of COVID-19 detection and classification using deep convolutional neural network from chest X-ray and CT images." **BioMed Research International**, 2023.

[50] Tania Afroz Toma, Biswas Shivazi, **Md. Sipon Miah**, Md. Habibur Rahman, Mohammad Amzad Hossain, Farhad Arpanaei, Mohammad Alibakhshikenari, Marina Dalarsson, and Ming-bo Niu "A Deep Learning-Based Approach for Detecting Breast Cancer using Histopathological Image: A Comparative Analysis." **Radio Science [IF: 1.678 (John Wiley & Sons)]**, 2023.

[49] Jie Li, Shiming Zhao, **Md. Sipon Miah** and Mingbo Niu, "Remaining Useful Life Prediction of Lithium-ion Batteries via an EIS based Deep Learning Approach." **Journal of Energy Reports (ScienceDirect) [SCIE, IF: 5.6]**, October, 2023.

[48] He Huang, Zhan-yi Li, Ming-bo Niu, **Md. Sipon Miah**, Tao Gao, and Hui-feng Wang, "A Sea Fog Image Defogging Method based on the Improved Convex Optimization Model." **Journal of Marine Science and Engineering [MDPI, SCIE, Q1, IF: 2.90]**, 2023.

[47] Mohammad Mohiuddin, Md. Saiful Islam, Shirajul Islam, **Md. Sipon Miah**, and Ming-bo Niu, "Intelligent Fault Diagnosis of Rolling Element Bearing Based on Modified AlexNet." **Sensors [MDPI, SCIE, Q1, IF: 3.90]**, 2023.

[46] Md Khairul Islam, Md Mahbubur Rahman, Md Shahin Ali, S M Mahim, and **Md Sipon Miah** "Enhancing Lung Abnormalities Detection and Classification using a Deep Convolutional Neural Network and GRU with Explainable AI: A promising Approach for Accurate Diagnosis." **Machine Learning with Applications (Elsevier)**, S2666-8270(23)00045-2, 2023.

[45] D U S Duranta, Md Shahin Ali, Abhilash Arjan Das, Md Mahbubur Rahman, Md Manjurul Ahsan, **Md Sipon Miah**, Md Khairul Islam "Enhancing Atrial Fibrillation Detection Accuracy: A Wavelet Transform Filtered Single Lead ECG Signal Analysis with Artificial Neural Networks and Novel Feature Extraction." **Machine Learning with Applications (Elsevier)**, S2666-8270(23)00025-7, 2023.

[44] Murtaza CiCiOđLU, **Md. Sipon Miah** and Ali Calhan "An effective Routing Algorithm for Spectrum Allocations in Cognitive Radio-based Internet of Things." **Concurrency and Computation: Practice and Experience [Scopus (Elsevier), SCIE, IF 2.0]**, 2022.

[43] Mohammad Nuruzzaman Bhuiyan, Md. Masum Billah, Farzana Bhuiyan, Md. Ashikur Rahman Bhuiyan, Nazmul Hasan, Md. Mahbubur Rahman, **Md. Sipon Miah**, Mohammad Alibakhshikenari, Farhad Arpanaei, Francisco Falcone and Ming-bo Niu, "Design and Implementation of a Feasible Model for the IoT Based Ubiquitous Healthcare Monitoring System for Rural and Urban Areas," **IEEE Access, Q1, IF: 3.9** Vol. 10, pp. 91984 - 91997, 2022.

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Projects (On-going and Completed)

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[11] **Member**, Title: Visible light communications for an efficient digital transition, Grants: 143,980.00 Euros, Grant No: TED2021-129869B-I00, Period: 01/12/2021-30/11/2024, Status: On-going, Output: NA, Funding: Agencia Estatal De Investigacion (AEI), Madrid, Spain (UC3M).

[10] **Consulting Expert**, Title: Hybrid Optics Technologies in Intelligent Transportation Systems, Grants: 600000.00 CNY, Grant No: 300203110029, Period: 2020-2024, Status: On-going, Output: NA, Funding: High-level expert funding project of Chang'an University, Xian, China.

[9] **Member**, Title: "Transportation-Energy-Information" Multigrid Fusion and Self-consistent, Grants: 400000.00 CNY, Grant No: 300201000173, Period: 2023-2025, Status: On-going, Output: NA, Funding: The innovation creative base project of Shaanxi Province, China (Changan University).

[8] **Consulting Expert**, Title: Infrastructure Planning and Design Technology for Transportation Self-consistent Energy System, Grant No: 2021YFB1600200, Grants: 510000.00 CNY, Period: 2021-2024, Status: On-going, Output: NA, Funding: National Key Research and Development Project, Xian, China (Changan University).

[7] **Member**, Title: Human-Vehicle-Road-Light Smart Communication Fusion and Low-Carbon Based Intelligent V2R Informatics Research, Grant No: G2021171024L, Grants: 107000.00 CNY, Period: 2021-2022, Status: Completed, Output: Two journal papers, Funding: Ministry of Science and Technology, Xian, China (Changan University).

[6] **Member**, Title: Human-Vehicle-Road-Light Fusion in Low Carbon Intelligent Transportation Systems, Grants: Fifty Six Lac and Thirty Thousand (56,30,000.00) Taka, Period: January, 2021- December, 2022, Status: Completed, Output: NA, Funding: Ministry of Science and Technology, China (Changan University).

[5] **Project Director**, Title: Machine Learning Based Security Approach in Energy Harvested CR-IoT, Grant No: IC20201325, Grants: Fifteen Lac (15,00,000.00) Taka, Period: July, 2022- June, 2025, Status: On-going, Output: three Journal papers and six conference papers published, Funding: Ministry of Education (BANBEIS), Palashi-Nilkhet, Dhaka, 1205, Bangladesh (Islamic University)

[4] **Project Director**, Title: Full Duplex based Cognitive Radio-Internet of Things, Grants: One Lac and Seventy Five Thousand (1,75,000.00) Taka, Period: July, 2021- June, 2022, Status: Completed, Output: One conference paper published, Funding: Islamic University, Kushtia, 7003, Bangladesh.

[3] **Project Director**, Title: Machine Learning Based Malicious User Detection in Energy Harvested Cognitive Radio-Internet of Things, Grants: One Lac and Fifty Thousand (1,50,000.00) Taka, Period: July, 2020- June, 2021, Status: Completed, Output: One journal paper published, Funding: Islamic University, Kushtia, 7003, Bangladesh.

[2] **Project Director**, Title: Analysis of Sensing and Sum Rate in Energy Harvested Cognitive Radio Network, Grants: Two Lac (2,00,000.00) Taka, Period: September, 2019 - August, 2020, Status: Completed, Output: One Journal paper published in Sensor (Q1, MDPI), Funding: Ministry of Science and Technology (MOST), Bangladesh (Islamic University).

[1] **Member**, Title: Establishment of Information Technology Research & Resource Center in IU-Kushtia, Grants: 4,62,00,000.00 (Taka), Period: September, 2011 - August, 2013, Status: Completed, **Output**: Several Workshops, Conferences and Journal papers published, Funding: University Grants Commission (UGC) of Bangladesh, and World Bank (Islamic University).

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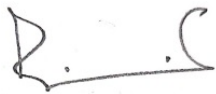
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I do hereby declare that all the information here is true to the best of my knowledge. If required and where applicable, this document can be supported by appropriate authentic certificates/papers.



[Md. Sipon Miah, Ph.D.]

08 February, 2024