Khairul Eahsun Fahim, PhD (Candidate)

Assistant Professor
School of Science and Engineering,
ZNRF University of Management Sciences (ZUMS)

Educational Background

- **Ph.D. (Ongoing)** in Systems Engineering, Faculty of Integrated Technologies, Universiti Brunei Darussalam, Brunei, 2025 (expected).
- **M.Tech.** in Systems and Control Engineering, Indian Institute of Technology, Bombay, 2018.
- **Bachelor** in Electrical and Electronics Engineering**,** BRAC University, Bangladesh 2014.
- **HSC** from Notre Dame College, Bangladesh 2009.
- **SSC** from Civil Aviation High School, Dhaka, Bangladesh, 2007

Positions Held

Assistant Professor, Information Technology Mangement, ZNRF University of Management Sciences, Dhaka. May 2021 to Present.

Lecturer, East China University of Technology, Jiangxi, China. Sep 2018 to June 2021

Engineer, System operation center & IT, Bkash LTD. April 2016 to July, 2016.

System Support Engineer, IT, Thakral information systems LTD, Feb 2015 to March 2016.

System Engineer, Bangla Tel LTD, Network Operations, Sep 2014 to Feb 2015.

Intern Engineer, Robi Axiata LTD, Central operation and IT, Jun 2014 to Sep 2014.

Honours and Awards

- SSC Scholarship from Board of Intermediate and Secondary Education, Dhaka, Bangladesh (For the academic session 2008-2009)
- Vice Chancellors Award, Fall semester 2013, BRAC University
- Indian Council for Cultural Relations Scholarship, India (India Scholarship (Bangladesh) Scheme for the academic session 2016-2018
- Best Teacher Award (2nd Position)-Topic: Machine Learning, Young Teacher Competition, East China University of Technology, China

Services

Guest Reviewer:

- International Journal of Photoenergy (Hindawi)

Scientific Journal Administration:

- **Reviewer** of Bon View Press, Singapore.

Conference Attended:

- Brunei International Conference on Engineering and Technology 2023
- International Conference on Energy and Power Engineering 2022
- 6th International Conference on Electrical Information and Communication Technology, KUET
- 10th International Conference on Power Systems, 2023 (ICPS 2023)

Publications

Book Chapter:

1) K. E. Fahim, K. Kalinaki, W. Shafik, "Electronic devices in the Artificial Intelligence of Internet of Medical Things (AIoMT)," DOI: 10.13140/RG.2.2.27408.17926, Mar. 2023.. Available: https://doi.org/10.13140/RG.2.2.27408.17926. [Accepted for publication CRC Press book chapter].
2) K. E. Fahim, K. Kalinaki, L. C. De Silva, H. Yassin, "The Role of Machine Learning in Improving Distribution Systems Resilience," Mar. 2023. [Accepted for publication Elsevier book chapter].

Journal Articles

3) A. Alabdulatif, N. N. Thilakarathne, Z. K. Lawal, K. E. Fahim, and R. Y. Zakari, "Internet of nano-things (iont): A comprehensive review from architecture to security and privacy challenges," Sensors, vol. 23, no. 5, pp. 2807, Mar. 3, 2023.
4) K. E. Fahim, L. C. De Silva, F. Hussain, S. A. Shezan, and H. Yassin, "An Evaluation of ASEAN Renewable Energy Path to Carbon Neutrality," Sustainability, vol. 15, no. 8, pp. 6961, Apr. 20, 2023.
5) K. E. Fahim, L. C. De Silva, F. Hussain, and H. Yassin, "A State-of-the-Art Review on Optimization Methods and Techniques for Economic Load Dispatch with Photovoltaic Systems: Progress, Challenges, and Recommendations," Sustainability (accepted for publication)
6) Khairul Eahsun Fahim,SM Farabi,SS Farhan, IJ Esha, T Muhtadi, "Overview of Maximum Power Point Tracking Techniques for PV System, E3S Web of Conferences, EDP Sciences, Volume 242, January 2021, Pages 1004
7) Khairul Eahsun Fahim, Md Sakib Hossain, Monzurul Karim Afgani, Shaikh Mohammad Farabi, Soad Shajid, "Modelling and Simulation of DC-DC Boost Converter using Sliding Mode Control" International Journal on Recent Technology and Engineering (IJRTE)- Vol.9 Issue 02, July 2020, Pages 674-678.

Conference Publications[1]

8) K. E. Fahim, S. M. Farabi, S. S. Farhan, I. J. Esha, and T. Muhtadi, "Overview of maximum power point tracking techniques for PV system," in E3S Web of Conferences, vol. 242, p. 01004, EDP Sciences, 2021.
9) K. E. Fahim, P. D. Dewan, H. Yassin, M. H. Amin, et al., "Detection of Cardiovascular Disease of Patients at an Early Stage Using Machine Learning Algorithms," DOI: 10.13140/RG.2.2.26258.12488/1, Nov. 2022. [Online]. Available: https://doi.org/10.13140/RG.2.2.26258.12488/1
10) K. E. Fahim, T. Roy, H. Yassin, N. M. Rihan, B. Dhaka, L. C. De Silva, and M. A. Tanvir, "Jaya Algorithm - A Practical Algorithm for Solving Economic Load Dispatch Problems," presented at the International Conference on Energy and Power Engineering, Feb. 20, 2023.
11) Shaikh Mohammad Farabi, **Khairul Eahsun Fahim**, " **Orchestration of a PID Controller Mechanism for Vertical and Horizontal Elasticity**" IEICE Tech. Rep., vol. 119, no. 291, IA2019-32, pp. 47-53, Nov. 2019
12) Ishrat Jahan Esha, Khairul Eahsun Fahim, Shaikh M. Farabi," **Artificial Intelligent Management System (AIMS) for solar PV projects in Bangladesh**", 1st National Workshop on Big Data and Machine Learning, Chittagong University of Engineering and Technology, 1 Dec 2020, Pages 193-195

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[1]These are selected from less than 10% of peer-reviewed papers in the Society of Automotive Engineers International World Congress (Detroit) and are sold as books by SAE-International, see for example www.sae.org

Teaching Interest

- Circuit Analysis
- Digital Electronics
- Power System Analysis
- Renewable Energy
- Machine Learning

Research Interest

- Power System Optimization
- Power System Modelling
- Applied Machine Learning
- Grid Integration
- Renewable Energy
- Solar engineering

Postgraduate Research Supervision (to completion)

Master by Research: 2 (principal supervisor)

Membership of Professional Bodies

- **Fellow**, Institution of Engineers Bangladesh (IEB)