

1. **Name:** Dr. Nasima Begum
2. **Designation:** Professor
3. **Educational Qualification**

Degree	Discipline	Institution	Year
Post-doctoral Research Fellow	Division of Industrial Innovation Sciences	Okayama University, Japan	2014-2016
Ph.D.	Division of Industrial Innovation Sciences	Okayama University, Japan	2014
Master of Science	Computer Science and Engineering	Jahangirnagar University, Bangladesh	2010
Bachelor of Science	Computer Science and Engineering	Jahangirnagar University, Bangladesh	2004
Higher Secondary School Certificate	Science	Jahangirnagar University School and College, Dhaka	2000
Secondary School Certificate	Science	Jahangirnagar University School and College, Dhaka	1998

4. Academic Experience

University of Asia Pacific (UAP), Farmgate, Dhaka

- **Professor** (July 1, 2025 to Present)
- **Associate Professor** (December 20, 2021 to June 30, 2025)
- **Assistant Professor** (November 2016 to December 20, 2021)
- **Chair, Program Self-Assessment Committee** (March 2019 to Present)
- **Assistant Proctor**, ITEE Exam as a life member of JUAAB
- **Host Press Coordinator**, ICPC World Final Dhaka, 2022
- **Member, Program Self-Assessment Committee** (Nov. 2016 to Sept. 2018)
- **Convener, Career Development Club** (Jan. 2017 to Sept. 2018)
- **Coordinator**, MoU with Japanese IT Company KJS Ltd. for international job scopes for UAP CSE students and enhanced the image of UAP 2017
- **Coordinator**, Information Technology Engineers Examination (ITEE Exam), 2017

Manarat International University (MIU), Gulshan, Dhaka

- **Assistant Professor** (June 2016 to October 2016)
- **Senior Lecturer** (February 2010 to May 2016)
- **Lecturer** (January 24, 2007 to January 31, 2010)
- **Coach**, Programming Contest Team, 2010
- **Convener**, Computer Programming Club (Jan. 2017 to Sept. 2018)

University of Development Alternative, Dhanmondi, Dhaka

- **Lecturer** (October 2006 to January 23, 2007)

5. Non-academic experience (research, industrial)

Okayama University, Japan

- **Research Assistant** (October 2013 to March 2014)
- **Research Assistant** (October 2012 to March 2013)
- **Visiting Researcher** (June 2011 to September 2011)

Development Design Consultant Limited, Dhaka, Bangladesh

- **Jnr. Developer** (July 2006 to September 2006)

6. Fellowship/membership of academic bodies and professional organizations

- **Senior Member, IEEE**
- **Foreign Member, IEICE**
- **Life Member, JUAAB**

7. Honors and awards

- a. Research Grant Award, UAP, Project Reference Number: (Reference: 28th IEERD Advisory Council held on 18 February 2024, Minutes Ref. No. # 28.8).
- b. Research Grant Award, UAP, Project Reference Number: IEERD/UAP/RP/Fall_21/2021-2022/03, July 2022.
- c. Research Grant Award for Encouragement of Students, Okayama University, Japan (2013-2014).
- d. Research Grant Award for Publications, Okayama University, Japan (2013).
- e. Research Grant Award for Encouragement of Students, Okayama University, Japan (2012-2013).
- f. Research Grant Award for Publications, Okayama University, Japan (2012).
- g. Professor's Funding for Ph.D. Students, Okayama University, Japan (2011-2012).
- h. Achieved 1st position in Japanese Language Course, Okayama University (2012).
- i. Achieved 1st position in Masters (M.Sc.) result, Jahangirnagar University (2010).
- j. University Supplementary and Talent pool Scholarship award by Government of Bangladesh on Bachelor of Science (B.Sc. Hons.) result (2006).
- k. 5th Runner Up, The Intra-JU Programming Contest (IJUPC-2003), Jahangirnagar University (2003).
- l. Government Talent pool Scholarship on Secondary School Certificate (SSC) Examination Result by Government of Bangladesh (1998).

8. List of significant publications and presentations in the five most recent years

Journals:

- 1) S. U. Chowdhury, A. S. Shazid, R. B. Rahmatullah, N. Begum, T. Helaly and R. Rahman, "Descriptor: Bengali Sign Word Recognition Video Dataset (BdSLW102)," in IEEE Data Descriptions, vol. 2, pp. 254-261, 2025, doi: 10.1109/IEEEDATA.2025.3587203.

- 2) Chowdhury, Safi & Begum, Nasima & Helaly, Tanjina & Rahman, Rashik. (2025). Sign3DNet: An Enhanced 3D CNN Architecture for Bengali WordLevel Sign Language Recognition. International Journal of Advanced Computer Science and Applications. 16. 10.14569/IJACSA.2025.0160689.
- 3) Nasima BEGUM, Toru NAKANISHI, Issuer-Revocable Issuer-Hiding Attribute-Based Credentials Using an Accumulator, 2025, <https://doi.org/10.1587/transfun.2024EAP1136>
- 4) Esha, Oishika Khair; Begum, Nasima*; Rahman, Shaila, "EpiNet: A Hybrid Machine Learning Model for Epileptic Seizure Prediction using EEG Signals from a 500 Patient Dataset". International Journal of Advanced Computer Science and Applications (IJACSA), Volume 15 No 1, p 1182, Feb.2024. <http://dx.doi.org/10.14569/IJACSA.2024.01501116>
- 5) Begum, N.; Rahman, R.; Jahan, N.; Khan, S.S.; Helaly, T.; Haque,A.; Khatun, N. Borno-Net: A Real-Time Bengali Sign-CharacterDetection and Sentence Generation System Using Quantized YOLOv4-Tiny and LSTMs. Applied Science 2023, 13, 5219.<https://doi.org/10.3390/app13095219>
- 6) Nasima Begum, Saqib Sizan Khan, Rashik Rahman, Ashraful Haque, Nipa Khatun, Nusrat Jahan and Tanjina Helaly: QMXBdSL49: An Efficient Recognition Approach for Bengali Sign Language with Quantize Modified Xception. International Journal of Advanced Computer Science and Applications (IJACSA), 14(5), 2023. <http://dx.doi.org/10.14569/IJACSA.2023.01405113>
- 7) Begum, Nasima, and Toru Nakanishi. "An Efficient Revocable Delegatable Anonymous Credential System Using an Accumulator." Journal of Information Processing (Oct. 2022): 706-717.
- 8) Shah Murtaza Rashid Al Masud, Md. Masnun, Mst. Afia Sultana, Anamika Sultana, Fahad Ahmed, and Nasima Begum, "DevOps Enabled Agile: Combining Agile and DevOps Methodologies for Software Development". International Journal of Advanced Computer Science and Applications (IJACSA), Volume 13 No 11, Nov. 2022, USA.
- 9) Nasima Begum, Md Azim Hossain Akash, Sayma Rahman, Jungpil Shin, Md Rashedul Islam, Md Ezharul Islam: User Authentication Based on Handwriting Analysis of Pen-Tablet Sensor Data Using Optimal Feature Selection Model. MDPI Future Internet 13, No. 9, pp: 231, Sept. 2021.
- 10) Naimur Rashid Methun, Rumana Yasmin, Nasima Begum, Aditya Rajbongshi and Md. Ezharul Islam: Carrot Disease Recognition using Deep Learning Approach for Sustainable Agriculture. International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 12, No. 9, pp. 732-741, Sept. 2021.

Conferences:

- 1) Begum, Nasima, and Toru Nakanishi. "Issuer-Revocable IssuerHiding Attribute-Based Credentials Using an Accumulator." In 2023 Eleventh International Symposium on Computing and Networking (CANDAR), pp. 93-99. IEEE, 2023.
- 2) Bakshi, Arijit, Mashrufa Mehnaz, Rashik Rahman, and Nasima Begum*. "Comprehensive Performance Analysis of Machine Learning Models in Fall Detection Using Gait Data." In 2023 IEEE 9th International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECONECE), pp. 479-484. IEEE, 2023.
- 3) Oishika Khair Esha, Nazmul Haque, Foysal Ahmed and Nasima Begum*, A Comprehensive Review on Epilepsy Diagnosis and Prognosis using Machine Learning and Deep Learning Approaches, 2022 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), December 2022.
- 4) Nafisa Labiba Ishrat Huda; Md. Ashraful Islam; Md. Osman Goni; Nasima Begum*, Covid-19 Classification Using HOGSVM and Deep Learning Models, 2022 2nd International Conference on Innovative Research in Applied Science, Engineering and Technology (IRASET), March, 2022.

- 5) Nusrat Jahan, Israt Binte Rashid, Obaydullah Al Numan, A S M Touhidul Hasan, Nasima Begum*: Collaborative AI in Smart Healthcare System. The International Conference on Automation, Control and Mechatronics for Industry 4.0 (ACMI 2021), pp. 1-5, July 2021, IEEE Digital Library.
- 6) Nasima Begum, Toru Nakanishi: An Accumulator-Based Revocation in Delegatable Anonymous Credentials. 2020 Eighth International Symposium on Computing and Networking Workshops (CANDARW), pp. 314-320, November 2020.
- 7) Md. Azim Hossain Akash, Nasima Begum, Sayma Rahman, Jungpil Shin, Md. Amiruzzaman, Md. Rashedul Islam: User Authentication Through Pen Tablet Data Using Imputation and Flatten Function. ICKII 2020, pp. 208-211, August 2020.
- 8) Parisa Mehera, M. F. Mridha, Nasima Begum, Md. Mohaiminul Islam: Internal Abnormalities' Detection of Human Body Analyzing Skin Images Using Convolutional Neural Network. IJCCI 2019, pp. 615-628, May 2020, Springer.

Book Chapter:

- 1) Book Title: Lecture Notes in Networks and Systems book series (LNNS, volume 618) Publisher: Springer, Singapore Khan, S.S., Haque, A., Khatun, N., Begum, N., Jahan, N., Helaly, T. (2023). An Evaluation of BdSL 49 Dataset Using Transfer Learning Techniques: A Review. In Lecture Notes in Networks and Systems, vol 618. pp 437–447, Springer, Singapore.
https://doi.org/10.1007/978-981-19-9483-8_37

9. List of Professional Consultancy and Sponsored Research activities in the five most recent years

- 1) Research Grant Project
 Institute of Energy, Environment, Research and Development (IEERD), UAP, Bangladesh
 - Role: Principal Investigator (PI)
 - Title: 4D SignWordNet: Bengali Sign Word Recognition and Sentence Generation Using Deep Learning Model
 - Amount: 300,000 BDT
 - Duration: 1 year
- 2) Research Grant Project
 Institute of Energy, Environment, Research and Development (IEERD), UAP, Bangladesh
 - Role: Principal Investigator (PI)
 - Title: Towards End-to-End Bangla Text Generation from Bangla Sign Language Using Custom Detection Model and Language Model
 - Amount: 265,000 BDT
 - Duration: 1 year