



Dr. Nehal Ahmad

Contact:

nahmad.cse@iiitbh.ac.in

nehalahmad@iiti.ac.in

nehalahmadcse@gmail.com

+91 9350850160

Address: Deptt. of CSE

IIIT Bhagalpur, Bihar, India

Google Scholar:

<https://acesse.one/i3sr2jp>

ACADEMIC EXPERIENCE

- | | |
|--|---------------------------------|
| 1. Assistant Professor
Department of Computer Science and Engineering,
Indian Institute of Information Technology (IIIT) Bhagalpur, India. | September 4, 2026 - to date |
| 2. Assistant Professor
Department of Computer Engineering
Faculty of Engineering and Technology,
Jamia Millia Islamia, Central University, New Delhi, India. | July 2024 - May 2025 |
| 3. AI-ML Trainer (non-regular, virtual mode)
Centre For Innovation & Entrepreneurship
Jamia Millia Islamia, Central University, New Delhi, India. | September 2024 - to date |
| 4. Assistant Professor
Department of Computer Science and Engineering,
Presidency University, Bangalore, India. | January 22, 2024 - July 3, 2024 |

Courses Taught at PG Level

- | | |
|--------------------------------------|---------------------------|
| • <i>Generative AI</i> | <i>M. Tech. (II Sem.)</i> |
| • <i>Cloud Computing</i> | <i>M. Tech. (I Sem.)</i> |
| • <i>Machine Learning Algorithms</i> | <i>M. Tech.</i> |

Courses Taught at UG Level

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|---|------------------------|
| • Natural Language Processing | B. Tech. (VIII Sem.) |
| • <i>Parallel and Distributed Computing</i> | B. Tech. (VII Sem.) |
| • Fundamentals of Computing | B. Tech. (I & II Sem.) |

- Neural Networks and Fuzzy Logic B. Tech.
- Operating Systems B. Tech.
- Java Programming B. Tech (III Sem)
- *UI-UX Design* BCA

ADMINISTRATIVE RESPONSIBILITIES

- Resident Warden September 7, 2026 - to date
Boys Hostel(Out-yard)
Indian Institute of Information Technology, Bhagalpur
- Administrative Responsibilities at PU Bangalore March,1 to July 3, 2024
 1. Instructor's In-charge, M. Tech, Machine Learning Algorithms.
 2. Chairperson, Class Coordinators and Class Committee Members.

RESEARCH AREA

Quantum Computing, Machine Learning, Optimization, RVFL, Biomedical Applications of ML, LLM

RESEARCH EXPERIENCE

PostDoctoral Fellow September 2025 - August 31, 2026
Quantum Computing
Visvesvaraya Postdoctoral Fellowship
Ministry of Electronics and Information Technology (MeitY), Government of India
Department of Computer Engineering,
Aligarh Muslim University, Aligarh

PDF Mentor: Professor M. M. Sufyan Beg
Department of Computer Engineering
Associated Faculty, Centre for Artificial Intelligence
Aligarh Muslim University, Aligarh.

EDUCATION

Ph.D. September 2020 - August 2023
Machine Learning
Department of Electrical Engineering and Computer Science,
National Taipei University of Technology, Taiwan
Department of Mathematics, IIT Indore

Thesis Title: Ubiquitous Computational Algorithms for the Diagnostic of Retinal Vascular Disorders and their Arithmetical Analysis.

Thesis Supervisor: Dr. Kuan Ting Lai (NTUT Taiwan)
Thesis Co-supervisor: Professor M. Tanveer (IIT Indore, India)

M.S. (Gold Medalist) September 2018 - June 2020
Artificial Intelligence
Department of Electrical Engineering and Computer Science,
National Taipei University of Technology, Taiwan.

Bachelor of Computer Engineering Department of Computer Engineering Faculty of Engineering and Technology Jamia Millia Islamia, Central University, New Delhi, India.	2016
Diploma in Functional Arabic (2 Years, part time) National Council for the Promotion of Urdu Language Ministry of Education, Department of Higher Education, Government of India.	2014
Hifz Imam Bukhari University Kishanganj, Bihar, India	2004

COURSE/S DESIGNED AND DEVELOPED

- | | |
|---|---------------------|
| 1. Generative AI
Department of Computer Engineering,
Jamia Millia Islamia, New Delhi, India, January, 2025 | M. Tech/Ph.D. Level |
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TEACHING ASSISTANTSHIP

Teaching Assistant: Building Deep Learning Applications National Taipei University of Technology, Taiwan.	Spring Sem. 2021
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PUBLICATIONS

JOURNALS

- **Nehal Ahmad**, M. M. Sufyan Beg, " *Explainable Quantum–AI Model for Early Detection and Severity Assessment of Retinopathy of Prematurity*, Elsevier Journal of Informatics, Volume 20 Issue 1 2026, DOI:10.14148.JOI.2026.V20.I1.221, **Impact Factor 3.4**
- **N. Ahmad**, K-T. Lai and M. Tanveer " *Retinal Blood Vessel Tracking and Diameter Estimations via Gaussian Process with Rider Optimization Algorithm*" IEEE Journal of Biomedical and Health Informatics (2022) Volume: 28, Issue: 3, March 2024) Page(s): 1173 - 1184, DOI: 10.1109/JBHI.2022.3229743 (**Citations: 17, I.F = 7.0**)
- M. Tanveer, M.A. Ganaie, Iman Beheshti, Tripti Goel, **Nehal Ahmad**, Kuan-Ting Lai, Kaizhu Huang, Yu-Dong Zhang, Javier Del Ser, Chin-Teng Lin " *Deep Learning for Brain Age Estimation: A Systematic Review*," Information Fusion (arXiv preprint arXiv:2212.03868), Volume 96, August 2023, Pages 130-143 (**Citations: 177, I.F = 18.6**)
- MA Ganaie, M Tanveer, I Beheshti,..**N Ahmad**, PN Suganthan" *Heterogeneous Oblique Double Random Forest*", Neural Networks, Elsevier (**Citations: 7, I.F = 7.6**)
DOI: 10.1016/j.neunet.2026.109262
- N Ahmad, M. M. Sufyan Beg " **Quantum-Enhanced Spatio-Temporal Progression Network for Retinopathy of Prematurity (Q-STEP-ROP) Stages and Zones Classification**" IEEE Journal of Biomedical and Health Informatics (Under Review)
- **Nehal Ahmad**, M. M. Sufyan Beg, " *Quantum Attention-based Temporal Retinopathy Network for Progressive ROP Screening*" Knowledge-Based Systems, Elsevier, SCI, Q1, impact factor of 7.60." (Under Review)

CONFERENCES

- **N. Ahmad**, M. M. Sufyan Beg *Quantum Machine Learning-Based Multimodal Fusion Transformer (Q-MuFT) for Integrated Ophthalmic Diagnosis* SPARC International Symposium on Quantum Computing and Applications (SPARC-QC-2026) 20-21 Feb 2026, NIT Rourkela, India
- **N. Ahmad**, M. M. Sufyan Beg *A Quantum Machine Learning Inspired U-Net (QisNet) for Retinal Image Segmentation* IMPACT-2026, AMU, Aligarh, **Best Paper Award**
- **N. Ahmad**, M. A. Ganaie, A.K. Malik, K-T. Lai and M. Tanveer, “*Minimum Variance Embedded Intuitionistic Fuzzy Weighted Random Vector Functional Link Network*,” International Conference on Neural Information Processing (ICONIP 2022). **Citations: 6, Best Paper Award** and Prize Money of 400 USD.
- **N. Ahmad** and K-T. Lai, “*Deep residual network-based sentiment analysis of amazon cell phone reviews*,” Machine Intelligence and Signal Processing, Springer, 2022, pp. 815–828 **Citations: 1**
- Md. Nahid Akhtar, Prof. Abid Haleem, Dr. Mohd Javaid, **Nehal Ahmad**, Zafar Husain ”Challenges in Logistics within the Medical 4.0 Environment: A DEMETAL Approach” IEEE Global Congress on Emerging Technologies (GCET 2024), Gran Canaria, Spain,
- N Ahmad, N Akhtar ”Edge Computing for Rural Health Care: A Review Insight” International Conference on ”Viksit Bharat 2047” at Jamia Millia Islamia, New Delhi India April 16-17, 2025.

RESEARCH AREA

Quantum Computing, Machine Learning, Optimization, RVFL, Biomedical Applications of ML, LLM

HONORS AND AWARDS

- Visvevayara PostDoctoral Fellowship, (Ministry of Electronics and Information Technology (MeitY), Government of India)
- Gold Card (Citizenship by Govt. of Taiwan) by virtue of excellent academic achievements.
- Best Research Paper Award in “The 29th International Conference on Neural Information Processing (ICONIP 2022)” with an honorarium of 400 USD, November 22-26, 2022
- International Graduate Scholarship, National Taipei University of Technology, Taiwan, September 2020 - August 2022.
- Award of Excellence (Gold Medalist in M.S.) with an honorarium of 1000\$, Department of Electrical Engineering and Computer Science, National Taipei University of Technology, Taiwan, 2020.
- Ministry of Education fellowship award, Government of Taiwan, September 2018 - Aug 2020.
- Certificate of Recognition: Model United Nations (MUN) Club, National Taipei University of Technology, Taiwan, General Secretary, 2018 - 2019.
- Certificate of appreciation, Autonomous Robotics Workshop (ARW) organized by Eklavya Innovation, Department of Computer Science, Jamia Millia Islamia, Central University, New Delhi, India, 2011.
- Certificate of appreciation, subject association University Polytechnic, Jamia Millia Islamia, Central University, New Delhi, India, 2011.
- Certificate of Appreciation for Leading Traweeh prayers during Ramadhan (2019, 2021) Taipei Grand Mosque, Taipei City, Taiwan
- *Certificate of appreciation, All India Musabaqa-e-Hifz-o-Tajweed wa Tafseer-e-Quran-e-Kareem, Jami'at Ahl-e-Hadeeth Hind, Delhi 2008, 2009.*

EDITORIAL SERVICE/S

- Editor "Ethical and Responsible AI Algorithms for Sustainable Computing" Book Series, CRC Press — Taylor & Francis Group!

REVIEWER IN INTERNATIONAL JOURNALS

1. Artificial Intelligence in Medicine, Elsevier (Q1).
2. Pattern Recognition, Elsevier (Q1).
3. IEEE Journal of Biomedical and Health Informatics, formerly IEEE Transactions, (Q1).
4. Journal of Imaging Informatics in Medicine, Springer (Q1).
5. Journal of Imaging Informatics in Medicine, Springer (Q1).
6. Engineering Reports open access journal (ESCI Q2)
7. Journal of Artificial Intelligence and Applications.

CONTRIBUTED TALKS

- Presented research paper entitled "Quantum Machine Learning-Based Multimodal Fusion Transformer (Q-MuFT) for Integrated Ophthalmic Diagnosis SPARC International Symposium on Quantum Computing and Applications" (SPARC-QC-2026) 20-21 Feb 2026, NIT Rourkela, India
- Presented research paper entitled "A Quantum Machine Learning Inspired U-Net (QisNet) for Retinal Image Segmentation" IMPACT-2026, AMU, Aligarh, and bagged the Best Paper Award
- Presented a talk entitled "VisionAI: Computational Modeling of Retinal Disorders Using Advanced Machine Learning Algorithms" July 24th, 2025 at IIT Indore, India,
- Presented paper in ICONIP-2022: **N. Ahmad**, M. A. Ganaie, A.K. Malik, K-T. Lai and M. Tanveer, "Minimum Variance Embedded Intuitionistic Fuzzy Weighted Random Vector Functional Link Network," International Conference on Neural Information Processing (ICONIP 2022). (Core Rank A), IIT Indore, India
- Presented paper in MISP-2021: **N. Ahmad** and K.-T. Lai, "Deep residual network-based sentiment analysis of amazon cell phone reviews." International Conference on Machine Intelligence and Signal Processing (MISP 2021).
NIT Arunachal Pradesh. India

INVITED TALKS

- Delivered a talk in Resource Person for Online Refresher Course on **Teaching Pedagogy in the Age of AI** (Interdisciplinary) on 4th August (Tuesday), 2026, 03:30 PM to 5:00 PM, The programme was organized by the Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi in collaboration with Multidisciplinary Center for Artificial Intelligence, Jamia Hamdard, New Delhi and AIU-ASU-AADC, Apeejay Styra University, Gurugram
- Delivered a talk in Refresher Course on **AI for Educators and Researchers: Concepts, Tools, and Applications Across Disciplines (Interdisciplinary)** from 11-12-2025 to 24-12-2025, Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, in collaboration with Jamia Hamdard,
- Delivered a talk in the Department of CIE, Jamia Millia Islamia, New Delhi
- Delivered a talk in Geeta Institute of Technology and Management, under Maharshi Dayanand University, India

- Delivered a talk in the Department of Data Science & Analytics, Central University Rajasthan, India.

FACULTY DEVELOPMENT PROGRAMS ATTENDED

- Participated in the One-Week Faculty Development Program on “Recent Developments of Artificial Intelligence in Image Processing and Pattern Recognition” jointly organized by the Electronics and ICT Academy, NIT Patna, IIT Kanpur, MNIT Jaipur and IIT Roorkee under the “Scheme of financial assistance for setting up of Electronics and ICT Academies (Phase – II)” by the Ministry of Electronics and Information Technology (MeitY), Government of India, held from 10-Aug-2026 to 14-Aug-2026.
- One-Week National-Level Faculty Development Program on “Cyber Security and It’s Best Practices” organized by the Department of Computer Science and Engineering at Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad held from 28th April to 2nd May 2025.
- One Week International Faculty Development Programme on Advances in Computing and IT Revolution – Organized by Department of Computer Science & Engineering, Sharda School of Engineering & Technology, Sharda University, Greater Noida Campus. 10th to 15th February, 2025

EVENT/S ORGANIZED

- Invited talk in the Department of Computer Engineering, Jamia Millia Islamia, New Delhi, India. September 26, 2024

LANGUAGES KNOWN

1. Technical Proficiency: English, Urdu, Hindi
2. Intermediate Level: Arabic, Bangla, Persian
3. Beginner Level: Mandarin

REFEREES

1. **Professor M. M. Sufyan Beg** (PDF Mentor)
Department of Computer Engineering,
Associated Faculty, Center for Artificial Intelligence,
Aligarh Muslim University, Aligarh.
Principal, Zakir Husain College of Engineering and Technology,
A.M.U. Aligarh from August 24, 2015 to November 26, 2024.
Chairperson of the Department of Computer Engineering,
A.M.U. Aligarh from May 23, 2015 to August 23, 2015.
Head of the Department of Computer Engineering,
Jamia Millia Islamia, New Delhi from February 11, 2007 to February 10, 2011
Email: mmsbeg@cs.berkeley.edu
Mobile: +91 9999071406
<https://www.amu.ac.in/faculty/computer-engineering/mm-sufyan-beg>
2. **Professor M. Tanveer** (Ph.D co-supervisor),
Indian Institute of Technology Indore, India
INSA Distinguished Lecture Fellow
IEEE CIS Distinguished Lecturer (2024-2026)
INSA Associate Fellow and SERB Ramanujan Fellow
Elected Governor - APNNS (2023-2024 and 2025-2026)
Senior Action Editor: Neural Networks, Elsevier (IF: 6.0) (2025 -).
Senior Editor: AIHC, Springer (2025 -).

Associate Editor: IEEE Transactions on Neural Networks & Learn Sys (IF: 10.2) (2025 -).
Associate Editor: IEEE Transactions on Fuzzy Systems (IF: 11.90) (2025 -).
Associate Editor: IEEE Transactions on Emerging Topics in CI (IF: 5.3) (2025 -).
Associate Editor: Pattern Recognition, Elsevier (IF: 7.5) (2022 -).
Editorial Board: Applied Soft Computing, Elsevier (IF: 7.2) (2022 -).
Board of Editors: Engineering Applications of AI, Elsevier (IF: 7.5) (2022 -).
Associate Editor: Neurocomputing, Elsevier (Nov 2021 onwards) (IF: 5.5) (2022 -).
Associate Editor: Cognitive Computation, Springer (IF: 4.3) (2023 -).
Email: mtanveer@iiti.ac.in
Mobile: +91-9413259268
<https://www.iiti.ac.in/people/mtanveer/leader.php>

3. **Professor Bashir Alam,**

former HoD, Department of Computer Engineering,
Jamia Millia Islamia, Central University, New Delhi, India
Mobile: 9911903930
Email: balam2@jmi.ac.in
https://jmi.ac.in/ACADEMICS/Departments/Department-Of-Computer-Engineering/Faculty-Members/1767/Bashir_Alam/

4. **Dr. Kuan Ting Lai** (Ph.D supervisor),

Associate Professor, National Taipei University of Technology, Taiwan
Email: ktlai@ntut.edu.tw <https://ece.ntut.edu.tw/p/405-1071-79813,c2678.php?Lang=en>

5. **Professor (Retired) N. Sundararajan,**

Nanyang Technological University, Singapore
Former ISRO Scientist
B.E (Hons) (Madras); M.Tech (IIT-M), Ph.D (Illinois)
Life Fellow, IEEE ; Life Fellow, IES ; Asso. Fellow, AIAA
Mob: + 65 9105 4503 ; +91 9962436710
Email: ensundara@ntu.edu.sg, ensundara@gmail.com
Home :<http://www.ntu.edu.sg/home/ensundara/>

6. **Professor. Gopal K. Shyam,**

HoD: COM & CEL, School of Computer Science and Engineering, Presidency University Bengaluru,
Karnataka India 560064
Email: gopalkirshna.shyam@presidencyuniversity.in
Mob: +91 09886543842
<https://presidencyuniversity.in/faculty/dr-gopal-krishna-shyam/>