CURRICULUM VITAE

Dr. Mohd. Mubashshir Hasan Farooqi

Assistant Professor

Department of Computer Science and Engineering
School of Engineering Sciences and Technology (SEST)
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Professional Summary:

Ph.D. Academician and Researcher with over 15 years of experience teaching and conducting research in **Electronics and Communication Engineering (ECE)** and **Computer Science and Engineering (CSE)**. Throughout my career, I have taught a wide range of core subjects, including **Artificial Intelligence (AI), Computer System Architecture, Embedded Systems, and VLSI Design**. My primary research focus is on **II–VI semiconductor nanomaterials and optoelectronic devices**, which has led to several papers in reputed international journals. Alongside my teaching and research, I take an active part in institutional work such as **Curriculum Development, Outcome-Based Education (OBE)** compliance, student mentoring, and peer-reviewing research manuscripts. I am dedicated to providing strong mentorship to engineering students and supporting interdisciplinary projects.

Education:

Degree	University/ Institution	Year of Passing/ Award	Specialization/ Thesis Title
Ph.D. (Electronics & Communication)	Department of Electronics and Communication, JK Institute of Applied Physics and Technology University of Allahabad (A Central University), Prayagraj	2017	**Thesis Title:** *Synthesis and Characterization of II-VI Nano and Bulk Materials for Optoelectronic Device Applications*
M. Tech. (Electronics & Telecommunication Engineering)	JRN Rajasthan Vidyapeeth (Deemed-to-be University), Udaipur	2006	Digital VLSI Design

M.Sc. (Electronics)	Jamia Millia Islamia (A Central University), New Delhi	1998	Computer Communication and Networking; Digital Signal Processing
B.Sc.	Mahatma Jyotiba Phule Rohilkhand University (formerly Rohilkhand University), Bareilly	1994	Physics, Mathematics and Chemistry

Professional/ Teaching Experience :

1. Assistant Professor

Department of Computer Science and Engineering, School of Engineering Sciences and Technology (SEST), **Jamia Hamdard University, Hamdard** Nagar, New Delhi-110062 **February 2024 – Present** (2 years 4 months as on June 2026)

- Conducting theory and laboratory classes for B.Tech (CSE & ECE), B.Sc. Computer Science, BCA, B.Sc. Nursing, and DGNM programmes as per the university-designated timetable and academic calendar.
- Handling teaching load as per the workload decided by the Time Table Committee (TTC), including theory lectures, laboratory sessions, and internal assessments.
- Performing university examination duties as assigned by the Examination Cell.
- Ensuring complete syllabus coverage and maintaining high academic standards across all programmes.
- Mentoring students in laboratory work, projects, and skill development.

Courses Taught at Current Institution (2024–2026):

Even Semester 2025-26 (Recently Completed)

- Basic Electrical Engineering
- Customer Relationship Management
- Electronics Measurement Lab
- Artificial Intelligence Lab

Odd Semester 2025-26

- Computer System Architecture
- Computer Architecture Lab
- Electromagnetic Field Theory

Even Semester 2024-25

- Introduction to Artificial Intelligence
- Artificial Intelligence Lab
- Antenna and Wave Propagation
- Health and Nursing Informatics for B.Sc. Nursing

- Computer Education for DGNM programme

Odd Semester 2024-25

- Computer System Architecture
- Computer Architecture Lab
- Electromagnetic Field Theory

Even Semester 2023-24 (Since Joining)

- Data Communication and Computer Network Basics
- Artificial Intelligence Lab
- Analog Circuit Lab

2. **Academic Consultant (Independent Educational Initiative): July 2023 – January 2024**

- Provided academic mentoring and scholarly support to undergraduate and postgraduate students.
- Assisted in curriculum planning, project supervision, and outcome-based learning activities in alignment with the National Education Policy (NEP 2020).
- Developed learning resources and academic content for engineering, computer science, and related disciplines.
- Provided guidance on research methodology, technical writing, project development, and academic documentation.

3. **Assistant Professor (Contractual):** M.Sc. Electronics Programme, Department of Applied Sciences and Humanities, Faculty of Engineering and Technology, **Jamia Millia Islamia (A Central University),** New Delhi **6th September 2022 – 31st May 2023 (one academic year)**

- Taught core courses in Electronics Science to M.Sc. students including Digital Logic and Computer Design, Computer Architecture, VLSI Circuit Design and Device Modeling, Microprocessors and Microcontrollers, and Embedded Systems.
- Monitored and facilitated MOOCs and provided technical support to students.
- Guided students in research projects and organized seminars.

4. **Guest Faculty:** M.Sc. Electronics Programme, Department of Applied Sciences and Humanities, Faculty of Engineering and Technology, **Jamia Millia Islamia (A Central University),** New Delhi **19th August 2019 – 25th May 2022 (3 academic years)**

- Taught various courses in Electronics Science including Analog and Digital Electronics, Computer Architecture, VLSI Circuit Design and Device Modeling, Microprocessors and Microcontrollers, and Embedded Systems.
- Designed curriculum, laboratory sessions, and NAAC-compliant course files.
- Mentored students in research projects and facilitated MOOCs.

5. **Assistant Professor:** Department of Physics, MAS Degree College, Kunda (Affiliated to Allahabad State University), Uttar Pradesh **1st December 2017 – 31st May 2019 (1 year 6 months)**

- Taught M.Sc. Physics courses: Electronics, Electronics-I, Electronics-II, and Physics of Electronic Materials and Devices.
- Conducted assessments, demonstrations, and managed student progress.

6. **Junior Research Fellow (JRF) / Senior Research Fellow (SRF):** Department of Electronics & Communication Engineering, University of Allahabad (Prayagraj), **12th July 2011 – 11th July 2016 (5 Years), Fellowship: Maulana Azad National Fellowship (MANF), UGC, New Delhi.**

- Served as Junior Research Fellow **(2 Years)** and Senior Research Fellow **(3 Years)** under the Maulana Azad National Fellowship (MANF).
- Conducted research on the synthesis and characterization of II–VI nanomaterials for optoelectronic device applications.
- Designed and performed experiments, analyzed data, and investigated the structural, optical, and photoconductivity properties of semiconductor nanomaterials.
- Published research findings in peer-reviewed journals and contributed to research dissemination activities.

7. **Assistant Professor: Faculty of Electronics, Informatics and Computer Engineering, Shobhit University,** Meerut **15th September 2006 – 11th July 2011 (4 years 9 months)**

- Taught B.Tech (ECE & CSE) subjects including Digital Circuit and Logic Design, VLSI Design, Semiconductor Material and Devices, Antenna & Wave Propagation, Microwave Engineering, Electromagnetic Field Theory, etc.
- Organized and supervised laboratory sessions.

8. **Lecturer** Department of Electronics and Communication Engineering, IILM Academy of Higher Learning, Greater Noida **1st January 2006 – 14th September 2006 (8 months 14 days)**

- Taught "Digital Communication" to B.Tech ECE students and conducted laboratory sessions.

9. **Demonstrator** Department of Physics, IILM Academy of Higher Learning, Greater Noida **14th August 2003 – 31st December 2005 (2 years 4.5 months)**

- Supervised B.Tech Physics laboratory sessions and guided students in experiments.

10. **Lecturer (Contractual / Part-time)** Physics (School and Polytechnic Level) **Approx. 5 years** (July 1998– April 2003)

- Taught Physics at school and polytechnic levels.

Total Experience:

Experience Category	Duration
Teaching Experience	15 years
Research Experience (JRF/SRF)	05 years
Total Academic Experience	20 years

Publications:

A. Journal Articles:

1. **Mohd. Mubashshir Hasan Farooqi** and Rajneesh Kumar Srivastava," "Effect of Annealing Temperature on Structural, Photoluminscence and Photoconductivity Properties of ZnO Thin Film deposited on Glass Substrate by Sol-Gel Spin Coating Method", "Proceedings of the National Academy of Sciences, India A:Physical Sciences" 90, 845-859**,** (2020) **(** https://doi.org/10.1007/s40010-019-00648-x) (IF 1.544) (SCI and Scopus indexed –Q3)

2. **Mohd. Mubashshir Hasan Farooqi** and Rajneesh Kumar Srivastava, "Structural, optical and photoconducting properties of ZnO nanoparticles synthesized by annealing of ZnS nanoparticles" "Journal of Alloys and Compounds" 691**,** 275-286 (2017), **(**https://doi.org/10.1016/j.jallcom.2016.08.245) (I.F.5.316) (SCI and Scopus indexed-Q1)

3. **Mohd. Mubashshir Hasan Farooqi** and Rajneesh Kumar Srivastava, "Enhanced UV-vis Photoconductivity and photoluminescence by doping of samarium in ZnO nanostructures synthesized by solid state reaction method", "Optik", 127**,** 3991-3998, (2016) **(**https://doi.org/10.1016/j.ijleo.2016.01.074) (**IF = 2.443)** (SCI and Scopus indexed-Q2)

4. **Mohd. Mubashshir Hasan Farooqi** and Rajneesh K. Srivastava, "Structural, Optical and Photoconductivity Study of ZnS Nanoparticles Synthesized by Low Temperature Solid State Reaction Method", "Materials Science in Semiconductor Processing", **20,** 61–67 **(2014)**, 2014**, (**https://doi.org/10.1016/j.mssp.2013.12.028) **(IF=3.927)** (SCI and Scopus indexed -Q2)

5. **M. M. Hasan Farooqi**, Rajneesh K. Srivastava and S. G. Prakash, "Study of Photosensitive ZnO Thin film synthesized by Sol gel Method" "*International Journal of Electronics and Electrical Engineering"*, 5(10) 967-970 (2012), ISSN 0974-2174.

6. **Mohd Mubashshir Hasan Farooqi,** R. K. Srivastava, S. G. Prakash "Study of UV-vis Photo response of ZnO Nano-Particles Synthesized by Solid State Reaction Method in Presence of

Triethanolamine (TEA)" , "IJPAS , International Journal of Pure & Applied Sciences"**,** 2 (1) 35-38 (2013) ISSN No. 2250- 2289

7. **Mohd Mubashshir Hasan Farooqi**, R. K. Srivastava, and S. G. **Prakash** "Photoconductivity and Dark-Conductivity of ZnO Nanoparticles under UV Illumination by Solid State Reaction Method" "Journal of International Academy of Physical Sciences," 181-187, (2012) ISSN 0974-9373

8. Syed Ghause Ibrahim, S. A.Waghuley, **M. M. Hasan Farooqi**, A.V. Kadu "Structural and Morphological Properties of Spray Deposited Lead Telluride Thin Films**", "**International Journal of Scientific Research in Science and Technology" 9(4), 100-103, (2021) ISSN: 2395-6011

B. Conference Papers:

1. **Mohd Mubashshir Hasan Farooqi,** R. K. Srivastava, S. G. Prakash "Study of Rise and Decay of ZnS Nanoparticles synthesized by Solid State Reaction Method under UV-vis Illumination", *AIP Conf. Proc.* 1536, 179 (2013); doi: 10.1063/1.4810159 **(Scopus indexed)**

C. Book Chapters:

1. Syed Jafar Mustafa, **Mohammad Mubashshir Hasan Farooqi,** and M. Nizamuddin, " Memristor Based Devices For Hardware Security Applications" (chapter 3), "Nanoscale Memristor Device and Circuits Design" Balwinder Raj, Ahmed Hemani, Abusaleh M. Jabir, Saurabh Khandelwal , (Elsevier) 08th November 2023

2. Syed Jafar Mustafa, **Mohd Mubashshir Hasan Farooqi, "**Memristor-Based Nanoelectronic Circuits for Computational Applications" (chapter 6), "Advances in Electronics and Communication Engineering", Haung Xiao, Vol.3, AkiNik Publications, New Delhi, 2022

3. **Mohd Mubashshir Hasan Farooqi,** Syed Jafar Mustafa, **"**Synthesis, Properties and Applications of Nano-Fluids" (chapter 2), "Research Trends in Multidisciplinary Research" , R. Jaykumar, Raja Reddy.Duvvurv Volume 32 ,AkiNik Publications, New Delhi, 2022)

4. **Mohd Mubashshir Hasan Farooqi,** Monika Aggarwal**, "**Gas Sensing Properties and Applications of Metal Oxide Thin Film Transistors" (chapter 4), Nanomaterials for Sensors and Sustainable Energy Volume 2 , Sadia Ameen · Shaheer M. Akhtar · Ing Kong Editors, Springer (17th April 2025 First Online)

5. Syed Ghause Ibrahim, **M.M.Hasan Farooqi**, "Spray pyrolyzed prepared thin films of tetragonal indium sulphide" Futuristic Trends in Chemical, Material Science & Nano Technology IIP Series, Volume 3, Book, Part, (April 2024)

D. Conference Presentations:

1. **Mohd Mubashshir Hasan Farooqi,** R. K. Srivastava, "Investigation of Photoconductivity in Sm-doped ZnO nanopowder", 18th International conference on Recent Trends in Physical Sciences organized by International Academy of Physical Sciences (CONIAPS XVIII), Faculty of Science, University of Allahabad, Allahabad and United Group of Institutions, Allahabad - India., Dec 22nd –24th, 2015,

2. **Mohd Mubashshir Hasan Farooqi,** R. K. Srivastava, "Photoresponse of ZnS nanoparticles", National Conference on Chemistry and Life, CMP Degree College, University of Allahabad, Allahabad, 16-17 September, 2012

3. **Mohd Mubashshir Hasan Farooqi,** Syed Ghause Ibrahim, "Synthesis and Characterization of Indium Phosphide (InP): A Versatile Semiconductor Material", National virtual conference on popularity of Science Among the society, Department of Physics, Bundelkhand University (BU), Jhansi, 12- 14 October 2020

E. Invited Talks:

1. **Mohd Mubashshir Hasan Farooqi, "**Photoconductivity Properties of ZnO nanoparticles fabricated by ZnS nanoparticles", National Conference on Nanoscience & Technologies in Digital India-2018 (**NANOTCON- 18**), Department of Electronics & Electrical Engineering, Shobhit Institute of Engineering &Technology, Meerut, 28th April 2018

Research Skills:

- Expertise in Semiconductor Nanomaterials, Thin-Film Technologies, Photoconductivity, and Optoelectronic Devices.
- Research focused on the synthesis, characterization, and photoconductivity studies of ZnO and ZnS nanomaterials in powder and thin-film forms.
- Worked on structural, optical, and electrical characterization of semiconductor materials using XRD, UV–Vis Spectroscopy, FTIR, Photoluminescence (PL), SEM, TEM, EDS, and related techniques.
- Investigated charge transport mechanisms, defect states, and photoresponse characteristics for photodetector, sensor, and optoelectronic device applications.
- Research contributions in the development and characterization of semiconductor nanomaterials for sensing, photovoltaic, and optoelectronic applications.

- Experienced in thin-film fabrication, experimental data analysis, scientific documentation, and technical research writing.
- Interested in Artificial Intelligence (AI), Machine Learning (ML), Computer Vision, Human–Machine Interaction (HMI), Internet of Things (IoT), and Cyber-Physical Systems for intelligent sensing and smart automation applications.
- Current research interests include AI-assisted sensor systems, intelligent monitoring, embedded systems, and data-driven approaches for engineering applications.

Project Supervision:

- B.Sc. Major Projects: 8 (Jamia Hamdard)
- B.Tech. Major Projects: 1 (Jamia Hamdard)
- B.Tech. Minor Projects: 4 (Jamia Hamdard)
- M.Sc. Electronics Dissertation/Research Projects: 2 (JMI)
- **Areas:** Artificial Intelligence, IoT, Embedded Systems, Computer Networks, Electronics Systems, Database Applications, and Web Technologies, Simulation of Solar cell

Research Areas / Future Directions (Brief):

- Semiconductor nonmaterials and Optoelectronic Devices
- Photoconductivity and Thin-Film Technologies
- Nanoelectronics and Device Modeling
- Embedded Systems, IoT, and Smart Sensors
- Artificial Intelligence and Machine Learning Applications
- Computer Vision and Human–Machine Interaction (HMI)
- Cyber-Physical Systems and Intelligent Computing

Professional Development/Training Programs:

1. NPTEL-AICTE Faculty Development Programme on **"Memory Device Technology for AI/ML Computing** ", **Jan- April 2026 (12 weeks)** completed with **Elite** certification.
2. Two-Week Refresher Course on "**AI for Educators and Researchers: Concepts, Tools, and Applications Across Disciplines (Interdisciplinary)**" under the Malaviya Mission Teacher Training Programme (MMTTP), UGC, organized by MH-MMTTC, Hansraj College, University of Delhi, in collaboration with the Department of Computer Science & Engineering, SEST, Jamia Hamdard (**11–24 December 2025**).
3. Completed a 3-Day Face-to-Face Faculty Development Programme (FDP) on "**Inculcating Universal Human Values in Technical Education**", organized by the All India Council for Technical Education (AICTE) at Jamia Hamdard, New Delhi, from **27–29 May 2024.**

4. NPTEL-AICTE Faculty Development Programme on **"Fabrication Techniques for MEMs- based Sensors: Clinical Perspective"**, July- October 2021 (12 weeks)
5. NPTEL-AICTE Faculty Development Programme on **""Microelectronics: Devices to Circuits""**, September- December 2020 (12 weeks)
6. MHRD sponsored Faculty Development Programme on "**MANAGING ONLINE CLASSES AND CO-CREATING MOOCS 3.0**", Teaching Learning Centre, Ramanujan College University of Delhi., 25th July 2020-10.08.2020 (2 weeks)
7. AICTE Recognized Refresher Course on "**Application of Nanoscience in Modern Day Research and Technology",** Applied Science Department NITTTR, Chandigarh, 19-06.2020-02.07.2020 (2 weeks)
8. AICTE-ATAL Scheme Faculty Development Programme on **"Nanotechnology for Electronic and Photonic Devices**" (NanoDev 2021), Department of Electronics and Communication Engineering, Punjab Engineering College, Chandigarh, 12.07.2021-16.07.2021 (01 week)
9. AICTE-ATAL Scheme Faculty Development Programme on "**Electrets Applications in Sensors, Microelectronics and Actuators**", Shree G.S. Institute of Technology and Science, Indore, 05.07.2021-09.07.2021 (01 week)
10. AICTE-ATAL Scheme Faculty Development Programme on "**Energy Engineering**", School of Energy and Environment Management, RGPV Bhopal, 08.02.2021 -12.02.2021 (01 week)
11. AICTE-ATAL Scheme Faculty Development Programme on "**Green energy and Sustainability Engineering**", Department of Electrical Engineering, Gautam Buddha University (GBU), Greater Noida, 19.01.2021 - 23.01.2021 (01 week)
12. AICTE recognized Faculty Development Programme on "**Programming using MATLAB**" , Department of Electrical Engineering, NITTTR Chandigarh, 08.06.2020 - 12.06.2020 (01 week)
13. AICTE recognized Faculty Development Programme on "**Research Trends in VLSI Design**" , Department of Electronics and Communication Engineering, NITTTR Chandigarh, 25.05.2020 - 29.05.2020 (01 week)
14. AICTE recognized Faculty Development Programme on **"Quantum and Energy Materials: Potential & Applications**", Applied Science Department, NITTTR Chandigarh, 18.05.2020 - 22.05.2020 (01 week)
15. AICTE recognized Faculty Development Programme on **""Nanomaterials and Devices""**", Applied Science Department, NITTTR Chandigarh, 11.05.2020 - 15.05.2020 (01 week)
16. AICTE sponsored short term training program (STTP) on **"Role of Teacher in Creating Effective Learning Environment for Students",** Department of Electronics and Communication Engineering, North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Arunachal Pradesh, 25.10.2021-30.10.2021 (01 week)

17. AICTE sponsored short term course on **"Nanotechnology for Electronic and Photonic Devices**" (NanoDev 2020), Department of Electronics and Communication Engineering, Punjab Engineering College, Chandigarh, 15.06.2020-19.06.2020 (01 week)
18. MHRD sponsored short term course on **"NANOTECHNOLOGY: OPPORTUNITY & CHALLENGES**", Applied Science Department, NITTTR Chandigarh, 04.05.2009 - 08.05.2009 (01 week)
19. Workshop on "**Nano and Advanced Materials and their applications (WONAMA-2012)",** Department of Physics, BHU Varanasi, 10.04.2012-16.04.2012 (01 week)
20. Workshop on **"Scientific/Research paper writing"** National Academy of Sciences, India at Allahabad., 08.11.2012-10.11.2012
21. Workshop on "**Chip Design Testing and Testability",** School of Electronics Engineering & SCEIT, Shobhit University, Meerut, 23rd November 2010
22. Workshop on "**Recent Trends in Image Processing",** School of Electronics Engineering, Shobhit University, Meerut, 23rd October 2010
23. Workshop on "**Recent Trends in Biomedical Engineering"** Center for Biomedical Engineering, Shobhit University, Meerut, 11- 12th Feb. 2010
24. Workshop on ""**Recent Trends in Nanoscience & Nanotechnology"** School of Basic & Applied Sciences, Shobhit University, Meerut, 3rd October 2009.
25. Participated in International webinar (e-conference) on "Recent Development in Material Science", Department of Physics, St. Andrew's College, Gorakhpur, UP n 02-03rd June 2020.
26. Participated in **National Conference on Nanoscience and Nanotechnology (Aligarh Nano-II),** Department of Applied Physics, Z.H.College of Engineering and Technology, AMU, Aligarh, 10-12th March, 2012

Professional Memberships and Scholarly Activities:

- Repeater, International Conference on Innovations and Developments in Science, Sustainability and Digital Transformation (ICIDSSD 2026).
- Reviewer and Repeater, International Conference on Innovations and Developments in Science, Sustainability and Digital Transformation (ICIDSSD 2025).
- Repeater, International Conference on Innovations and Developments in Science, Sustainability and Digital Transformation (ICIDSSD 2024).
- Active Reviewer, Journal of Materials Science: Materials in Electronics.
- Active Revewer, Journal of Electronics Materials
- Active Reviewer, National Academy Science Letters.
- Active Reviewer, Proceedings of the National Academy of Sciences, India Section A: Physical Sciences (Springer Nature).
- Reviewer, Materials Science in Semiconductor Processing.
- Editorial Board Member, American Journal of Nano Research and Applications (2020).

- Guest Editor, Special Issue "Synthesis of Advanced Nanocomposites for Environmental Applications," International Journal of Photochemistry and Photobiology (2019).
- Editorial Board Member, Journal of Photonic Materials and Technology (2019).
- Former Editorial Board Member, International Journal of Advancements in Electronics and Electrical Engineering (IJAEEE).
- Senior Member, Universal Association of Computer and Electronics Engineers (UACEE) (2012–Present).

Academic Responsibilities and Institutional Contributions at Jamia Hamdard:

- Member, Admission Committee, Department of Computer Science and Engineering (CSE), Jamia Hamdard (2024–25 to 2026–27).
- Faculty Coordinator, International Conference on ICT for Digital, Smart and Sustainable Development (ICIDSSD 2025).
- Conference Reviewer and Repeater, ICIDSSD 2025; Repeater, ICIDSSD 2024 and 2026.
- Internal Examiner and Project Evaluator for Undergraduate Programmes.
- Question Paper Setter for University-level Theory and Practical Examinations for ECE, B.Tech. (CSE), B.Sc. (Computer Science), and BCA programmes.
- Performed examination-related duties including invigilation, result tabulation, and academic evaluation as assigned by the University.

References:

Available upon request.

Declaration

I certify that above information is correct and complete to the best of my knowledge.

(Dr. M. M. Hasan Farooqi)

15.06.2026