

# Curriculum Vitae

## of

### Professor Dr. Kazi Khairul Islam

Former Professor (Rtd.), Dept. of EEE, RUET

Former Professor, Dept. of EEE, Islamic University of Technology (IUT)

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- Name:** Prof. Dr. Kazi Khairul Islam
- Father's Name:** Late Kazi Ezaz Hossain
- Date of Birth:** July 24, 1954
- Nationality:** Bangladeshi by birth
- NID Number:** 2619551165757
- Permanent Address:** Ezaz Manzil, H-151, Sultanabad, P.S-Boalia District-Rajshahi, 6100, Bangladesh
- Present Position & Contact Address:** Professor, Department of Electrical and Electronic Engineering, North Bengal International University, Rajshahi.
- Educational Qualifications:**

| Degree/Certificate  | Board/University/Institute                 | Year                     | Division                 |
|---------------------|--------------------------------------------|--------------------------|--------------------------|
| S.S.C               | Dhaka Board                                | 1970                     | 1 <sup>st</sup> Division |
| H.S.C               | Dhaka Board                                | 1972                     | 1 <sup>st</sup> Division |
| B.Sc. Engg.(Elect.) | Rajshahi University                        | 1976 (Exam hold on 1978) | 1 <sup>st</sup> Class    |
| M.Tech (Elect.)     | Indian Institute Technology, Kanpur, INDIA | 1984                     | --                       |
| Ph.D (Elect.)       | Indian Institute Technology, Kanpur, INDIA | 1990                     | --                       |

#### 9. Teaching Experience:

Total on (till now): 47 years 7 months 08 days (Appx.) (As Professor 18 years), Service wise 25 years in RUET, Rajshahi, 14 years 3 months at IUT and 3 years 1 months 14 days as Dean at Uttara University, Dhaka, 2 years as Head and Dean at BAUET, Natore, and 2 years as Head and Dean at VU, Rajshahi.

| Post                | Institution/Place                                                           | Duration  |            | Year-Month-Day |
|---------------------|-----------------------------------------------------------------------------|-----------|------------|----------------|
|                     |                                                                             | From      | To         |                |
| Lecturer            | Bangladesh Institute of Technology, (BIT) Rajshahi, Bangladesh (Now RUET *) | 8.8.1978  | 20.7.1982  | 3Y-11M-13D     |
| Assistant Professor | BIT, Rajshahi (RUET*)                                                       | 22.7.1982 | 3.8.1992   | 10Y-0M-14D     |
| Associate Professor | BIT, Rajshahi (RUET*)                                                       | 4.8.1992  | 28.12.2003 | 11Y-4M-24D     |

|                                                                                  |                                                                                                          |                          |                          |                                                                               |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------------------------------------------------|
| # Professor<br>(Development)                                                     | BIT, Rajshahi (RUET*)<br>* Rajshahi University of<br>Engineering and Technology,<br>Bangladesh           | 2.7.2000                 | 4.8.2001                 | 01Y-01M-2D                                                                    |
| Visiting<br>Associate<br>Professor                                               | Islamic University of Technology,<br>Dhaka, Bangladesh                                                   | 15.1.2001<br>30.12.2003  | 14.1.2002<br>23.6.2004   | 01Y-00M-00D<br>00Y-05M-25D                                                    |
| Associate<br>Professor                                                           | Islamic University of Technology,<br>Dhaka, Bangladesh                                                   | 24.6.2004                | 28.6.06                  | 01Y-07M-21D                                                                   |
| Professor                                                                        | Islamic University of Technology,<br>Dhaka, Bangladesh                                                   | 29.6.2006<br>01.02.2019  | 23.07.2017<br>31.05.2019 | 11Y-01M- 04D<br>on (23th July,<br>2017),<br>04 Months 2 <sup>nd</sup><br>time |
| Dean, School of<br>Science &<br>Engineering<br>and Professor,<br>Dept.<br>of EEE | Uttara University, Uttara, Dhaka,<br>Bangladesh                                                          | 08.09.2017<br>01.06.2019 | 31.01.2019<br>12/12/2021 | 1Y-3M-24D<br><br>2Y-6M-11D<br>(on 21. 09. 2021 )                              |
| Head,<br>Department of<br>EEE and Dean,<br>ECE and<br>Science &<br>Humanities    | Bangladesh Army University of<br>Engineering & Technology (BAUET),<br>Qadirabad Cantonment, Natore-6431. | 13/12/2021               | 12/12/2023               | 2Y-0M-0D                                                                      |
| Head,<br>Department of<br>EEE and Dean,<br>School of<br>Engineering              | Varendra University, Rajshahi                                                                            | 13/12/2023               | 12/12/2025               | 2Y-0M-0D                                                                      |
|                                                                                  |                                                                                                          |                          |                          |                                                                               |
| <b>Total on (till now): 47 years 7 months 08 Days</b>                            |                                                                                                          |                          |                          |                                                                               |

#### 10. Total Publications: 56 (Journals: 26 and Conference Papers: 30)

Some of the papers are listed below:

[1] A. Mansur, M. Haq, M. H. Maruf, A. Shihavuddin, M. R. Amin, and **K. Islam**, “Experimental Investigation of PV Array Interconnection Topologies at Nonuniform Aging Condition for Power Maximization,” *GUB Journal of Science and Engineering*, vol. 6, no. 1, 2020.

[2] A. A. Mansur, M. Amin, and **K. K. Islam**, “Performance Comparison of Mismatch Power Loss Minimization Techniques in Series-Parallel PV Array Configurations,” *Energies*, vol. 12, no. 5, p. 874, 2019.

[3] A. A. Mansur, M. R. Amin, and **K. K. Islam**, “Determination of Module Rearrangement Techniques for Non-uniformly Aged PV Arrays with SP, TCT, BL and HC Configurations for

Maximum Power Output,” in *2019 Int. Conf. on Electrical, Computer and Communication Engineering (ECCE)*, IEEE, 2019, pp. 1–5.

[4] A. A. Mansur, M. R. Amin, and **K. K. Islam**, “Comparative Analysis of Mismatch Power Loss Reduction Techniques for Photovoltaic Series Parallel Array Configurations,” in *IAPE Conf.*, 2019.

[5] R. Ahmed, R. Arfin, M. H. Rubel, **K. K. Islam**, C. Jia, D. Metaxas, B. S. Garra, and S. K. Alam, “Comparison of windowing effects on elastography images: Simulation, phantom and in vivo studies,” *Ultrasonics*, vol. 66, pp. 140–153, 2016.

[6] A. A. Mansur and **K. K. Islam**, “Combined Constant Voltage and Perturb and Observe Method Based Algorithm for Fast and Efficient Maximum Power Point Tracking Using Buck-Boost Converter,” 2013.

[7] S. B. Hakim and **K. K. Islam**, “Ultrasonic Elastogram Generation by 2D Thin Plate Smoothing Spline based Mathematical Interpolation,” *Int. J. Comput. Appl.*, vol. –, no. –, 975:8887.

[8] M. R. Islam *et al.*, “Low density parity check code in cooperative MIMO communication at wireless sensor network,” *Radioelectronics and Communications Systems*, vol. 54, no. 7, p. 359, 2011.

[9] S. B. Hakim and **K. K. Islam**, “Time delay estimation for strain imaging using the phase of the complex envelope of RF signal,” in *2014 IEEE Symp. on Computer Applications and Industrial Electronics (ISCAIE)*, 2014.

[10] M. J. Hossain, M. A. Hoque, and **K. K. Islam**, “Simplified fuzzy control for flux-weakening speed control of IPMSM drive,” *Adv. in Fuzzy Systems*, vol. 2011, 2011.

[11] A. R. Ridwan, M. M. R. Farazi, and **K. K. Islam**, “Model Predictive Controller for the Flight Control of Ornithopters,” *Applied Mechanics and Materials*, vol. 415, 2013.

[12] **K. K. Islam**, S. K. Bose, and L. P. Singh, “Digital Protection of EHV/UHV Transmission Line Based upon Travelling Wave Phenomena,” *Electric Machines and Power Systems*, vol. 14, no. 6, pp. 413–431, 1988.

[13] **K. K. Islam**, S. K. Bose, and L. P. Singh, “On line microprocessor based relaying scheme for EHV/UHV transmission line: An existing 400 kV line,” *Electric Machines and Electromechanics*, vol. 12, no. 4-5, pp. 313–324, 1987.

[14] M. R. Islam, R. Hossain, M. Z. H. Bhuiyan, T. A. Margoob, M. T. Reza, and **K. K. Islam**, “Arrhythmia detection technique using basic ECG parameters,” *Int. J. Comput. Appl.*, vol. 119, no. 10, pp. 11–15, 2015.

[15] M. S. Alam, M. R. Alam, and **K. K. Islam**, “Energy flow in agriculture: Bangladesh,” *Am. J. Environ. Sci.*, vol. 1, no. 3, pp. 213–220, 2005.

- [16] S. M. M. R. Al-Arif, N. Quader, A. M. Shaon, and **K. K. Islam**, “Sensor based autonomous medical nanorobots: A cure to demyelination,” *J. Sel. Areas Nanotechnol.*, pp. 10–15, 2011.
- [17] N. I. B. Hamid, M. A. Hoque, and **K. K. Islam**, “Nominal and detailed LTE radio network planning considering future deployment in Dhaka City,” *Int. J. Comput. Appl.*, vol. 50, no. 17, 2012.
- [18] M. S. Alam, **K. K. Islam**, and A. M. Z. Huq, “Simulation of rural household fuel consumption in Bangladesh,” *Energy*, vol. 24, no. 8, pp. 743–752, 1999.
- [19] M. S. Alam *et al.*, “A revisited model for the physical quality of life (PQL) as a function of electrical energy consumption,” *Energy*, vol. 23, no. 9, pp. 791–801, 1998.
- [20] M. R. A. Ruku, M. Z. I. Sarkar, A. Alam, **K. K. Islam**, and M. Sarkar, “Secure Wireless Multicasting of RIS-Aided Wireless Communication Networks,” in *5th International Conference on Telecommunication and Photonics (ICTP), Dhaka, Bangladesh, December 21-23, 2023*.
- [21] A. Alam, M. Z. I. Sarkar, M. R. A. Ruku, **K. K. Islam**, and K. M. Mizan, “On the Optimization of Relays in the Opportunistic Relaying for Enhancing Security in Wireless Multicasting Through  $\kappa$ - $\mu$  Shadowed Fading,” in *26th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, December 13-15, 2023*.
- [22] M. R. A. Ruku, M. Z. I. Sarkar, A. Alam, **K. K. Islam**, and M. Sarkar, “Enhancing Security in Wireless Channels with Reconfigurable Intelligent Surface,” in *26th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, December 13-15, 2023*.
- [23] M. R. A. Ruku, M. Z. I. Sarkar, A. Alam, and **K. K. Islam**, “Security for Dual-Branch Selection Diversity Receiver Operating over Correlated Generalized Gamma Fading Channels,” in *6th International Conference on Electrical Information and Communication Technology (EICT), Khulna, Bangladesh, December 07-09, 2023*.
- [24] A. Alam, M. Z. I. Sarkar, M. R. A. Ruku, **K. Islam**, and R. Sultana, “Security Analysis in Multicast Networks over Generalized Gamma Fading Channels Operating Dual-Branch Diversity Receiver,” in *2023 International Conference on Information and Communication Technology for Sustainable Development (ICICT4SD)*. IEEE, 2023, pp. 184–188.
- [25] M. R. A. Ruku, M. Z. I. Sarkar, A. Alam, **K. K. Islam**, and R. Sultana, “Security in Generalized Gamma Fading Channels with Dual-Branch Se-lection Diversity Receiver,” in *2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)*, 2023, pp. 1–5.

## 10. Institute of Specialized Foreign Training:

1. **As Research Scholar:** Under the US visitor exchanging Program in the school of Electrical Engineering & Computer Science, University of central Florida, Orlando, Florida, USA from January 15, 2002 to January 12, 2003.
2. Ph. D. degree from the Indian Institute of Technology, Kanpur, India in 1990, in Electrical Engineering.

### Major Course Work:

- |                        |                               |
|------------------------|-------------------------------|
| (i) Industrial Drives. | (iii) Control System Analysis |
|------------------------|-------------------------------|

- (ii) Power Electronics.                      (iv) Computer Language & Application.

**Thesis:** Digital Protection of EHV/UHV Transmission Line.

3. M. Tech degree from the Indian Institute of Technology, Kanpur, India in 1990, in Electrical Engineering.

**Major Course Work:**

- |                                            |                                        |
|--------------------------------------------|----------------------------------------|
| (i) Microprocessor System.                 | (vi) High Voltage Engineering.         |
| (ii) Linear IC and Electronics             | (vii) HVDC                             |
| (iii) Power System Simulation              | (viii) Graph Theory                    |
| (iv) Power System Dynamics                 | (ix) Power System Protection           |
| (v) Reliability & Modeling of Power System | (x) Economic Operation of Power system |

**11. Supervision of Thesis of Postgraduate Student:** 17= 15 (PG) + 02 (Ph.D.as initiative supervisor not finished due to retirement from IUT, Dhaka)

**12.(a) Short Course Organized as the Course Co-ordinator :**

“Microprocessor/Microcontroller based Industrial Production” from December 05-14,2004 at Islamic University of Technology Dhaka organized by Electrical Engineering Department

**(b) Short Course Organized as one of the resource person :**

“Medical Electronics” from November 11-14,2001 at Islamic University of Technology, Dhaka organized by Electrical Engineering Department

**(c) Short Course Attended:**

- (i) “Training Program on Managing People “ From 10-11 June, 1998 organized by Institution of Engineers, Ramna, Dhaka, Bangladesh
- (ii) “National Seminar on Renewable Energy for Poverty Alleviation “ from 21-23 October, 1997 organized by Institution Engineers, Ramna, Dhaka, Bangladesh
- (iii) “International Conference on Engineering Profession in the 21<sup>st</sup> century” from 5-7 November, 1997 organized by Institution Engineers, Ramna, Dhaka, Bangladesh.
- (iv) Neural Network & Introduction to the use of DSP chips, Winter School on “Signal Processing “ from December 17-23,1996 by University of Dhaka organized by Bio-Medical Physics & Computer Center.
- (v) Winter School on “Bio-Instrumentation” from December 11-13,1986 at IIT-Kanpur organized by Electrical Engineering Department.
- (vi) “Advanced Power System Analysis & Dynamics” from May 11-12,1986 at IIT-Kanpur organized by Electrical Engineering Department.
- (vii) Microwave Engineering “ from May 18-19,1987 at IIT-Kanpur organized by Electrical Engineering.

**13. Teaching Course conducted:**

- (a) **UG Level Course:** Conducting and delivering lectures (Theory, Practical/Sessional Course) in B.Sc Engineering (Electrical & Electronic Engg. Department) Classes from 1<sup>st</sup> year to 4<sup>th</sup> year on different following courses from Aug. 1978 to till now as given below:

- |                                                                  |                                                          |
|------------------------------------------------------------------|----------------------------------------------------------|
| (i) Basic Electrical Engineering                                 | (vii) Communication Engineering                          |
| (ii) Electronic Circuits and Systems                             | (viii) Power Electronics and Industrial Drives           |
| (iii) Circuits and Signals                                       | (ix) Digital Circuits and system Measurement Instruments |
| (iv) Electronic Measurement and                                  | (x) Digital Signal Processing                            |
| (v) Feedback control system and Servomechanism                   | (vi) Power System Protection and switch gear             |
| (vi) Microprocessor, Assembly Language and Microcomputer system. |                                                          |

**(b) PG Level Course:**

- |                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| (i) Design and Organization of microcomputer | (v) Industrial Drives                   |
| (ii) Architecture of Microprocessors         | (vi) Advanced Digital Signal Processing |
| (iii) Power Semiconductor circuits           | (vii) Digital control system            |
| (iv) Non-Linear control system               |                                         |

**14. Other Experience:**

**(a) Administrative Experience:**

- (i) Head, Department of EEE and Dean, ECE and Science & Humanities. Bangladesh Army University of Engineering & Technology (BAUET). Qadirabad, Doyarampur, Natore. December 13, 2021-Till now. With Difference Duties assigned by the BAUET authority.
- (ii) Dean, School of Science and Engineering, Uttara University, Dhaka, Sep 17- December 12, 2021
- (iii) Chairman, Industrial Training committee, IUT, Jan 07-June 17
- (iv) Subject Expert Member, Institutional Quality Assurance Cell (IQAC) for KUET, Green University of Bangladesh, MBUST Tangail, Dec 17-May 18
- (v) Head, Department of Electrical & Electronic Engineering, IUT, Jan – June, 2007
- (vi) Head of the Department of Electrical & Electronic Engineering, BIT, Rajshahi from April 1991 to April 1995.
- (vii) Member, Board of Directors, BIT, Rajshahi from August 1991 to October 1991.
- (viii) President, Teachers Association BIT Rajshahi from April 1991 to October 1992.
- (ix) President, All BIT Teachers Federation, Bangladesh from April 1991 to March 1992.
- (x) President, Student's Union BIT Rajshahi from 1992 – 93 and 97-99.
- (xi) Member of Academic Council, The University of Rajshahi from January 1999 to 2000.

**(b) Course and Curriculum preparation Experience :**

- (i) Member of course curricula review committee of B.Sc. Engineering classes for the four BIT in Bangladesh from February – October, 1997 formed by Council of Bangladesh Institute of Technology, Dhaka.
- (ii) Chairman for the frame work and formation and courses and the syllabus of studies in M.Sc. Engineering (PG) in Electrical Engg. And committee of course and studies in the Dept. of Electrical & Electronic Engg. of BIT, Rajshahi from 1992 to 1995.
- (iii) Chairman , Committee of Course and Studies of B.Sc. Engineering classes in the Dept. of Electrical & Electronic Engg. of BIT, Rajshahi from 1991 to 1995.
- (iv) Member of the Course and the Syllabus Committee of B.Sc. Engineering classes in the Dept. of Electrical & Electronic Engg. of BIT, Rajshahi from 1989 to 2003, 2014-15,

PUST, Pabna EEE department 2017 , Daffodil University from 2008 ,JUST ,Jessore from 2019 and Uttara University ,Dhaka 2017 to till date.

- (v) Member of the Course and the Syllabus Committee of M.Sc. and B.Sc.(Hons) in Computer Science in the Deptt. of Computer Science of The University of Rajshahi from 1998 to 2000.
  - (vi) Member of the Course and the Syllabus Committee for studies in M.Sc. (P.G) Engg. and B.Sc. (U.G) Engineering the Dept. of Electrical & Electronic Engg. of Islamic University of Technology, Dhaka, Bangladesh from 2001 to 2002 & 2004 to till 2017.
  - (vii) Chairman, Industrial Training committee at IUT from 2007 to 23.7.2017
  - (viii) Chairman, Purchase committee at IUT from 2010 to 2014 and January 2017 to 23.7.2017.
  - (ix) External Examiner for post graduate students at RUET, MBUST.
  - (x) External Examiner for under graduate for UG student at RUET, MBUST.
  - (xi) External Member of selection board for Lecturer and Assistant Prof., in EEE department- RUET from 2013 to till now, IUB, Dhaka from 2013 to till date , Daffodil University Dhaka from 2010 to till date, SUST ,Sylhet from 2009 to 2014 and JUST , Jessore ( for Associate Prof and Professor ) from 2015 to till now
- (c) **As Visiting Associate Professor**, Department of Electrical & Electronic Engg. Islamic University of Technology, Dhaka, Board-Bazar, Gazipur- 1704, Bangladesh from January 15, 2001 to January 14, 2002 and December 30, 2003 to June 23, 2004
- (d) **As Research Scholar** :Under the US Visitor Exchange Program in the school of Electrical Engineering and Computer Science, University of Central Florida, Orlando, Florida, USA from January 15, 2002 to January 12, 2003.
- (e) As a member (HOD,EEE) to work for the accreditation of EEE department, BAUET.
- (f) Work as a Dean , Sc & Hum and a Dean, in ECE faculty for different Committees from 13/12/2021 and 01/07/2022 to till now respectively
- 15. Name of 6 (Six) Referees (not related to the applicant) :-**
- a) Prof. Dr.M.Ashraful Haque EEE Department, IUT- Dhaka, Bangladesh
  - b) Prof. Dr.Din Mohammad Khosru, EEE. Department, BUET, Dhaka, Bangladesh.
  - c) Prof . Dr. Sanjoy K.Bose , EEE. Department, IIT – Gawhati, India
  - d) Prof. Dr.Isaa Baterseh ECE Department, University of Central Florida, Orlando, Florida, USA
  - e) Prof.Dr.M.H. Rashid ECE Department, University of West Florida, Pensacola, Florida, USA
  - f) Prof . Dr. M.Fazli Ilahi, Vice Chancellor, AhsanUllah University of Science & Technology, Dhaka



Date: July 26, 2026

Signature of the Applicant