CURRICULUM VITAE OF

MD. HUMAYUN KABIR, Ph.D.

Professor

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Research Interest:
- System Modeling
- Artificial Intelligence/Machine learning
- Context-Aware System
- Internet of Things(IoT)
- Wireless Communication
- Embedded System

Education:

2011-2016 Kwangwoon University, Seoul, Republic of Korea
Doctor of Engineering (Ph.D.)
Award Date: 24 August 2016
Major: Electronic Engineering
Dissertation title: "**A Study on the Development of Mathematical Modeling of Context-Aware System in Smart Space**"

1999-2000 Islamic University, Kushtia, Bangladesh.
Master of Science in Electrical and Electronic Engineering with thesis.
Examination: 2000 Held in 2003
Award Date: 4 March 2004
Result: First Class **Position:** 8th
Marks: 60.83 %
Medium of instruction: English
Dissertation title: "**Identification of the first phoneme of Bangla words: A case study with five consonants phoneme**"

1995-1999 Islamic University, Kushtia, Bangladesh.
Bachelor of Science (4 years) in Electrical and Electronic Engineering
Examination: 1999 Held in 2001
Award Date: 14 February 2002
Result: First Class **Position:** 4th
Marks: 61.32%
Medium of instruction: English

1993-1994 Higher Secondary Certificate
Award Date: 10 October 1995
Result: First Division.
Marks: 75.20 %

1992-1993 Secondary School Certificate
Award Date: 31 July 1993

Result: First Division
Marks: 81.50 %

Professional Experience:	**Professor** (14-10-2019 to till date)**:** Dept. of Electrical and Electronic Engineering, Islamic University, Kushtia, Bangladesh.

Professor (14-10-2019 to till date)**:** Dept. of Electrical and Electronic Engineering, Islamic University, Kushtia, Bangladesh.

Associate Professor (14-10-2016 to 13-10-2019)**:** Dept. of Electrical and Electronic Engineering, Islamic University, Kushtia, Bangladesh.

Assistant Professor (14-11-2008 to 13-10-2016)**:** Dept. of Electrical and Electronic Engineering, Islamic University, Kushtia, Bangladesh.

Lecturer (14-11-2005 to 13-11-2008)**:** Dept. of Electrical and Electronic Engineering, Islamic University, Kushtia, Bangladesh.

Research Assistant (August 2011 to February 2012): Project, Development of Home Platform for Next Generation Fixed Mobile Convergence Service, funded by the Ministry of Trade, Industry & Energy (MI), Republic of Korea.

Research Assistant (March, 2012 to August 2016): Project, Development of Smart Home Service based on Advanced Context Awareness, funded by the Ministry of Trade, Industry & Energy(MI), Republic of Korea.

Course taught: Object Oriented Programming and Web Development, Digital Signal Processing, Artificial Intelligence, Numerical Methods in Science and Engineering, Optoelectronics and Optical Fiber Communication, Bio-Medical Engineering, Computer Organization and Architecture, Data Structure and Programming, Digital Electronics, Electronics and instrumentation, Microprocessor and Interfacing, Data Communication and Computer Networks, Electrical Machines and Systems, Electronic Devices and Circuits, Renewable Energy Technology.

Supervised graduate students on research/project and in preparing dissertation.

Programming Language: C, C++, Java, Visual Basic, Matlab, PHP, MySQl, Verilog HDL.
Web Programming Language: HTML, CSS, Java Script.

Maintenance Engineer (17-01-2004 to 13-11-2005): Communications Technology Limited, 1/10 Lalmatia, Block-A, Road-5, Dhaka-1205
• Maintenance and installation work on MITEL-PABX, DIS and TOA Conference and sound system.

Scholarship

1. Scholarship for Result of Higher Secondary Certificate, Board of Intermediate and Secondary Education, Jessore, Bangladesh.
2. Merit Scholarship in Graduation Programme, Awarded by Islamic University, Kushtia, Bangladesh.
3. Scholarship for Doctor of Engineering, Kwangwoon University, Seoul, Republic of Korea.

Foreign Training:

• 3 day training on MITEL networks- Solution update for sales and 3300 ICP sales engineering course from 28 July 2004 to 2 Aug 2004 at MITEL networks Asia Pacific Ltd.2002 ,20/F ,88,Hing Fat Street Couseway Bay, Hongkong.

• 3 day training on MITEL networks- 3300 ICP Basic Installation and Maintenance Course from 3 Aug 2004 to 5 Aug 2004 at MITEL networks Asia Pacific Ltd.2002, 20/F ,88, Hing Fat Street Couseway Bay, Hongkong.

Academic, Administrative and other Experiences

16/06/2009 to one year as a house tutor at Jatir Pita Bangabadhu Sheikh Mujibur Rahman Hall, Islamic University, Kushtia, Bangladesh

16/7/2011 to 8/9/2011 as a house tutor at S.H Hall, Islamic University, Kushtia, Bangladesh

31/10/2017 to one year as an Assistant Director at Computer Center, Islamic University, Kushtia.

Faculty member of Engineering and Technology Faculty, Islamic University, Kushtia, Bangladesh

To till date International Student Affairs Cell, Islamic University, Kushtia, Bangladesh.

August, 2018 to till date, Associate Focal Point and Member Secretary, at Innovation Hub, Islamic University organized by Access to Information(A2I)

As a Reviewer	i. IEEE Transactions on Emerging Topics in Computational Intelligence(TETCI) https://cis.ieee.org/publications/t-emerging-topics-in-ci
	ii. BAUET Journal- *http://journal.bauet.ac.bd/*, Bangladesh Army University of Engineering & Technology (BAUET), Qadirabad Cantonment, Natore-6431Qadirabad Cantonment, Natore-6431
	iii. Journal of Computer Science and Technology (http://jcst.ict.ac.cn).

Academic Achievement

(Journal Publications):

2019:

1. Miah Abdul Halim **M. Humayun Kabir** , Hyunok Cho and Jae Yeong Park, "A Frequency Up-Converted Hybrid Energy Harvester Using Transverse Impact-Driven Piezoelectric Bimorph for Human-Limb Motion", Micromachines, ISSN: 2072-666X Vol. 2019, No.10, SCIE, IM: 2.462 (Accepted for publication)

2. **M. Humayun Kabir**, Keshav Thapa, Jae-Young Yang and Sung-Hyun Yang, "State-Space based Linear Modeling for Human Activity Recognition in Smart Space", Intelligent Automation And Soft Computing, Vol. 25, No.4, Print ISSN: 1079-8587, Online ISSN: 2326-005X, SCI-E, IM:0.644, 2019, pp. 673-681.

3. Md. Mahabubur Rahman, S M Sohel Rana, Khan M. Nasir Uddin, M. Robiul Hoque, **M. Humayun Kabir**, "Development of IoT Cloud based Environment Control and Monitoring System using Raspberry Pi," Journal of Applied Science and Technology, ISSN:2218-841X, Vol.11, No.01, February 2019, pp.46-56.

4. M. Robiul Hoque, **M. Humayun Kabir**, "Context Management Framework for Context-Aware Service," Journal of Applied Science and Technology, ISSN: 2218-841X, Vol.11, No.01, February 2019, pp.30-36.

5. S M Sohel Rana, M. Robiul Hoque, **M. Humayun Kabir**, "Evaluation of Security Threat of ZigBee Protocol to Enhance the Security of ZigBee based IoT Platform" Journal of Applied Science and Technology, ISSN: 2218-841X, Vol.11, No.01, February 2019, pp.37-45.

2018:

6. S M Sohel Rana, Miah Abdul Halim, **M. Humayun Kabir**, "Design and Implementation of a Security Improvement Framework of Zigbee Network for Intelligent Monitoring in IoT Platform," Journal of Applied Science, Vol. 2018, No. 8, ISSN: 2076-3417, SCI-E, IF:1.689, 2018.

7. Yang Sung-Hyun, Keshav Thapa, **M. Humayun Kabir** and Lee Hee-Chan, "Log-Viterbi algorithm applied on second-order hidden Markov model for human activity recognition", International Journal of Distributed Sensor Networks , ISSN:1550-1477, SCI-E, IF:1.787, 2018

2017:

8. M. Robiul Hoque, **M. Humayun Kabir**, Sung-Hyun Yang, "Development of a Cooperative Middleware to Provide Context-Aware Service in Smart Home," International Journal of Smart Home, ISSN: 1975-4094, Vol.11, No.5, pp.33-40, May, 2017.

2016:

9. M. Robiul Hoque, **M. Humayun Kabir**, Hyungyu Seo, Sung-Hyun Yang, "PARE: Profile-Applied Reasoning Engine for Context-Aware System," International Journal of Distributed Sensor Networks, ISSN: 1550-1477, Vol.12, No. 7, pp.1-11, 2016(SCI-E), IF: 1.787.

10. **M. Humayun Kabir**, M. Robiul Hoque, Hyungyu Seo and Sung-Hyun Yang, "Boolean Control Network Based Modeling for Context-Aware System in Smart Home," International Journal of Smart Home, ISSN:1975-4094, Vol. 10, No.4, pp.65-76, April, 2016(Scopus)

11. **M. Humayun Kabir**, M. Robiul Hoque and Sung-Hyun Yang, "Implementation of Boolean Control Network Based Intelligent System in Smart Home," International Journal of Smart Home, ISSN:1975-4094, Vol.10, No.3, pp.285-292, March, 2016(Scopus)

12. Sung-Hyun Yang, **M. Humayun Kabir**, M. Robiul Hoque, "Mathematical Modeling of Smart Space for Context-Aware System: Linear Algebraic Representation of State-Space Method based Approach," Mathematical Problems in Engineering, ISSN:1024-123X, Vol.2016, pp.1-8, 2016(SCI-E), IF:1.145.

13. **M. Humayun Kabir**, M. Robiul Hoque, Keshav Thapa, Sung-Hyun Yang, "Two-Layer Hidden Markov Model for Human Activity Recognition in Home Environment," International Journal of Distributed Sensor Networks, ISSN: 1550-1477, Vol.2016, pp.1-12, 2016(SCI-E), IF:1.787.

2015:

14. **M. Humayun Kabir**, M. Robiul Hoque, Hyungyu Seo, Sung-Hyun Yang, "Machine Learning Based Adaptive Context-Aware System for Smart Home Environment" International Journal of Smart Home, ISSN:1975-4094, Vol.9, No.11, pp.55-62, November, 2015(Scopus, EI Compendex), DOI: 10.14257/ijsh.2015.9.11.07

15. **M. Humayun Kabir**, M. Robiul Hoque, "Context-Aware System Modeling Based on Boolean Control Network", Open Journal of Applied Science, ISSN: 2165-3925, Vol.5 No.11, pp.661-668, November, 2015.

16. M. Robiul Hoque, **M. Humayun Kabir**, Dong-Hyuk Lim, Sung-Hyun Yang, "Middleware-based Cooperative Context Dissemination for Smart Home Application" International Journal of Smart Home, ISSN:1975-4094, Vol.9, No.10, pp.9-14, October, 2015(Scopus, EI Compendex), DOI: 10.14257/ijsh.2015.9.10.02

17. M. Robiul Hoque, **M. Humayun Kabir**, Keshav Thapa, Sung-Hyun Yang, "Ontology-based Context Modeling to Facilitate Reasoning in a Context-Aware System: A Case Study for the Smart Home" International Journal of Smart Home, ISSN:1975-4094, Vol. 9, No.9, pp. 151-156, September, 2015(Scopus, EI Compendex), DOI: 10.14257/ijsh.2015.9.9.16

18. Md. Khalid Hossain, Mahbubul Hoq, Mohammod Abu Sayid Haue, Md. Shah Alam, Sarwar Hossen, **M. Humayun Kabir**, M. Islam, "Design and Development of a Low-cost Microcontroller Based Liquid Crystal Display(LCD) System for Electronic Instrumentation" Journal of Electronics Society, ISSN 1816-1510, Vol.15, No.1-2, pp. 33-38, June-December 2015.

19. **M. Humayun Kabir**, M. Robiul Hoque, and Sung-Hyun Yang, "Development of a Smart Home Context-aware Application: A Machine Learning based Approach" International Journal of Smart Home, ISSN:1975-4094, Vol. 9, No.1, pp. 217-226, Jan, 2015(Scopus, EI Compendex), DOI: 10.14257/ijsh.2015.9.1.23

2014:

20. Won-Yong Shin, **M. Humayun Kabir**, M. Robiul Hoque, and Sung-Hyun Yang, "Development of an edge-based algorithm for moving object detection using background modeling", Journal of Information and Communication Convergence Engineering, ISSN 2234-8883, Vol.13, No.3 pp.193-197, September, 2014, DOI: 10.6109/jicce.2014.12.3.193

21. **M. Humayun Kabir**, M. Robiul Hoque, Kangji Lee, Chang-Won Park, and Sung-Hyun Yang, "The Development of a Modular Platform for Convergence Service in Home Network" International Journal of Smart Home, ISSN:1975-4094, Vol.8, No.4, pp.151-164, July, 2014 (Scopus, EI Compendex), DOI: 10.14257/ijsh.2014.8.4.14

2012:

22. **M. Humayun Kabir,** Kim Hyun-Wook and Yang Sung-Hyun, "Design of a Modular type Hardware Platform for Convergence Home Network Service", International Journal of Electronics and Informatics, ISSN: 2186-0114, Vol.1, No.1, pp.20-28, August, 2012, http://cennser.org/IJEI/eiV01N01/ei010104.pdf

2009:

23. Shaikh Enayet Ullah, M. M. Rahman, Md. Dulal Haque and **M. Humayun Kabir**, "Evaluation of A Differential Encoded Minimum Shift Keying Based Wireless Communication System", Journal of electronics society, ISSN 1816-1510, Vol.09, No.1-2, pp. 133-140, June-December 2009.

2008:

24. M. K. Rahman, **M. H. Kabir**, M. A. Momin and M. A. H. Shahariar, "Link Budget: A Proposed Model for Cellular Mobile Communication System in Dhaka City" Journal of Electronics Society, ISSN 1816-1510, Vol.08, No.1-2, pp. 15-20, June-December 2008.

25. **M. Humayun Kabir**, Khan M. Nasir Uddin, M. Shahinuzzaman, Md. Khalilur Rahman and M. Islam, "To Study the Transmission Characteristics of IM Signals Over 5m Multimode Step Index PMMA Polymer Optical Fiber." Journal of Applied Science and Technology, Vol.05, No.02, June 2008, pp.107-112.

2007:

26. **M. Humayun Kabir**, Md. Khairul Islam, Md. Khalilur Rahman and M. Islam, "Studies on PMMA Fiber as Multimode Step Index Optical Waveguide." Journal of Applied Science and Technology, Vol.05, No.01, December 2007, pp.155-159.

2003:

27. Md. Farukuzzaman Khan, Md Abdur Razzaque, **Md. Humayun Kabir**, "The first phoneme based grouping technique of bangla spoken words in lexical Modeling for ASR" Journal of Applied Science and Technology, Vol.03, No.03, Dec 2003, pp.99-102.

2001:

28. **M. Humayun Kabir**, M. Mahbubar Rahman, M. Nozibul Haque, "Subsurface Geoelectric Parameters of the Eastern side of Rajshahi City", Journal of Applied Science and Technology, Vol.02, No.01, June 2001, pp.87-92.

Conference Proceedings:

2015:

1. M. Robiul Hoque, **M. Humayun Kabir**, Toshiro Minami, Sung-Hyun Yang, "Ontology-based Context Modeling for Smart Home Domain", Proceedings of the 1st International Joint Conference on Convergence (IJCC 2015), Vietnam, 4-8 February, 2015, pp.5-7, ISSN:2288-6060

2. **M. Humayun Kabir**, M. Robiul Hoque, Sung-Hyun Yang, "Modeling of a Context-Aware System for Smart Space", Proceedings of the 1st International Joint Conference on Convergence (IJCC 2015), Vietnam, 4-8 February, 2015, pp.8-10, ISSN: 2288-6060

3. M. Robiul Hoque, **M. Humayun Kabir**, Goreti Marreiros, Sung-Hyun Yang, "Cooperative Context Dissemination in Smart Home System: A Middleware Based Approach", Proceedings of the 1st International Joint Conference on Convergence (IJCC 2015), Vietnam, 4-8 February, 2015, pp.43-45, ISSN: 2288-6060

4. **M. Humayun Kabir**, Hyungyu Seo, Kuroda Hideo, Sung-Hyun Yang, "Machine Learning Based Adaptive Context-Aware System for Smart Home Environment", Proceedings of the 1st International Joint Conference on Convergence (IJCC 2015), Vietnam, 4-8 February, 2015, pp.46-48, ISSN: 2288-6060

2014:

5.   **M. Humayun Kabir**, M. Robiul Hoque, Sung-Hyun Yang, "Implementation of Boolean Control Network Based Intelligent System in Smart Home Environment" Proceedings of the 2nd International Symposium on Advanced and Applied Convergence (ISAAC 2014), Jeju, Republic of Korea,13-15 November, 2014, pp.142-144, ISSN: 2288-6060.

6.   **M. Humayun Kabir**, M. Robiul Hoque, Bon-Jae Koo, Sung-Hyun Yang, "Mathematical Modelling of a Context-Aware System Based on Boolean Control Networks for Smart Home" Proceedings of the 18th IEEE International Symposium on Consumer Electronics, Paper ID. # 1569949391, On page(s): 505-506, Jeju, Republic of Korea, 22-25 June 2014. DOI: 10.1109/ISCE.2014.6884406

7.   M. Robiul Hoque, **M. Humayun Kabir**, Jun-Hwan Jang, Sung-Hyun Yang "Middleware Aided Context-Aware Service for Smart Home" Proceedings of the 18th IEEE International Symposium on Consumer Electronics, Paper ID. # 1569949425, On page(s): 510-511, Jeju, Republic of Korea, 22-25 June 2014. DOI: 10.1109/ISCE.2014.6884408

2012:

8.   **M. Humayun Kabir,** Hyun-Wook Kim, Sung-Hyun Yang, "The Development of a Modular type Platform for Home Network Service", Proceedings of the IEEE/OSI/ IAPR International Conference on Informatics, Electronics & Vision 2012, Paper ID. #318, On page(s): 582-587, Dhaka, Bangladesh, 18-19 May 2012. DOI. 10.1109/ICIEV.2012.6317414

2009:

9.   **M. Humayun Kabir**, M. Ashraful Islam and M. K. Rahman, "Study on IR Proximity sensor based robot", Proceedings of the 2nd International Conference on Engineering Education for Sustainable Development 2009, 19-20 December 2009, Dhaka, Bangladesh.

Membership: Electronics Society, Islamic University, Kushtia, Bangladesh.

Language Skills: Bengali: Mother Tongue.
English: Good Communication Skills (Reading, writing and Presentation).

Personal Information:	**Nationality**	Bangladeshi by birth.
	Place of Birth	Jhenaidah, Bangladesh
	Date of Birth	23 December, 1976
	Marital Status	Married.
	Spoken Language	English, Bengali.

Academic Referees:

01. **Sung-Hyun Yang, Ph.D.**
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02. **Md. Mahbubar Rahman, Ph.D.**
Professor
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Islamic University, Kushtia-7003, Bangladesh.
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Declaration:
   "I do hereby declare and certify that all information stated above in this resume is true and complete to the best of my knowledge and belief".

Md. Humayun kabir
(Dr. Md. Humayun Kabir)