

## Homayun Kabir

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**OBJECTIVE** An enthusiastic, adaptive and fast-learning person with a broad and acute interest to fulfill the research gap among Mechatronics, Robotics, Automation Engineering and Optimization process, particularly interested in disruptive technologies involving sensing devices, networking, automotive robot tracking system, advanced robotics, IoT, multi robots communication and optimization by applying the Machine learning or Deep learning Algorithm.

**EDUCATION**

- *M. Eng'g. Sc*, Electrical Engineering  
University of Malaya, Kuala Lumpur, Malaysia.  
Mode: Research. Passing Year, May 2015.  
Thesis: An instantaneous electromagnetic source position estimation based on hyperbolic technique
- *B. Sc in Engineering*, Electrical and Electronic Engineering  
Chittagong University of Engineering and Technology, Chittagong, Bangladesh.  
CGPA: 3.20 Out of 4. Passing Year August 2010.
- *H.S.C*, Science  
Government City College, Chittagong, Bangladesh.  
CGPA: 4.70 Out of 5. Passing Year 2005.
- *S.S.C*, Science  
Haji Mohammad Mohsin College/high School, Chittagong, Bangladesh.  
CGPA: 4.20 Out of 5. Passing Year 2003.

**RESEARCH PROJECT**

**Project Title:** *Design and Implementation of an intelligent building management system based on Internet of things for the department of MIE, CUET.*

**Project Members:** **Homayun Kabir (Project Leader)**, Dr. Kazi Afzalur Rahmam and Nipa Dhar

**Project Duration:** November 2017 to October 2020

**Project Code:** CUET/DRE/2017-18/MIE/001

**PUBLICATION** **Journal:**

- Homayun Kabir, Ahmed Wasif Reza, Jeevan Kanesan "An Effective Algorithm for Instantaneous Position Estimation of Moving Source Based on TDOAFDOA in WSN" Journal of Computer Science & Computational Mathematics, Volume 7, Issue 3, September 2017 DOI: 10.20967/jscsm.2017.03.001.
- Homayun Kabir, Jeevan Kanesan, Ahmed Wasif Reza, and Harikrishnan Ramiah" A Mathematical Algorithm of Locomotive Source Localization Based on Hyperbolic Technique" International Journal of Distributed Sensor Networks, 501 (2015):384180.
- Homayun Kabir, Jeevan Kanesan, Ahmed Wasif Reza, Harikrishnan Ramiah" A New Optimized Localized Technique of CG Return Stroke Lightning Channel in Forest " Journal of Electrical Engineering & Technology, 10.6 (2015): 2356-2363.
- Homayun Kabir, Jeevan Kanesan, Ahmed Wasif Reza, Harikrishnan Ramiah " A Weight Least Square Algorithm for Hyperbolic Localization with Liner Sensor

Array in 3-D Scenerio ” Jurneal UMP Kejuruteraan dan Sains Komputer, 5 (2013): 69-78, (Non-ISI cited Publication).

**Conference:**

- A.K.M. Sabbir, Homayun Kabir, Nipa Dhar ”CNC machine & Machining operation with higher response rate, low cost, power saving and error compensation ” International Conference on Mechanical Engineering and Renewable Energy 2019 (ICMERE2019)
- S. M. Muslem Uddin, Md. Rafiqul Alam, Homayun Kabir, ”Analysis and improvement in total harmonic distortion of stator current and voltage of induction machine with different PWM techniques ” 2nd International Conference On Mechanical Engineering & Renewable Energy(ICCEMS 2014).
- Homayun Kabir , Jeevan Kanesan , Ahmed Wasif Reza and Harikrishnan Ramiah ” An Hybrid Algorithm of Source Position Based on Hyperbolic Technique in Arbitrary Sensor Array Network” 3rd International Conference on Computer Engineering and Mathematical Sciences (ICCEMS 2014).
- Homayun Kabir , Jeevan Kanesan , Ahmed Wasif Reza and Harikrishnan Ramiah ” A Weight Least square Algorithm for Hyperbolic Localization with Linear Sensor Array in 3-D scenario” 3rd International Conference on Software Engineering and Computer Systems (ICSECS - 2013).

**EXPERIENCE**

**Research:**

- *Team Leader* November 2019 to be continued  
Project: Design and Implementation of an intelligent building management system based on Internet of things for the department of MIE, CUET.
- *Research Assistance, University of Malaya* July 2015 to November 2015  
Project: Clustering and analyzing big data using newly developed carpenter ant algorithm.
- *Research Assistance, University of Malaya* September 2012 to June 2014  
Project: National security and disaster management via localization of wide range frequency signal sources.
- *Research Assistance, University of Malaya* September 2011 to August 2012  
Project: Energy consumption optimization in VLSI floor planning of integrated chip (IC) manufacturing process.

**Teaching:**

- *Assistant Professor* August 2018 to be continued  
Department of Mechatronics and Industrial Engineering, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.
- *Lecturer* January 2017 to August 2018  
Department of Mechatronics and Industrial Engineering, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.
- *Lecturer* September 2010 to August 2011  
Department of Electrical and Electronics engineering, University Information Science and Technology, Chittagong, Bangladesh.

**Professional:**

- *Manager (Techical)* December 2015 to December 2016  
Novelty Engineering Corporation, Sector-13, Uttara, Dhaka-1230.
- *Internship (Drive Test Analyzer)* January 2014 to December 2014  
Project: NSN LTE Celcom PLO 2013 / 2014), Hexamatics SDN BHD, Pataling Jaya, Malaysia.

**Administrative:**

- *Deputy Director* August 2019 to be continued  
Student Welfare Office, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.
- *Assistant Provost* November 2018 to July 2019  
Sheikh Russel Hall, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.

## COMPUTER SKILLS

- *Algorithm:* Genetic Algorithm, Machine Learning Algorithm, Deep Learning Algorithm and PLC programming.
- *Software:* Total Integrated Automation, Fluidsim, Matlab, Nemo Outdoor, Nemo Analyse, Map Info, Google Earth, SPSS Statistical Analyzer, MS Offices and LaTeX. .
- *Language:* Python, C Programming, Assembly Language and PLC Programming.

## THESIS SUPERVISION (Undergraduate)

- *Md. Iftekher Hossain:* Designing a home security system with social interaction by exploiting Deep learning algorithm.
- *Tanvir Rahman:* Exploring the sea: Application of remotely operated underwater vehicle
- *MD. Rakibul Islam Prince:* Kinematics, Workspace calculation, motion control and simulation of an automated 3 D.O.F robotic manipulator.
- *Nishad Tasnim:* Autonomous and remote (VIA Iot) controlled robot.
- *Humaira Tasnim:* Fast response smart walking stick for visually impaired people.  
*They are the 1st batch students of our Department and pursuing final semester.*

## EXTRA-CURRICULAR ACTIVITIES

- Treasurer (Elected), CUET Teacher's Association (2018 to 2019).
- Executive Member (Elected), ERC, The Institution of Engineers, Bangladesh, Chittagong branch (2018 to 2019).
- Cultural and Literary secretary (Elected), CUET Officer's Club (2018). .
- Founder President, Cox,sbazar student form, CUET (2009 to 2010).

## PERSONAL DOSSIER

- Date of Birth: 2nd January, 1989.
- Gender: Male
- Address: Badar Khali, Chakaria, Coxs Bazar, Bangladesh.
- Language Fluency: English and Bangla.