

## Syed Razwanul Haque

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### Career Objective

To obtain a position in the field of Research & Experimental work in UAV, ROV, IoT and Robotics. Excellent quality creative engineering project work is the main theme of my career.

### Current Position

**Founder & CEO, CRUX**  
[www.cruxbd.com](http://www.cruxbd.com)

**Lead Engineer, IoT Division**  
**Bioforge Health System Ltd**

**CTO & Co-founder**  
**Cybernetics Robo Academy**

### Experience

#### **Assistant Professor, Dept. of Electrical & Electronic Engineering**

Metropolitan University, Sylhet, Bangladesh.  
(4 years - 26th April 2014 to 25th April 2018)

#### **Team Leader**

SUST Drone Team  
(2 years - 2012 to 2014)

#### **Research Assistant**

Prof. Dr. Md. Zafar Iqbal (Former Bell Lab Scientist, US), Dept. of EEE, Shahjalal University of Science & Technology, Sylhet  
(1 July 2013 to 4 April 2014)

#### **Instructor**

Innovation LAB, Metropolitan University  
(2015 to 2018)

#### **Product Development Manager**

Oishi Electronics (Reg: 01036), Bangladesh  
(2008 to 2013)

#### **Others Experience**

Project with Bangladesh Army; IoT & Robotics Training Instructor; Founder SUST Robotics, Aeronautics & Interfacing Research Group, Shahjalal University of Science & Technology, Bangladesh; Embedded System Designer, Nonlinear Optics LAB, Shahjalal University of Science & Technology, Bangladesh

### Academic Information

#### **M.S, Department of Physics**

Shahjalal University Of Science and Technology (SUST)  
CGPA 3.65 (in scale 4.0)

**Thesis:** An Embedded System to Conduct Hyper Raleigh Scattering

#### **B.Sc. (Honours) Department of Physics**

Shahjalal University Of Science and Technology (SUST)  
CGPA 3.48 (in scale 4.0)

#### **Higher Secondary Certificate Examination (H.S.C.)**

Institute: Brindaban Govt. College, Habiganj.  
Result: 4.90 (in scale 5.0)  
Group: Science  
Year: 2007

## Secondary School certificate (S.S.C.)

Institute: Habiganj Govt High School, Habiganj.

Result: 5.00 (in scale 5.0)

Group: Science

Year: 2005

### Skill

Product Design & Management, Analog & Digital Circuit, PIC, AVR, ARM Microcontroller, IoT, System Design, Aerodynamics, ROV, UAV, FPGA, Raspberry Pi, Arduino, Multi-rotor Aircraft, Team Leading, PCB Design, Robotics, Hardware Hacking, Android App Development, Cluster Computer, Antenna System, Nonlinear Optics, Image Processing, Simulation Software, Cloud Computing, Docker, Pix4D Mapper, etc.

### Programming Language

C, C++, Java, Python, PHP, JavaScript, R, Dart

### Language Proficiency

Fluent in both written and spoken English apart from mother tongue.

### Performance as Mentor

- 1) Champion, Yantra 5.0, International Competition, Nepal.
- 2) Champion, Global Social Venture Competition, Thailand.
- 3) Champion, Kaizen SUST Project Competition, Project: ROV
- 4) Champion, Robotics, Inter University Tech Fiesta 2016, KUET
- 5) Champion, Multirotor, Global Robotic Challenge 2016 by ESAB
- 6) Champion, Drone Racing, Techfest-2016, Independent University.
- 7) Champion, Techfest-2016, Mesh Flare
- 8) Champion, Line follower robot challenge, Technovanza, North south University
- 9) 1st Runner up, CSE Carnival 2016, SUST
- 10) 6th place in Techkriti 2016, Multirotor Competition, IIT, Kanpur, India
- 11) 1st Runner up in Quad-Copter Challenge at Robolution 2016 Organized by MIST Robotics Club, Bangladesh
- 12) Champion, Techfest-2016, Regional Round, National Line Follower Competition
- 13) 1st & 2nd Runner Up, Line follower Robot Competition, Ahsanullah University.
- 14) Runner Up, Quadcopter Challenge, Robolution 2017, MIST, Bangladesh.
- 15) Runner Up, Fixed Wing Competition, Techkriti-2017 Bangladesh Qualification Round

### Important Projects

- 1) Turbine Based Open Source Medical Ventilator
- 2) IoT Based Vital Signs Monitoring Device at Bioforge Health System Ltd
- 3) Qxm App: Interactive Platform for Quiz & Exam
- 4) Low Cost High Flow Oxygen Therapy Machine
- 5) Ground Control Station Based Military and Civil Drone
- 6) Reading and Analysing TV channel data and Sending it to Remote Server with Arduino and GSM/GPRS shield (Shahjalal University project under Prof. Dr.Zafar Iqbal)
- 7) Modu Laser Controller for Nonlinear Optics experiment (Thesis work).
- 8) Embedded system for Optical Chopping(Thesis work)
- 9) Embedded system for Optical Polarizer (Thesis work)
- 10) Computer Controlled High Endurance(One Hour) Quadrotor Drone
- 11) Embedded system to determine Brewster Angle for Experimental Physics
- 12) High Altitude Hexacopter & Octocopter for E-commerce, Security, Surveillance & Aerial Photography.
- 13) Unmanned Submarine/ ROV
- 14) Digital Braille Reader for Visually Impaired People
- 15) Smart Obstacle Detector for Visually Impaired People

- 16) Weather Informer Drone
- 17) PIR Motion Sensor based security device which can call/sms/mms/gprs to ordinary mobile when security condition breaks (Commercial Quality).
- 18) Server Synchronized Electronics Voting Machine.
- 19) IoT, Mobile SMS based switching system.
- 20) Ship Tracking Device for BIWTA.
- 21) Robotic Arm, Hydraulic Robot.
- 22) Internet Based UAV/Drone Control System
- 23) Portable Smart Heart Beat Monitoring System(GPS,GPRS, Auto Calling Enabled)
- 24) Android App in Playstore : Robo Course, Arduino Serial Monitor, Electronics Plus, MasterPlanner,IC Dictionary, etc.(<https://play.google.com/store/apps/developer?id=CRUX>)
- 25) Military Purpose Robot for Grenade Disposal
- 26) Raspberry Pi Cluster Computer
- 27) Shadow Function Robot
- 28) STEM Education Product : Kids Electronics Kit
- 29) Designing a clone of Arduino UNO which appears in market as NORDUINO UNO

For More Information about my Work [www.nabilbd.com](http://www.nabilbd.com), [www.youtube.com/Nabilphysics](http://www.youtube.com/Nabilphysics),  
[www.cruxbd.com](http://www.cruxbd.com), [www.github.com/Nabilphysics](http://www.github.com/Nabilphysics)

#### Publication

- 1) **“Finger Print Enabled Electronic Voting Machine with Enhanced Security”** , International Journal of Engineering & Technology, Vol. 5, No 6, June, 2015, ISSN 2049-3444
- 2) **“Low Cost Wireless Braille Reader”** , American Academic & Scholarly Research Journal , Vol. 7, No 6, Sept, 2015, ISSN 2162-321X (print) , ISSN 2162-3228 (online)
- 3) **“Drone Ground Control Station With Improved Security”**, IEEE I2CT, Pune , India.  
<https://ieeexplore.ieee.org/document/8226318/>

#### Personal Details

Name : Syed Razwanul Haque  
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Home Cell : +8801735869781  
Date of Birth : January 4, 1989.  
Religion : Islam  
Marital Status : Unmarried  
Nationality : Bangladeshi ( by birth)  
Blood group : B+ (positive)

**LinkedIn:** [bd.linkedin.com/in/nabilphysics](http://bd.linkedin.com/in/nabilphysics)

**Youtube:** [www.youtube.com/Nabilphysics](http://www.youtube.com/Nabilphysics)

**Website:** [www.nabilbd.com](http://www.nabilbd.com)

## References

- 1. Dr. Md. Zafar Iqbal**  
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- 2. Dr Yasmeen Haque**  
Professor(PRL)  
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