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# Tanjina Piash Proma

Independent University, Bangladesh  
School Of Engineering & Computer Science  
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Homepage: <https://tproma.github.io/>

## Education

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2013-2017      Independent University, Bangladesh.  
Bachelor of Science in Computer Science.  
Major: Computer Science  
Minor: Robotics and Intelligent Machine  
Thesis: Pill detection using shape, color and  
printed text from pill image. [GitHub Link](#)  
Supervisor: Dr. Md. Ashraful Amin  
CGPA: 3.54 /4.00

## Publications

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- Md. Zakir Hossan, **Tanjina Piash Proma**, M Ashraful Amin. "Medicine Recognition Using Intrinsic Geometric Property from Pill Image". Pacific Rim International Conference on Artificial Intelligence (PRICAI 2016).  
Winner of the Best Presentation Award
- Ishraq UI Haque, Abul Arabi, Shadat Hossain, **Tanjina Piash Proma**, Nafi Uzzaman, Mahfuz Hannan and Sajjad Hossain. "Vision Based Trajectory Following Robot along with Swarm Robotics". 3rd International Conference on Control, Automation and Robotics (ICCAR 2017)
- Abul Al Arabi, Hasib UI Sakib, Pranabesh Sarkar, **Tanjina Piash Proma**, Jahedul Anowar, M Ashraful Amin. "Autonomous Rover Navigation using GPS Based Path Planning". Asia Modelling Symposium 2017 (AMS2017)
- **Tanjina Piash Proma**, Md. Zakir Hossan, M Ashraful Amin. "Medicine Recognition from Colors and Text". 3rd International Conference on Graphics and Signal Processing (ICGSP 2019)

## PROJECTS

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- Pill detection using intrinsic geometric shape from pill image.  
Jan 2016 – Aug 2016
- Raspberry Pi Controlled Image Processing Based Line Follower  
Sep 2016 – December 2016
- Autonomous Rover Navigation using GPS and vision based path planning.  
September 2017 –December 2017
- Object (Tennis ball) Detection using machine learning framework  
(Tensorflow) & OpenCV  
September 2017 – June 2018
- National Medicine Image Database Creation and Recognizing Medicine  
from medicine Image.  
January 2019 – Present

## Skills

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- Programming Languages: Python, MATLAB and C++
- Software Library: OpenCV, scikit-learn, Keras, Pandas, Numpy, Theano, Tensorflow, PyTorch.
- Python GUI framework: Tkinter

## Work Experience

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Jan 2014 – Jun 2016	<b>Teacher's Assistant</b> School of Engineering and Computer Science, IUB
July 2016 – Aug 2017	<b>Research Assistant</b> Image Processing & Pattern Recognition Supervisor: Dr. Md. Ashraful Amin Associate Professor & Head (SECS, IUB)
Oct 2017 - Mar 2018	<b>Research and Development Officer</b> Bitec Software Plot # 189 (3-B),Block –B, Bashundhara R/A Dhaka-1229, Bangladesh.

Sep 2017 - Dec 2018

**Graduate Assistant**

Image Processing & Machine learning  
Supervisor: Dr. Md. Ashraful Amin  
Associate Professor & Head  
(SECS,IUB)

Jan 2019 – Present

**Research Associate**

Artificial Intelligence and Cybernetics  
Lab (AGenCy Lab)  
IUB.

## Scholarship and Awards

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- IUB Merit Scholarship
- SECS Award 2016  
School of Engineering and Computer Science Award

## Research Interests

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Computer Vision and Digital Image processing, Machine Learning,  
Deep Learning, Artificial Intelligence and Robotics.

## Conference Presentations

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Asia Modelling Symposium 2017 (AMS2017) [Link](#) & [Photos](#)

- Autonomous Rover Navigation Using GPS Based Path Planning
- "SenseA"-Autism Early Signs and Pre-Aggressive Detector (Substitute Presenter)
- Design and Implementation of Security Patrol Robot Using Android Application (Substitute Presenter)

## International Competition

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University Rover Challenge (URC 2018), Utah, USA  
Artificial Intelligence Lead

University: Independent University, Bangladesh

World Rank: 6<sup>th</sup>

[URC2018 scores](#)

[News](#)