



## Education

### Postgraduate Studies

Sept 2021 –  
May 2025

#### **Ph.D. in Information & Communication Intelligent System**

DHU, China

**Dissertation Title:** Effective Object Detection in Unmanned Aerial Vehicle (UAV) Imagery for Complex Environmental Applications

**Supervisor:** Dr. Xue-song Tang

**Grade:** Average: 85.57

AI Computer Vision Complex Environments UAV

### Sayed Jobaer

Ph.D. in Information and Communication Intelligent System, Donghua University, College of Information Science and Technology, Shanghai, China

**Nationality:** Bangladeshi

**Date of Birth:** Dec. 25, 1991

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**Google Scholar:** Sayed Jobaer

**ORCID:**0000-0002-3939-7303

### Interests

- Computer Vision
- Knowledge Distillation
- Human-Robot Interaction
- UAV Technology
- Embedded Systems Design

### Skills

#### Programming:

Python	● ● ● ●
MATLAB, C++	● ● ● ● ● ●
ns-3	● ● ● ● ● ●
Bash scripting	● ● ● ● ● ●

#### Tools:

PyTorch	● ● ● ● ●
TensorFlow	● ● ● ● ● ●
Keras	● ● ● ● ● ●
OpenCV	● ● ● ● ● ●

#### Operating Systems:

Windows, Ubuntu	● ● ● ● ●
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### Graduate Studies

Sept 2018 –  
July 2021

#### **Master's in Information & Communication Technology DHU, China**

**Thesis Title:** UAV-Assisted Hybrid Scheme for Urban Road Safety Based on VANETs

**Supervisor:** Dr. Yihong Zhang

**Grade:** Average: 83.92

V2V communications IoT UAV Technology Path Planning

### Undergraduate Studies

Jan 2011 –  
Dec 2014

#### **B.Sc. in Electronics and Telecommunication Engineering DIU, Bangladesh**

**Project Title:** Automation of Electronics Tax & VAT Collection

**Supervisor:** Dr. Mst. Najnin Sultana

**Grade:** CGPA: 3.36 out of 4

## Awards and Scholarships

### Awards

- Excellent International Graduate of Donghua University in the Year of 2025
- DHU Outstanding International Student Scholarship Award (2024)
- DHU Excellent Social Work Award (2021)

### Scholarships

- Shanghai Government Scholarship (SGS) (September 2021 –July 2025)
- China Scholarship Council (CSC) Scholarship (September 2018 –July 2021)

## Working Experience

Mar 2015 –  
Aug 2018

#### **Implementation (Roll-Out) Engineer NOKIA SOLUTIONS AND NETWORK MYANMAR CO, LTD.**

During my tenure, I contributed to the installation and configuration of Nokia's second-generation (2G), third-generation (3G), and Long-Term Evolution (LTE) devices by providing robust troubleshooting and monitoring support. **Key contributions:**

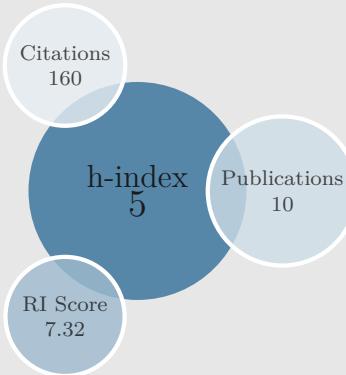
**Large-Scale Base Station Deployment:** coordinated the setup of over 500 sites that incorporated Base Transceiver Stations (BTS), power systems, and various link types, ensuring the effective management of related alarm systems;

**Multi-Vendor System Integration:** supported the commissioning of Huawei Radio Transmission Network (RTN) and Baseband Unit (BBU) systems and the associated infrastructure.

# Short Bio

Dr. Sayed Jobaer earned his Ph.D. in Information and Communication Intelligent Systems from Donghua University in Shanghai, graduating as an Excellent International Graduate in 2025. He previously received an M.Sc. in Information and Communication Engineering from Donghua University in 2021 and a B.Sc. in Electronics and Telecommunication Engineering from Daffodil International University in 2014. With over four years of international experience as a network engineer, his research centers on computer vision, particularly the detection of small objects in complex environments, and vehicle-to-vehicle communication using UAVs and cellular networks. He also maintains broader interests in AI, robotics, and the IoT.

# Metrics



# Profiles



# Languages

Bengali (Mother Tongue)

English (Fluent)

Chinese (Conversational)

Hindi (Basic)

# Personal

Passionate, Proactive, and Positive. Result-oriented and Problem-solving. Believe in honesty, integrity, and hard work. Constant Learning. Love to Read and Travel.

# Publications

## Journals

1. **Sayed Jobaer**, Xue-Song Tang, Yihong Zhang. "A Deep Neural Network for Small Object Detection in Complex Environments with Unmanned Aerial Vehicle Imagery." **Engineering Applications of Artificial Intelligence**, 148, 110466 (2025) [SCI, IF(2025 JCR): 8, 1 ✎ Top]
2. **Sayed Jobaer**, Tang, Xs., Zhang, Y. et al. "A Novel Knowledge Distillation Framework for Enhancing Small Object Detection in Blurry Environments with Unmanned Aerial Vehicle-Assisted Images." **Complex & Intelligent Systems**, 11, 63 (2025) [SCI, IF(2025 JCR): 5.1, 2 ✎]
3. **Sayed Jobaer**, Zhang, Y., Iqbal Hussain, M. A., & Ahmed, F. "UAV-Assisted Hybrid Scheme for Urban Road Safety Based on VANETs." **Electronics**, 9(9), 1499 (2020) [SCI, IF(2025 JCR): 2.6, 3 ✎]
4. Cui, Z., Deng, K., Zhang, H., Zha, Z., & **Sayed Jobaer**. "Deep Reinforcement Learning-Based Multi-Agent System with Advanced Actor-Critic Framework for Complex Environment." **Mathematics**, 13(5), 754 (2025) [SCI, IF(2025 JCR): 2.2, 4 ✎]
5. Rahman, E. U., Zhang, Y., Ahmad, S., Ahmad, H. I., & **Sayed Jobaer**. "Autonomous Vision-Based Primary Distribution Systems Porcelain Insulators Inspection Using UAVs." **Sensors**, 21(3), 974 (2021) [SCI, IF(2025 JCR): 3.5, 3 ✎]
6. Shaha, R.<sup>†</sup>, Zhang, Y., **Sayed Jobaer**<sup>†</sup>, et al. "YOLO-UAVNet: A Novel Deep Learning Network For Small Object Detection in Complex Environments Using UAV-assisted Images." **Journal of Donghua University (English Edition)**, 43(6) (2026, in press) [Scopus, SJR, Scopus CiteScore: 0.18]  
*†R. Shaha and Sayed Jobaer contributed equally to this work.*
7. Habib Tushar, M. D. A.<sup>†</sup>, Zhang, Y., **Sayed Jobaer**<sup>†</sup>, et al. "YOLO-SKYNet: A Lightweight Deep Learning Framework With Novel Approaches For Small-Object Detection in UAV Imagery Under Complex Environments." **Journal of Donghua University (English Edition)**, 44(5) (2027, in press) [Scopus, SJR, Scopus CiteScore: 0.18]  
*†Habib Tushar, M. D. A. and Sayed Jobaer contributed equally to this work.*
8. P. Roy, **Sayed Jobaer**, and N. Sultana. "Automation of Electronics TAX & VAT Collection." **International Journal on Advanced Science, Engineering and Information Technology (IJASEIT)**, 40(40), 70–77 (2015) [Scopus, SJR, Scopus CiteScore: 1.4]

## Conferences

1. Jahid, I., Muzahid, A. A. M., **Sayed Jobaer**, Neha, N. N., Han, H., Zhang, Y., & Sohel, F. "DormGuardNet: A Lightweight Deep Learning Model for Detecting Prohibited Items in Student Dormitory Environments." In Proceedings of the 17th International Conference on Computer and Automation Engineering (ICCAE 2025), Perth, Australia [EI indexing]
2. S. Ahmad, Q. Jie, R. Abdul, E. U. Rahman, **Sayed Jobaer**, A. B. Mohsin, R. Abdur, and U. D. Sami et al. "Terminal Sliding Mode Control (TSMC) Scheme for Current Control of Five-Phase Induction Motor." 2020 3rd International Conference on Power and Energy Applications (ICPEA), Busan, Korea [EI indexing]

# Technical Contributions

- **SOD-Dataset**: Nine-class small-object UAV imagery dataset (3000+ images)
- **PISD**: Dormitory prohibited-item image dataset (800+ images)

# References

- Ref. 1      **Assoc Prof. Xue-song Tang (Ph.D. Supervisor)** Lecturer, College of Information Science and Technology, Donghua University, Shanghai, China  
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- Ref. 2      **Prof. Yihong Zhang (Master's Supervisor)** Vice Dean, College of Information Science and Technology, Donghua University, Shanghai, China  
zhangyh@dhu.edu.cn
- Ref. 3      **Prof. LU Weibing** Vice President of Donghua University, Shanghai, China  
wblu@dhu.edu.cn
- Ref. 4      **Dr. A. A. M. Muzahid** Lecturer, School of Electronic and Electrical Engineering, Shanghai University of Engineering Science, Shanghai, China  
muzahid@qq.com