Dang Bui Dinh

dangdinh1713@gmail.com | Github | Google Scholar

Research Interests

Artificial Intelligent, Deep Learning, Computer Vision, Machine Vision, Image Super Resolution, Low-light Image Enhancement, Video Quality Enhancement, Video Coding.

Education

VNU - University of Engineering and Technology, Hanoi Sept. 2021 – June 2025
B.S.Eng of Robotics Engineering *GPA 3.26/4.0, Thesis score: 9.1/10*

Experience

Research Assistant June 2025 – Present
Department of Robotics Engineering, VNU - University of Engineering and Technology

- Advisor: Assoc. Prof. Hoang Van Xiem, Department of Robotics Engineering.
- Working on image and video processing using deep learning for machine vision tasks, video coding for machine (C++, Python, PyTorch, TensorFlow).

Projects

ESRPCB - from Human Vision to Machine Vision Project 2024 – 2025
ESRPCB - deep learning model to enhance defect detection accuracy

- Developed a state-of-the-art framework combining super-resolution with edge-guided enhancement and ensemble object detection models.
- Achieved over 98% mean Average Precision (mAP) on a tiny PCB defect dataset using the proposed system.
- Work accepted and published in the *Engineering Applications of Artificial Intelligence* (Q1 journal).

Research Publications

Journal

[J1] X. Hoang Van, **D. Bui Dinh**, T. N. Canh and V. T. Nguyen, *"ESRPCB: An edge guided Super - Resolution model and ensemble learning for tiny Printed Circuit Board defect detection."* Engineering Applications of Artificial Intelligence, 2025, 159, p.111547.

Conference

[C1] X.HoangVan, **D.BuiDinh**, S.NguyenQuang and W.-H.Peng, *"Compressed Video Quality Enhancement: Classifying and Benchmarking over Standards,"* 2025 International Conference on Advanced Technologies for Communications (ATC) (Accepted).

Patent

[P1] X. HoangVan, **D. BuiDinh**, *"Hệ thống và Phương pháp tạo ảnh Siêu phân giải,"* Vietnam Patent Application No. 1-2025-05274 (pending), 2025.

Additional Information

Languages: Python, C/C++, Matlab, Kotlin

Technologies: Git, Bash, Jupyter, PyTorch, TensorFlow, Keras

Languages: English