

## **DINH-CUONG HOANG**

Nationality: Vietnamese

Gender: Male

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<u>LinkedIn</u> <u>ResearchGate</u> <u>Google Scholar</u>

Academic Career:	
Dec 2021 – Now  Lecturer & Researcher at FPT University (Full Time)  Guest Researcher at Örebro University (Remotely)  Jan 2018 – Dec 2021	Teaching courses: Computer Architecture; Programming Fundamentals; Object-Oriented Programming; Data Structures and Algorithms; Digital Image Processing; Advanced Computer Vision; Programming for Robotics; Robotics: Perception; Introduction of Deep Learning.  Research Areas: Computer vision, deep learning, robotics.  Thesis: Vision-based Perception For Autonomous Robotic Manipulation. web PDF
Ph.D in Computer Science, Örebro University, Sweden.  website Centre for Applied Autonomous Sensor Systems (AASS).	Research interests: My research interests lie at the intersection of computer vision, robotics, and machine learning. I am particularly interested in topics involving autonomy for robots, with a focus on perception algorithms.  ILIAD Project: a key member of the EU-funded research project Iliad. website code video video video
2016 – 1, 2017  Research Assistant at National Taiwan University (NTU)	Project 1: Innovative machine tool controller and optical modules for automated 3D pick & place and key dimension inspection on randomly stacked workpieces. video video  Project 2: 3D surface reconstruction and automated robotic inspection system. video
2014 – 2015	Master of Science in Automation Technology from National Taipei University of Technology (NTUT).  Thesis: Multi-View 3-D surface digitization using Automated robot scanning and image registration. video video
2009 – 2014	Bachelor, Control and Automation engineering, Hanoi University of Science and Technology (HUST).

## **Research Skills:**

- Practical experience in C/C++, python, ROS, Gazebo.
- Strong familiarity with 2D image and 3D point cloud processing algorithms.
- Research experience in deep learning, familiarity with Pytorch.
- Solid theoretical background of the basic concepts in robotics, computer vision, and deep learning.

## **Awards and Honors:**

- Fully Funded PhD Program in Computer Science, Orebro University, Sweden.
- National Taiwan University Regulations Governing Academic Research Fellowship for Outstanding International Graduate Students 2016.
- 2016 CTCI Scholarship for Oversea Graduate Students in Taiwan.
- Award for being ranked 1st among the master students graduated at the Institute of Automation Technology (2016), National Taipei University of Technology.
- The second place of Intelligent Automation Equipment Invention Award 6th 2016, Taiwan.
- Best Poster Award at International Conference on Inventions (ICI) 2015.
- The honorable award of 2015 Robot Competition for innovative smart application on industrial robot, Taiwan.
- National Taipei University of Technology Scholarship for Outstanding International Master's Students (2014-2015).

## **Recent Publications (ISI/SCOPUS):**

- **1. Hoang, D. C.**, Stork, J. A., & Stoyanov, T. Context-Aware Grasp Detection for Target Objects in Cluttered Scenes Using Deep Hough Voting. *IEEE International Conference on Robotics and Automation (ICRA 2022 Accepted)*. PDF
- **2. Hoang, D. C.,** Lilienthal, A. J., & Stoyanov, T. (2020). Panoptic 3D Mapping and Object Pose Estimation Using Adaptively Weighted Semantic Information. *IEEE Robotics and Automation Letters (RAL)*, 5(2), 1962-19. (also accepted and presented at *ICRA 2020*). <u>PDF code video</u>
- **3. Hoang, D. C.**, Lilienthal, A. J., & Stoyanov, T. (2020). Object-RPE: Dense 3D reconstruction and pose estimation with convolutional neural networks. *Robotics and Autonomous Systems (RAS)*, 133, 103632. PDF code video
- **4. Hoang, D. C.**, Chen, L. C., & Nguyen, T. H. (2016). Sub-OBB based object recognition and localization algorithm using range images. Measurement Science and Technology, 28(2), 025401. PDF code video
- **5.** Chen, L. C., **Hoang, D. C.**, Lin, H. I., & Nguyen, T. H. (2016). Innovative methodology for multi-view point cloud registration in robotic 3D object scanning and reconstruction. Applied Sciences, 6(5), 132. <a href="PDF">PDF</a> code video
- **6. Hoang, D. C.**, Stork, J. A., & Stoyanov, T. Voting and Attention-based Pose Relation Learning for Object Pose Estimation from 3D Point Clouds. (*RAL Under Review*). PDF
- *ICRA*, *RAL*, and *RAS* are top conferences and journals in robotics and artificial intelligence. Sources: google scholar and scimagojr.

Please find my full publication list on research gate or google scholar.