

Toan Khoa Nguyen

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| CONTACT INFORMATION | Phone: (+866) 974 063 466 Email: toankhoabk@gmail.com Linkedin: www.linkedin.com/in/toankhoa GitHub: ntkhoa95.github.io |
| EDUCATION | National Taiwan University of Science and Technology , Taiwan 2020-Present Master of Electrical Engineering <ul style="list-style-type: none">Research Interest: Image Processing, Computer Vision, Image SegmentationAdvisor: Professor Chung-Hsien Kuo and Professor Shun-Feng SuGPA: 4.27/4.3 Ho Chi Minh University of Technology , Vietnam 2013-2018 Bachelor of Automotive Engineering |
| RESEARCH EXPERIENCE | Autonomous & Soft Robotics Laboratory , National Taiwan University 2020-Present <ul style="list-style-type: none">Research Topics: Segmentation technologies for Autonomous mobile robotsSkilled gained: Developing a self-supervised learning method for drivable area and road anomalies segmentation. Providing an automatic system to generate segmentation labels for drivable area and road obstacles. Training the self-supervised labels with semantic segmentation neural networks to perform robust prediction in real-time on mobile robots. |
| RESEARCH INTERESTS | My current research focuses mainly on Semantic Segmentation for applications on mobile robots, in which I utilize various techniques from traditional image processing to taking the advantages of deep learning methods to develop an efficient automatic labeling method. In addition, I used different attention-based methods to enrich the feature map in fusing the RGB-D input data to enhance the performance of the automatic labeling system. |
| PUBLICATIONS | <ul style="list-style-type: none">Minh-Quang Tran, Meng-Kun Liu, Quoc-Viet Tran, Toan-Khoa Nguyen. Effective Fault Diagnosis Based on Wavelet and Convolutional Attention Neural Network for Induction Motors.<ul style="list-style-type: none"><i>IEEE Transactions on Instrumentations and Measurement, Volume 71</i>Ming-Hong Hsu, Phuc Thanh-Thien Nguyen, Dai-Dong Nguyen, Toan-Khoa Nguyen, Chung-Hsien Kuo. Fabrication and Image Servo Tracking Study of a Continuum Robot Prototype.<ul style="list-style-type: none"><i>International Journal of iRobotics, 2021, Volume 4, No. 2</i> |
| HONORS AND AWARDS | <ul style="list-style-type: none">Phase 1 Finalist, OpenCV AI competition 2021Full Scholarship of National Taiwan University of Science and Technology 2020 |
| OTHER ACTIVITIES | <ul style="list-style-type: none">Teaching Assistant at IoT Programming and Practice Course<ul style="list-style-type: none">Instructor: Professor Minh-Quang TranTeaching Assistant at Fundamental of Self-Driving Cars Course<ul style="list-style-type: none">Instructor: Professor Shu-Hao Liang |

TECHNICAL
SKILLS

- *System:* Windows, Linux
- *Programming Languages:* Python, MATLAB
- *Framework:* OpenCV, Tensorflow, Pytorch, Git

LANGUAGES

- Vietnamese: Native
- English: Proficient (IELTS Overall 6.0)

REFERENCES

Dr. **Chung-Hsien Kuo**

Professor, Department of Mechanical Engineering, National Taiwan University

President, Robotics Society of Taiwan (RST)/ 台灣機器人學會理事長

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Dr. **Shu-Hao Liang**

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Dr. **Minh-Quang Tran**

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