

NGUYEN DONG HAI PHUONG

Robotics Researcher & PhD Fellow

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@towardthesea_vn in phuong-d-h-nguyen github.com/towardthesea



EXPERIENCE

Robotics Researcher & PhD Fellow

iCub Facility, Istituto Italiano di Tecnologia

Jan 2016 – Ongoing Genova, Italy

- Develop new perception and sensorimotor capabilities of iCub

Academic Visitor

Personal Robotics Lab., Imperial College London

Oct 2017 – Dec 2017 London, UK

- Develop kinematic structure learning algorithm for iCub

Collaborative Researcher

DIBRIS, Univ. of Genova

Sept 2015 – Dec 2015 Genova, Italy

- Develop control and planning algorithm for UAV, SAFEMAP project

Research Student

Laboratorium, Univ. of Genova

Feb 2015 – Sept 2015 Genova, Italy

Lecturer

Faculty of Elec. Eng., Da Nang Univ. of Science & Tech.

Nov 2010 – Jan 2016 Da Nang, Vietnam

- Teaching & Research assistant in Embedded System, Control

Intern

Van Thanh Medical Instruments Company

Nov 2009 – Dec 2009 Da Nang, Vietnam

Intern

Pleikrong Hydropower Plant

Jun 2009 – Aug 2009 Kontum, Vietnam

SCHOLARSHIPS & AWARDS

Marie Curie Early Stage Researcher Fellowship

European Commission 2016 – ongoing

Winner of KUKA Innovation Award 2018 (team CoAware)

KUKA Apr, 2018

Erasmus Mundus Scholarship

EMARO Program 2013 – 2015

Good Grade Graduation of Course 2005-2010 Award

Da Nang Univ. of Tech. 2010

Shinco Technos Scholarship for Excellent Students of Da Nang Univ. of Tech.

Shinco Technos Co.Ltd, Japan 2009

Odon Vallet Scholarship for Vietnamese Excellent Students

Rencontres Du Vietnam 2007 & 2008

RESEARCH INTERESTS

- Spatial perception and sensorimotor competences development in humanoid robotics.
- Machine Learning application on Robots.
- Control and Motion Planning.
- Embedded Systems.

EDUCATION

PhD. in Bioengineering & Robotics

Istituto Italiano di Tecnologia, Italy
University of Genova, Italy

Jan 2016 – ongoing

M.S. in Advanced Robotics

University of Genova, Italy
Ecole Centrale de Nantes, France

Sept 2013 – Sept 2015

B.Eng. in Electrical Engineering

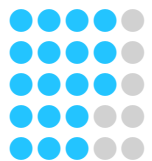
Da Nang University of Tech., Vietnam

Sept 2005 – June 2010

TECH. SKILLS

Programming

C/C++
ROS/YARP/OpenCV
Matlab/Simulink
Python
Visual Basic/Ladder/STL



Robots

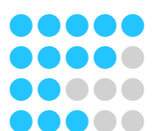
Khepera III Firefly(UAV) Pelican
Puma Baxter iCub Reem-C

MPU/MCU

Microchip PIC/dsPIC Cypress PSoC
Intel 8086 Atmel 8051
TI DSP/Stellaris

LANGUAGES

Vietnames
English
French
Italian



PROJECTS

KUKA Innovation Award 2018.

📅 Nov, 2017 – Apr, 2018

SECURE European Project.

📅 Jan, 2016 – ongoing

WYSIWYD European Project.

📅 Jan, 2016 – Feb, 2017

Real-time Path Generation and Control with obstacles avoidance of Multicopters - Toward Autonomous Aerial Vehicles for Search and Rescue.

📅 2015

Monitoring and controlling Baxter robot with Oculus Drift.

📅 2014

Developing ROS (Robot Operating System) stack and localization ability for Khepera III mobile robot (K-team).

📅 2014

PUBLICATIONS

📄 Journal Articles

- Fischer, Tobias et al. (2018). “iCub-HRI: A Software Framework for Complex Human–Robot Interaction Scenarios on the iCub Humanoid Robot”. In: *Frontiers in Robotics and AI* 5, p. 22.
- Moulin-Frier, C. et al. (2017). “DAC-h3: A Proactive Robot Cognitive Architecture to Acquire and Express Knowledge About the World and the Self”. In: *IEEE Transactions on Cognitive and Developmental Systems* PP.99, pp. 1–1.
- Nguyen, Phuong DH, Carmine T Recchiuto, and Antonio Sgorbissa (2017). “Real-Time Path Generation and Obstacle Avoidance for Multirotors: A Novel Approach”. In: *Journal of Intelligent & Robotic Systems*, pp. 1–23.

👥 Conference Proceedings

- Nguyen, Dong Hai Phuong et al. (2018). “Compact Real-time avoidance on a Humanoid Robot for Human-robot Interaction”. In: *HRI '18: 2018 ACM/IEEE International Conference on Human-Robot Interaction*. ACM/IEEE.
- Nguyen, Phuong D. H. et al. (2018). “Transferring Visuomotor Learning from Simulation to the Real World for Manipulation Tasks in a Humanoid Robot”. In: *2018 IEEE/RSJ International Conference on Intelligent Robots and Systems*. (under-review).
- Nguyen, Phuong DH, Matej Hoffmann, et al. (2016). “A fast heuristic Cartesian space motion planning algorithm for many-DoF robotic manipulators in dynamic environments”. In: *Humanoid Robots (Humanoids), 2016 IEEE-RAS 16th International Conference on*. IEEE, pp. 884–891.
- Nguyen, Phuong DH, Carmine T Recchiuto, and Antonio Sgorbissa (2016). “Real-time path generation for multicopters in environments with obstacles”. In: *IEEE*, pp. 1582–1588.

REFEREES

Prof. Giorgio Metta

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✉ iCub Facility, Istituto Italiano di Tecnologia, Genova, Italy

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Prof. Antonio Sgorbissa

@ antonio.sgorbissa@unige.it

✉ Laboratorio, Università degli Studi di Genova, Genova, Italy

Prof. Garcia Gaetan

@ gaetan.garcia@ec-nantes.fr

✉ Robotics group, IRCCyN, Ecole Centrale de Nantes, Nantes, France