

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 visuomotor 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

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

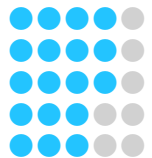
Da Nang University of Tech., Vietnam

📅 Sept 2005 – June 2010

TECH. SKILLS

Programming

C/C++
ROS/YARP/OpenCV
Matlab/Simulink
Python
Tensorflow/Keras



Robots

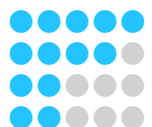
Khepera III Firefly Pelican Puma
Baxter iCub Reem-C KUKA

MPU/MCU

Microchip PIC/dsPIC Cypress PSoC
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*.
- Nguyen, Phuong DH et al. (2017). “Real-Time Path Generation and Obstacle Avoidance for Multirotors: A Novel Approach”. In: *Jour. 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: *The 2018 ACM/IEEE Int. Conf. on Human-Robot Interaction*. ACM, pp. 416–424.
- Nguyen, Phuong D. H. et al. (2018). “Transferring Visuomotor Learning from Simulation to the Real World for Robotics Manipulation Tasks”. In: *2018 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems*. IEEE.
- Nguyen, Phuong DH, Fabrizio Bottarel, et al. (2018). “Merging physical and social interaction for effective human-robot collaboration”. In: *Humanoid Robots (Humanoids), 2018 IEEE-RAS 18th Int. Conf. on*. (accepted). IEEE.
- 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 Int. Conf. on*. IEEE, pp. 884–891.
- Nguyen, Phuong DH et al. (2016). “Real-time path generation for multicopters in environments with obstacles”. In: *2016 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*. IEEE, pp. 1582–1588.

REFEREES

Prof. Giorgio Metta

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

Dr. Ugo Pattacini

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

Prof. Antonio Sgorbissa

@ antonio.sgorbissa@unige.it

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

Prof. Garcia Gaetan

@ gaetan.garcia@ec-nantes.fr

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