

# NGUYEN DONG HAI PHUONG

## Robotics Researcher & PhD Fellow

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@towardthesea\_vn    in phuong-d-h-nguyen    [github.com/towardthesea](https://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

### 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

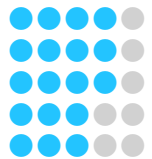
C/C++

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

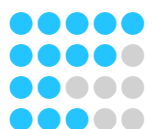
## LANGUAGES

Vietnames

English

French

Italian



## PROJECTS

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### KUKA Innovation Award 2018.

📅 2017 - ongoing

### SECURE European Project.

📅 2016 - ongoing

### WYSIWYD European Project.

📅 2016

### 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

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### 📄 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

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### Prof. Giorgio Metta

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

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### Dr. Ugo Pattacini

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

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### Prof. Antonio Sgorbissa

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

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### Prof. Garcia Gaetan

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