



BA-HAI NGUYEN, Ph.D.

Dean of School of Innovation and Entrepreneurship - HCMUTE

Founder – Javi Coffee Technology

Founder – Mat than 2EX for the blind people

Vice-President of Vietnam Youth Union in Hochiminh City (2004-now)

Email: bahai@hcmute.edu.vn

01 – Vo van ngan – Thu duc – Hochiminh City - Vietnam

RESEARCH INTERESTS

Robotics, Haptics, Smart and sustainable systems

EDUCATION

Bachelor [Sep. 2001 – May 2006]

Hochiminh University of Technical Education, Hochiminh City, Vietnam

Major: Automotive Engineering

Advisor: Prof. Do Van Dung

Master [Sep. 2006 – Sep. 2008]

Korea University of Technology and Education, Choenan City, Korea.

Major: Mechanical Engineering (Biorobotics Laboratory).

Advisor: Prof. Jee-Hwan Ryu

Thesis: A Study on The Realistic Haptic Feedback of Steer-By-Wire Systems Based on a Direct Current Measurement Method.

Ph.D., [Sep. 2008 – Nov. 2010]

Korea University of Technology and Education, Choenan, Korea

Major: Mechanical Engineering (Biorobotics Laboratory)

Advisor: Prof. Jee-Hwan Ryu

Thesis: A Study on Intuitive Interface for the Teleoperation of Wheeled and Tracked Vehicles.

PROFESSIONAL EMPLOYMENT

Hochiminh University of Technical Education, Vice-director of teacher training and high-tech workforce development.

HONORS, AWARDS, FELLOWSHIPS

2017: One of top 50 most outstanding alumni of HCMUTE during 55 years of history

2015: One of top 10 Vietnamese Outstanding Youth.

2014: Award from Vietnam Ministry of Education in research area.

2014: Award from Vietnam Government in research area.

Nov. 2012 One of the six “Young Citizens of Hochiminh City 2012” Award [Link](#)

Nov. 2012 First prize of Vietnam Inventors held by Vietnam National Television (VTV2) program – week 5. [Link](#)

Aug. 2012 Fellowship from USAID & Intel program for 6-week training in Arizona State University, US.

Oct. 2011 Award of the best teachers in Hochiminh City

Oct. 2011 Award of green technology competition.

Oct. 2011 Certificate of merit for the most active researcher given by the president of HCMUTE.

Feb. 2011 Prize for best doctoral topic for graduation in Korea University of Technology and Education

Sep. 2010 322-Vietnam Ministry of Education scholarship for Ph.D program in Korea (2 years).

Sep. 2006 Korea Government scholarship for master course of mechanical engineering

Sep. 2009 Korea ministry of education scholarship

Sep. 2006 Korea government scholarship for master course of mechanical engineering

May 2006 First-class honor in Automotive Engineering, UTE

May 2005 Certificates of merit of social activity, 2003, 2004, 2005 given by the Youth association of HochiminhCity.

May 2004 Certificate of research activity given by Vietnam ministry of education

Feb. 2005 Toyota Bien hoa scholarship

Aug. 2001 Vietnam ministry of education scholarship for four years.

RESEARCH EXPERIENCE

2017:

Javi Coffee Technology Franchising [1.500.000USD]

2016:

Javi Coffee Maker with IoT [500.000USD]

AI Coba Robot [100.000USD]

2015:

Robotiv Glasses for the blind people [Funding: 1.000.000USD] [[Video Link](#)] [[Link](#)]

2013:

Haptic interface for blind people (hEye project) [Funding: 100.000USD] [[Video link](#)] [[Link](#)]

Teleoperated robot for construction inspection (TeleBot) [Funding: 5500USD] [[Link](#)]

1 usd course to promote engineering creativity (\$1 course) [Funding: 30.000USD] [[Link](#)]

Before 2012

Wheeled, tracked robots teleoperation, 2010-2012 [Fund: 15000USD] [[Video Link](#)] [[Link 2](#)]
Dog robot for security and entertainment purpose [[Link](#)]
Vehicle teleoperation, 2009-2012 [Fund: 5000]
Development of a steer-by-wire system for vehicles, 2006-2009
Electronic power steering systems (EPS) for commercial vehicles, 2009
Robust control of DC motor, 2008.
Emission control of diesel engines, 2006. [1800USD]
Design of robot for Robocon contest organized by Asia-Pacific Broadcasting Union (ABU), 2005, 2006.

PUBLICATIONS

2017:

Invited Talk: STEM for Mekong Delta, sponser by USAID, Intel and ASU.
Invited Talk: Innovation for a better society at TeamX (TEDx in Vietnam), Hochiminh City
Interviewed by Forbes Vietnam “Creative Education”, Hochiminh City

2016:

VEEC – Invited Talk: Active Learning in Education, USAID, Intel and ASU.
Invited Talk: Innovation in Business at Entrepreneurship Forum, Hochiminh City
Interviewed by CNET “Schooling Vietnam: How tech companies are training the next wave of workers”

2015:

VEEC – Presentation: Global Engineering Education, USAID, Intel and ASU.

2013

Ba Hai Nguyen, Van-Dung Do, “**Preliminary result on blended learning at Ho Chi Minh University of Technical Education,**”International Conference on Vietnam Engineering Education, Hochiminh City, March, 2014.

2013

Ba Hai Nguyen, Van-Dung Do, “**BC Taxonomy of Educational Objectives in Engineering Domain,**”International Conference on Vietnam Engineering Education, Cantho City, March, 2013.

2012

Ba-Hai Nguyen, Jee-Hwan Ryu “**Haptic Interface for Intuitive Teleoperation of Wheeled and Tracked vehicles,**” ISI International Journal of Automotive Technology, October 2012, Volume 13, Issue 6, pp 949-954.

Ba Hai Nguyen, Tran Ngoc Trung, “**A Study on Control Algorithms of a Driving Simulator,**” Technical Education Science Magazine (IPE), 2012.

Ba Hai Nguyen, Tran Ngoc Trung, “**Designing Mechanical Structure for a Driving Simulator,**” Technical Education Science Magazine (IPE), 2012.

2011

Ba Hai Nguyen, Jee-Hwan Ryu, “**A Novel Haptic Interface for Vehicle Teleoperation**”, World Haptics in Turkey, 2011.

Ba Hai Nguyen, Nguyen Khac Huan, “**Velocity Estimation Scheme for dc Motor,**” Vietnam Mechanical Engineering Magazine, 2011.

2010

Ba Hai Nguyen, Jee-Hwan Ryu, “**A Novel Haptic Interface for Teleoperation of Wheeled and Tracked Vehicles,**” International Conference of Control and Automation (ICCAS2010), Seoul, Korea, October 2010.

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2009

Ba Hai Nguyen, Jee-Hwan Ryu, “**Semi-Experimental Results on a Measured Current Based Method for Reproducing Realistic Steering Feel of Steer-By-Wire Systems,**” presented in 15th Asia Pacific Automotive Engineering Conference in Hanoi-Vietnam, 26-28 October 2009 (APAC15), Hanoi, Vietnam, 2009.

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Ba Hai Nguyen, Jee-Hwan Ryu, Van-Dung Do, “**Velocity Estimation For Haptic Applications,**” The 2009 International Forum on Strategic Technologies (IFOST2009), Hochiminh, Vietnam, 2009.

[Download PDF](#)

Ba Hai Nguyen, Hai-Bac Ngo, Jee-Hwan Ryu, “**Novel Robust Control Algorithm of DC Motors,**” The 6th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI 2009), Seoul, Korea, 2009.

[Download PDF](#)

Van-Dung Do, Thanh-Thuong Tran, Ba-Hai Nguyen, “**Simulation and Experimental Results on Study of Automotive Airflow Meter Swappability,**” accepted to be presented in 15th Asia Pacific Automotive Engineering Conference in Hanoi-Vietnam, 26-28 October 2009 (APAC15), Hanoi, Vietnam, 2009.

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Ba Hai Nguyen, Jee-Hwan Ryu, “**Direct Current Measurement Based Steer-By-Wire Systems for Realistic Driving Feeling,**” Proceedings of the IEEE International Symposium on Industrial Electronics 2009, Seoul, Korea.

[Download PDF](#)

2008

Ba Hai Nguyen, Jee-Hwan Ryu, “**Development of a Observe-By-Wire System for Forklifts Using Haptic Interfaces,**” ISBN: 978-89-950038-8-6, International Conference on Smart Manufacturing Application, April. 9-11, 2008 in KINTEX, Gyeonggi, Korea.

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PATENTS

Design of a teleoperated robot for effective movement inside long and narrow pipes

Inventor: Ba-Hai Nguyen

2013, Vietnam (pending)

A novel haptic interface for blind people

Inventor: Ba-Hai Nguyen

2008, Vietnam (pending)

A robust electromechanical apparatus for steer-by-wire systems

Inventor: Ba-Hai Nguyen, Jee-Hwan Ryu.

2008, Korea (pending)

A multifunctional haptic seat for automotive driving assistance and driver's comfort

Inventor: Ba-Hai Nguyen, Jee-Hwan Ryu, Yesl Kim.

2008, Korea

A regenerative suspension system for vehicles.

Inventor: Ba-Hai Nguyen, Jee-Hwan Ryu, Yesl Kim.

2008, Korea.

Steer-by-wire development and control based on a direct current measurement method.

Inventor: Ba-Hai Nguyen, Jee-Hwan Ryu, Yesl Kim.

2008, Korea.

INVITED TALKS

Finding Passion and Igniting Creativity, KienVuong Company Ltd.

Graphical Programming Language for Automobile Industry, at Thaco (Truonghai) company, Quangnam province

Finding passion and igniting creativity, Hochiminh University of Technical Education

Engineering Creativity Practice, Economics and Technology College

Engineering Creativity Practice, Cao thang College

Engineering Creativity Practice, Hanoi Transportation & Communication University

Engineering Creativity Practice, Can tho University

Engineering Creativity Practice, Ba-ria Vung tau College

Engineering Creativity Practice, Hochiminh University of Technical Education

LabVIEW-based applications, UTE, Hochiminh city, Vietnam, 2008 [[Link](#)]

Graphical Programming

for Mechatronics Applications, Hochiminh University of Technology, Hochiminh City, Vietnam.

TEACHING EXPERIENCE (COURSES-TUTORIALS-TEXTBOOKS)

Textbook

Ba-Hai Nguyen, Ph.D., “**LabVIEW Programming**”, by Hochiminh National Publisher, 2012 (This textbook is used for undergraduate and graduate courses).

Graduate course

PC-based data acquisition for automotive engineering

Automatic control for automotive engineering

Undergraduate course

LabVIEW Programming
Introduction to Automobile
Technical English
Advanced topics in automotive engineering.

Courses for industry

Engineering creativity for life (\$1 course)
Robotics for kids
Introduction to automatic control
Mechatronics experiment

Tutorials

Tutorial on DC motor control using LabVIEW and PCI-7356 ([link](#))
Many other tutorials can be found here: <http://www.youtube.com/user/hocdelamgroup?feature=watch>

SERVICE TO PROFESSION

- Vice-director of center of teacher training and high-tech workforce development, UTE, 2012 – 2013.
- Co-Founder & vice-director of Binh Minh Charity Foundation
- Founder & group leader of HOCDELAM (<http://hocdelam.org>), 2006 – present.
- Assistant lecturer of Department of Automotive Engineering, UTE, 2006 – 2010.
- Founder & chairman of English Speaking Club, Hochiminh University of Technical Education. 2003-2005.
- Founder & co-leader of VAGAM (<http://vagam.dieukhien.net>), 2007 – present.
- Co-founder & co-group leader of DIEUKHIENTUDONG (<http://dieukhientudong.com>), 2007- 2009.
- Board member of student association, UTE, 2003-2005.
- Resident assistance of International dormitory of KUT, Korea 2008 – 2010
- Team leader of CKD01 (2005, and CKD (2006) in ROBOCON contest, organized by Asia-Pacific Broadcasting Union (ABU), 2005, 2006.

MEDIA COVERAGE

Nguyen Ba Hai: New Passion of Vietnamese Coffee with Technology

<http://www.doanhnhansaigon.vn/y-tuong/javi-va-khat-vong-ca-phe-viet-nam-vuon-tam-the-gioi/1103511/>

Nguyen Ba Hai in Vietnam inventor television program [VTV3]

Tuoitre Audio: Vietnam Lunar New Year and My Teacher Program [[Sound link](#)]

Dr. Hai and \$1 class

<http://www.heeap.org/content/dr-hai-and-1-class> [[Video](#)]

Young doctorate and unique way to live

<http://www.youtube.com/watch?v=J-dFvOZAZdI&noredirect=1>

Young doctorate and \$1 class

<http://vnexpress.net/gl/khoa-hoc/2012/06/tien-si-tre-va-lop-hoc-1-usd/>

Young doctorate holder offers 1 dollar vocational courses

<http://www.dtinews.vn/en/news/025/27238/young-doctorate-holder-offers-1-dollar-vocational-courses.html>

Researchers create “wonderful hat” for the blind

<http://vietsciexdir.net/ovsed-blog/blog/2012/05/22/>

Dr. Nguyen Ba Hai and active learning technique

<http://heep.org/content/dr-hai-implements-heep-teaching-techniques-his-classroom>

Haptic interface for blind people (hEye project) [[VTV2](#)] [[Video link](#)] [[Link](#)]

Teleoperated robot for construction inspection (TeleBot) [[Link](#)]

1 usd course to promote engineering creativity (\$1 course) [[Link](#)]

PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

IEEE.org

Automobile Association in Hochiminh City

EXTRA INFORMATION

Soft skill: Motivating others, making decisions, solving problems, participating in a team, leading a team, teaching others, listening to others, Vietnamese (native), English (good), Korean communication (basic).

Programming Language: Pascal, C, Php, Matlab, LabVIEW, Visual Basic, Assembly, etc.

Animation: Flash, Macromedia director, OpenGL.

Mechanical Modeling: Solidworks, CATIA, AutoCAD. Matlab Simulink.

Electrical/hydraulic software: OrCAD, Multisim, AMESim.

Other software & tools: Microsoft Office, Web desgin (Joomla, Wordpress, FrontPage, HTML5).

Hardware: Sensor, actuators, microcontrollers (AT8501, AVR, PIC), eletronic components/devices

REFERENCE

Do Van Dung

Prof., Vice-Rector of Hochiminh University of Technical Education, 01- Vo van ngan street, Thuduc district, Hochiminh, Vietnam.

dodzung@hcmute.edu.vn

Jee-Hwan Ryu

Prof., Head of Biorobotics Laboratory, D205, Korea University of Technology and Education, 330-708, R. of Korea, 307Gajeon-ri Byeongcheon-myeon, Cheonan, Chungnam.

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Tran Thu Ha

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