



Hoang Ngoc Tan

Curriculum Vitae

83 Duong Bach Mai, P.Tam Hiep

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Education

9/2015-5/2019 **Ph.D. Degree**

Mechanical Engineering Department, National Cheng Kung University – Taiwan

Dissertation: On the Innovation Design of Novel Transmission Systems for Electrified Vehicles

Advisor: Chair Prof. Hong Sen-Yan, National Cheng Kung University – Taiwan.

9/2008-10/2011 **Masters of Engineering Degree**

Automobile and Tractor Engineering Department, HCMC University of Technology – Vietnam National University – Vietnam

Thesis: Research and Application of Biodiesel from Jatropha Curcas in Combustion Engine

Advisor: Associate Prof. Nguyen Huu Huong, HCMC University of Technology.

9/2003-1/2008 **Bachelor of Engineering Degree**

Vehicle and Energy Engineering Department, HCMC University of Technology and Education – Vietnam

Thesis: Calculation Stability of Crane Truck with Two Props

Professional Experience (9 years)

8/2019-Present **Mechatronic & Electronic Department, Lac Hong University – Vietnam**

Lecturer

- Preparing and delivering lectures, laboratory sessions in some courses such as English for Automotive Engineering, Automotive Alternative Energies, Computer Application in Design and Simulation of Automotive, Vehicle Design, Introduction to Automotive Technology.
- As an advisor to supervise some student thesis, evaluate the study results of students before they graduate and guiding some topic for Science and Technique Creation Contest of Dong Nai province such as: Study on design, manufacturing and experiment of small vertical wind turbine from recycled material. Design, manufacturing and experiment of painting car room with the parallel of air circulation. Building the process of project-based learning method in teaching schedule of technical courses...
- Organization some technology contests such as: Racing Car, Go-Kart...
- Building the design center by using CATIA, SOLIDWORKS for learning and test the international certificate.
- Founder the creative design center for students can implement some research plan for Science and Technique Creation Contest of Dong Nai province, Technology Transfer...
- As an advisor to supervise some student group for attending MEP3, URI programs of BUILD-IT

(Arizona State University).

- Participating in setting ABET evaluation for Electrical Electronic Engineering Technology (EEET) Program

9/2015-7/2019 **Mechanical Engineering Department, National Cheng Kung University – Taiwan (4 years)**

Researcher and Teaching Assistant

- Search for relevant documents including literature review and patent search.
- Implementation research plan (finding theory and methodology).
- Study on hybrid transmissions and motor transmissions.
- Classify the transmission systems, and define the design specifications.
- Study on mechanism structures, kinematic analysis, power flow, and efficiency analysis.
- Propose a systematic design process.
- Synthesize feasible mechanisms and transmission systems.
- Analyze and simulate the kinematic, power flow, and efficiency of new systems.
- Evaluate the acceptable transmission systems.
- Provide atlases of feasible transmission systems for further studies and applications.
- Write the research report
- Write the papers to publish for SCI journals.
- Preparing and delivering lectures, laboratory sessions in some courses such as creative design, mechanical design, dynamics, and machinery.
- Preparing and marking essays, assignments, and examinations, stimulating and guiding class discussions.
- As an advisor to supervise some student thesis (such as Ph.D. candidate Ho Thanh Tho's research, M.Sc. Vincent Sebastian's research), evaluate the study results of students before they graduate.
- Attending departmental conferences and seminars.
- Participating in setting course and degree requirements, curriculum revision, and course planning.

9/2012-8/2015 **Automobile Engineering Department, HCMC of Industrial University – Vietnam (3 years)**

Lecturer

- Preparing and delivering lectures, laboratory sessions in some courses such as electric system in the vehicle body, electric system in engine control, working principle in the engine, technical electronics in the vehicle.
- Preparing and marking essays, assignments, and examinations, stimulating and guiding class discussions.
- As a mentor to advise students in DHOT10B class on academic and related matters such as choose courses, study methodology, find study materials...
- As an advisor to supervise some student thesis, evaluate the study results of students before they graduate.
- Attending departmental and faculty meetings, conferences, and seminars.
- Participating in setting course and degree requirements, curriculum revision, and academic planning.

6/2010-9/2012 **Honda Automobile – Bien Hoa – Dong Nai – Vietnam**

Technical Consultant. *This career is not for the university lecturer. Therefore, I do not count in my experience years.*

8/2008-6/2010 **Mitsuba Technical Center of HCMC – Vietnam**

Design Staff. *This career is not for the university lecturer. Therefore, I do not count in my experience years.*

Research Projects

9/2018-present On the Design of Novel Motor Transmission Systems for Electric Vehicles, not yet apply for support

9/2015-9/2018 On the Innovative Design and Analysis of Hybrid Transmissions, supported by Ministry of Science and Technology, Taiwan.

6/2009-6/2010 Technical Automobile Engineering Department, University of Technology HCMC – Vietnam National University – Vietnam

Manufacture and experiment the engine using biodiesel for Vikino Company

Research about alternative energies such as alcohol, biodiesel, biogas, CNG, LPG, fuel cell, solar, wind energy...

1/2006-9/2007 National Robocon Organization – Vietnam

Create and design robots

Peer Review Publications

SCI, SCIE Journal: https://scholar.google.com.tw/citations?user=k_EVvbwAAAAJ&hl=en

2019 **Hoang, N.-T.**; On the Innovation Design of Novel Transmission Systems for Electrified Vehicles (電動車輛新型傳動系統之設計). *成功大學機械工程學系學位論文*. **2019**, 1-155.

2019 **Hoang, N.-T.**; Yan, H.-S. On the Innovation Design for Two-Motor Transmissions with Eight-Link Mechanisms in the Electric Vehicles. *Appl. Sci.* **2019**, 9, 140.

2018 **Hoang, N.-T.**; Yan, H.-S. On the Design of In-Wheel-Hub Motor Transmission Systems with Six-Link Mechanisms for Electric Vehicles. *Energies* **2018**, 11, 2920.

2018 **Hoang, N.T.**; Yan, H.S. Configuration Synthesis of Novel Series-Parallel Hybrid Transmission Systems with Eight-Link Ravigneaux Mechanisms. *JCSME* **2018**, 34, 345–355. (Award of the best paper of Chinese Social Engineering in Taiwan).

2017 **Hoang, N.-T.**; Yan, H.-S. Configuration Synthesis of Novel Series-Parallel Hybrid Transmission Systems with Eight-Bar Mechanisms. *Energies* **2017**, 10, 1044.

Conference

2016 科技部專題研究計畫期中/成果報告混合動力傳動系統之創新設計及分析 (On the Innovative Design and Analysis of Hybrid Transmissions) 吳友績、**黃玉新**、吳冠輝、葉駿耀. 科技部工程司 105 年度機械固力、熱流、能源學門聯合成果發表會報告輯中華民國 105 年 12 月 3~4 日

2017 科技部專題研究計畫期中/成果報告混合動力傳動系統之創新設計及分析 (On the Innovative Design and Analysis of Hybrid Transmissions) 吳友績、**黃玉新**、吳冠輝、葉駿耀. 科技部工程司 106 年度機械固力、熱流、能源學門聯合成果發表會報告輯中華民國 106 年 12 月 1~2 日

Awards & Certificates

- 05/2021 Certificate of Merit for Creative Labor of Vietnam General Labor Confederation
- 12/2020 The first prize of Science and Technique Creation Contest of Dong Nai province “Cleaning Solar Panel Robot for Factory Floor”. https://www.youtube.com/watch?v=TEr6S-N_MS8
- 05/2019 Award for the best paper of Chinese Social Engineering in Taiwan.
- 12/2014 Award of excellent teaching lecturer at Industrial University HCMC, Vietnam
- 09/2014 Certificate of Higher Engineering Education Alliance Program (HEEAP) at Arizona State University, USA
- 08/2013 Certificate of professional operation for automobile lecturer at Samco company
- 01/2013 Educational certificate of vocational training at HCMC University of Technology and Education
- 04/2008 Educational certificate at HCMC University of Technology and Education

References

Prof. Dr. Hong Sen-Yan

Chair Professor in National Cheng Kung University – Taiwan.

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Dr. Phan Nhu Quan

Head of Electrical and Electronic Engineering Technology Department, Lac Hong University – Vietnam.

Address: 10 Huynh Van Nghe Str, Buu Long Ward, Bien Hoa City, Dong Nai Province (Vietnam).

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