DUONG THE DO, BS.

Date of birth : 4th Nov. 1994
Place of birth : Vu Ban District, Nam Dinh Province, Vietnam.
Address : Researcher, Dynamic and Control Lab, Department of Applied Mechanics, Hanoi University of Science and Technology.
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EDUCATION

Hanoi University of Science and Technology, Vietnam.

- Degree: **BS, MECHATRONICS ENGINEERING** major (Talented Engineer's Program)
- Overall GPA: 3.23/4.0 (Degree Classification: Very good).
- Title of Thesis: *"**Vibration Analysis of Euler- Bernoulli Beams with Multiple Open Cracks Under Moving Loads**".* Advisors Prof. Dr-Ing.habil. Nguyen Van Khang.

RESEARCH INTERESTS

- Machine Learning, AI.
- Imagine Processing.
- Dynamic and Control Robot, ROS

RESEARCH EXPERIENCE

RESEARCH, Optimal control field (08/2018- present)

- Optimal control of transverse vibration of Euler- Bernoulli beam by MTMDs and MTLDs.
- Calculated and designed optimal parameter of absorbers using Taguchi's Algorithm.
- Participated on Mechatronics Group at WRU to design and manufacture some robot models (Completing Delta Rostock robot model).

PARTICIPATION, Dynamic simulation (6/2016- 2/2017)

- Calculated Tripper car (The Song Hau 1's project).
- Used OpenGL library of Visual Studio to simulate operate of Tripper car.

TRAINEE, Yamaguchi Vietnam Joint Stock Company (4/2016- 5/2016)

- Engaged in design: molding products, precision mechanical parts.
- Operated CNC to manufacture some parts.

PROJECT, Sorting machine product use logic control and PLC (2/2016- 6/2016)

- Leader of group (five members), taking responsibility for collecting materials and breaking into particular tasks for each members.
- Design mechanical structure and control system.

KINEMATICS, Dynamic and control of arm robot with 4 dof (2/2015- 6/2015)

- Representing links using Denavit- Hartenberg parameters and transformation matrix. Establishing workspace of robot, using Newton-Raphson method to find the roots of the inverse kinematic equations.
- Using PID algorithm for force control to control end-effector of robot tracking defined trajectory.
- Using Simscape Multibody tool box of Matlab- Simulink eviroment and OpenGL library of Visual Studio to simulate.

HONOURS AND AWARDS

- **Second prizes** in Mechanical Olympiad for Students organized by Hanoi University of Science and Technology, 2015.
- **Third prizes** in Mechanical Olympiad for University Students organized by Vietnam Mechanical Society, 2015.
- **Third prizes** in Mechanical Olympiad for University Students organized by Vietnam Mechanical Society, 2014.
- Certificate of Appreciation for Volunteer by Efis & Hanoi Free Private Tour Guide, 2019.

PUBLICATIONS

- Nguyen Van Khang, Nguyen Phong Dien, Vu Duc Phuc, **Do The Duong**, Nguyen Thi Van Huong. Optimal position of absorbers in control of tranverse vibration Euler-Bermoulli beam. *Proc of the National Conference on Dynamic and Control, Da Nang, 2019.*
- Nguyen Van Khang, **Do The Duong**, Nguyen Duc Thu Dinh, Vu Duc Phuc, Nguyen Thi Van Huong. Optimal control of vibration by multiple tuned liquid dampers using Taguchi method. *Journal of Mechanical Science and Technology*, *JMST*, 2019.
- Nguyen Van Khang, Vu Duc Phuc, **Do The Duong**, Nguyen Thi Van Huong. A procedure for optimal design of a dynamic vibration absorber installed in the damped primary system based on Taguchi's method. *Vietnam Journal of Science and Technology*, 2018.
- Nguyen Van Khang, Vu Duc Phuc, Nguyen Thi Van Huong, **Do The Duong.** Optimal control of tranverse vibration Euler-Bernoulli beam by many dynamic vibration absorbers using Taguchi's method. *Vietnam Journal of Mechanics, VAST,* 2018.
- Nguyen Thi Van Huong, **Do The Duong**, Nguyen Van Khang, Nguyen Phong Dien. A modelling approach to determining the dynamic response of a cracked beam under moving loads. *Proc of the National Conference on Mechanic*, *Hanoi*, 2017.
- Nguyen Thai Minh Tuan, Pham Thanh Chung, **Do The Duong**, Phan Dang Phong. Dynamics and control of the automated coal sampling system used in the Song Hau 1's project. *Proc of the National Conference on Mechanic*, *Hanoi*, 2017.

HIGHLIGHT OF SKILLS

- Microsoft Office (Word, Excel, Power point).
- Background: Multibody Dynamics, Robotics, Control vibration systems.
- Fluent in Matlab/Simulink, Maple, CCS, C/ C++, Python.
- Use good design tool: AutoCAD, SolidWorks, Inventor, ANSYS.

REFERENCES

Prof. Nguyen Van Khang

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