

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM**  
**Độc lập - Tự do - Hạnh phúc**

**LÝ LỊCH KHOA HỌC**

(Dành cho ứng viên/thành viên các Hội đồng Giáo sư)



**1. Thông tin chung**

- Họ và tên: Nguyễn Xuân Hùng.
- Năm sinh: 1976
- Giới tính: Nam
- Trình độ đào tạo (TS, TSKH) (năm, nơi cấp bằng): TS, năm 2008, Bì.
- Chức danh Giáo sư hoặc Phó giáo sư (năm, nơi bổ nhiệm): .Giáo sư, năm 2019, Đại học Công nghệ TP.HCM

- Ngành, chuyên ngành khoa học: Cơ học, Cơ học tính toán
- Chức vụ và đơn vị công tác hiện tại (hoặc đã nghỉ hưu từ năm): Giám đốc Viện CIRTech
- Đại học Công nghệ TP.HCM
  - Chức vụ cao nhất đã qua: Viện trưởng
  - Thành viên Hội đồng Giáo sư cơ sở (nếu có) (năm tham gia, tên hội đồng, cơ sở đào tạo):
  - Thành viên Hội đồng Giáo sư ngành (nếu có) (năm tham gia, tên hội đồng, nhiệm kỳ): 2020, HĐGS Ngành cơ học nhiệm kỳ 2014-2018, 2018-2023.
  - Thành viên Hội đồng Giáo sư nhà nước (nếu có) (năm tham gia, tên hội đồng, nhiệm kỳ):

**2. Thành tích hoạt động đào tạo và nghiên cứu (thuộc chuyên ngành đang hoạt động)**

**2.1. Sách chuyên khảo, giáo trình**

- a) Tổng số sách: chủ biên 1 sách chuyên khảo, tham gia 1 sách giáo trình.
- b) Danh mục sách chuyên khảo, giáo trình trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (*tên tác giả, tên sách, nhà xuất bản, năm xuất bản, mã số ISBN, chỉ số trích dẫn*).

1. Nguyen Xuan Hung (2015) **Phân tích đẳng hình học. Cầu nối hợp nhất giữa mô hình mô phỏng và thiết kế.** NXB: ĐHQG TPHCM, ISBN: 9786047333028

2. Nguyen Thoi Trung, Nguyen Xuan Hung (2015), Phương pháp Phản tử hữu hạn sử dụng Matlab, NXB: Xây dựng, ISBN: 978-604-82-3398-3.

**2.2. Các bài báo khoa học được công bố trên các tạp chí khoa học**

- a) Tổng số đã công bố: 42 bài báo địa phương & báo cáo HN; 223 bài báo tạp chí quốc tế (SCIE, Scopus).
- b) Danh mục bài báo khoa học công bố trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (*tên tác giả, tên công trình, tên tạp chí, năm công bố, chỉ số IF và chỉ số trích dẫn - nếu có*):

2021

127. Vuong Nguyen-Van, Changlang Wu, Frank Vogel, Guomin Zhang, H. Nguyen-Xuan, Phuong Tran, Mechanical performance of fractal-like cementitious lightweight cellular structures: Numerical investigations, *Composite Structures*, 269, 1 August 2021, 114050.
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125. Van-Nam Hoang, Trung Pham, Duc Ho, H. Nguyen-Xuan, Robust multiscale design of incompressible multi-materials under loading uncertainties, *Engineering with Computer*, in press, 2021 (Q1) [Link](#)
124. P Tran, C Wu, M Saleh, LB Neto, H Nguyen-Xuan, AJM Ferreira, Composite structures subjected to underwater explosive loadings: A comprehensive review, *Composite Structures*, 263, 113684, 2021 (Q1) [Link](#)
123. C Peng, K Fox, M Qian, H Nguyen-Xuan, P Tran, 3D printed sandwich beams with bioinspired cores: Mechanical performance and modelling, *Thin-Walled Structures*, 161, 107471, 2021 (Q1) [Link](#)
122. X. Zhuang, H. Nguyen-Xuan, S. Zhou, The interaction between microcapsules with different sizes and propagating cracks, *CMC-Computers, Materials & Continua*, 67, 577-593, 2021 (Q1) [Link](#)
121. Van-Nam Hoang, Trung Pham, Sawekchai Tangaramvong, Stéphane P. A. Bordas, H. Nguyen-Xuan, Robust adaptive topology optimization of porous infills under loading uncertainties, *Structural and Multidisciplinary Optimization*, in press, 2021 (Q1) [Link](#)
120. Vuong Nguyen-Van, Biranchi Panda, Guomin Zhang, H. Nguyen-Xuan, Phuong Tran, Digital design computing and modelling for 3-D concrete printing, *Automation in Construction*, 123, 103529, 2020 (Q1) [Link](#)
119. Le Thanh Luan, Duc Thang Le, Hung Minh Ngo, Hung Quoc Nguyen, H. Nguyen-Xuan, Optimal design of an Origami-inspired kinetic façade by balancing composite motion optimization for improving daylight performance and energy efficiency, *Energy*, 219, 119557, 2021 (Q1). [Link](#)
118. Nam V. Nguyen, H. Nguyen-Xuan, Tan N. Nguyen, Joowon Kang, Jaehong Lee, A comprehensive analysis of auxetic honeycomb sandwich plates with with graphene nanoplatelets reinforcement, *Composite Structures*, 259, 113213, 2021 (Q1). [Link](#)
117. Thanh Cuong-Le, Khuong D. Nguyen, N. Nguyen-Trong, Samir Khatir, H. Nguyen-Xuan, M. Abdel Wahab, A three-dimensional solution for free vibration and buckling of annular plate, conical, cylinder and cylindrical shell of FG porous-cellular materials using IGA, *Composite Structures*, 259, 113216, 2021 (Q1). [Link](#)
116. M. Surendran, Changkye Lee, H. Nguyen-Xuan, G.R. Liu, Sundararajan Natarajan, Cell-based smoothed finite element method for modeling interfacial cracks with non-matching grids, *Fracture Engineering Mechanics*, 242, 107476, 2021 (Q1) [Link](#)

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## 2020

112. L. Benabou, T.A. Nguyen-Van, Q.B. Tao, V.N. Le, M. Ould Ouali, H. Nguyen-Xuan, Methodology for DIC-based evaluation of the fracture behaviour of solder materials under monotonic and creep loadings, *Engineering Fracture Mechanics*, 239, 107285, 2020 (Q1). [Link](#)

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106. Chuong Nguyen, Xiaoying Zhuang, Ludovic Chamoin, Xianzhong Zhao, H. Nguyen-Xuan, Timon Rabczuk, Three-dimensional topology optimization of auxetic metamaterial using isogeometric analysis and model order reduction, *Computer Methods in Applied Mechanics and Engineering*, 371, 11330, 2020 (Q1). [Link](#)

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101. Dieu T.T. Do, H. Nguyen-Xuan, Jaehong Lee, Material optimization of tri-directional functionally graded plates by using deep neural network and isogeometric multimesh design approach, Applied Mathematical Modelling, 87, 501-533, 2020 (Q1) [Link](#)
100. Vuong Nguyen-Van, Phuong Tran, Chenxi Peng, Luong Pham, Guomin Zhang, H. Nguyen-Xuan, Bioinspired cellular cementitious structures for prefabricated construction: Hybrid design & performance evaluations, Automation in Construction, 119, 103324, 2020 (Q1) [Link](#)
99. Khuong D. Nguyen, Charles E. Augarde, William M. Coombs, H. Nguyen-Xuan, M. Abdel-Wahab, Non-conforming multipatches for NURBS-based finite element analysis of higher-order phase-field models for brittle fracture, Engineering Fracture Mechanics, 235, 107133, 2020 (Q1) [Link](#)
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96. Duyen L.H. Nguyen, T.Q. Tao, Vu-Hieu Nguyen, M. Abdel-Wahab, H. Nguyen-Xuan, A data-driven approach based on long short-term memory and hidden Markov model for crack propagation prediction, Engineering Fracture Mechanics, 235, 107085, 2020 (Q1). [Link](#)
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94. Nam V. Nguyen, Lieu B. Nguyen, H. Nguyen-Xuan, Jaehong Lee, Analysis and active control of geometrically nonlinear responses of smart FG porous plates with graphene nanoplatelets, International Journal of Mechanical Sciences, 180, 105692, 2020 (Q1) [Link](#)
93. X. Zhuang, L.C. Nguyen, H. Nguyen-Xuan, N. Alajlan, T. Rabczuk, Efficient Deep Learning for Gradient-Enhanced Stress Dependent Damage Model, Applied Sciences, 10(7), 2556, 2020 (Q2) [Link](#)

92. Nam V. Nguyen, Dongkyu Lee, H. Nguyen-Xuan, Jaehong Lee, A polygonal finite element approach for fatigue crack growth analysis of interfacial cracks, *Theoretical and Applied Fracture Mechanics*, 108, 102576, 2020 (Q1) [Link](#)
91. Van-Nam Hoang, Ngoc-Linh Nguyen, Phuong Tran, Ma Qian, H. Nguyen-Xuan, Adaptive Concurrent Topology Optimization of Cellular Composites for Additive Manufacturing, *JOM*, 72, 2378–2390, 2020 (Q1) [Link](#)
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88. Nam Nguyen V., H. Nguyen-Xuan, Dongkyu Lee, Jaehong Lee, A novel computational approach to functionally graded porous plates with graphene platelets reinforcement, *Thin-Walled Structures*, 106684, 2020 (Q1) [Link](#)
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86. G. D. Huynh, X. Zhuang, H. G. Bui, G. Meschke, H. Nguyen-Xuan, Elasto-plastic large deformation analysis of multi-patch thin shells by isogeometric approach, *Finite Element Analysis and Design*, 173, 103389, 2020 (Q1) [Link](#)
85. Thanh Q. Nguyen, Hieu C. Doan, Luan C. Vuong, H. Nguyen-Xuan, Nhi K. Ngo, Fretting Fatigue Damage Nucleation and Propagation Lifetime Using a Central Point Movement of Power Spectral Density, *Shock and Vibration*, 4985134, 2020 (Q3) [Link](#)
84. Thang Duc-Le, Quoc-Hung Nguyen, H. Nguyen-Xuan, Balancing Composite Motion Optimization, *Information Sciences*, 520, 250-270, 2020 (Q1) [Link](#)
83. Hau Ngoc Nguyen, H. Nguyen-Xuan, M. Abdel-Wahab, A numerical investigation on the use of pervious concrete for seawall structures, *Ocean Engineering*, 198, 106954, 2020 (Q1) [Link](#)
82. Tan N. Nguyen, H. Nguyen-Xuan, Jaehong Lee, A novel data-driven nonlinear solver for solid mechanics using time series forecasting, *Finite Element Analysis and Design*, 171, 103377, 2020 (Q1) [Link](#)
81. P. Phung-Van, Chien H. Thai, M. Abdel-Wahab, H. Nguyen-Xuan, Optimal design of FG sandwich nanoplates using size-dependent isogeometric analysis, *Mechanics of Materials*, 142, 103277, 2020 (Q1) [Link](#)

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79. Thanh Q. Nguyen, Lam Q. Tran, H. Nguyen-Xuan, Nhi K. Ngo, A statistical approach for evaluating crack defects in structures under dynamic responses, *Nondestructive Testing and Evaluation*, in press, 2020 (Q2). [Link](#)
78. Hai D. Huynh, X. Zhuang, H. Nguyen-Xuan, A polytree-based adaptive scheme for modeling linear fracture mechanics using a coupled XFEM-SBFEM approach, *Engineering Analysis with Boundary Elements*, 115, 72-85, 2020 (Q1). [Link](#)
77. Dac-Khuong Bui, Tuan Nguyen, Tuan Ngo, H. Nguyen-Xuan, An artificial neural network (ANN) expert system enhanced with electromagnetism-based firefly algorithm (EFA) for predicting energy consumption in buildings, *Energy*, 190, 116370, 2020 (Q1). [Link](#)
76. Van-Nam Hoang, Ngoc-Linh Nguyen, H. Nguyen-Xuan, Topology Optimization of Coated Structure Using Moving Morphable Sandwich Bars, *Structural and Multidisciplinary Optimization*, 61, 491–506, 2020 (Q1). [Link](#)
75. Thanh Q. Nguyen, Luan C. Vuong, H. Nguyen- Xuan, Nhi K. Ngo, A new insight into sensitivity of natural frequency values towards stiffness degradation of beams having defects by vibration measurement signals, *Frontiers of Structural and Civil Engineering*, in press, 2020 (Q2). [Link](#)

## 2019

74. P. Phung-Van, Chien H. Thai, H. Nguyen-Xuan, Magd Abdel-Wahab, An isogeometric approach of static and free vibration analyses for porous FG nanoplates, *European Journal of Mechanics-A/Solids*, 78, 103851, 2019 (SCI, Q1). [Link](#)
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71. Duyen L.H. Nguyen, Dieu T Do, Jaehong Lee, T. Rabczuk, H. Nguyen-Xuan, Forecasting Damage Mechanics by Deep Learning, *Computers, Materials & Continua*, 61 (3), 951-977, 2019 (SCIE, Q1). [Link](#)
70. M.H. Jalaei, A.G. Arani, H. Nguyen-Xuan, Investigation of thermal and magnetic field effects on the dynamic instability of FG Timoshenko nanobeam employing nonlocal strain gradient theory, *International Journal of Mechanical Sciences*, 161-162, 105043, 2019 (SCI, Q1). [Link](#)

69. Dieu T. Do, Jaehong Lee, H. Nguyen-Xuan, Fast evaluation of crack growth path using time series forecasting, *Engineering Fracture Mechanics*, 218, 106567, 2019 (SCI, Q1). [Link](#)
68. Thanh Q. Nguyen, Thao D. Nguyen, H. Nguyen- Xuan, Nhi K. Ngo, A correlation coefficient approach for evaluation of stiffness degradation of beams under moving load, *Computers, Materials & Continua*, 61 (1), 27-53, 2019 (SCIE, Q1). [Link](#)
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65. Tan N. Nguyen, Seunghye Lee, H. Nguyen-Xuan, Jaehong Lee, A novel analysis-prediction approach for geometrically nonlinear problems using group method of data handling, *Computer Methods in Applied Mechanics and Engineering*, 354, 506-526, 2019 (SCI, Q1). [Link](#)
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63. Nam V. Nguyen, Jaehong Lee, H. Nguyen-Xuan, Active vibration control of GPLs-reinforced FG metal foam plates with piezoelectric sensor and actuator layers, *Composite Part B*, 172, 769-784, 2019 (SCI, Q1). [Link](#)
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61. Hau Nguyen-Ngoc, P. Phung-Van, Bao-Loi Dang, H. Nguyen-Xuan, Magd Abdel-Wahab, Static and dynamic analyses of three-dimensional hollow concrete block revetments using polyhedral finite element method, *Applied Ocean Research*, 88, 15-28, 2019 (SCIE, Q2). [Link](#)
60. Q.B. Tao, L. Benabou, T.A. Nguyen Van, H. Nguyen-Xuan, Isothermal aging and shear creep behavior of a novel lead-free solder joint with small additions of Bi, Sb and Ni, *Journal of Alloys and Compounds*, 789, 183-192, 2019 (SCI, Q1). [Link](#)
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55. Khai N. Chau, Phuong Tran, H. Nguyen-Xuan, Multi-material topology optimization for additive manufacturing using polytree-based adaptive polygonal finite elements, *Automation in Construction*, 99, 79-90, 2019 (SCIE, Q1). [Link](#)
54. Hien V. Do, H. Nguyen-Xuan, Computation of limit and shakedown loads for pressure vessel components using isogeometric analysis based on Lagrange extraction, *International Journal of Pressure Vessels and Piping*, 169, 57-70, 2019 (SCIE, Q2). [Link](#)
53. Hien V. Do, T. Lahmer, X. Zhuang, N. Alajlan, H. Nguyen-Xuan, T. Rabczuk, An isogeometric analysis to identify the full flexoelectric complex material properties based on electrical impedance curve, *Computers & Structures*, 214, 1-14, 2019 (SCI, Q1). [Link](#)
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- 2018**
48. Nam V. Nguyen, Hoang X. Nguyen, S. Lee, H. Nguyen-Xuan, Geometrically nonlinear polygonal finite element analysis of functionally graded porous plates, *Advances in Engineering Software*, 126, 110-126, 2018 (SCIE, Q1). [Link](#)
47. Dung T. Tran, Chien H. Thai, H. Nguyen-Xuan, A size-dependent functionally graded higher order plate analysis based on modified couple stress theory and moving Kriging meshfree method, *Computers, Materials & Continua*, 57, 447-483, 2018 (SCIE, Q1). [Link](#)

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### **2.3. Các nhiệm vụ khoa học và công nghệ (chương trình và đề tài tương đương cấp Bộ trả lên)**

a) Tổng số chương trình, đề tài đã chủ trì/chủ nhiệm: 3 cấp Nhà nước (đề tài Nafosted);.....2..... cấp Bộ và tương đương, 01 đề tài doanh nghiệp và 02 đề tài quốc tế.

b) Danh mục đề tài tham gia đã được nghiệm thu trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (*tên đề tài, mã số, thời gian thực hiện, cấp quản lý đề tài, trách nhiệm tham gia trong đề tài*):

### **2.4. Công trình khoa học khác (nếu có)**

a) Tổng số công trình khoa học khác:

- Tổng số có: ..... sáng chế, giải pháp hữu ích
- Tổng số có: ..... tác phẩm nghệ thuật
- Tổng số có: ..... thành tích huấn luyện, thi đấu

b) Danh mục bằng độc quyền sáng chế, giải pháp hữu ích, tác phẩm nghệ thuật, thành tích huấn luyện, thi đấu trong 5 năm trở lại đây (*tên tác giả, tên công trình, số hiệu văn bằng, tên cơ quan cấp*):

### **2.5. Hướng dẫn nghiên cứu sinh (NCS) đã có quyết định cấp bằng tiến sĩ**

a) Tổng số: ....05... NCS đã hướng dẫn chính

b) Danh sách NCS hướng dẫn thành công trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (*Họ và tên NCS, đề tài luận án, cơ sở đào tạo, năm bảo vệ thành công, vai trò hướng dẫn*):

1. Thái Hoàng Chién, Phân tích đẳng hình học kết cấu, ĐHQGTP.HCM, 2015, hướng dẫn chính.

2. Phùng Văn Phúc, Phân tích đẳng hình học kết cấu thông minh, ĐH Ghent (Bỉ), 2016, đồng hướng dẫn chính.

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## **3. Các thông tin khác**

### **3.1. Danh mục các công trình khoa học chính trong cả quá trình** (Bài báo khoa học, sách chuyên khảo, giáo trình, sáng chế, giải pháp hữu ích, tác phẩm nghệ thuật, thành tích huấn luyện, thi đấu...; khi liệt kê công trình, có thể thêm chú dẫn về phân loại tạp chí, thông tin trích dẫn...):

A. Chương sách xuất bản quốc tế:

B. Bài báo SCIE: (danh sách đầy đủ: <http://www.researcherid.com/rid/A-3817-2009>)

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### **3.2. Giải thưởng về nghiên cứu khoa học trong và ngoài nước (nếu có):**

- Giải thưởng Đại học quốc gia (2008-2013)
- Giải thưởng Nguyễn Văn Đạo (2011)
- Giải thưởng Humboldt (2016)
- Outstanding Humboldtians Awards (2019)

### **3.3. Các thông tin về chỉ số định danh ORCID, hồ sơ Google scholar, H-index, số lượt trích dẫn (nếu có):**

<http://scholar.google.com.vn/citations?user=3iK9h-gAAAAJ&hl=en>

<http://www.scopus.com/authid/detail.uri?authorId=24503383800>

<https://orcid.org/0000-0002-1746-8297>

### **3.4. Ngoại ngữ**

- Ngoại ngữ thành thạo phục vụ công tác chuyên môn: Anh, Đức.
- Mức độ giao tiếp bằng tiếng Anh: Thành thạo

*Tôi xin cam đoan những điều khai trên là đúng sự thật, nếu sai tôi xin hoàn toàn chịu trách nhiệm trước pháp luật.*

*Hồ Chí Minh, ngày 20 tháng 5 năm 2021.*

**NGƯỜI KHAI**  
*(Ký và ghi rõ họ tên)*



Nguyễn Xuân Hùng