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:..... Hoàng Mạnh Thắng..

- Năm sinh:.............. 03/11/1975...

- Giới tính: ....Nam..

- Trình độ đào tạo (TS, TSKH) (năm, nơi cấp bằng): TS, năm cấp bằng: 2007, Trường ĐH Công nghệ Nagaoka, Nhật Bản.

- Chức danh Giáo sư hoặc Phó giáo sư (năm, nơi bổ nhiệm): …
…………………….PGS, năm 2011, Bổ nhiệm tại ĐH Bách khoa Hà nội.

- Ngành, chuyên ngành khoa học: ...... Điện tử-viễn thông.....................................

- Chức vụ và đơn vị công tác hiện tại (hoặc đã nghỉ hưu từ năm): Giảng viên tại Trường Điện - Điện tử, Đại học Bách khoa Hà nội...

- Chức vụ cao nhất đã qua: Phó giám đốc Trung tâm đảm bảo chất lượng………..

- Thành viên Hội đồng Giáo sư cơ sở (nếu có) (năm tham gia, tên hội đồng, cơ sở đào tạo): Năm 2015-Hội đồng xét chức danh cơ sở nhóm ngành điện-điện tử-CNTT, năm 2021 Hội đồng xét chức danh cơ sở nhóm ngành điện-điện tử, năm 2022 Hội đồng xét chức danh cơ sở nhóm ngành điện-điện tử-CNTT, 2023 Hội đồng xét chức danh cơ sở nhóm ngành điện-điện tử-CNTT-toán học.

- Thành viên Hội đồng Giáo sư ngành (nếu có) (năm tham gia, tên hội đồng, nhiệm kỳ):..

- 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 đã chủ biên: .... sách chuyên khảo;   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).*

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

a) Tổng số đã công bố: 12 bài báo tạp chí trong nước; 35 bài báo tạp chí quốc tế.

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):*

1. **Thang Manh Hoang** (2022) A novel design of multiple image encryption using perturbed chaotic map, Multimedia Tools and Applications, 81 (18), 26535 - 26589 (online, SCIE, IF=2.757).

2. BH Phong, **Thang Manh Hoang**, Le, TL (2022) An end-to-end framework for the detection of mathematical expressions in scientific document images, Expert Systems 39 (1), e12800 (SCIE, IF=2.587).

3. N Abdoun, S El Assad, **Thang Manh Hoang**, O Deforges, R Assaf, M Khalil (2021), Authenticated Encryption Based on Chaotic Neural Networks and Duplex Construction, Symmetry 13 (12), 2432 (SCIE, IF=2.713).

4. Doan Thi Que, Nguyen Xuan Quyen, **Thang Manh Hoang** (2021), Performance of Improved-DCSK System over Land Mobile Satellite Channel under Effect of Time-reversed Chaotic Sequences, Physical Communications, vol.47, pp. 101342. (SCIE, IF=1.594)

5. Doan Thi Que, Nguyen Xuan Quyen, Thang Manh **Hoang**, Christos Volos, Stevan Berber (2021), Effect of Time-reversed Chaotic Sequences on Performance of 2T2R-IDCSK System, International journal of bifurcation and chaos (IJBC), vol.31 (5), pp. 2150069. (SCI, IF=2.469).

6. Phong, BH., **Thang Manh Hoang**, Le, TL. (2021), Mathematical Variable Detection in Document Images, International Journal of Computational Vision and Robotics, vol.11, no.1, pp.66-89. DOI: 10.1504/IJCVR.2021.10033649 (Scopus).

7. Nabil Abdoun, Safwan El Assad, **Thang Manh Hoang**, Olivier Deforges, Rima Assaf, Mohamad Khalil. (2020), Designing Two Secure Keyed Hash Functions Based on Sponge Construction and Chaotic Neural Network, Entropy 22 (9), 1012. (SCIE, IF=2.494)

8. Bui Hai Phong, **Thang Manh Hoang**, Le Thi Lan (2020) A hybrid method for mathematical expression detection in scientific document images, IEEE Access, vol. 8, pp. 83663 - 83684 (DOI: 10.1109/ACCESS.2020.2992067) (SCIE, IF=3.745)

9. **Thang Manh Hoang**, Safwan El Assad (2020), Novel Models of Image Permutation and Diffusion based on Perturbed Digital Chaos, Entropy 22(5), pp. 548. (SCIE, IF=2.469).

10. Que Doan Thi, Quyen Nguyen Xuan, **Thang Manh Hoang**, (2020) Performance Analysis for DCSK System over Land Mobile Satellite Channel, The International Journal of Systems, Control and Communications (IJSCC), vol.11.no.4, pp. 396-415. DOI: 10.1504/IJSCC.2020.10031957 (Scopus).

11. Hue, T.T.K, **Thang Manh Hoang**, Braeken, A., Steenhaut, K. (2020). Key-Dependent Permutation Layer Based on Two Dimensional Discretised Chaotic Maps for Lightweight Block Ciphers, International Journal of Internet Technology and Secured Transactions, vol.10, no.3, pp. 304–321. (DOI: 10.1504/IJITST.2020.107077). (Scopus)

12. Dalia Battikh, Safwan El Assad, **Thang Manh Hoang**, Bassem Bakhache, Olivier Deforges, and Mohamad Khalil (2019), Comparative study of three steganographic methods using a chaotic system and their universal steganalysis based on three feature vectors, Entropy 21, 748. (SCIE, IF=2.494)

13. **Thang Manh Hoang**, Thanh, H.X. (2019), A Novel Cryptosystem Using Dynamics Perturbation of Logistic Map, Journal of Science and Technology (published by 7 technical universities in Vietnam), vol. 139, pp. 024-030.

14. **Thang Manh Hoang**, Thanh, H.X. (2018). Cryptanalysis and security improvement for a symmetric color image encryption algorithm. International Journal for Light and Electron Optics (Optik), vol. 155, pp. 366–383. (SCI, IF=2.187)

- Trong nước: 1 bài...

- Quốc tế: ....13 bài..

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

a) Tổng số chương trình, đề tài đã chủ trì/chủ nhiệm: 01 chương trình, 01 cấp Nhà nước; 04 cấp Bộ và tương đương.

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):*

PHƯƠNG PHÁP MẬT MÃ DỮ LIỆU ẢNH DỰA TRÊN HỖN LOẠN VÀ THIẾT KẾ TRÊN PHẦN CỨNG, 102.04-2018.06, 2018-2020, Bộ Khoa học và Công nghệ (Quĩ Nafosted), Chủ nhiệm đề tài.

NGHIÊN CỨU PHƯƠNG PHÁP NÂNG CAO BẢO MẬT TRONG TRUYỀN TIN SỬ DỤNG KỸ THUẬT HỖN LOẠN, 102.02-2012.27, 2014-2016, Bộ Khoa học và Công nghệ (Quĩ Nafosted), Chủ nhiệm đề tài.

PHƯƠNG PHÁP MẬT MÃ DỮ LIỆU ẢNH DỰA TRÊN HỖN LOẠN VÀ THIẾT KẾ TRÊN PHẦN CỨNG, 102.04-2018.06, 2018-2021, Bộ Khoa học và Công nghệ (Quĩ Nafosted), Chủ nhiệm đề tài.

....

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

a) Tổng số công trình khoa học khác:

- Tổng số có: 01 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) Tạ Thị Kim Huệ, Nghiên cứu hệ mật mã khối dựa trên hỗn loạn rời rạc, Trường ĐH Bách khoa Hà nội, 2017, Hướng dẫn chính.

(2) Đặng Thái Sơn, Phân tích và phát hiện tiếng nói dựa trên đặc tính động phi tuyến, Trường ĐH Bách khoa Hà nội, 2017, Hướng dẫn chính.

(3) Hoàng Xuân Thành, Mật mã dữ liệu ảnh ứng dụng kỹ thuật hỗn loạn, Trường ĐH Bách khoa Hà nội, 2020, Hướng dẫn chính.

(4) Đoàn Thị Quế, Nghiên cứu hiệu năng các hệ thống DCSK dưới ảnh hưởng của chuỗi hỗn loạn đảo ngược thời gian và kênh vệ tinh di động mặt đất, Trường ĐH Bách khoa Hà nội, 2021, Hướng dẫn chính.

(5) Bùi Hải Phong, Nghiên cứu nâng cao hiệu quả phát hiện công thức toán học trong ảnh văn bản, Trường ĐH Bách khoa Hà nội, 2021, Hướng dẫn chính.

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...)*:

Bài báo tạp chí:

1. Thang Manh Hoang (2022) A novel design of multiple image encryption using perturbed chaotic map, Multimedia Tools and Applications, 81 (18), 26535 - 26589 (online, SCIE, IF=2.757).

2. BH Phong, Thang Manh Hoang, Le, TL (2022) An end-to-end framework for the detection of mathematical expressions in scientific document images, Expert Systems 39 (1), e12800 (SCIE, IF=2.587).

3. N Abdoun, S El Assad, Thang Manh Hoang, O Deforges, R Assaf, M Khalil (2021), Authenticated Encryption Based on Chaotic Neural Networks and Duplex Construction, Symmetry 13 (12), 2432 (SCIE, IF=2.713).

4. Doan Thi Que, Nguyen Xuan Quyen, Thang Manh Hoang (2021), Performance of Improved-DCSK System over Land Mobile Satellite Channel under Effect of Time-reversed Chaotic Sequences, Physical Communications, vol.47, pp. 101342 (SCI).

5. Doan Thi Que, Nguyen Xuan Quyen, <u>Thang Manh Hoang</u>, Christos Volos, Stevan Berber (2021) Effect of Time-reversed Chaotic Sequences on Performance of 2T2R-IDCSK System, International journal of bifurcation and chaos (IJBC), vol.31, iss.5, pp. 2150069 (SCI).

6. Phong, BH., <u>Hoang, TM.</u>, Le, TL. (2021), Mathematical Variable Detection in Document Images, International Journal of Computational Vision and Robotics, vol.11, no.1, pp.66-89 (Scopus). DOI: 10.1504/IJCVR.2021.10033649

7. Nabil Abdoun, Safwan El Assad, <u>Thang Manh Hoang</u>, Olivier Deforges, Rima Assaf, Mohamad Khalil. (2020), Designing Two Secure Keyed Hash Functions Based on Sponge Construction and Chaotic Neural Network, Entropy 22 (9), 1012 (SCIE).

8. Que Doan Thi, Quyen Nguyen Xuan, Thang Manh Hoang, (2020) Performance Analysis for DCSK System over Land Mobile Satellite Channel, The International Journal of Systems, Control and Communications (IJSCC), vol.11.no.4, pp. 396-415 (Scopus). DOI: 10.1504/IJSCC.2020.10031957

9. Bui Hai Phong, <u>Hoang Manh Thang</u>, Le Thi Lan (2020) A hybrid method for mathematical expression detection in scientific document images, IEEE Access, vol. 8, pp. 83663 - 83684 (DOI: 10.1109/ACCESS.2020.2992067) (SCIE)

10. Thang Manh Hoang, Safwan El Assad (2020), Novel Models of Image Permutation and Diffusion based on Perturbed Digital Chaos, *Entropy* 22(5), 548. (SCIE)

11. Hue, T.T.K, <u>Hoang, T.M.</u>, Braeken, A., Steenhaut, K. (2020). Key-Dependent Permutation Layer Based on Two Dimensional Discretised Chaotic Maps for Lightweight Block Ciphers, International Journal of Internet Technology and Secured Transactions, vol.10, no.3, pp. 304–321 (Scopus, DOI: 10.1504/IJITST.2020.107077)

12. Hoang, T.M., Thanh, H.X. (2019), A Novel Cryptosystem Using Dynamics Perturbation of Logistic Map, *Journal of Science and Technology (published by 7 technical universities in Vietnam),* vol. 139, pp. 024-030.

13. Dalia Battikh, Safwan El Assad, <u>Thang Manh Hoang</u>, Bassem Bakhache, Olivier Deforges, and Mohamad Khalil (2019), Comparative study of three steganographic methods using a chaotic system and their universal steganalysis based on three feature vectors, *Entropy* 21, 748. (SCIE)

14. <u>Hoang, T.M.</u>, Thanh, H.X. (2018). Cryptanalysis and security improvement for a symmetric color image encryption algorithm. *International Journal for Light and Electron Optics (Optik),* vol. 155, pp. 366–383. (SCIE)

15. Que, D.T., Thai, N.T., Quyen, N.X., <u>Thang, H.M.</u> (2017). Evaluation of Bit-error-rate performance for DCSK system over land mobile satellite channel, *The University of Danang, Journal of Science and Technology*, vol. 4 (11), pp. 50-54.

16. Tahir, F.R., Abdul-Hassan, K.M., Abdullah, M.A., Pham, V.T., <u>Hoang, T.M.</u>, Wang X. (2017). Analysis and Stabilization of Chaos in Permanent Magnet DC Motor Driver. *International Journal of Bifurcation and Chaos*, vol. 27, pp. 1750173. (SCI)

17. Que, D.T., Quyen, N.X., <u>Hoang, T.M.</u> (2017). Discrete-time Modeling and Numerical Evaluation of BER Performance for a BPSK-based DCSK-Walsh Coding Communication System over Multipath Rayleigh Fading Channels. Journal of Science and Technology *(published by 7 technical* universities *in Vietnam),* vol. 120, pp. 099-103.

18. Son, D.T., <u>Hoang, T.M.</u> (2017) An endpoint detection technique for voice and nonvoice recognition. *Journal of Science and Technology (published by 7 technical universities in Vietnam)*, vol. 115, pp. 45-50.

19. Thanh, H.X., <u>Hoang, T.M.</u> (2017). Cryptanalysis of a Symmetric Color Image Encryption with One-round Encryption, *ASEAN Engineering Journal, 5 (1). (Part A: CIE, EEE, EneE & ME/ManuE)*, pp. 34-55. (Scopus)

20. Hue, T.T.K., <u>Hoang, T.M.</u> (2017). Complexity and properties of a multidimensional Cat-Hadamard map for pseudo random number generation. *The European Physical Journal Special Topics (EPJ-ST),* vol.226, issue 10, pp. 2263-2280. (SCI)

21. Hue, T.T.K., <u>Hoang, T.M.</u>, Braeken, A., Steenhaut, K. (2017). On constructions of Key-dependent Maximum Distance Separable (MDS) matrices based on Cat matrices, *International Journal for Light and Electron Optics (Optik),* vol. 131, pp. 454-466. (SCI)

22. <u>Hoang, T.M.</u>, Palit, S.K., Mukherjee, S., Banerjee S. (2016). Synchronization and secure communication in time delayed semiconductor laser systems. *International Journal for Light and Electron Optics (Optik),* vol. 127 *(22),* pp. 10930-10947 (SCI).

23. Son, D.T., Mukherjee, S., <u>Hoang, T.M.</u>, Banerjee, S. (2016). Recognition of speech signals using recurrence nonlinear dynamics. *Journal of Science and Technology (published by 7 technical universities in Vietnam),* vol. 113, pp.70-75.

24. Son, T.N., Dung, N.T., <u>Hoang, T.M.</u>, Nguyen Minh Dung (2016). Utilization of fractal compression approach for intra prediction in H.264 standard. *Journal of Science and Technology (published by 7 technical universities in Vietnam),* vol. 113, pp.62-69.

25. Hue, T.T.K., <u>Hoang, T.M.</u>, Braeken, A., Steenhaut K. (2016). Design of the chaos-based diffusion layer for Lightweight block cipher. *Journal of Science and Technology (established by 7 technical universities in Vietnam)*, vol. 113, pp. 86-92.

26. Pham, V.-T., Vaidyanathan, S., Volos, C.K., Jafari, S., Kuznetsov, N.V., <u>Hoang, T.M.</u> (2016). A novel memristive time–delay chaotic system without equilibrium points. The *European Physical Journal Special Topics (EPJ-ST),* vol. 225, pp. 127–136 (SCI)

27. Dang, T.S., Palit, S.K., Mukherjee, S., <u>Hoang, T.M.</u>, Banerjee, S. (2016). Complexity and Synchronization in Stochastic chaotic systems. *The European Physical Journal Special Topics (EPJ-ST),* vol. 225, pp. 159–170 (SCI)

28. Truong, N., de Souza-Daw, T., Ross, R., Dzung, N. T., & <u>Hoang, T.M.</u> (2015). Self-healing memory hardware architecture on field programmable gate array.

ASEAN Engineering Journal, vol. *5 (1). (Part A: CIE, EEE, EneE & ME/ManuE)*, pp. 39-55. (Scopus)

29. Hoang, T.M., Quang, H. N., de Souza-Daw, T., Ngoc, L. H., & Dzung, N. T. (2015). Implementation of Low cost FPGA remote laboratory. *ASEAN Engineering Journal*, vol. 5 (1). *(Part A: CIE,* EEE*, EneE & ME/ManuE)*, pp. 56-76. (Scopus)

30. Son, T. N., Hoang, T.M., & Dzung, N. T., Dung, N.M., Thang, P.N. (2015). Fast implementation of fractal image compression. *Journal of Military Science and Technology*, vol. 35 (2), pp. 88-96.

31. Hoang, T.M. & Tran, D. (2014). Cryptanalysis and security improvement for selective image encryption. *The European Physical Journal Special Topics (EPJ-ST)*, vol. 223 (8), pp. 1635-1646. (SCI)

32. Quyen, N. X., Yem, V. V., & Hoang, T.M. (2013). A chaos-based secure direct-sequence/spread-spectrum communication system. *Abstract and Applied Analysis*, vol. 2013, Article ID 764341, 11 pages. (Scopus)

33. Quyen, N. X., Yem, V. V., & Hoang, T.M. (2012). A chaotic pulse time modulation method for digital communication. *Abstract and Applied Analysis*, vol. 2012, Article ID 835304. (Scopus)

34. Quyen, N. X., Yem, V. V., Hoang, T.M., & Kyamakya, K. (2013). M-ary chaotic pulse width position modulation. *COMPEL - The international journal for computation and mathematics in electrical and electronic engineering*, vol. 32 (3), pp. 776-793. (SCIE)

35. Pham, V.-T., Frasca, M., Caponetto, R., Hoang, T.M., & Fortuna, L. (2012). Control and synchronization of fractional-order differential equations of phase-locked loop. *International Journal of CMSIM*, vol. 2012, pp. 623-631.

36. Quyen, N. X., Yem, V. V., & Hoang, T.M. (2011). Improvement of bit rate using m-ary chaotic pulse position modulation. *REV Journal on Electronics and Communications (REV-JEC),* vol. 1 (3), pp. 183-190.

37. Hoang, T.M. (2011). Complex synchronization manifold in coupled time-delayed systems. *Chaos, Solitons & Fractals*, vol. 44 (13), pp. 48 - 57. (SCI).

38. Hoang, T.M. (2010). A new secure communication model based on synchronization of coupled multidelay feedback systems. *International Journal of Electrical and* Electronics *Engineering (IJEEE)*, vol. 4 (3), pp. 240-246.

39. Hoang, T.M. (2009). Transition among synchronous schemes in coupled nonidentical multiple time delay systems. *Chaos, Solitons & Fractals*, vol. 42 (2), pp. 938 - 950. (SCI)

40. Hoang, T.M. & Nakagawa, M. (2008). A secure communication system using projective-lag and/or projective-anticipating synchronizations of coupled multidelay feedback systems. *Chaos, Solitons & Fractals*, vol. 38 (5), pp. 1423 - 1438. (SCI)

41. Khoa, T. Q. D., Thang, H. M., & Nakagawa, M. (2008). Testing for nonlinearity in functional near-infrared spectroscopy of brain activities by surrogate data methods. *The Journal of Physiological Sciences*, vol. 58 (1), pp. 47-52. (SCI)

42. Hoang, T.M. & Nakagawa, M. (2007). Anticipating and projective anticipating synchronization of coupled multidelay feedback systems. *Physics Letters A*, 365 (56), pp. 407 - 411. (SCI)

43. Hoang, T.M. & Nakagawa, M. (2007). Synchronization of coupled nonidentical multidelay feedback systems. *Physics Letters A*, vol. 363 (3), pp. 218 - 224. (SCI)

44. Thang, T. M., Son, N. V., & Nagakawa, M. (2007). Application of chaos synchronization of multiple feedback systems in secure communications. *Journal of Science and Technology*, vol. 59, pp. 14-18.

45. Hoang, T.M. & Nakagawa, M. (2006). Enhancing security for chaos-based communication system with change in synchronization manifolds' delay and in encoder's parameters. *Journal of the Physical Society of Japan*, vol. 75 (6), p. 064801. (SCI)

46. Hoang, T.M. & Nakagawa, M. (2006). New encoding model for chaos-based secure communication. *Journal of the Physical Society of Japan*, vol. 75 (3), p. 034801. (SCI)

47. Hoang, T.M. & Nakagawa, M. (2006). Projective-lag synchronization of coupled multidelay feed-back systems. *Journal of the Physical Society of Japan*, vol. 75 (9), p. 094801. (SCI)

48. Son, N. V. & Thang, H.M. (2005). Reed-solomon decoding and synthesis for reed-solomon decoder RS(255,239,8) using euclid's algorithm. Journal of Science and Technology, vol. 51, p. 46-49.

49. Hoang, T.M., Minh, D. T., & Nakagawa, M. (2005). Chaos synchronization of multi-delay feedback systems with multi-delay driving signal. *Journal of the Physical Society of Japan*, 74 (8), 2374-2378. (SCI)

50. Son, N. V. & Thang, H.M. (2003). Design for reed-solomon encoder RS(255,239,8). *Journal of Science and Technology*, vol. 44+45, pp. 21-25.

Bài báo hội thảo:

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

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

ORCID: 0000-0003-3555-5682

https://scholar.google.com/citations?hl=en&user=NR7nXp4AAAAJ

H-index: 15

Số lượt trích dẫn: 832

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3.4. Ngoại ngữ

- Ngoại ngữ thành thạo phục vụ công tác chuyên môn: Tiếng Anh ....

- Mức độ giao tiếp bằng tiếng Anh: lưu loát (nghe, nói, đọc, viết) ....

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

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Hà nội, ngày 07 tháng 5 năm 2023.
NGƯỜI KHAI
(Ký và ghi rõ họ tên)

PGS. Hoàng Mạnh Thắng

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