



SCIENTIFIC CURRICULUM VITAE

1. Personal details

Full name: Van – Dung Hoang Date of birth: 22/8/1980
Academic title: Associate professor, Ph.D. Sex: Male
Administrative position: Senior Lecturer
Department: Information Technology
Institution: Ho Chi Minh City University of Technology and Education
Address: 01 Vo Ngan str., Linh Chieu ward, Thu Duc city
City/prov: Ho Chi Minh City
Telephone: Cell phone: 09117759
Working e-mail: dunghv@hcmute.edu.vn
Personal site(s): GG Scholar: <https://scholar.google.com/citations?user=atNIuVQAAAAJ>
OrCID: <https://orcid.org/0000-0001-7554-1707>
Research gate: www.researchgate.net/profile/Hoang-Van-Dung

2. Qualifications:

STT	Years	Academic institutions	Major/Specialty	Academic degree
1	9/1998-7/2002	Hue University, Vietnam	Informatics	Bachelor of Informatics
2	9/2005-7/2008	Hanoi National University of Education, Vietnam	Computer science	Master of Computer Science
3	3/2011 – 12/2014	University of Ulsan, Korea	Information systems	Ph.D. of Electrical Engineering

3. Professional experience:

STT	Years	Institution	Professional address	Position
1	2002 - 2020	Quang Binh University, Vietnam	Dong Hoi city, Quang Binh	Lecturer
2	2011 – 2014	University of Ulsan, Korea	Ulsan, Korea	PhD. student
3	2015	University of Ulsan, Korea	Ulsan, Korea	Visiting researcher
4	2016	Telecom SudParis, France	Evry, Paris, France	Postdoctoral
5	2020- now	HCMC University of Technology and Education	HCMC, Vietnam	Senior lecturer

4. Language (rating: A- Poor/deficient; B- Fair; C- Sufficient; D- Fluent)

Language	Reading	Writing	Speaking
English	C	C	C
Other language			

5. Expertise and research interests

5.1. Main research orientation



- Medical image processing, pattern recognition, visual odometry, localization, laser ranger finder and vision-based robotics.

- Intelligent healthcare systems, human-machine interaction, intelligent security surveillance systems, autonomous vehicle.

- Machine learning: Deep neural network/Convolution neural network, Hybrid of machine, SVM, Adaboost, Random forest, Conditional random field

5.2. List of research projects:

List all the research grants/projects:

No	Project ID and Project name	Funding institution & funded amount	Project duration	Project evaluation ranking	Position/ role in the project
1	Research and development of deep neural networks towards the applications of object detection	NAFOSTED-The National Foundation for Science and Technology Development, Vietnam	2020/ 2022		Scientific Secretary
2	Virtual tour development of famous places in Quang Binh using panoramic stitching, 3D interaction and modern web technology	Quang Binh People's Committee, Vietnam	2019/ 2020	Good	Chief
3	Development of an intelligent system for ambient understanding applied to autonomous navigation in outdoor environment	NAFOSTED-The National Foundation for Science and Technology Development, Vietnam	2016/ 2018	Good	Chief
4	Deep neural network learning-based melanoma skin cancer diagnosis	Quang Binh University	2017	Good	Chief
5	Proposal a computer vision- based surveillance system applied to secured to office building in Quang Binh province	Quang Binh People's Committee, Vietnam	2015/ 2017	Good	Chief
6	Proposal on the Cooperative Modulation-Based Cooperative Spectrum Sharing Models: Allowing for spectrum whitespace to be used based on modulation-based dimension	NAFOSTED-The National Foundation for Science and Technology Development, Vietnam	2015/ 2017	Good	Member
7	Multi -sensor fusion in 3D dimensional for Intelligent space	Hyundai Heavy Industries Co., Ltd.	2013/ 2014	Good	Member
8	Three-dimensional reconstruction based on mirror surface geometry and motion studies	National Research Foundation of Korea (Ministry of Education)	2013/ 2014	Good	Member
9	Intelligent eco-friendly car-washing system development	Korea Industrial Technology Association	2013/ 2014	Good	Member
10	3D sensor and vision-based human/object recognition technology for the intelligent robot	Industry Promotion Agency	2011/ 2014	Good	Member
11	Development of web system for training management of Quang Binh University.	Quang Binh University	2009/ 2010	Good	Chief
12	Development of software system for training management of Quang Binh University	Quang Binh University	2006	Good	Chief



5.3. Publications

No	Authors	Year	Publications	Name of Journal/ Conference, publishers/ No, Vol, Page	ISSN/ ISBN	Doi/ Link	Notes
1	Article(s) in WoS-covered journal						
1.1	T.C. Pham, C.M. Luong, V.D. Hoang, A. Doucet	2021	AI outperformed every dermatologist in dermoscopic melanoma diagnosis, using an optimized deep-CNN architecture with custom mini-batch logic and loss function	Scientific Reports	2045-2322	10.1038/s41598-021-96707-8	
1.2	D.P. Tran, G.N. Nguyen, V.D Hoang*	2020	Hyperparameter Optimization for Improving Recognition Efficiency of an Adaptive Learning System	IEEE Access	2169-3536	10.1109/ACC ESS.20203020930	
1.3	T.C. Pham, A. Doucet, C.M. Luong, C.T Tran, V. D. Hoang*	2020	Improving Skin-Disease Classification Based on Customized Loss Function Combined With Balanced Mini-Batch Logic and Real-Time Image Augmentation	IEEE Access	2169-3536	10.1109/ACC ESS.20203016653	
1.4	M.H.Le, V.D.Hoang, V. Andrey, K.H.Jo	2013	One-point-plus for 5-DOF localization of vehicle-mounted omnidirectional camera in long-range motion	International Journal of Control, Automation and Systems	1598-6446	10.1007/s12555-012-9406-8	
1.5	V.D.Hoang*, M.H.Le, K.H.Jo	2014	Hybrid cascade boosting machine using variant scale blocks based HOG features for pedestrian detection	Neurocomputing	0925-2312	10.1016/j.neucom.2013.12.017	
1.6	K. Laksono, V.D.Hoang, K.H.Jo	2015	Calibration of a 2D laser scanner system and rotating platform using a point-plane constraint	Computer Science and Information Systems	1820-0214	10.2298/CSIS141020093K	
1.7	V.D.Hoang*, K.H.Jo	2015	Automatic calibration of camera and LRF based on morphological pattern and optimal angular back-projection error	International Journal of Control, Automation and Systems	1598-6446	10.1007/s12555-014-0287-x	
1.8	V.D.Hoang*, K.H.Jo	2016	A Simplified Solution to Motion Estimation Using an Omnidirectional Camera and a 2-D LRF Sensor	IEEE Transactions on Industrial Informatics	1551-3203	10.1109/TII.2016.2547869	
1.9	V.D.Hoang*, K.H.Jo	2016	Joint components based pedestrian detection in crowded scenes using extended feature descriptors	Neurocomputing	0925-2312	10.1016/j.neucom.2014.11.104	
1.10	M.H.Le, T.H.Hon, V.D.Hoang, K.H.Jo	2016	Automated architectural reconstruction using reference planes under convex optimization	International Journal of Control, Automation and Systems	1598-6446	10.1007/s12555-014-0203-4	
1.11	V.D.Hoang*, M.H.Le, K.H.Jo	2017	Motion Estimation Based on Two Corresponding Points and Angular Deviation Optimization	IEEE Transactions on Industrial Electronics	0278-0046	10.1109/TIE.2017.2703891	
1.12	P.V.Pharm, K.H.Jo, V.D.Hoang*	2019	Scalable local features and hybrid classifiers for improving action recognition	Journal of Intelligent & Fuzzy Systems	1064-1246	10.3233/JIFS-181085	
1.13	D.P.Tran, V.D.Hoang*	2019	Adaptive learning based on tracking and reidentifying objects using convolutional neural network	Neural Processing Letters	1370-4621	10.1007/s11063-019-10040-w	



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2 Article(s) in Scopus-covered journal							
2.1	T.C.Phạm, C-M. Luong, A.Doucet, V.D. Hoang, D-P.Tran, D.H. Le	2020	Meta-analysis of computational methods for breast cancer classification	Int. Journal of Intelligent Information and Database Systems	1751-5858	10.1504/IJIID S.2020.108226	
2.2	H. Joko, V.D.Hoang, K.H.Jo	2014	Moving object localization using optical flow for pedestrian detection from a moving vehicle	Scientific World Journal	2356-6140	10.1155/2014/196415	
2.3	V.D.Hoang*, K.H.Jo	2015	Path planning for autonomous vehicle based on heuristic searching using online images	Vietnam Journal of Computer Science	2196-8888	10.1007/s40595-014-0035-4	
3 Article(s) in other international journal							
3.1	V.D.Hoang	2017	Multiple classifier-based spatiotemporal features for living activity prediction	Journal of Information and Telecommunication	2475-1839	10.1080/24751839.2017.1295668	
4 Article(s) in National scientific journal							
4.1	T.T.A. Loan, P.T. Anh, L.V. Nam, H.V. Dung	2022	An effective deep learning model for recognition of animals and plants	Journal of Computer Science and Cybernetics	1813-9663		
4.2	V.D.Hoang*, M.H.Le, K.H.Deok, K.H.Jo	2015	Local descriptors based random forests for human detection	Tạp chí Phát triển Khoa học và Công nghệ-ĐH Quốc gia HCM		10.32508/stdj.v18i3.902	
4.3	D.P.Tran, V.D.Hoang*, T.C.Phạm, C.M.Luong	2018	Pedestrian activity prediction based on semantic segmentation and hybrid of machines	Journal of Computer Science and Cybernetics	1813-9663	10.15625/1813-9663/34/2/12655	
5 National/International Conference (s)							
5.1	V. D. Hoang*, D.P. Tran, G.N. Nguyen, V.H. Pham	2020	Deep Feature Extraction for Panoramic Image Stitching	Lecture Notes in Computer Science (ACIIDS2020)			Scopus
5.2	V. D. Hoang, V.T. Hoang, K.H. Jo	2020	Hybrid Deep Learning and Data Augmentation for Disease Candidate Extraction	International Workshop on Frontiers of Computer Vision			Scopus
5.3	V.T. Hoang, V.D.Hoang, K.H. Jo	2020	Realtime multi-person pose estimation with rcnn and depthwise separable convolution	International Conference on Computing and Communication Technologies (RIVF)			Scopus
5.4	T.C. Phạm, A. Doucet, T.T. Bui, M.S.K. Luu, D.A. Mai, C.M Luong, V. D. Hoang	2021	A New Feature Selection and Classification Approach for Optimizing Breast Cancer Subtyping Based on Gene Expression	Advances in Intelligent Information Hiding and Multimedia Signal Processing, Springer			Scopus
5.5	T.C. Phạm, A. Doucet, V. D. Hoang, Q.H. Nguyen, T.B. Phan, C.T. Tran, T.T. Bui, C.M. Luong, V.G Bui	2021	Evaluating the Deep Convolutional Neural Network for Thyroid Nodule Detection on Vietnamese Ultrasound Dataset	Advances in Intelligent Information Hiding and Multimedia Signal Processing, Springer			Scopus
5.6	V. D. Hoang	2021	Rice Leaf Diseases Recognition Based on Deep Learning and Hyperparameters Customization	International Workshop on Frontiers of Computer Vision (CCIS), Springer			Scopus
5.7	V.D.Hoang*, M.H.Le,	2012	Robust human detection	Lecture Notes in			Scopus



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	K.H.Jo		using multiple scale of cell based histogram of oriented gradients and AdaBoost learning	Computer Science (International Conference on Computational Collective Intelligence)			
5.8	M.Qing, .D.Hoang, K.H.Jo	2012	Localization and tracking of same color vehicle under occlusion problem	9th France-Japan and 7th Europe-Asia Congress on Mechatronics			Scopus
5.9	V.D.Hoang*, V. Andrey, K.H.Jo	2012	Fast human detection based on parallelogram Haar-like features	The 38th Annual Conference of the IEEE Industrial Electronics			Scopus
5.10	V.D.Hoang*, M.H.Le, K.H.Jo	2013	Planar Motion Estimation using Omnidirectional Camera and Laser Rangefinder	2013 6th International Conference on Human System Interactions			Scopus
5.11	C.H.Danilo, V.D.Hoang, K.H.Jo	2013	Iterative vanishing point estimation based on DBSCAN for omnidirectional image	2013 6th International Conference on Human System Interactions			Scopus
5.12	V.D.Hoang*, C.H.Danilo, M.H.Le, K.H.Jo	2013	3D motion estimation based on pitch and azimuth from respective camera and laser rangefinder sensing	IEEE International Conference on Intelligent Robots and Systems			Scopus
5.13	C.H.Danilo, V.D.Hoang, K.H.Jo	2013	Vanishing point based image segmentation and clustering for omnidirectional image	Lecture Notes in Computer Science (International Conference on Intelligent Computing)			Scopus
5.14	V.D.Hoang*, C.H.Danilo, K.H.Jo	2013	Combining edge and one-point RANSAC algorithm to estimate visual odometry	Lecture Notes in Computer Science (International Conference on Intelligent Computing)			Scopus
5.15	M.H.Le, V.D.Hoang, V. Andrey, K.H.Jo	2013	Vehicle localization using omnidirectional camera with GPS supporting in wide urban area	Lecture Notes in Computer Science (ACCV)			Scopus
5.16	F.Alexander, V.D.Hoang, K.H.Jo	2014	Smoke detection on roads for autonomous vehicles	The 40th Annual Conference of the IEEE Industrial Electronics			Scopus
5.17	C.H.Danilo, V.D.Hoang, F. Alexander, K.H.Jo	2014	Local path planning strategy: A practical implementation for versatile distance	The 40th Annual Conference of the IEEE Industrial Electronics			Scopus
5.18	C.H.Danilo, V.D.Hoang, K.H.Jo	2014	Lane Surface Identification Based on Reflectance using Laser Range Finder	International Symposium on System Integration			Scopus
5.19	Wahyono, V.D.Hoang, K. Laksono, K.H.Jo	2014	Scalable histogram of oriented gradients for multi-size car detection	10th France-Japan Congress, 8th Europe-Asia Congress on Mechatronics			Scopus
5.20	V.D.Hoang*, K.H.Jo	2014	Optimal partial rotation error for vehicle motion estimation	Lecture Notes in Computer Science			Scopus



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			based on omnidirectional camera	(International Conference on Computational Collective Intelligence)			
5.21	V.D.Hoang*, C.H.Danilo, K.H.Jo	2014	Partially obscured human detection based on component detectors using multiple feature descriptors	Lecture Notes in Computer Science (International Conference on Intelligent Computing)			Scopus
5.22	H. Joko, V.D.Hoang, K.H.Jo	2014	Motion segmentation using optical flow for pedestrian detection from moving vehicle	Lecture Notes in Computer Science (International Conference on Computational Collective Intelligence)			Scopus
5.23	H. Joko, V.D.Hoang, K.H.Jo	2014	Location classification of detected pedestrian	International Conference on Control, Automation and Systems			Scopus
5.24	C.H.Danilo, V.D.Hoang, K.H.Jo	2014	Laser based obstacle avoidance strategy for autonomous robot navigation using DBSCAN for versatile distance	International Conference on Human System Interactions			Scopus
5.25	C.H.Danilo, V.D.Hoang, K.H.Jo	2014	Vanishing Point Estimation in Urban Roads for Omnidirectional Image	Advances in Intelligent Systems and Computing			Scopus
5.26	H. Joko, V.D.Hoang, K.H.Jo	2014	Human detection from mobile omnidirectional camera using ego-motion compensated	Lecture Notes in Computer Science (ACIIDS)			Scopus
5.27	C.H.Danilo, V.D.Hoang, K.H.Jo	2014	Methods for vanishing point estimation by intersection of curves from omnidirectional image	Lecture Notes in Computer Science (ACIIDS)			Scopus
5.28	C.H.Danilo, V.D.Hoang, F.Alexander, K.H.Jo	2014	Fuzzy logic guidance control systems for autonomous navigation based on omnidirectional sensing	Lecture Notes in Computer Science (IEA/AIE)			Scopus
5.29	V.D.Hoang*, C.H.Danilo, P.H. Sung, K.H.Jo	2014	Closed-form solution to 3D points for estimating extrinsic parameters of camera and laser sensor	IEEE International Symposium on Industrial Electronics			Scopus
5.30	C.H.Danilo, V.D.Hoang, F.Alexander, K.H.Jo	2014	Vision-based heading angle estimation for an autonomous mobile robots navigation	IEEE International Symposium on Industrial Electronics			Scopus
5.31	V.D.Hoang*, C.H.Danilo, H. Joko, K.H.Jo	2014	Global path planning for unmanned ground vehicle based on road map images	7th International Conference on Human System Interactions			Scopus
5.32	V.D.Hoang*, K.H.Jo	2015	Combined motion estimation and tracking control for autonomous navigation	Lecture Notes in Computer Science (ACIIDS)			Scopus
5.33	H. Joko, V.D.Hoang, K.H.Jo	2015	Human detection from omnidirectional camera using feature tracking and motion segmentation	Lecture Notes in Computer Science (ACIIDS)			Scopus
5.34	F.Alexander,	2015	Smoke Detection for	Lecture Notes in			Scopus



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	C.H.Danilo, V.D.Hoang, K.H.Jo		Autonomous Vehicles using Laser Range Finder and Camera	Computer Science (IEA/AIE)			
5.35	H.Joko, V.D.Hoang, K.H.Jo	2015	Tracking failure detection using time reverse distance error for human tracking	Lecture Notes in Computer Science (IEA/AIE)			Scopus
5.36	T.T.Tran, D.B.Ha, V.D.Hoang, G.N.Nguyen	2015	I-Q based cooperative spectrum sharing in system with multiple SU transmitters and common receiver	International Conference on Communications, Management and Telecommunications			Scopus
5.37	V.D.Hoang*, C.H.Danilo, F. Alexander,K.H.Jo	2015	Path planning for unmanned vehicle motion based on road detection using online road map and satellite image	Lecture Notes in Computer Science (ACCV)			Scopus
5.38	K. Laksono, V.D.Hoang, K.H.Jo	2015	Calibration of rotating 2D laser range finder using circular path on plane constraints	Studies in Computational Intelligence			Scopus
5.39	M.H.Le, V.D.Hoang, V.T.Ngo	2016	Electrical colored wires inspection algorithm for automatic connector producing machines	IEEE International Conference on System Science and Engineering			Scopus
5.40	V.D.Hoang*, K.H.Jo	2016	Accelerative object classification using cascade structure for vision based security monitoring systems	Lecture Notes in Computer Science (ACIIDS)			Scopus
5.41	Wahyono, V.D.Hoang, K.H.Jo	2016	Multiscale car detection using oriented gradient feature and boosting machine	Lecture Notes in Computer Science (ACIIDS)			Scopus
5.42	H.T.Vo, V.D.Hoang, K.H.Jo	2017	An improved method for 3D shape estimation using cascade of neural networks	IEEE International Conference on Industrial Informatics			Scopus
5.43	T.T.Tran,T.H.N.Du y, N.V.B.Sinh V.D.Hoang	2017	A Method to Approximate the Transmission Rate of Phase Signal with Amplitude Uncertainty	International Conference on Recent Advances in Signal Processing, Telecommunications & Computing			Scopus
5.44	V.-D.Hoang*,H.D. Hoang, L.C.Hieu	2018	Action recognition based on sequential 2D-CNN for surveillance systems	Annual Conference of the IEEE Industrial Electronics			Scopus
5.45	D.P.Tran, G.N.Nguyen, V.D.Hoang*	2018	Pedestrian Action Prediction Based on Deep Features Extraction of Human Posture and Traffic Scene	Lecture Notes in Artificial Intelligence (ACIIDS)			Scopus
5.46	V.D.Hoang*, M.H.Le, T.T.Tran, P.V.Pham	2018	Improving Traffic Signs Recognition Based Region Proposal and Deep Neural Networks	Lecture Notes in Artificial Intelligence (ACIIDS)			Scopus
5.47	T.C.Pham, C.M.Luong, M. Visani, V.D.Hoang*	2018	Deep CNN and Data Augmentation for Skin Lesion Classification	Lecture Notes in Artificial Intelligence (ACIIDS)			Scopus
5.48	V.D.Hoang*, H.T.Vo	2018	Hybrid discriminative models for banknote recognition and anti- counterfeit	NAFOSTED Conference on Information and Computer Science			Scopus
5.49	V.D.Hoang*, D.V.Dang,	2018	A solution based on combination of RFID tags	NAFOSTED Conference on			Scopus



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	T.T.Nguyen, D.P.Tran		and facial recognition for monitoring systems	Information and Computer Science			
5.50	T.T. Nguyen, V. D. Hoang, T.T. Tran	2019	A Wireless Physical Layer Security Method based on Binary Exclusive-Or Jamming Message and CSI Alignment	IEEE International Conference on System Science and Engineering			Scopus
5.51	V.H. Pham, D.P. Tran, V. D. Hoang*	2019	Personal Identification Based on Deep Learning Technique Using Facial Images for Intelligent Surveillance Systems	International Journal of Machine Learning and Computing			Scopus
5.52	V.H. Pham, D.P. Tran, V. D. Hoang*	2019	Personal Identification Based on Deep Learning Technique Using Facial Images for Intelligent Surveillance Systems	International Journal of Machine Learning and Computing			Scopus
5.53	D.P. Tran, V. D. Hoang*	2019	Vehicle Categorical Recognition for Traffic Monitoring in Intelligent Transportation Systems	Lecture Notes in Computer Science (ACIIDS2019)			Scopus
5.54	D.P.Tran, V.D.Hoang*	2019	Vehicle Categorical Recognition for Traffic Monitoring in Intelligent Transportation Systems	Lecture Notes in Computer Science (ACIIDS2019)			Scopus
5.55	V.D.Hoang*, C.H.Le, T.A.Pham	2019	Human identification based on shallow learning using facial features	Studies in Computational Intelligence			Scopus
5.56	T.C.Pham, G.S.Tran, N.T.Phuong, .Antoine, C.M.Luong, V.D.Hoang*	2019	A comparative study for classification of skin cancer	IEEE International Conference on System Science and Engineering			Scopus
6	Other (monographs, book chapter, patents, awards ...)						
6.1	V.D. Hoang, K.H. Jo	2020	Advanced Sensors and Vision Systems	Mechatronics and Robotics	9780429 347474		
6.2	V.D. Hoang	2018	Image processing and pattern recognition	NXB KH&KT	978-604- 67-1084-4		