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**Letter of Support for Doctoral Studies Application**

Dear Madams/Sirs:

It's my pleasure to strongly recommend Mr. Van Vuong Trinh for applying to the co-supervised doctorate program between I-SITE ULNE and Ghent University.

Thanks to a French scholarship, Mr. Trinh obtained a master's degree in process control and optimization from Université Joseph Fourier and Institut Polytechnique de Grenoble, France, with 3<sup>rd</sup> class ranking. His master thesis, concerning robust optimization based control, was carried out at GIPSA-lab. He then joined an industry project at CEA-Grenoble where his responsibilities are to design and analyse learning and distributed algorithms for nonlinear large-scale applications. He already presented his results in few international conferences and co-authored a peer-reviewed journal paper. He then spent a short-time period as software engineer at a start-up in Brittany before working at Dong A University in Vietnam. Through academic network, we collaborated to do research with other colleagues on anomaly detection algorithms, resulting into several papers that have been published. According to our frequent communication and discussion, Mr. TRINH shows his strong background, creative thinking and enthusiasm with scientific research.

Supply chain management with the involvement of artificial intelligence and big data approaches constitute the main research theme in the GEMTEX Laboratory. We aim to provide novel advanced approaches in supply chain monitoring as well as supply chain scheduling and planning. These are very significant topics in supply chain which are facing challenges due to the application of Big Data. After serious consideration, I see that Mr. Trinh's previous studies and experiences are suitable to the submitted doctoral project « Multi-Agent Reinforcement Learning with Big Data for Supply Chain Optimization ». His strong background in discrete and distributed optimization, iterative numerical algorithms and machine learning will be necessary to deal with problems arising in the project. His computer science skill is a plus as the project largely involves in programming. I and other promoters will provide him opportunities to interact with some related research projects at GEMTEX, such as « Key technologies in IOT based fetal movement monitoring and pregnant women's health assessments » (<http://www.gemtex.fr/curent-projects/iotfetmov-2/>) and « Fashion Big Data Business Model » ([http://www.gemtex.fr/curent-projects/fbd\\_bmodel/](http://www.gemtex.fr/curent-projects/fbd_bmodel/)).

As a conclusion, I consider Mr. Trinh as a promising and enthusiastic researcher. I believe his skills in dealing with complex and large-scale problems, together with his ability to communicate effectively makes him a strong candidate for the proposed project.

Should you need any further information about him, please do not hesitate to contact me.

Sincerely,



Kim Phuc TRAN