LABORATOIRE D'INFORMATIQUE FONDAMENTALE D'ORLEANS
Bat IIIA, rue Léonard de Vinci
BP6759
45067 Orléans Cedex
02 38 49 44 60
sebastien.limet@univ-orleans.fr

Orléans, le October 27, 2014

Recommandation for Dr Hiep-Thuan Do

To whom is concerned

I supervised the PhD of Hiep-Thuan Do on scalability of computation means to process datasets coming from huge geographical information systems. His work was at the crossroads of the domains of parallelism, image processing and geographical information systems. The results he obtained led to the development of a set of tools dedicated to distributed memory machines for the delineation of catchment basins and the accumulation flows on huge digital elevation models (up to several billions of points). Those results rely on a optimized parallel computation of a minimum spanning tree based on the Boruvka algorithm. Dr Hiep-Thuan Do published his work in three international conferences and in the international journal Concurrency and Computation : Practice and Experiments.

Beyond his great scientific skills which have been underlined by his PhD committee, I also appreciated his great human qualities. Indeed Dr Hiep-Thuan Do is very hardworking. He is not only able to provide solutions and justify them but he also listens to the advices which are given to him. Moreover his constant good moon makes him a very pleasant collaborator.

For all these reasons, I highly recommend Dr. Hiep-Thuan Do for any job related to high performance computing and large datasets processing.

Sébastien Limet
Professeur des Universités
Directeur adjoint du LIFO

Géosciences pour une Terre durable

brgm

BRGM
3 Avenue Claude Guillemin,
BP36009, Orléans Cedex 2
45060, France

20th February 2016

Recommendation letter for Dr Hiep-Thuan Do

To whom this may concern,

I am very pleased to write this recommendation letter for Dr Hiep-Thuan Do who joined BRGM in 2013. I recruited him for a postdoctoral position in the framework of the project HPC-GA (High Performance Computing for Geophysics Applications) funded by the European Commission. Considering the experience he obtained during his PhD thesis and the coherence with our project, I proposed Hiep-Thuan to study the performance of seismic application on multicore and hierarchical architectures. This is a very hot topic in computational geophysics including seismic risk assessment and oil and gas industry. Based on our finite-differences application, the challenge was therefore to evaluate the impact of the various levels of contention (memory/network) that may significantly influence the overall performance.

Dr Hiep-Thuan Do worked on these topics only during 5 months due to the opportunity for him to have a long term contract in a private company. Nevertheless, his efforts led to one publication in a referenced conference (International Conference on Computational Science – ICCS2013).

Dr Hiep-Thuan Do works seriously, concentrating on the problems. He is able to manage different tasks and corporate with different colleagues. Although he joined us after a PhD mainly devoted to parallel computing applied to hydrogeology, he has been able to collaborate with a senior computational seismologist (Dr Hideo Aochi) and to contribute to one of our production software package dedicated to seismic risk assessments (Ondes3D, under GNU License, written in C).

In conclusion, I recommend Dr Hiep-Thuan Do considering his experience and potential, as well as his character. I would be glad to provide more information if necessary.

Sincerely yours,

Dr. Fabrice Dupros
Senior researcher, High Performance Computing
IT Division
Bureau de Recherches Géologiques et Minières (French Geological Survey)
f.dupros@brgm.fr