

UPDATED CURRICULUM VITAE

(As of March 2011)

I. Biographical Data

A. Name: PHAM HUY GIAO

B. Education:

- Dipl. Ing. (MSc) in Geological-Geophysical Engineering (*Oil & Gas Geophysics*), 1977-82, Bucharest University;
- MEng (1990-92) & DEng (1993-97) in Geotechnical Engineering (*Engg. Geol. & Applied Geophysics*), AIT

C. Positions held:

- *June 2010-Present*: Assistant Professor & Coordinator of the Geotechnical & Earth Resources Engineering (GTE) FoS, SET, AIT
- *April 2006-Present*: Assistant Professor & Coordinator of GEPG program, SET, AIT
- *9/2001 - 3/2006*: Senior Research Engineer & Affiliated Faculty, Coordinator of the GEPG graduate program, School of Civil Engineering, AIT.
- *4/2006 – 6/2008*: Joint Coordinator of the Offshore Technology and Management (OTM) Program, SET, AIT.
- *Since Jan 2009*: Joint-Coordinator of the Professional Master Program in Geotechnical Engineering & Management (PME-GEM), AITVN, HCM City.
- *Since Aug 2008*: Coordinator of the Professional Master Program in Geo-Exploration & Petroleum Geoengineering (PME-GEPG), AITVN, HCM City.
- *12/1999 - 8/2001*: Visiting Faculty, Brain Korea 21 Project, School of Civil and Ocean Engineering, Dong-A University, Korea
- *5/1997-12/1999*: Senior Research Associate, Geotechnical Engineering Field of Study, School of Civil Engineering, AIT.
- *5/1992 – 4/1997*: Research Associate, Geotechnical Engineering Division, School, AIT (*9/1990 - 4/1992 & 1/1993-4/1997*: Graduate studies at AIT)
- *9/1982 - 8/1990*: Geophysicist, Hanoi Geophysical Division, Vietnam Department of Mineral Resources and Geology (*1982-1987*: Chief of Exploration Team, Regional Geophysics Department; *1987-1990*: Center of Geophysical Researches and Applications)

D. Special honors and awards:

- The Romanian Government Scholarship for a study at Bucharest Univ. (1977-82).
- Outstanding Academic Performance Award for a Vietnamese student studying abroad by Ministry of Education and Training (MOET) of Vietnam (*Ministerial Decree No.117/QĐ, 1982*).
- The Australian Government Scholarship for a master study at the Asian Institute of Technology, 1990-1992.
- One of the best papers at Intl' Congress on Modelling & Simulation (MODSIM97), *FEM Quasi-3D Modelling of Responses to Artificial Recharge in a Multiaquifer*

System, selected to be published in the Intl' Journal of Env. Modelling & Software, 14 (1999) 141-151, Elsevier

- The Tan Swan Beng Award of the SE Asian Geotechnical Society (2005), co-winner.

E. Professional Membership:

- Member, European Association of Geoscientists and Engineers (EAGE)
- Associate Member, Society of Exploration Geophysics (SEG)
- Member, Southeast Asia Society of Geotechnical Engineering and ISSMGE
- Life Member, International Association of Low Land Technology (IALT)
- Life Member, International Association for Mathematical Geosciences (IAMG)
- Member, Vietnam Association of Geophysicists (VAG)
- Member, Vietnam Society of Soil Mechanics and Geotechnical Engineering (VSMGE)

II. Pedagogy

A. Experience as a teacher:

1. June 97 Semester, Department of Civil Engineering, Sirindhorn Intl' Inst. of Techn., **SIIT**, Thammasat Univ. Teaching the course SC135 - *Fundamental Physics for Engineers (Engineering Mechanics)*
2. May 99 Term, GTE/SCE, Asian Inst. of Techn., **AIT**: teaching the course CE03.31 (*Groundwater Exploration and Engineering Geophysics*).
3. March 2000 Semester, Visiting Faculty, School of Civil and Ocean Engineering, **Dong-A University**, Korea: Teaching the course – *Engineering Geology and Applied Geophysics*.
4. Sept. 2000 Semester: Visiting Faculty, School of Civil and Ocean Engg., **Dong-A Univ.**, Korea. Teaching the course – *Computer Aided Analysis in Geotechnical Engineering*.
5. March 2001 Semester, Visiting Faculty, School of Civil and Ocean Engg., **Dong-A Univ.**, Korea: Teaching the course – *Soft Clay Engineering for Reclamation Works (Site Investigation and Settlement Analysis)*.
6. Sept. 2001 Term, GTE/SCE, Asian Institute of Technology, **AIT**: co-teaching the courses CE03.11 (*Fundamentals of Engineering Geology*) and CE03.06 (*Lab and Field Testing in Geotechnical Engg.*).
7. Nov 2002 Semester, **Chulalongkorn University**: Invited lecturer, Dept. of Mining and Petroleum Engg., Faculty of Engineering. Co-teaching the course No. 2106540 (*Groundwater flow*).
8. Since August 1999, Associated Faculty Member, Dept. of Geotech. Engg., Faculty of Geology, Hanoi Univ. of Science (**HUS**), Vietnam National University (**VNU**): Advising on curriculum development, reading invited lectures and supervising a few undergraduate theses.
9. August 2006 Semester, co-teaching the institute-wise course IN009012 “Concepts, Tools, Information and Issues for Modern Engineers”, Asian Institute of Technology, **AIT**.

10. May 2003 Term & June-July 2004-07 Inter-semester, SCE-SET, Asian Institute of Technology, **AIT**. Teaching the course CE03.31 (*Groundwater Exploration & Engineering Geophysics*).
11. Aug 2008-2010 semesters, SET, Asian Institute of Technology, **AIT**. Co-teaching the course CE71.31 (*Engineering Geology*).
12. Aug 2002-2010 Semesters, SET, Asian Institute of Technology, **AIT**, teaching the course CE80.69/CE71.69 (*Fundamentals of Geosystem Exploration*).
13. Jan 2003-2011 Semesters, SET, Asian Institute of Technology, **AIT**. Teaching the course CE80.65/CE71.65 (*Exploration Geophysics*); Also teaching the CE71.65 course for PME-GEPP students in HCMC for Jan 2009 and 2010 semesters.
14. Jan 2003- 2011 semesters, coordinating and co-teaching the course CE80.63/CE71.63 (*Workflow of Oil and Gas Operations*), SET, Asian Institute of Technology, **AIT**.
15. Jan 2008-2011 semesters, SET, Asian Institute of Technology, **AIT**. Teaching the course CE80.70/CE71.70 (*Petrophysics*).
16. Jan 2009 and Inter-semester Jun-Jul 2010, SET, Asian Institute of Technology, **AIT**. Teaching the course CE80.68/CE71.68 (*Well Logging Interpretation*).
17. Aug 2009, AITVN, teaching the course of Site Investigation and Exploration to the PME-GEM students

B. Evaluation of Teaching

Summary of student teaching evaluations: for courses of CE71.63, CE71.65, CE71.68, CE71.69 and CE71.70 are enclosed

C. Pedagogical Development: since 1999 I have been actively involved in many graduate education projects in Korea, Thailand and Vietnam.

C.1 Initiation of new courses, degree programs, curricula

• NEW COURSES:

At Dong-A University:

1. *Engineering Geology & Applied Geophysics*
2. *Computer-aided analysis in Geotechnical Engineering*
3. *Soft Clay Engineering for Reclamation Works*

At AIT:

1. *Fundamentals of Geosystem Exploration (CE80.69/CE71.69)*
2. *Exploration Geophysics (CE80.65/CE71.65)*
3. *Groundwater Exploration & Engineering Geophysics (CE80.67/CE71.67)*
4. *Workflow of Oil and Gas Operations (CE80.62/CE71.62)*
5. *Petrophysics (CE80.70/CE71.70)*
6. *Well Logging Interpretation (CE71.68)*
7. *Part of the institute-wise course - Concepts, Tools, Information and Issues for Modern Engineers (IN009012)*
8. *CE71.9012 Geotechnical Investigation and Exploration for PME-GEM*

- NEW DEGREE PROGRAMS AND CURRICULA:

1. The regular master program in Geosystem Exploration and Petroleum Geoengineering (GEPG) at AIT since 2002.
2. The graduate program in Offshore Technology & Management at AIT since 2006;
3. The joint master program with ITC in GEPG (the first batch of 6 students was in 2006, supported by the EC-funded Asia-link Bridge project);
4. The Professional Master program in Geoexploration & Petroleum Geoengineering (PME-GEPG) in HCM City, Vietnam. So far three batches have been conducted successfully since August 2008. The program has become popular for the staffs from the oil and gas companies in Southern Vietnam. Vietnam Petroleum Institute (VPI) and Petrovietnam are now cooperating with AIT to extend its offer in the North.
5. The Professional Master program in Geotechnical Engineering and Management (PME-GEM) in HCM City, Vietnam. Two batches have been conducted since January 2009. The program quality is highly appreciated by many construction and geotechnical companies, including EVN.
6. To be opened soon a new PME-GEPG in Hanoi in collaboration with Vietnam Petroleum Institute (VPI)

C. 2 Grants related to pedagogy and curriculum development:

1. The Brain Korea 21 Grant by the Korean Government an international graduate curriculum education in geotechnical engineering, Dong-A University, Pusan, Korea, 12/1999-8/2001.
2. Grant by the Gifu Univ., Japanese Government, for an Asian Researcher, March 2001.
3. Grant by the Royal Thai Government to develop a new graduate education program of geoexploration for Thailand (through the RTG project coded as the AH21) in 2002-2003.
4. Grant by EC for the Asian-Link Project, 2005-2008, "BRIDGE - Building human Resources In the Development of academic programs in sustainable Geosystem engineering and Exploration" in collaboration with the ITC (International Institute for Geo-Information Science and Earth Observation, The Netherlands), Vietnam National University (VNU), and National University of Laos (NUOL).
5. Sponsorship from Oil and Gas Companies operating in Vietnam for the professional master program in Geoexploration and Petroleum Geoengineering (PME-GEPG) since August 2008 in HCM City.
6. Sponsorship from the Geotechnical and Infrastructure Companies operating in Vietnam for the professional master program in Geotechnical Engineering and Management (PME-GEM) since January 2009 in HCM City.

C. 3 Development and introduction of innovative pedagogical techniques:

I have played a leading role in initiation and implementation of a number of interdisciplinary, topic-based, modular, application-oriented and professional master programs in SET such as *GEPG*, *OTM*, *PME-GEPG* and *PME-GEM*.

C.4 Education-Related Publications/Presentation:

1. Giao P. H. (2009), Group Presentation and Discussion in “*International Partnerships in Higher Education: Policies, Practices and Lessons Learned*”, 8-9 June 2009, Crowne Plaza Jakarta, Indonesia as invited by EAHEP (Euro-Asia Higher Education Programme)
2. Giao P. H. (2008), Recognizing development trends of research and technology in the exploration and production (E&P) field - Benefiting from case studies related to E&P of fractured granite basement offshore Vietnam, Invited lecture, World Engineering Congress, Upstream Oil and Gas Forum, Bangkok June 16-18.
3. Giao P. H. (2007-2010), Presentations on Professional Master Programs in Geoeexploration and Petroleum Geoengineering (PME-GEPG) and Geotechnical Engineering and Management (PME-GEM), promotion workshops organized by AIT Vietnam and SET in Hanoi, HCMC, Can Tho and Da Nang.
4. Giao P. H. (2005), Development of a Multidisciplinary and Application Oriented for Graduate Education and Research in Geosystem Exploration and Engineering, Keynote lecture, Proc. Intl’ Workshop Hanoi Geoengineering 2005, November 2005, Hanoi, Vietnam, p. 20-28.
5. Giao P. H. (2005), Development of the GEPG program at AIT and its role in implementing the BRIDGE Project (2005-2008), Kick-off workshop of the Asia-Link project BRIDGE (Building Human Resources In the Development of Academic Programmes in Sustainable Geosystem Exploration and Engineering), 14-15 November 2006, AIT, Bangkok, Thailand. Report submitted to EC.
6. Giao P. H., N. Phien-wej, S. Peangta and S Athichanagorn (2003), Final Report, The Asian Horizon 21 Project – A trilateral AIT-KKU-CU collaboration in development of a new application-oriented education and research program on geosystem exploration technology for Thailand, funded by the Royal Thai Government.
7. Giao P. H. (2002), Presentation on the Geosystem Exploration & Petroleum Geoengineering program of AIT and Possibilities of Collaboration with the Academic & Industrial Partners in the SE Asia, especially in Vietnam. Workshop on “Training and HR Dev. for Oil & Gas Industry in Vietnam”, organized by PetroVietnam E&P (PVEP), 27 Aug. 2002, Thanh Da, HCM City, Vietnam

III. Students’ Supervision and Co-supervision

A. Master Theses Completed

REGULAR MASTER THESES

1. Chung S. W. (2000-01), *Index Properties and Undrained Shear Strength of the Pusan Clays by the Fall Cone Tests*, Master Thesis, School of Civil and Ocean Engineering, Dong-A University, Korea.
2. Kim D. Y. (2001-02), *Geophysical Investigation of the Pusan Clays*, Master Thesis, School of Civil and Ocean Engineering, Dong-A University, Korea.
3. Kanitthorn Adisornsupawat (2002-04), *Application of Electric Imaging in Geotechnical Engineering*, AIT Master Thesis, GE-03-03
4. Nguyen Tien Dung (2002-04), *A geotechnical-geophysical study of the soft clay*

- deposits underlying oil and gas facilities in Southern Vietnam to minimize construction risks*, AIT Master Thesis, GE-03-04.
5. Kieu Le Thuy Chung (2002-04), *A geotechnical-geophysical study of the peat deposit underlying the U Minh Thuong forest with reference to mitigation of forest fire*, AIT Master Thesis, GE-03-05.
 6. Pham Quy Ngoc (2003-05), *A Geophysical-geotechnical Study of the Dike System in the North of Vietnam*, AIT Master Thesis, GE-04-19.
 7. Duong Thi Toan (2003-05), *A Study on Hanoi Land Subsidence with reference to Development of a Proper Monitoring Network*, AIT Master Thesis, GE-04-20.
 8. Nguyen Hai Minh (2003-05), *A Study on Well Test Analysis Methods for a Fractured Basement of an Oil and Gas Field*, AIT Master Thesis, GE-04-21.
 9. Pham Duc Thang (2003-05), *Study on Polymer Injection as an Enhanced Oil Recovery (EOR) for the White Tiger Field of Southern Vietnam*, AIT Master Thesis, GE-04-22.
 10. Chanarop Vichalai (2004-06), *Development of a Geophysical Testing Site*, AIT Master Thesis, GE-05-14
 11. Doan Huy Hien (2004-06), *A Geotechnical-geophysical Study of the Soft Clays in the Red River Delta with reference to Highway Network Upgrade*, AIT Master Thesis, GE-05-15 .
 12. Naratip Prechavit (2004-06), *Geophysical Investigation of Sinkholes in the Tsunami-affected Areas in Southern Thailand*, AIT Master Thesis, GE-05-16.
 13. Nguyen Minh Quy (2004-06), *Study on Horizontal Well Efficiency with reference to Improved Oil Recovery of the South-East Dragon Oil Field, Vietnam*, AIT Master Thesis, GE-05-17.
 14. Sornchai Apibarnponlatham (2004-06), *Visualization of the Bangkok Subsoil Profile*, AIT Master Thesis, GE-05-18.
 15. Woan Jing Teh (2004-06), *A Study on Applicability of Microtremor Analysis for Hydrocarbon Exploration*, AIT Master Thesis, GE-05-19.
 16. Wattana Maneechot (2005-07), *Application of Ground Penetration Radar to Detect the Voids under the Concrete Pavement*, AIT Master Thesis, GE-06-05.
 17. Nguyen Ngoc Minh (2005-07), *Review and Analysis of Hanoi Land Subsidence Monitoring Data*, AIT Master Thesis, GE-06-06.
 18. Chatree Chumpoo (2005-07), *Application of the Magnetic Susceptibility in Geoengineering*, AIT Master Thesis, GE-06-07.
 19. Thamrongsak Suwanishwong (2005-07), *A Study on Aquifer Storage Transfer and Recovery (ASTR) in a Fractured Aquifer, Khon Kaen, Thailand*, AIT Master Thesis, GE-06-08.
 20. Suphot Kheawlee (2006-08) *Application of Electric Resistivity Measurement to Monitor and Assess the Oil Well Cement Strength*, AIT Master Thesis, GE-07-08.
 21. Surapol Pradithao (2006-08), *Determination of Geopressure based on Geophysical Exploration Data*, AIT Master Thesis, GE-07-09.

22. Ta Thi Thoang (2006-08) *Characterization of Soft clays in Major Deltas of Vietnam with reference to Infrastructure Development*, AIT Master Thesis, GE-07-10.
23. Pham Thi Viet Nga (2006-08) *Study on land subsidence due to groundwater exploitation in Ho Chi Minh City*, AIT Master Thesis, GE-07-11.
24. Khambane Inthipunya (2006-08), *Mapping of mineral potential zones of Au - Cu deposit at Sepon mine, Laos P.D.R.*, GE-07-12.
25. Nguyen Thi Tam (2006-08), *An Integrated and GIS-based Study on Hanoi Land Subsidence, Including a Review of the Monitoring Technique of PSINSAR*, AIT Master Thesis, GE-07-13.
26. Dang Thi Minh Hue (2006-08), *Analysis of clay microstructure using scanning electron microscope and image analysis techniques*, Co-advisor, GE-07-15.
27. Kittipol Noianusontigul (2006-08) *Numerical Analysis of Polymer Injection as an EOR using Eclipse Running on the High-performance Computing Cluster*, AIT Master Thesis, GE-07-16.
28. Soulixay Inthasone (2006-08), *Integrated geophysical-GIS study on the exploration of gold and copper deposits in Sepon, Savannakhet Province, Lao PDR*, GE-07-18.
29. Nguyen Quoc Cuong (2006-08) *Evaluation Grouting in Sandy Soils by Electrical Resistivity Tomography (ERT)*, AIT Master Thesis, GE-07-.
30. Thoedpong Witthayapradit (2007-2009), *Formation Evaluation using Integrated Well Logging Data for a Gas Field in the Gulf of Thailand*, AIT Master Thesis, GE-07-17.
31. Raweewan Maneejan, (2007-2009), *A Study on Characterization of Mechanical Properties of the Near-wellbore Formation using Acoustic Logging Data Analysis*, AIT Master Thesis, GE-07-.
32. Wipoo Sriiamsaard, (2007-2009), *Application of Geophysical Measurements in Evaluation of Oil Cement Hardening Process*, AIT Master Thesis, GE-07-.
33. Adithep Jucksriporn, (2007-2009), *A Geophysical Study on Geopressure Profile in Khorat Basin*, AIT Master Thesis, GE-07-19.
34. Avirut Puttiwongrak, (2007-2009), *Interpretation of Seismic Data using Open Source Environment (OpendTect)*, AIT Master Thesis, GE-07-20.
35. Suwisa Koysamran (2008-2010), *Basin modeling and geopressure analysis for the Khorat Plateau, North Eastern Thailand*, AIT Master Thesis, GE-09-08.
36. Nichakan Senkhamwong (2008-2010), *Preliminary basin modeling and petroleum system analysis for the Fang Basin, Northern Thailand*, AIT Master Thesis, GE-09-09.
37. Supakorn Nunthakungwan (2008-2010), *Processing of High Resolution Seismic Data for Survey of a Drilling Rig Site in the Gulf of Thailand*, AIT Master Thesis, GE-09-10.
38. Thanakorn Rattanawai (2008-2010), *Optimal Production Strategy for Water-drive Gas Condensate Reservoirs*, Co-advisor, AIT Master Thesis, GE-09-11.
39. Panupong Dangyeunyong (2008-2010), *Evaluation of a Low Resistivity HC-bearing Formation by Using Electric Forward Modelling*, AIT Master Thesis, GE-09-12.

40. Parkpum Amornrujiroj (2008-2010), *Integrated interpretation of well logging data with reference to reservoir characterization of the Fang oil field*, AIT Master Thesis, GE-09-13.
41. Khin Moh Moh Latt (2008-2010), *A study of electromagnetic responses of some oil and gas basins in Southeast Asia using model-based inversion*, AIT Master Thesis, GE-09-14.
42. Wattanaporn Phaophonklai (2008-2010), *Comparison of Water Saturation Estimations: Juhasz Equation vs Saturation Height Function for Selected Reservoirs in Jasmine Field*, AIT Master Thesis, OT-09-.

B. Ongoing Master Theses

1. Promote Nontarak (2008-2010), *An Engineering Geophysical Investigation of Geothermal Groundwater System in the Western Thailand*, AIT Master Thesis.
2. Nguyen Duc Thanh (2009-2011), *Electric Imaging Survey of a Water-Covered Site in the Mekong Delta*, AIT Master Thesis.
3. Bui Duc Trung (2009-2011), *Petrophysical Analysis of a Fractured Granite Basement Reservoir*, AIT Master thesis.
4. Krisana Doungnoi (2009-2011), *Basin modeling to assess petroleum potential of the Southern Fang basin*, AIT Master Thesis.
5. Burachat Jongprasit (2009-2011), *Production Strategy for Multi-layered Water-drive and Depletion-drive Gas Reservoirs*, Co-advisor, AIT Master Thesis.
6. Apiwat Burapavijitnon (2009-2011), *Reserves Comparison of Field X in the Gulf of Thailand*, Co-advisor, AIT Master Thesis.
7. Nicha Nakapraves (2009-2011), *ANN-based petrophysical modeling of an oil field in the SE Asia*, AIT Master Thesis.

C. Ongoing Doctoral Students

1. Narongchai Wiwattanachang (2008-present), *Electric Imaging and Testing of Concrete Material*.
2. Ta Thi Thoang (2009-present), *Subsurface Characterization and Land Subsidence Analysis for HCM City's Development under the Climate Change Condition*.
3. Truong Tuan Anh (2009-present), course work
4. Vu Viet Hung (2010-present), coursework

IV. Research

Summary:

Name	By 2007			2007			2008			2009			2010			Sub Total			Total
	J	P	WO/ SEM	J	P	WO/ SEM	J	P	WO/ SEM	J	P	WO/ SEM	J	P	WO/ SEM	J	P	WO/ SEM	
PHG	15	36	21	1	3	1	2	3	2	1	4	0	3	4	2	21	46	24	91

Note: J = Journal; P= Proceedings, WO = workshop, SEM = Seminar

A. Publications

A.1 REFEREED JOURNAL ARTICLES:

1. Honjo Y., **P. H. Giau** (1992), Preliminary Groundwater Modelling of Mae Moh Lignite Mine in Thailand with reference to Floor Heave, *Geotechnical Engineering*, Journal of Southeast Asian Geotechnical Society, Vol. 25, No. 1, p. 56-74
2. Phien-wej N., **P. H. Giau** and P. Nutalaya (1998), Field Experiment of Artificial Recharge through a Well, *International Journal of Engineering Geology*, Vol. 50, pp. 187-201.
3. **Giau P. H.**, N. Phien-Wej and Y. Honjo (1999), FEM Quasi-3D Modelling of Responses to Artificial recharge in the Bangkok Aquifer System, *Intl' Journal of Environmental Modelling and Software* 14(1999) 141-151, Elsevier
4. **Giau P. H.** and E. Ovaskainen (2000), Primary Analysis of Hanoi Land Subsidence with reference to Groundwater Development, *Lowland Technology International*, Vol. 2 (2), p. 17-29, IALT.
5. Chung S. G. and **P. H. Giau** (2001), Examination of Pusan clays at a reference testing site, *Lowland Technology International*, Vol. 3(2): 1-14, IALT.
6. Chung S. G., **P. H. Giau**, G. J. Kim and S. Leroueil (2002), Geotechnical Characteristics of the Pusan Clays, *Canadian Geotechnical Journal*, Vol. 39 (1050-1060).
7. Chung S. G., **P. H. Giau**, T. Nagaraj, G. J. Kim and J. M. Kwag (2002), Characterization of Marine Clays for Coastal Reclamation Projects in Pusan, Korea, *Marine Georesources and Geotechnology*. Vol. 20(4): 237-254.
8. **Giau P. H.**, J. H. Kim and S. G. Chung (2002), Application of Engineering Geophysics in Investigation of the Pusan Clays with reference to Reclamation Projects, *the European Journal of Environmental and Engineering Geophysics*, Vol. 7 (3): 201-218.
9. **Giau P. H.** (2003), Revisit of Well Function Approximations and an Easy Graphical Technique of Curve Matching for Theis' Solution, *Groundwater*, Vol. 41(3): 387-390
10. **Giau P. H.**, S. G. Chung, D. Y. Kim and H. Tanaka (2003). Electric Imaging and Laboratory Electric Resistivity Testing for Geotechnical Investigation of Pusan Clays, *Journal of Applied Geophysics*, 52 (4): 157-175, Elsevier.
11. Chung S. G., J. M. Kwag, **P. H. Giau**, S. H. Baek and K. N. Prasad (2004), A Study on Soil Disturbance of Pusan Clays with reference to Drilling, Sampling and Extruding, *Geotechnique*, 54(1), 61-65.

12. **Giao P. H.**, N. Phien-wej N. and H. Tanaka (2004), An Assessment on Soil Disturbance of Bangkok Clay Samples in relation with the Intrinsic Compression Behaviour, *Lowland Technology International*, Vol. 6 (2), p. 21-31, IALT.
13. Phien-wej N., **Giao P. H.** and Thepparak S. (2005), “Prediction of Differential Settlement of Buildings Induced by Land Subsidence from Deep Well Pumping”, *Geotechnical Engineering Journal*, April, pp. 69-75. – The Tan Seng Bengt Award’s winning paper of SEAGS.
14. Phien-wej N., **P. H. Giao** and P. Nutalaya (2006), Land Subsidence in Bangkok, Thailand, *Engineering Geology*, Vol. 82 (4), p. 187-201
15. **Giao P. H.** and D. H. Hien (2007), Geotechnical Characterization of Soft Clay along a highway in the Red River Delta, *Lowland Technology International*, Vol. 9 (1), p. 18-27, IALT.
16. **Giao P. H.**, A. Weller and D. H. Hien (2008), An Approach to Construct the Weathering Profile in a Hilly Granitic Terrain Based on Electrical Imaging, paper accepted to be published to *Journal of Applied Geophysics*, 65 (2008) 30–38, Elsevier.
17. **Giao P. H.**, N. T. Dung and P. V. Long (2008) An Integrated Geotechnical-Geophysical Investigation of Soft Clay at a Coastal Site in the Mekong Delta for Oil and Gas Infrastructure Development, *Canadian Geotechnical Journal*, 11, vol. 45, p. 1525-1537.
18. Quy N. M., P. G. Ranjith, S.K. Choi, **P. H. Giao**, D. Jasinge (2009), Analytical assessment of horizontal well efficiency with reference to improved oil recovery of the South-East Dragon oil field southern offshore of Vietnam, *Journal of Petroleum Science and Engineering*, 66(2009), 75-82.
19. **Giao P. H.** and Panupong D. (2010), Determination of shale resistivity based on 2-D forward modeling for evaluation of a low resistivity formation, *PetroVietnam Journal*, 44-49, Vol. 10, 2010, ISBN-0866-854X.
20. N. D. Quang, **Giao P. H.** & T. Seah (2010), Settlement Calculation and Back Analysis of Soil Properties for a Test Embankment on a Soft Clay Ground Improved by PVD and Vacuum-Assisted Preloading at a Site in Vung Tau, *Geotechnical Journal*, Vietnam Geotechnical Society.
21. Hue D. T. M., N. Phien-wej and **P. H. Giao** (2010), Evaluation of the Changes in Stiff Clay Microstructure by SEM Digital Image Processing, *Geotechnical Journal*, Vietnam Geotechnical Society.
22. Wiwattanachang N. and **P. H. Giao** (2011), Monitoring crack development on fiber concrete beam by using electrical resistivity imaging, to be published in *Journal of Applied Geophysics*, Elsevier

A.2 PAPERS IN CONFERENCE PROCEEDINGS

1. Honjo Y., P. A. Naushahi and **P. H. Giao** (1992), Seepage Analysis of Tarbela Dam (Pakistan) Using Finite Element Method, *Proceedings of the Symposium on Prediction versus Performance in Geotechnical Engineering, Bangkok*, pp. 219-236, 30 Nov.- 4 Dec., 1992, Ed. by A. S. Balasubramaniam et al., Balkema.
2. Honjo Y., **P. H. Giao**, N. Phien-wej and S. Plangpongpun (1992), Preliminary Groundwater Modelling of Mae Moh Basin for Lignite Development, *Proceedings of the Symposium on*

- Prediction versus Performance in Geotechnical Engineering, Bangkok*, pp. 279-302, 30 Nov.- 4 Dec., 1992, Ed. by A. S. Balasubramaniam et al., Balkema.
3. Binh N. D., **P.H. Giao** and A. Das Gupta (1996), An Application of CAD in Analysis of Pumping Test Data, *Proc. 10th Congress of APD-LAHR*, August 26-29, 1996, Malaysia.
 4. **Giao P. H.**, N. Phien-wej, and Y. Honjo (1997), FEM Quasi-3D Modelling of Responses to Artificial Recharge in a Multiaquifer System, *Proc. International Congress on Modelling and Simulation, MODSIM97*, Vol. 2, pp. 591-596, Hobart, Tasmania, 8-11 December 1997. It was selected as one of the best papers to be published in the Intl' Journal of Environmental Modelling and Software 14(1999) 141-151, Elsevier
 5. **Giao P. H.**, N. Phien-wej, and P. Nutalaya (1998), Analysis of a Recharge Well Experiment, *Proc. of the 3rd Intl' Symp. on Artificial Recharge of Groundwater - TISAR 98*, Ed. by Jos H. Peters et al., pp. 447-450, Amsterdam 21-24 September 1998, Netherlands.
 6. Phien-wej N., **P. H. Giao** (1998), Bangkok Land Subsidence Analysis with reference to Settlement of the Bangna-Bangpakong Highway, *Proc. Intl'. Symp. on Lowland Technology*, pp. 513-520, Saga University, Saga, Nov. 4-6, 1998, Japan.
 7. Phien-Wej N., **P. H. Giao** and P. Nutalaya (1999), Applicability of Artificial Recharge in the Bangkok Aquifer System, *Proc. of the 11th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering*, pp. 427-430, Seoul '99.
 8. Chung S. G., J. M. Kwag, **P. H. Giao** and M. C. Chang (2000), Study on the Effects of Soil Disturbance on the Results of Geotechnical Testing of the Pusan Clays, *Proc. Intl'. Symp. on Lowland Technology*, pp. 135-142, Saga University, Saga, Oct. 4-6, 2000, Japan.
 9. **Giao P. H.**, S. G. Chung and D. D. Yoon (2000), Settlement Analysis of the Pusan Clays with reference to Reclamation Projects, *Proc. Intl'. Symp. on Lowland Technology*, pp. 143-152, Saga University, Saga, Oct. 4-6, 2000, Japan.
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 12. Chung S. G. and **P. H. Giao** (2001), Challenges in geotechnical engineering of Pusan clays, *Proc. International Conference IGC-2001*, Vol. 2: 23-28, 14-16 December, Indore, India.
 13. **Giao P. H.**, S. G. Chung and S. K. Kim (2002), The Need of Harmonization of Pusan Clay Investigation, *Proc. International Workshop on Foundation Design Codes and Soil Investigation in view of International Harmonization and Performance Based Design*, IWS Kamamura 2002. Ed. by Honjo et al., pp. 169-174, Tokyo, Balkema.
 14. Chung S. G., **P. H. Giao**, J. M. Kwag and H. Tanaka (2002), A Comparative Study on Korean and Japanese Samplers in Investigation of Pusan Clays, *International Workshop on Foundation Design Codes and Soil Investigation in view of International Harmonization and Performance Based Design*, April 2002, Tokyo, Japan. Ed. by Honjo et al., pp. 183-189, Tokyo, Balkema.
 15. Chung S. G., **P. H. Giao** and H. Tanaka (2002), Geotechnical Characteristics and Engineering Problems of Pusan Clays, Invited Paper, *Proc. International Workshop on*

- Characterization and Engineering Properties of Natural Soils, 2-4 Dec 2002, Singapore*, Tan et al. (eds), Swets & Zeitlinger, Lisse, ISBN 90 5809 537, pp. 505-541.
16. **Giao P. H.**, P. Satarugsa and N. Phien-wej (2003), Investigation of a Salinized Soil Ground by Electric Resistivity Tomography (ERT) Technique, *Proc. Advances in Geotechnical Engineering "SAGE-2003"*, 7-11 March, IIT, Kanpur, India
 17. **Giao P. H.** (2003), A Comparative Study of Different Electrode Configurations in Investigation of a Fresh-Saline Water Interface, *Proc. of the 9th European Meeting of Environmental and Engineering Geophysics*, Prague, 2003, paper 079.
 18. **Giao P. H.** (2003), Groundwater Development and Land Subsidence in Hanoi, Risk and Control, *Proc. Intl' Conf. on Geoenvironmental Engineering*, Singapore, 9-10 December 2003.
 19. **Giao P. H.** and N. Phien-wej (2004), A FEM Program on Land Subsidence Analysis, *Proc. Intl' Workshop – Hanoi Geoengineering 2003-2004*, p. 77-82, Vietnam National University Publishing House, Hanoi.
 20. Takemura J. Y. Watabe, M. Tanaka, B. T. Man, L. T. Hanh, **P. H. Giao**, C. N. Sung, D. C. Thuan, N. H. Thanh and T. H. Hung (2004), Collaborative Research on Characterization of Soft Clays in Vietnam. *Proc. Intl' Workshop – Hanoi Geoengineering 2003-2004*, p. 5-16, Vietnam National University Publishing House, Hanoi.
 21. **Giao P. H.** and N. T. Dung (2004), Electric Imaging of Ca Mau Soft Clay Deposits with reference to Oil and Gas Facility Development, *Proc. Intl' Symp. Shallow Geology and Geophysics, April 12 to 14, 2004*, Hanoi, Vietnam, p. 41-50.
 22. **Giao P. H.** and K. Adisornsupawat (2004), Design and Implementation of a Semi-automatic Electric Imaging Procedure to Investigate the Soft Clay Ground at NBIA, p. 223-226, *Proc. of the Intl' Symp. On Lowland Technology*, Sept. 1-3, 2004, Bangkok, Thailand.
 23. **Giao P. H.** (2004), Electric Imaging of Bangkok Clay for Geotechnical Purposes, *Proc. of the 7th SEGJ International Symposium – Imaging Technology*, 24-26 Nov. 2004, Sendai, Japan, p. 481-486.
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 25. Thang P. D. and **P. H. Giao** (2005), A Study on Enhanced Oil Recovery of the White Tiger Oil Field using Polymer Injection, *Proc. Conference for 30th Anniversary of Oil and Gas Industry in Vietnam*, Hanoi, September 2005.
 26. **Giao P. H.** (2005), *Development of a Multidisciplinary and Application Oriented for Graduate Education and Research in Geosystem Exploration and Engineering*, Keynote lecture, *Proc. Intl' Workshop Hanoi Geoengineering 2005*, November 2005, Hanoi, Vietnam, p. 20-28.
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29. N. H. Minh and **P. H. Giao** (2005), *Well Test Analysis for Fractured Basement of the Rangdong Oil Field*, Proc. Intl' Workshop Hanoi Geoengineering 2005, November 2005, Hanoi, Vietnam, p. 322-330.
30. Thang P. D. and **P. H. Giao** (2005), *A Study on Polymer Injection as a Possible EOR method for the Fractured Basement of the White Tiger Oil Field, Southern Offshore of Vietnam*, Proc. Intl' Workshop Hanoi Geoengineering 2005, November 2005, Hanoi, Vietnam, p. 322-330
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32. **Giao P.H.**, K. Adisornsupawat, N. Phien-wej (2006), *Electric Imaging of the Bangkok Clay at the Site of The New International Bangkok Airport (NBIA)*, Special Lecture, Proc. Intl' Symp. on Geotechnical Aspects of the 2nd Bangkok International (Suvarnabhumi) Airport in Thailand, 15 - 16 May, 2006, Bangkok, Thailand, p. 1147-156.
33. **Giao P. H.** and C. Vichalai (2006), *Construction of a Geophysical Testing Site on Soft Clays*, Proc. the 8th SEGJ Intl' Symposium – Geophysical Imaging and Interpretation, p. 277-282, The Society of Exploration Geophysicists of Japan, November 26-28, 2006, Kyoto, Japan.
34. **Giao P. H.** and D. H. Hien (2007), *Shallow Exploration of Bangkok Clay using Multiple Square Arrays*, Proc. of the 11th Intl' Symp. on Recent Advances in Exploration Geophysics, in Kyoto (RAEG2007), p. 99-106, Kyoto, Japan;
35. **Giao P. H.**, Prinya Putthapiban and C. Vichalai (2007), *Geophysical Investigation of Wangkanai and Hindat Hot spring Sites with Reference to Development of Tourism Industry in Kanchanaburi, Thailand*, Proc. Intl' Conference on Geology of Thailand: Towards Sustainable Development and Sufficiency Economy, 21-22 November 2008, Bangkok, Thailand
36. **Giao P. H.**, C. Vichalai and D. H. Hien (2007), *A Study on Geotechnical and Geophysical Properties of Styrofoam Material for Construction of a Concrete Pavement Model*, Proc. Intl' Symp. Hanoi Geoengineering 2007, November 2007, Hanoi, Vietnam, p. 11-17.
37. **Giao P. H.** & T. T. Thoang (2008), *Characterization of Some Vietnamese Marine Clay Deposits with reference to the Effect of Sea Level Change and Correction of the Sediment Accumulation Curve*, Proc. 6th Intl. Conf. Asian Marine Geology, Sept., June 2008, Kochi, Japan.
38. **Giao P. H.** & Prinya P. (2008), *An Exploration and Engineering Study of Some Hot Spring Systems in Western Thailand for Local Tourism Development*, 8th Asian Intl. Symp. , December 2008, Hanoi, Vietnam.
39. N. M. Quy, T. V. Long and **P. H. Giao** (2008), *Analytical Assessment of Horizontal Well Efficiency for Improvement Oil Recovery of the Southeastern Dragon Oil Field in Southern Offshore Vietnam*, Proc. Intl' Symp. Fractured Basement Reservoir, PetroVietnam 2008, Science and Technical Publishing House, Vietnam.

40. **Giao P. H.** , T. Suwanishwong and N. Phien-wej (2009), *Applicability of Aquifer Storage Transfer and Recovery (ASTR) to Restore Groundwater in a Depleted Fractured Sandstone Aquifer, Northeastern Thailand*, Proc. Int'l on Efficient Groundwater Resources Management, the Challenge of Quality and Quantity for Sustainable Future, IGS-TH 2009, Bangkok, Thailand
41. **Giao P. H.** & N. Q. Cuong (2009), *An Experimental Study on Applicability of Electrical Resistivity Tomography (ERT) to Monitor the Chemical Grouting in Sandy Soil*, paper accepted for The 9th SEGJ Intl' Symp. on Imaging and Interpretation, Society of Exploration Geophysics of Japan, 12-14 October, 2009, Hokkaido, Sapporo, Japan
42. Chanarop V., **Giao P. H.** and Avirut P. (2009), *Integrated analysis of high resolution seismic and geotechnical data using open source software for an offshore drilling rig site*, paper accepted for The 9th SEGJ Intl' Symp. on Imaging and Interpretation, Society of Exploration Geophysics of Japan, 12-14 October, 2009, Hokkaido, Sapporo, Japan
43. **Giao P. H.** (2009), Geophysical check of the PVD-improved ground at the Suvarnabhumi International Airport (SBIA) regarding a possible upward groundwater leakage, Proc. of the International Symp. on Geotechnical Engineering, Ground Improvement and Geosynthetics for Sustainable Mitigation and Adaptation to Climate Change including Global Warming, 3 to 4 December 2009, Bangkok, Thailand.
44. Tuyen D. V., D. V. Toan, T. V. Bac and **P. H. Giao** (2010), *The Geothermal Resources and Potential in Hanoi Basin, Vietnam*, Proc. World Geothermal Congress 2010, Bali, Indonesia, 25-29 April 2010.
45. **P. H. Giao**, Uma S. & A. Puttiwongrak (2010), *Measuring Electric Resistivity of Natural and Petroleum-Contaminated Bangkok Clay Samples*, 190-193 pp., Proc. 7th Intl' Symposium on Lowland Technology, 16-18 September 2010, Saga, Japan.
46. Seeboonruang U. and **P. H. Giao** (2010), Review on Total Petroleum Hydrocarbon Subsurface Contamination and a Guideline towards Thailand Situation, 173-182 pp., Proc. Intl' Symp. Hanoi Geoengineering 2010, 22-23 November 2010, Hanoi, Vietnam.
47. Puttiwongrak A. & **P. H. Giao** (2010), *Interpretation of Seismic Data in a Site Investigation for Subsea Cable Installation*, 323-326 pp., Proc. Intl' Symp. Hanoi Geoengineering, 22-23 November 2010, Hanoi, Vietnam.
48. **Giao P. H.** (2011), *Electric Imaging (EI) of Soft Clay Deposits in Some East and Southeast Asian Deltas*, paper accepted for the 14th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, 23-27 May 2011, Hong Kong.

A.3 PAPERS IN WORKSHOPS/SEMINARS

1. **Giao P. H.** & T. T. Thoang (2010), *A Preliminary Assessment of Intrinsic Compression of the Red River Delta Soft Clay*, JSPS and CCOP/GSJ/AIST Seminar on Monitoring and Evaluating Coastal Erosion in Deltas, 3rd Annual Meeting of JSPS AA Science Platform: Mega-Delta Watching in Asia & Third Annual Meeting of CCOP DelSEA-II project, 24-26 November, Hai Phong, Vietnam
2. **Giao P. H.** (2010), *3D modeling of groundwater recovery and its effects on substructures in the Bangkok aquifer system: problem identification and outline of study methodology*, Proc. EIT-Japan-AIT Seminar on Engineering for Geo-Hazards: Earthquakes and

Landslides –for surface and Subsurface Structures, September 6-8, 2010, Imperial Queen's Park Hotel, Bangkok, Thailand.

3. **Giao P. H.** (2009), *Negative Dynamic Poisson's Ratio Obtained from the Ultrasonic Testing Measurements on Rock Core Samples, Nam Theung 2 Dam site*, Proc. EIT-Japan-AIT Seminar on Geotechnical Infrastructure Asset Management, September 7-8, 2009, Imperial Queen's Park Hotel, Bangkok, Thailand.
4. **Giao P. H.**, C. Vichalai and M. Raksaskulwong (2006), *Geophysical Survey at the Ban Khaopung Hot Spring Site in Kanchanaburi Province of Thailand Using Electric Imaging and Magnetic Susceptibility Methods*, Proc. EIT-Japan-AIT Seminar on Georisk Engineering, Monitoring and GeoExploration, p. 28-34, Engineering Institute of Thailand, Bangkok, Thailand.
5. **Giao P. H.** (2005), *Electric Imaging of Some Asian Coastal Soft Clay Deposits*, Proc. ATC12 Asian Workshop on "Land Reclamation and Coastal Structures in Asia", Asian Technical Committee 12 (ATC12) of ISSMGE, 24 November 2005, Hanoi, Vietnam.
6. **Giao P. H.**, N. Phien-wej, S. Athichanagorn and P. Satarugsa (2005), The Asian Horizon 21 (AH 21) Project - A trilateral collaboration in development of a new application-oriented education and research program on geoexploration technology, *Proc. 1st AIT-RTG Joint-Research Public Seminar, Asian Institute of Technology*, 8 August 2005, 125-128.
7. **Giao P. H.**, N. Phien-wej, K. Adisornsupawat and V. Singh (2005), Applicability of electric imaging in site investigation for reconstruction and emergency response in a tsunami-affected beach in Phuket, *Proc. the Regional Scientific Forum on the Tsunami, its Impact and Recovery*, p. 77-84, 6 – 7 June 2005, the Asian Institute of Technology, Thailand.
8. **Giao P. H.** (2004), Some Considerations on Problems and Solutions of Hanoi Land Subsidence – Part II: Analysis and Mitigation, an Invited Lecture, *Proc. of EIT- Japan – AIT Joint Workshop on Geo-engineering in Groundwater, Land Subsidence, Exploration Geophysics and Underground Rock Engineering*, Sept. 20-21, 2004, Bangkok, Thailand.
9. **Giao P. H.** (2004), Some Considerations on Problems & Solutions of Hanoi Land Subsidence – Part I: Assessment and Monitoring, an Invited Lecture, *Proc. of the 3rd VAST-Hanoi University of Mining and Geology-Japan Joint Workshop*, Sept. 13-14, 2004, Hanoi, p. 2-9, Vietnamese Academy of Science & Technology in collaboration with Kyoto University.
10. **Giao P. H.**, Chung S. G. and J. M. Kwag (2000), An Updated Review of Geotechnical Characteristics of Pusan Clay, *the BK21 Geotechnical Workshop*, Dong-A University, Korean Geotechnical Society, May 15, 2000, Pusan, Korea.
11. **Giao P. H.** and S. G. Chung (2000), Some Theoretical and Practical Considerations on the Application of Dewatering to Accelerate Consolidation of the Pusan Clay, *the BK21 Geotechnical Workshop*, Dong-A University, Korean Geotechnical Society, March 29, 2000, Dong-A University, Pusan, Korea.
12. **Giao P. H.** (2000), An Assessment on Hanoi Land Subsidence Investigation, *Workshop on Groundwater Resource Protection and Monitoring of Land Subsidence*, Organized by Plancenter Ltd. and Hanoi Water Business Company, Hanoi, 25 April, 2000.

13. **Giao P. H.**, S. G. Chung and D. D. Yoon (2000), Settlement Analysis of Yangsan Soft Clay, *Proc. of Workshop on Thick Deltaic Deposits, Asian Technical Committee ATC-7*, ISSMGE, pp. 18-37, February 24, 2000, Dong-A University, Pusan, Korea.
14. Chung S. G., **P. H. Giao**, G. J. Kim and D. D. Yoon (2000), Investigation of Hydraulic Characteristics of Yangsan Soft Clay, *Proc. of Workshop on Thick Deltaic Deposits, Asian Technical Committee ATC-7*, ISSMGE, February 24, 2000, Dong-A University, Pusan, Korea
15. **Giao P. H.**, N. Phien-wej, and Y. Honjo (1997), *Quasi-3D Modelling of Artificial Recharge*, International Workshop EMT'97, Engineering Mechanics Today, Hanoi, 1-3 August 1997, Vietnamese Academy of Science and Technology.

A.4 DEVELOPMENT/RESEARCH PROJECT REPORTS

1. Nutalaya P., N. Phien-wej and **P. H. Giao** (1996), Artificial recharge for mitigation of the Bangkok aquifer system, *Final report* submitted to International Development Research Centre (IDRC) of Canada. School of Civil Engineering, Asian Institute of Technology, Bangkok, Thailand
2. **Giao P. H.** (2000), *Report on Hanoi Land Subsidence*, Plancenter Ltd., Finland, and Hanoi Water Supply Program on Hanoi Land Subsidence Investigation, Hanoi Water Business Company.
3. **Giao P. H.**, N. Phien-wej, S. Peangta and S Athichanagorn (2003), *Final Report*, The Asian Horizon 21 Project – A trilateral AIT-KKU-CU collaboration in development of a new application-oriented education program on geosystem exploration technology for Thailand, funded by the Royal Thai Government
4. **Giao P. H.** (2006), Interim Report of the first year for Asian Partners, the Asia-Link project BRIDGE (*Building Human Resources In the Development of Academic Programmes in Sustainable Geosystem Exploration and Engineering*)
5. **Giao P. H.** (2007), Final Report, Construction of a Concrete Pavement Model and GPR Survey with Data Interpretation, funded by Department of Highways of Thailand
6. Mares S., van der Meer F. and **P. H. Giao** (2009), Bridge project final report submitted to EC, Asian-Link project "*BRIDGE - Building human Resources In the Development of academic programs in sustainable Geosystem engineering and Exploration*".

A.5 INVITED & KEYNOTE LECTURES

1. **Giao P. H.** (2010), *Reservoir Characterization and Well Test Analysis for a Fractured Granitic Basement Reservoir*, Invited lecture, 1st World Congress on Well Simulation and EOR (WSEOR), 12-14 April, 2010 Chengdu, China.
2. **Giao P. H.** (2008), *Recognising development trends of research and technology in the exploration and production (E&P) field - Benefiting from case studies related to E&P of fractured granite basement offshore Vietnam*, Invited lecture, World Engineering Congress, Upstream Oil and Gas Forum, Bangkok June 16-18, 2008.

3. **Giao P. H.** (2007), Near-Geophysical Mapping of a Weathered Granite Hillside Slope by Electric Imaging for Reconstruction and Emergency Response in Phuket, Thailand, Invited Lecture, *Intl' Workshop on Slope Management and Monitoring, DEMEX 2007*, 22-25 June 2007, Seoul, Korea.
4. **Giao P. H.** (2005), Development of the GEPG program at AIT and its role in implementing the BRIDGE Project (2005-2008), Kick-off workshop of the Asia-Link project BRIDGE (*Building Human Resources In the Development of Academic Programmes in Sustainable Geosystem Exploration and Engineering*), 14-15 November 2006, AIT, Bangkok, Thailand.
5. **Giao P. H.**, N. Phien-wej, S. G. Chung, A. Kanitthorn and A. Auttakit (2003), Time-dependent Geophysical Monitoring of an Improved Airport Subsurface, *Presentation at Technical Committee TC10 – Geophysical Testing in Geotechnical Engineering*, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), 27 August, Prague, The Czech Republic.
6. **Giao P. H.** (2002), Introduction on the Geosystem Exploration and Petroleum Geoengineering and Possibilities of Collaboration with the Academic and Industrial Partners in the SE Asia, especially with Vietnam. *Presentation at the workshop on "Training and HR Development for Oil and Gas Industry in Vietnam"*, organized by PetroVietnam Exploration and Production (PVEP), 27 August 2002, Thanh Da, HCM City, Vietnam.
7. **Giao P. H.** (2002), Development of a Computer Code for Settlement Analysis of an Improved Soft Ground: Practical Guidance and Demonstration. *The BK21 Special Invitation Lecture*, Dong-A University, 13 August 2002.
8. **Giao P. H.** (2001), Some Applications of Engineering and Environmental Geophysics in Geotechnical Engineering, *Presentation at Gifu University*, Japan, 28 March 2001.
9. **Giao P. H.** (2001), Some Aspects of Geophysical Investigations of Clayey Soils, *Presentation at Korea Highway Corporation*, Seoul, Korea, 28 June 2001.
10. **Giao P. H.** (2000), Land Subsidence due to Groundwater Pumping and its Mitigation, Some South East Asia Experiences, *Seminar at Korean Institute of Construction Technology*, KICT, Seoul, 27 July 2000.
11. **Giao P. H.** (2000), Hanoi Land Subsidence Investigation and Aspects Related to Development of an Engineering and Environmental Geology Program, *Seminar at Faculty of Geology, Hanoi National University of Science*, Hanoi, 27 April 2000.
12. **Giao P. H.** (1983), Theory and Application of Geothermal Prospecting, June 1983. *Invited lecture*, Geophysics Department, Hanoi University of Mining and Geology.

B. Research in Progress and to be followed up

- Application of electric imaging in investigation of a petroleum-contaminated site at the Don Muang airport;
- Application of ANN analysis in well logging interpretation;
- Study on geopressure in Khorat and Cuu Long basins and the Gulf of Thailand.
- Applicability of CSEM method in oil and gas exploration;
- Characterization of soft clays in Vietnam and land subsidence analysis of some cities in Vietnam;

- Geoengineering of fractured granite basement reservoirs

C. Research grants and sponsored projects

1. Principal Investigator, The Asian Horizon 21 Project – A trilateral AIT-KKU-CU collaboration in development of a new application-oriented education and research program on geosystem exploration technology for Thailand, 2002-2004, granted by the Royal Thai Government.
2. Principal Investigator, The ITC Refresher Course Project - Imaging the Future - Global Monitoring of the Environment, granted by Dutch Government, AIT 2003.
3. Research Team Member, Project on Collaboration research on characterization of soft soil in Mekong Delta, 2004-2006, granted by Japanese Government and led by Geotechnical Group, Tokyo Institute of Technology (TIT).
4. Project Coordinator for Asia, Asian-Link project "*BRIDGE - Building human Resources In the Development of academic programs in sustainable Geosystem engineering and Exploration*" from 2005 to 2008, with the partnership of ITC (the Netherlands), Stockholm University, AIT, VNU (Vietnam National University) and NUOL (National University of Laos), granted by EC.
5. Project Coordinator, the training course on “*Technology Transfer in Geotechnical and Geophysical Field Testing*”, 20 - 28 March 2006 at AIT, Bangkok, Thailand, granted by the Vietnamese Ministry of Education and Training
6. Principal Investigator, *Construction of a Concrete Pavement Model and GPR Survey with Data Interpretation*, from Nov. 2006 to September 2007, granted by Department of Highways of Thailand
7. Principal Investigator, project “*Near-Surface Geophysical Investigation of the Suvarnabhumi International Airport of Bangkok (SBIA)*”, to be funded by AOT. The proposal Aug 2007 – August 2009. .
8. Mentor for two winner Research Grants for Disaster Risk Reduction awarded by the ProVention Consortium in 2003, by Nhu Nguyen Hong Cuong (Vietnam) and H. Nam (Vietnam), respectively.
9. Principal Investigator, RTG-funded project “A geoenvironmental-geophysical investigation of petroleum-contaminated soil at the Donmuang Airport site using Electrical Imaging Technique”, Aug 2009 - Aug. 2010.
10. Principal Investigator, PME-GEFG F30 Projects, sponsored by Oil and Gas companies in Vietnam since August 2008.
11. Principal Investigator, PME-GEM F30 Projects, sponsored by construction and geotechnical companies in Vietnam since January 2009.

Summary on Sponsored/Research Projects & Supporting Agencies

Year	Project Name	Sponsor agencies	Budget (THB)	OH/ Scholarship (THB)	Faculty
2002	AH21 Project	RTG	1,000,000.00	-	PHG,

					NP
2003	ITC Refresher Course	ITC	1,500,000.00	-	PHG
2005-08	Asia Link – BRIDGE	EC	4,674,126.00	1,728,000.00	PHG, NP
2006	Technology Transfer in Geotechnical & Geophysical Field Testing	MOET	86,000.00	33,000.00	PHG
2007	Construction of a Concrete Pavement Model & GPR Survey & Data Analysis	DOH	183,093.00	36,000.00	PHG
2007	Near-Surface Geophysical Investigation of the SBIA	AOT-IMMS	1,281,000.00	218,000.00	PHG
2009	GDMEI (Geoenviron.- Geophysical Investigation of Petroleum-Contaminated Sites in Thailand)	RTG	950,000.00	187,040.00	PHG
Professional Master Programs in HCM City, Vietnam (PME-GEPG & PME-GEM)					
2008	PME-GEPG01	O&G Companies	3,438,750.00 (98,250 USD)	963,795.00 (27,537 USD)	PHG
2009	PME-GEPG02	O&G Companies	4,559,450.00 (130,270 USD)	1,575,560.00 (45,016 USD)	PHG
2009	PME-GEM01	Construction Companies	4,338,985.00 (123,971 USD)	1,516,970.00 (43,342 USD)	PHG, NP
2010	PME-GEPG03	O&G Companies	4,083,485.00 (116,671 USD)	1,465,170.00 (41,862 USD)	PHG
2010	PME-GEM02	Construction Companies	4,345,250.00 (124,150 USD)	1,495,515.00 (42,729 USD)	PHG, NP
Note: PHG = Giao, NP = Noppadol					

V. SERVICE/OUTREACH

A. Professional Service - Organization of training course courses, conferences, seminars and workshops:

Short courses and Training courses:

- Coordinator, Short course on *Well Testing Analysis*, in Hanoi, 23-26 September, 2002, jointly conducted by GEPG program of AIT and Vietnam Petroleum Institute (VPI). The course was funded by PetroVietnam and other Oil and Gas Ventures operating in Vietnam.
- Coordinator, Short course on *Offshore Structure Engineering*, in Hanoi, 21-25 July, 2003, jointly conducted by GEPG program of AIT and Vietnam Petroleum Institute (VPI). The

course was funded by PetroVietnam and other Oil and Gas Ventures operating in Vietnam.

- Co-organizer, ITC Refresher Course at AIT “*Imaging the Future - Global Monitoring of the Environment*”, Bangkok, Thailand, 4-15 August, 2003, an international training course, jointly conducted by GEPG program of AIT and Programme of Earth Resources and Environmental Geosciences of ITC (International Institute for Geo-Information Science and Earth Observation). The course was funded by NUFFIC, the Netherlands Government.
- Member of the Organization Team, NUFFIC Refresher Course by ITC-VNU-AIT “*Geosystem exploration and engineering; a systems approach integration earth observation and geoscience information*”, 4-15 October, 2004, Hanoi, Vietnam. The course was funded by NUFFIC, the Netherlands Government.
- Co-organizer and Speaker, AIT-DMR Workshop and Training Course on “*Electric Imaging of Subsurface and its Application in Geosystem Engineering*”, co-funded and jointly conducted by AIT and Department of Mineral Resources of Thailand (DMR) in collaboration with University Sains Malaysia, 01-04 November 2004, AIT, Bangkok, Thailand
- Co-organizer, short course on *Petroleum Engineering*, jointly organized by Vietnam Petroleum Institute (VPI), Kyoto University and AIT, supported by Kyoto University and PetroVietnam, 25-29 July, 2005
- Co-organizer and Speaker, The geophysical training course on “*Integrated Applications of Ground Penetration Radar and Electric Imaging for Solving Engineering Problems*”, funded and jointly conducted by AIT and Department of Mineral Resources of Thailand (DMR) in collaboration with Tohoku University (Japan), 7-9 November, 2005, AIT, Bangkok.
- Coordinator and speaker, training course on “*Technology Transfer in Geotechnical and Geophysical Field Testing*”, funded by Vietnamese Ministry of Education and Training, 20 to 28 March, 2006.
- Co-coordinator and speaker, training course on “*Modern Research & Investigation Methods in Geotechnical Engineering and Geo-system Exploration*”, Vietnam National University, Hanoi, and National University of Laos, Vientiane, 26 - 30 June, 2006, sponsored by the EC-funded Asia-Link BRIDGE project.
- Co-organizer, Schlumberger-AIT training course on “*Reservoir Simulation using Eclipse*”, 22-23 January 2008, Asian Institute of Technology, Bangkok, Thailand
- Co-organizer, Schlumberger-AIT training course on “*Introduction to Interactive Petrophysics Software and Introduction to Petrel Software*”, 18-24 December 2008, Asian Institute of Technology, Bangkok, Thailand

International Symposiums and Conferences

- Member of the Conference Committee, *International Conference on Geo-Environmental Engineering*, 09-10 December, Singapore.
- Member of the organization committee, *International Conference on Shallow Geology and Geophysics, HN_SGG 2004*, 11-12 April 2004, Hanoi, Vietnam.
- Co-chairman, *International Workshop-Hanoi Geoengineering 2004*, October, Hanoi, Vietnam.
- Co-Organizer, the ATC12 (ISSMGE) Asian Workshop on “*Land Reclamation and Coastal Structures in Asia*”, 24 November 2005, Hanoi, Vietnam.
- Co-chairman and Chief-Editor, Intl’ Workshops of “*Hanoi Geoengineering*” 2003, 2004 and 2005, Hanoi, Vietnam

- Co-chairman and Chief-Editor, Intl' Symposium of “*Hanoi Geoengineering*”, November 2007, Hanoi Vietnam.
- Co-chairman and Chief-Editor, Intl' Symposium of “*Hanoi Geoengineering*” 2010, 22-23 November 2010, Hanoi

Technical seminars: since 2002 I have organized a number of technical seminars at AIT for the students and public audience on geophysical, O&G exploration and other geosciences topics with the speakers from Vietnam Petroleum Institute, ITC, Clausthal University of Technology, Kyoto University, AIST (Japan Geological survey), Department of Mineral resources of Thailand (DMR), Siam Meoco O & G company, TPA (France), Kyushu University (Japan), CCOP, etc.

B. Significant institute committee service

I am an active member of SET-VN program coordinators' group and helped to develop linkages with many national organizations and institutions. I have served as a member of the election committee for the senate chair and faculty representative in 2007 and joined in teaching and assisting in coordination of the institute-wise course IN009012. Currently I am a member of the UG working group and actively involved in development of the UG curriculum for Civil and Infrastructure Engineering. I have helped to bring a good number of Vietnamese UG students to AIT.

C. Administrative service

- Coordinator of the GTE FoS (since June 2010). Active participation in the GTE survival meetings and related activities as required by the school and institute.

- Coordinator of the GEPG program (2002- present): responsible for all activities to develop this new interdisciplinary program since 2001, including need assessment, proposal writing, curriculum development, recruitment, teaching and supervision, operation and management of daily works. The number of GEPG graduates is more than 40 this year and many of them are working now in the oil and gas industry with good positions.

- Joint coordinator of the OTM program (2006-2008), in charge of the subsurface module and has played an active role in setup, curriculum development, recruiting, teaching as well as other related activities.

- Coordinator of the Professional Master Program in Geoexploration and Petroleum Geoengineering (PME-GEPG), HCMC, Vietnam since August 2008. The program started to be known among the oil and gas companies operating in Vietnam, especially in the South of Vietnam. Consequently, the second batch with a better number of students enrolled will be able to start from this August 2009 intake.

- Joint-Coordinator of the Professional Master Program in Geotechnical Engineering and Management (PME-GEM), HCMC, Vietnam since January 2009.

D. Promotion and Marketing

- Active participation in developing collaboration between SET and partners in Vietnam, Myanmar as well as other universities and companies in Thailand for collaboration in education and research in geosciences and geo-engineering such as Department of Mineral Fuels (DMF), Department of Mineral Resources (DMR), Department of Groundwater Resources (DGR), Coordinating Committee for Geosciences Programmes in East and South East Asia (CCOP), Schlumberger, PTTEP, Chevron, Mahidol University, King Mongkut Institute of Technology, Lad Krabang (KMITL), Kassersart University, Chulalongkorn University, Central Water & Power Research Station, Pune, India etc.
- Facilitating and assisting in signing MOUs with Hong Duc University, Vietnam Petroleum Institute, Department of Mineral Resources of Thailand (DMR), the ITC of the Netherlands (International Institute for Geo-Information Science and Earth Observation), Kyoto University (Japan), KIGAM (KOREA), Schlumberger Overseas Co., dGB Earth Sciences, Hanoi Construction Department, Le Quy Don University of Technology (Vietnam), Can Tho People's committee.
- Initiation and follow-up activities that bring to donation of software worth of 1.5 million USD to AIT from Schlumberger Overseas Co., one of the biggest geophysical companies in the world, for education and research in oil and gas upstream technologies.
- Initiation and successfully acquiring the support from dGB Earth Sciences on the donation of the OpendTect software for seismic interpretation.
- Help to develop an effective network with oil and gas companies as well as the geotechnical and construction companies in Vietnam that have led to successful launching of two professional programs of SET in Vietnam, and namely, PME-GEPG and PME-GEM.
- I could have developed a very good network in geophysics and geotechnical engineering with colleagues from East Asia countries like Japan and Korea, to Europe, to whom AIT can send the good students for further PhD studies. I am also working with colleagues in from BGR (Germany), BGRM (France) and Department of Earth Science and Engineering, Imperial College London (UK) on geological storage of CO₂ with respect to clean energy and global climate change.

E. Community service

1. Consulting activities:

- International consultant expert to Plancenter Ltd., Finland, and Hanoi Water Supply Program on Hanoi Land Subsidence Investigation in 1999 and 2000.
- Consultant to geotechnical engineering companies (e.g., Daewoo Engineering Co., Dohwa Engineering Co., Dong Ah Geological Co.) in Busan, Korea in 2000 and 2001 on site investigation and settlement analysis of reclaimed clay.
- Advisor and collaborator for a number of R&D institutes and companies in Vietnam such as Hanoi Institute of Building Technology (HIBT), Hanoi Water Company, Vietnam Petroleum Institute (VPI), Geophysical Technology Co. Ltd., PortCoast, and so on.
- Consultant on artificial recharge and geophysical testing for some Thai geotechnical companies

2. Refereeing of journal articles, books etc.

- Having served as a referee for the following: Journal of *Lowland Technology International (LTI)* of the International Association of Lowland Technology; the Journal of *Geotechnical Engineering* the South East Asian Geotechnical Society (SEAGS); the Journal of *Soils and Foundations* of the Japanese Geotechnical Society (JGS); the *Journal*

of African Earth Sciences (JAES), Elsevier; the *Journal of Engineering Geology*, Elsevier; the *UTM Journal of Civil Engineering*, Malaysia, the *Journal of Environmental and Engineering Geophysics* (USA), *Journal of Geophysics and Engineering*, JGE (Institute of Physics and IOP Publishing Ltd., UK), *Journal of Applied Geophysics*, Elsevier

- Chief Editor, Proceedings of the Intl' Workshops & Symposiums Sries "Hanoi Geoengineering" 2003, 2004, 2005, 2007 & 2010.
- Guest Editor for *Geotechnical Journal*, Vietnam Geotechnical Society
- Paper reviewers for a number of international symposiums and conferences.

VI. Ability to Cooperate

- I cooperate well with the other colleagues in the field, school and institute as well as with those outside AIT, including many overseas (Europe, Japan, Korea etc.) as seen in the joint publications, joint research grants and sponsored projects, development of multidisciplinary programs (e.g., GEPG, PME-GEPG, PME-GEM and OTM) as mentioned in the previous sections II (Pedagogy) and IV (Research).
- Outside of SET, I have helped our colleagues in SERD in developing the new PME program in EEM by sharing with them our experiences.