

CURRICULA VITAE

Position	Team Leader
Surname	SEAH
First Name	TIAN HO
Nationality	MALAYSIAN
Date of Birth	6 th January 1964
Education	Doctor of Science in Geotechnical Engineering , 1990, Massachusetts Institute of Technology, USA. Bachelor of Science in Civil Engineering with First-Class Honours, 1985, King's College, University of London, Great Britain
Languages	English, Thai, Chinese
Professional Affiliations	Special Member of the Council of Engineers Thailand (No. 150864) Advisory Member of the Engineering Institute of Thailand

Experience Record (Major Projects only):

2013-Present

ALFA GEOTECH COMPANY LIMITED

Thailand and Abroad

Geotechnical Specialist, responsible for investigating possible causes of airfields pavement settlement at Kuala Lumpur International Airport 2 (KLIA2) (Malaysia)

Geotechnical Engineer, responsible for design of subdrain system for Satellite Apron zone at Suvarnabhumi International Airport (Thailand).

Geotechnical Advisor, responsible for review of soft soil treatment of Thu Thiem Urbanized Development project in Ho Chi Minh City (Vietnam).

Geotechnical Advisor, responsible for review of Stone Column and Piling Works of IRPC UHV Project in Rayong (Thailand).

Geotechnical Consultant, responsible for review of Piling Works of Uthai 1,600 MW Combined Cycle Power Plant (Thailand).

Geotechnical Engineer, responsible for construction supervision of ground improvement for Ho Chi Minh-Long Thanh Expressway (Vietnam).

2000/2013

MAA GEOTECHNICS COMPANY LIMITED

Thailand

Geotechnical Engineer, responsible for execution of soil investigation work of IRPC UHV Project in Rayong (Thailand).

Geotechnical Consultant, responsible for water pond design of Uthai 1,600 MW Combined Cycle Power Plant (Thailand).

Geotechnical Engineer, responsible for site assessment of Power Plant project under GULF JP in Suranaree (Thailand)

Geotechnical Specialist, responsible for flood protection design of TOSTEM Plant in Pathum Thani (Thailand).

Geotechnical Specialist, responsible for flood protection design of TDK Thailand Plant in Ayutthaya (Thailand).

Geotechnical Specialist, responsible for conceptual flood protection design of Thai Namthip Plant in Pathum Thani (Thailand).

Geotechnical Specialist, responsible for flood protection design of Hitech Industrial Estate in Ayutthaya (Thailand).

Geotechnical Engineer, responsible for geotechnical design work of Den Chai to Chiang Rai railway (Thailand).

Geotechnical Consultant, responsible for site preparation design of Nong Saeng 1,600 MW Combined Cycle Power Plant (Thailand).

Geotechnical Advisor, responsible for review of ground improvement scheme in Nha Be land development under GS Engineering and Construction (Vietnam)

Geotechnical Advisor, responsible for review of jetty foundations of Rayong Terminal Project (RTC) in Map Ta Phut under DOW/SCG Joint Venture (Thailand)

Geotechnical Consultant, responsible for redesign of ground improvement scheme for Tan Son Nhat-Binh Loi-Outer Ring Road Project under GS Engineering & Construction (Vietnam).

Geotechnical Consultant, responsible for elevating 1.4 km of roadway in Bang Bo power plant in Samut Prakarn by means of lightweight material under Alstom Power (Thailand).

Geotechnical Advisor, responsible for evaluation of structural foundations of Gas Separation Plant No. 6 in Map Ta Phut under PTT Public Company (Thailand)

Lead Geotechnical Engineer, responsible for ground improvement design of Long Son Petrochemical complex with an area of 4,000,000 m² in Vietnam under Siam Cement Group (SCG) (Vietnam).

Geotechnical Advisor, responsible for evaluating all geotechnical related issues on TPO and PUI projects in Map Ta Phut under Foster Wheeler (Thailand).

Geotechnical Advisor, responsible for evaluating all geotechnical related issues on land reclamation work at Rayong Tank Terminals in Map Ta Phut under DOW/SCG Joint Venture (Thailand).

Geotechnical Engineer, responsible for execution of soil investigation work of LNG tank terminal facilities in Map Ta Phut under Fluor Daniel (Thailand).

Geotechnical Specialist, responsible for review of all foundation construction works of LNG tank terminal facilities in Map Ta Phut under GS Consortium (Thailand).

Geotechnical Specialist, responsible for re-evaluation of ground improvement for Hanoi-Haiphong expressway in Package EX-7 (Vietnam)

Geotechnical Engineer, responsible for design of ground improvement for 55-km Ho Chi Minh-Long Thanh-Dau Giay Expressway with 200,000 m² of vacuum consolidation (Vietnam).

Geotechnical Engineer, responsible for design of 60,000 m² of ground improvement via vacuum consolidation method for Toyota Test Track in Chachoengsao (Thailand).

Geotechnical Engineer, responsible for settlement analysis of Bridgestone Test Track project in Wang Noi (Thailand).

Geotechnical Engineer, responsible for design review of Outer Circular Highway in Colombo, Sri Lanka.

Geotechnical Engineer, responsible for execution of soil investigation work of LNG tank terminal facilities in Map Ta Phut.

Senior Geotechnical Engineer, responsible for design of railway foundation of Taling Chan-Nakhon Pathom route in the commuter train project.

Geotechnical Engineer, responsible for planning and supervising the soil investigation works (with over 150 boreholes) of the 3-line MRTA project.

Geotechnical Specialist, responsible for foundation design check on main pylons of Southern Outer Bangkok Ring Road (SOBRR).

Geotechnical Leader, responsible for ground improvement design of third runway/taxiways and satellite aprons of the Second Bangkok International Airport in Bangkok, with the use of vacuum consolidation method (largest in the World with an area of 400,000m²) and conventional PVD method.

Geotechnical Specialist, responsible for evaluating the pylon foundations of Southern Outer Bangkok Ring Road.

Geotechnical Specialist, responsible for reviewing of foundation design and construction of 1,400 MW BLCF Power Plant in Map Ta Phut, Rayong.

Geotechnical Specialist, responsible for evaluating the bridge foundation of Second Mekong Bridge between Thailand and Laos.

Geotechnical Engineer, responsible for construction supervision of Landside Road Systems, including 800-m cut-and-cover tunnel, viaduct structures of the Second Bangkok International Airport in Bangkok.

Geotechnical Engineer, responsible for design of foundations for Thai Airways International and Domestic Cargo Terminals, GSE facilities etc. as well as the redesign of ground improvement work within and adjacent to these facilities.

Geotechnical Engineer, responsible for design of ground improvement for Airport Fire/Rescue Stations and At Grade Frontage Road projects of the Second Bangkok International Airport in Bangkok with the use of soil cement columns.

Geotechnical/Instrument Engineer, responsible for supervision and data interpretation of field monitoring of prefabricated vertical drain ground improvement of Landside road system at the Second Bangkok International Airport in Bangkok.

Geotechnical Engineer, responsible for interpretation of all pile load tests in the Industrial Ring Road Project in Bangkok.

Geotechnical Engineer, responsible for design of ground improvement via prefabricated vertical drains for Airport Maintenance Facilities project of the Second Bangkok International Airport in Bangkok.

Geotechnical Engineer, responsible for design of road embankment by soil cement column method at four (4) bridge approach sections, supervision and interpretation of testing on large diameter bored piles of Rupsa Bridge Project in Bangladesh for the Joint Venture of Shimizu Corporation and Italian Thai Public Company Limited.

Geotechnical Engineer, responsible for supervision and interpretation of testing on large diameter bored piles in the Taiwan High Speed Rail Project (THSR), including Contract Lots C260, C270, C280, C291, C295 and C296. Over forty-six (46) numbers of large diameter (1.8 and 2 m) bored piles had been tested in compression, tension (uplift) and lateral direction as well as testing via Osterberg cells in 16 numbers of bored piles. The works also include evaluation of pullout capacity of large diameter piles, interpretation of over 1,000 numbers of cone penetration tests etc.

Foundation Specialist, responsible for checking pile foundation design of viaducts for Taiwan High Speed Rail Contract C270 under Joint Venture Bilfinger+Berger-Continental Engineering Corporation and Contract C280 under Samsung Corporation.

CHULALONGKORN UNIVERSITY and KING'S MONGKUT UNIVERSITY OF TECHNOLOGY Thailand

Part-time Lecturer, teach graduate courses in geotechnical engineering, including laboratory and in-situ testing of soil. Supervise Master students in the research works.

1995/2000

MAA GEOTECHNICS COMPANY LIMITED

Thailand

Geotechnical Engineer, responsible for field monitoring of prefabricated vertical drain ground improvement of the Second Bangkok International Airport in Bangkok for Airfields pavement.

Geotechnical Engineer, responsible for design and supervision of 80,000m³ of shallow ground lime stabilization for Samut Prakarn wastewater treatment plant.

Project Manager and Geotechnical Engineer, responsible for project management and technical aspects of soil cement column installation and cement stabilized mat work of Outer Bangkok Ring Road at Contract Section 3C/1.

Geotechnical Engineer, responsible for geotechnical investigation, foundation design and supervision, including the design of retaining systems and foundation improvement via jet grouting for the *Siam Cement Plant* (TS-5 and TS-6) in Thung Song with a total jet grouting volume of 40,000 m³. Other soil/cement column works include a research testing program with Power-P Public Company Limited at Bangna-Trad km 21, involving trial soil/cement columns with different mix ratios, column load tests and testing of core samples, design and execution of jet grouting for tunnel approach with Siam Tone Co., Ltd. for MWA project in Bangkok, and preparation and design of soil/cement mix for construction projects with Nawarat Pattanakarn, Thai-Takenaka, Takenaka Civil Engineering etc.

Other geotechnical works include land reclamation and silt removal in Map Ta Phut for *Rayong Olefins Co.*, pipe-jacking work in Ratburana for *Bilfinger+Berger*, static pile load tests for Rayong Olefins tank terminal and Bang Pakong diversion dam project, and various site investigation works in Thailand and abroad.

Geotechnical Expert, responsible for geotechnical aspects of New Bangna-Bang Pakong Expressway, especially on Differential Settlement of Structure and Roadway, works involving settlement analysis, predictions of ground movement and recommendations on remedial measures.

Associated Faculty, taught graduate courses in geotechnical engineering, including laboratory and in-situ testing of soil, earth structure design and soil behavior. Supervise Master students in the research works.

1990/1995

STS ENGINEERING CONSULTANTS CO., LTD.

Thailand

Geotechnical Engineer, responsible for geotechnical investigation, foundation design and supervision, feasibility study and slope stability for various projects, including Thai Aromatics and Reformer Plant, Thai Caprolactum Limited Plant and Star Petroleum Refinery. Geotechnical Engineer for the railway track rehabilitation project, in charge of the geotechnical aspect of the project.

Special Lecturer, provided equipment training courses to lecturers from the technical and technology institutions in Thailand, including installation of special soil and concrete testing equipment.

MINISTRY OF TRANSPORT

Japan

Visiting Scholar, visited various International Airports in Japan founded on soft ground. Reviewed the ground improvement techniques used in Haneda and the New Kansai Airports.

ASIAN INSTITUTE OF TECHNOLOGY

Thailand

Assistant Professor and Associated Faculty, taught graduate courses in geotechnical engineering, including laboratory and in-situ testing of soil, earth structure design and soil behavior. Supervise Master and Doctoral students in the research works, mainly on the in-situ and laboratory testing of soft Bangkok clay. Design and fabricate various laboratory and in-situ testing equipment like Constant Rate of Strain Consolidometer, Computer controlled triaxial Apparatus, Dilatometer, Piezocone, Piezoprobe etc.

Principal investigator for the Geotechnical investigation on deep Bangkok subsoils, in collaboration with Japan International Corporation Agency.

JW GEOTECHNICAL CONSULTANT

Malaysia

Senior Geotechnical Engineer, responsible for geotechnical design, slope stability, remedial works and geotechnical investigation, including the design of remedial work for 41 failed cut and fill slopes along Kota Kinabalu-Tambunan Highway, Sabah, Malaysia, the design of relief wells for housing estate in Sandakan, Malaysia, the foundation design and supervision of Wisma Majlis Daerah, Kuala Penyu, Sabah, and remedial work for failed embankment on soft ground at CH177 of Kota Kinabula Ring Road, Sabah, Malaysia.

MOH AND ASSOCIATES (S) PTE. LTD.

Singapore

Geotechnical Engineer, responsible for conducting geotechnical investigation, foundation design and engineering analysis for several projects in Singapore, including redevelopment of Bugis Junction, Nanyang Technological Institute Phase II extension, redevelopment of Tan Tock Seng Hospital, Changi Airport Hangar II.

1990/1985

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

USA

Teaching Assistant, assisted in graduate courses in soil testing and theoretical soil mechanics.

Research Assistant, engaged in research on consolidation behavior of ceramics and anisotropy of soft Boston Blue clay.

Involved in design and installation of central data acquisition system at MIT and for consulting firm Haley & Aldrich of Cambridge, Massachusetts, USA.

Awards:

King's College London Engineers' Medal (1985) for outstanding research work and academic achievement.

Publications:

1. Seah, T. H. and Shrestha, D. (2007). "Simulation of Pressuremeter Shearing Mode by True Triaxial Apparatus". *Geotechnical Testing Journal*, American Society for Testing and Materials, Vol. 30, No. 2.
2. Seah, T. H., Tangthansup B., and Wongsatian, P. (2004). "Horizontal Coefficient of Consolidation of Soft Bangkok Clay". *Geotechnical Testing Journal*, American Society for Testing and Materials, Vol. 27, No. 5, pp. 430-440.
3. Seah, T. H., Sangtian, N. and Chan, I. C. (2004). "Vane Shear Behaviour of Soft Bangkok Clay". *Geotechnical Testing Journal*, American Society for Testing and Materials, Vol. 27, No. 1, pp. 57-66.
4. Seah, T. H. and Juirnarongrit, T. (2003). "Constant Rate of Strain Consolidation with Radial Drainage". *Geotechnical Testing Journal*, American Society for Testing and Materials, Vol. 26, No. 4, pp. 432-443.
5. Seah, T. H. and Lai, K. C. (2003). "Strength and Deformation Behavior of Soft Bangkok Clay". *Geotechnical Testing Journal*, American Society for Testing and Materials, Vol. 26, No. 4, pp. 421-431.
6. Seah, T. H. and Koslanant, S. (2003). "Anisotropic Consolidation Behavior of Soft Bangkok Clay". *Geotechnical Testing Journal*, American Society for Testing and Materials, Vol. 26, No. 3, pp. 266-276.
7. Balasubramaniam, A. S., Oh, E. Y. N., Lee, C. J. and Seah, T. H. (2007). "A More Fundamental Approach to Predict Pore Pressure for Soft Clay". *Lowland Technology International*, Vol. 9, No. 1, pp. 11-17.
8. Seah, T. H. and Kongpathomporn, C. (2003). "Pile Foundations of Taiwan High Speed Rail", Foundation 2546, *Organized by Engineering Institute of Thailand*, pp. 67-84.
9. Seah, T. H. (2003). "Use of Finite Element Method in Predicting Embankment Behavior improved by Prefabricated Vertical Drain Method", *1st Seminar on Principles and Applications of Finite Element Method*, *Organized by Engineering Institute of Thailand*.
10. Seah, T. H., Tangthansup, B. and Hassan, S. I. (2002). "Constant Rate of Strain Consolidation Testing on Bangkok Clay". *Proceedings of the 8th National Convention on Civil Engineering*, pp. GTE-81-89, Thailand.
11. Seah, T. H. and Gawgumnoidphong, C. (2002). "Interpretation of Static Pile Load Test Results". *Behavior of Pile Load Tests and Their Applications*, Engineering Institute of Thailand, pp. 120-141, Thailand.
12. Seah, T. H. (2001). "Selection of Laboratory Tests on Soils for Foundation Design". Workshop organized by Engineering Institute of Thailand, Thailand.
13. Seah, T. H. and Wongsopit, K. (2000). "Evaluation of Bearing Unit design at km 31 of Highway No. 34". *Third Seminar on Ground Improvement on Highways*, pp. 112-132, Thailand.
14. Seah, T. H. (2000). "Update on Settlement of Highway No.34". *Third Seminar on Ground Improvement on Highways*, pp. 133-150, Thailand.

15. Seah, T. H. and Suzuki, K. (2000). "Soil Cement Design of East Outer Bangkok Ring Road". *Third Seminar on Ground Improvement on Highways*, pp. 151-167, Thailand.
16. Seah, T. H. and Suzuki, K. (2000). "Design of Soil Cement Foundation along Outer Bangkok Ring Road". *Jet Grouting Works in Soil Engineering*, Engineering Institute of Thailand, pp. 112-130, Thailand.
17. Seah, T. H. and Wongsopit, K. (2000). "A New Approach to Bearing Unit Design". *Foundation 2000*, Engineering Institute of Thailand, pp. 150-173, Thailand.
18. Seah, T. H. (1999). "Settlement of Highway No.34 (in Thai)". *Proceedings of the 5th National Convention on Civil Engineering*, pp. GTE-44-50, Thailand.
19. Seah, T. H. (1999). "Introduction to Soil Testing". Workshop organized by Engineering Institute of Thailand, Thailand.
20. Whittle, A.J., DeGroot, D.J., Ladd, C.C., and Seah, T.H. (1994). "Model Prediction of the Anisotropic Behavior of Boston Blue Clay." *Journal of Geotechnical Engineering*, American Society of Civil Engineers, Vol. 120, No. 1, pp. 199-224.
21. Balasubramaniam, A.S., Yudhbir, Bergado, D.T., Phienwej, N., Seah, T.H., and Nutalaya, P. (1994), "Prediction Versus Performance in Geotechnical Engineering", A. A. Balkema Publishers, 341 pages.
22. Kim, S.R., Seah, T.H., and Balasubramaniam, A.S. (1994), "Formulation of Stress-strain Behavior Inside the State Boundary Surface", Thirteenth International Conference on Soil Mechanics and Foundations Engineering, ISSMFE, Vol. 1, pp: 51-56.
23. Seah, T.H. "Quality Control of Soil Column along East Outer Bangkok Ring Road". *Third Seminar on Ground Improvement on Highways*, Thailand.
24. Seah, T.H. "Design and Construction of Ground Improvement Work at Suvarnabhumi Airport".
25. Ukritchon, B., Seah, T.H., Budsayaplakorn, V., and Lukkunaprasit, P., "Consolidation Behavior of Reconstituted Bangkok Clay"
26. Seah, T.H., Theramast, N., and Thaijeamaree, N., " Geotechnical Investigation of 3 MRT Lines in Bangkok" *International Symposium on Underground Excavation and Tunneling 2-4 February 2006*, Thailand.
27. Seah, T.H., and Rungbanaphan, P., " Numerical Modeling of PVD Preloading Embankment"
28. Duann, S.W., Chen, M.S., Seah,T.H., and Fujita, M., "Optimization of Pile Foundation Design Through Full – Scale Pile Load Test in Taiwan High Speed Rail Project" *15th southeast Asian Geotechnical Society Conference, 22 to 26 November 2004*, Thailand