

Prof. Suched Likitlersuang , DPhil.



Suched Likitlersuang
Deputy Head for Research Affairs

Academic Title

Professor
Geotechnical Engineering

Contact Information

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Education

- DPhil. University of Oxford, United Kingdom (2004)
- MEng. Asian Institute of Technology (AIT), Thailand (2000)
- BEng. Chulalongkorn University, Thailand (1998)

Research

- Constitutive Modelling
- Stress-strain Characteristic of Soils
- Numerical Analysis
- Pavement Engineering
- Geotechnical Earthquake Engineering
- Geo-environmental Engineering
- Unsaturated Soil Mechanics
- Soil-bioengineering

Professional Experiences

- 2004 - present Department of Civil Engineering, Faculty of Engineering, Chulalongkorn University
- 2004 - present Technical Committee, Geotechnical Engineering Subcommittee, Engineering Institute of Thailand

Select Publications

International Journal Papers:

- [J1] **Likitlersuang, S.** and Houlsby, G.T. (2006), "Development of hyperplasticity model for soil mechanics", *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 30 No. 3, pp. 229 – 254. DOI:10.1002/nag.484 (IF2012 = 1.055)
- [J2] **Likitlersuang, S.** and Houlsby, G.T. (2007), "Predictions of a continuous hyperplasticity model for Bangkok Clay", *Geomechanics and Geoengineering: An International Journal*, Vol. 2, No. 3, pp. 147 – 157. DOI:10.1080/17486020701561479 (Scopus)
- [J3] Apriadi, D., **Likitlersuang, S.**, Pipatpongsa, T. and Ohta, H. (2009), "On the Numerical Implementation of Hyperplasticity Non-linear Kinematic Hardening Modified Cam Clay Model", *The IES Journal Part A: Civil and Structural Engineering* (Special Issues), Vol. 2, No. 3, pp. 187 – 201. DOI:10.1080/19373260902985570
- [J4] Chompoorat, T. and **Likitlersuang, S.** (2009), "Temperature shift function of asphaltic concrete for pavement design in tropical countries", *The IES Journal Part A: Civil and Structural Engineering* (Special Issues), Vol. 2, No. 3, pp. 246 – 254. DOI:10.1080/19373260903017282
- [J5] **Likitlersuang, S.**, Houlsby, G.T. and Chompoorat, T. (2009), "A model for shear response of asphaltic concrete at different shear rates and temperatures", *Journal of Engineering Mechanics*, ASCE, Vol. 135, No. 11, pp. 1257 – 1264. DOI:10.1061/(ASCE)0733-9399(2009)135:11(1257) (IF2012 = 1.116)
- [J6] **Likitlersuang, S.** and Kyaw, K. (2010), "A study of shear wave velocity correlations of Bangkok subsoil", *Obras y Proyectos: Revista de Ingenieria Civil*, Vol. 7, October, 2010, pp. 27 – 33.
- [J7] Kanitpong, K., Charoentham, N. and **Likitlersuang, S.** (2012), "Investigation on the effects of gradation and aggregate type to moisture damage of warm mix asphalt modified with Sasobit", *International Journal of Pavement Engineering*, Vol. 13, No. 5, pp. 451 – 458. DOI:10.1080/10298436.2011.565058 (IF2012 = 0.745)
- [J8] Surarak, C., **Likitlersuang, S.**, Wanatowski, D., Balasubramaniam, A., Oh, E. and Guan, H. (2012), "Stiffness and strength parameters for hardening soil model of soft and stiff Bangkok clays", *Soils and Foundations* Vol. 52, No. 4, pp. 682 – 697. DOI:10.1016/j.sandf.2012.07.009 (IF2012 = 0.413)
- [J9] Ratananikom, W., **Likitlersuang, S.** and Yimsiri, S. (2013), "An investigation of anisotropic elastic parameters of Bangkok clay from vertical and horizontal cut specimens", *Geomechanics and Geoengineering: An International Journal* Vol. 8, No. 1, pp. 15 – 27. DOI:10.1080/17486025.2012.726746 (Scopus)
- [J10] Soksas, T., **Likitlersuang, S.** and Pipatpongsa, T. (2013) "Monotonic and Cyclic Behavior of Chiang Mai Sand under Simple Shear Mode", *Geotechnical and Geological Engineering* Vol. 31, No. 1, pp 67 – 82. DOI:10.1007/s10706-012-9563-9 (Scopus)
- [J11] Apriadi, D., **Likitlersuang, S.**, and Pipatpongsa, T. (2013), "Loading path dependence and non-linear stiffness at small-strain using rate-dependent multisurface hyperplasticity model" *Computers and Geotechnics*, Vol. 49, April, pp. 100 – 110. DOI:10.1016/j.compgeo.2012.11.007 (IF2012 = 1.224)
- [J12] **Likitlersuang, S.**, Surarak, C., Wanatowski, D., Oh, E. and Balasubramaniam, A.S. (2013) "Geotechnical Parameters from Pressuremeter Tests for MRT Blue Line

Extension in Bangkok”, *Geomechanics and Engineering, An International Journal* Vol. 5, No. 2, pp. 99 – 118. (IF2012 = 0.244)

- [J13] **Likitlersuang, S.**, Teachavorasinskun, S., Surarak, C. Oh, E. and Balasubramaniam, A.S. (2013) “Small Strain Stiffness and Stiffness Degradation Curve of Bangkok Clays”, *Soils and Foundations* Vol. 53, No. 4, pp. 498 – 509. DOI:10.1016/j.sandf.2013.06.003 (IF2012 = 0.413)
- [J14] **Likitlersuang, S.**, Surarak, C., Wanatowski, D., Oh. E. and Balasubramaniam, A.S. (2013) “Finite Element Analysis of a Deep Excavation: A Case Study from the Bangkok MRT”, *Soils and Foundations* Vol. 53, No. 5, pp. 756 - 773. DOI:10.106/j.sandf.2013.08.013I (IF2012 = 0.413)
- [J15] Ratananikom, W., Yimsiri, S., Fukuda, F. and **Likitlersuang, S.** (2013), “Undrained strength-deformation characteristics of Bangkok Clay under general stress condition”, *Geomechanics and Engineering, An International Journal* Vol. 5, No. 5, pp. 419 - 445. DOI:10.12989/gae.2013.5.5.419 (IF2012 = 0.244)
- [J16] Touch, S., **Likitlersuang, S.** and Pipatpongsa, T. (2014) “3D Geological Modelling and Geotechnical Characteristics of Phnom Penh Subsoils in Cambodia” *Engineering Geology* Vol. 178, pp. 58 – 69. DOI:10.1016/j.enggeo.2014.06.010 (IF2013 = 1.757)
- [J17] Eab, K.H., Takhashi, A. and **Likitlersuang, S.** (2014) “Centrifuge modelling of root-reinforced soil slope subjected to rainfall infiltration” *Géotechnique Letters* Vol. 4, No. 3, pp. 211 – 216. DOI:10.1680/geolett.14.00029 (IF2013 = 1.612)
- [J18] **Likitlersuang, S.**, Surarak, C., Suwansawat, S., Wanatowski, D., Oh, E. and Balasubramaniam, A.S. (2014) “Simplified finite-element modelling for tunnelling-induced settlements” *Geotechnical Research* Vol. 1, No. 4, pp. 133 – 152 DOI:10.1680/gr.14.00016
- [J19] **Likitlersuang, S.** and Nishimura, S. (2014) Editorial *Geotechnical Research* Vol. 1, No. 4, pp. 109 – 110. DOI:10.1680/gr.2014.1.4.109
- [J20] Chompoorat, T. and **Likitlersuang, S.** (2015) “Laboratory Investigation of Hot Mix Asphalt Behaviour for Mechanistic-empirical Pavement Design in Tropical Countries” *Geotechnical Engineering Journal of the SEAGS & AGSSEA*, Vol. 46, No. 1, pp. 37 – 44
- [J21] Ratananikom, W., Yimsiri, S. and **Likitlersuang, S.** (2015) “Undrained shear strength of very soft to medium stiff Bangkok Clay from various laboratory tests” *Geotechnical Engineering Journal of the SEAGS & AGSSEA*, Vol. 46, No. 1, pp. 64 – 75
- [J22] Por, S., **Likitlersuang, S.** and Nishimura, S. (2015) “Investigation of shrinkage and swelling behaviour of expansive/non-expansive clay mixtures” *Geotechnical Engineering Journal of the SEAGS & AGSSEA*, Vol. 46, No. 1, pp. 117 – 127

Books:

- Suched Likitlersuang (2007) *Finite Element Method in Geotechnical Engineering*, Chulalongkorn University Press, ISBN 978-974-03-2013-5 (in Thai)
- Suched Likitlersuang (2008) *Soil Mechanics: Fundamentals*, Chulalongkorn University Press, ISBN 978-974-03-2325-9 (in Thai)
- Suched Likitlersuang (2010) *Soil Mechanics: Plasticity and Critical State Theory*, Chulalongkorn University Press, ISBN 978-974-03-2719-6 (in Thai)
- Suched Likitlersuang (2012) *Chapter 23: Structural Analysis, MATLAB Application*, Chulalongkorn University Press, ISBN 978-974-03-2992-3 (in Thai)
- Suched Likitlersuang (2014) *Soil Mechanics: Fundamentals*, 2nd edition, Chulalongkorn University Press, ISBN 978-974-03-3243-5 (in Thai)

Service in Professional Societies

- Thai Geotechnical Society (TGS)
- Engineering Institute of Thailand (EIT)
- International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE)

Short Bio

Suched Likitlersuang graduated with a bachelor degree in civil engineering from Chulalongkorn University in 1998 and received a master in geotechnical engineering from Asian Institute of Technology in 2000. He attained a doctorate in civil engineering from the University of Oxford in 2004. Suched is currently a full professor at the Department of Civil Engineering, Chulalongkorn University. He is members of the Thai Geotechnical Society and the Engineering Institute of Thailand. He is also an Editorial Board member of Geotechnical Research and serves as a Guest Editor of the Southeast Asian Geotechnical Society Journal special issue for Thailand. Suched has published over 70 articles in international conference proceedings and international journals. His research interests include constitutive modelling for geomaterial and asphaltic concrete, stress-strain characteristic of soils, numerical analysis in geomechanics, geo-environments, geotechnical earthquake engineering and soil bioengineering.