

CURRICULUM VITAE

Name: CHEOL JU, LEE

Current Position:

Professor
Department of Civil Engineering
Kangwon National University, Korea



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Date of Birth: 06 December 1969

Marital Status: Married

Educations:

Undergraduate Yonsei University, Korea

Postgraduate Asian Institute of Technology, Bangkok (AIT), Thailand
University of Cambridge, U.K

Degrees:

B.A Civil Engineering Department, Yonsei University, 2/1993

M.Eng Geotechnical Engineering Program, AIT, 4/1995
(Sum ma cum lau de)
Title of M.Eng thesis: Modelling of stress-strain behaviour below the state boundary surface (Constitutive modelling of soft clay)

Ph.D Geotechnical Engineering, University of Cambridge, 11/2001
Title of Ph.D thesis: The influence of negative skin friction on piles

and in pile groups (Centrifuge and numerical modelling of pile behaviour)

Awards:

- [1]. Scholarship from Yonsei University, 1988-1992
- [2]. The Chin Poon Kee Price from AIT, 1995
- [3]. Overseas Research Student (ORS) Scholarship from the British Government, 1997-2000
- [4]. Scholarship from Cambridge University Overseas Trust (COT)
- [5]. Scholarship from Cambridge University Engineering Department
- [6]. Scholarship from Cambridge University Fitzwilliam College
- [7]. Young Geotechnical Engineer, selected by Korean Geotechnical Society (full travel allowance for 3rd International Young Geotechnical Engineers' Conference 2005, Japan)
- [8]. Award from the Korean Geotechnical Society, 2006
- [9]. Award from the Korean Society of Civil Engineer, 2008
- [10]. Award from the Korean Geotechnical and Geoenvironmental Engineering Society, 2009
- [11]. Award from the Korean Geotechnical Society, 2010
- [12]. Award from the Korean Tunnelling and Underground Space, 2016

Employment History:

- [1]. **Geotechnical Engineer** (later promoted to Assistant Manager), Geotechnical Design Team, LG Construction, Co. Ltd, (7/1995-6/1997)
 - *Geotechnical-related technical supports for construction projects (earth retaining structures, piles)*

- [2]. **Post Doctorate Visiting Scholar**, Geotechnical Centrifuge Facility, HKUST, Hong Kong, (11/2001 – 12/2003)
 - *Geotechnical centrifuge model tests (restoration of a tilted building, negative skin friction on piles, axial loading on piles)*
 - *Development and maintenance of Geotechnical Centrifuge Facility*
 - *Design and development of new equipments for centrifuge tests (Pore pressure transducers, Semi-conduct strain gauges, lateral earth pressure cell, CPT, T-bar, 4D-axis robotic manipulator, Tunnel excavation simulator)*
 - *Supervision of graduate research students*
 - *Analysis of field measurements on a soil-nailed cut slope and diaphragm wall*

- [3]. **Engineer** (Part-time basis), Geotechnical Consulting Group (Asia Ltd), Hong Kong, (4/2003 – 12/2001)
 - *Geotechnical-related technical supports for construction projects (foundations, cut and cover tunnel, soft ground)*

- *Expert witness on international court of arbitration on Renault Samsung Motors, Co, Ltd case (pile-related claim at the Renault Samsung Busan factory)*

[4]. **Manager**, Samsung Heavy Industries, Korea, 12/2003 – 8/2004
- *Research and development on the new tunnel construction technology (lattice girder)*
- *Research and development on the new pile construction technology (steel piles, pile tip)*
- *Geotechnical-related technical supports for construction projects (slopes, off-shore structures)*

[5]. **Senior Site Engineer**, Hak Il Go Dang tunnel site, Kyung Ki Province, Korea, (8/2004 – 12/2004)
- *Supervision of tunnel construction*

[6]. **Manager**, Samsung Heavy Industries, Korea, 12/2004 – 2/2006
- *Research and development on tunnel construction technology*
- *Design and construction of a two-arch tunnel*
- *Geotechnical-related technical supports for construction projects (slopes, soft ground, off-shore structures)*
- *Training of graduate engineers*
- *Development of patents (tunnel and pile related patents)*

[7]. **Part-Time Lecturer**, Department of Civil Engineering, Hong Ik University, Korea, 3/2004 – 2/2006

**Industrial
Experience:**

- [1]. Design and construction of earth retaining structures
- [2]. Design and construction of pile foundations
- [3]. Design and construction of cut slopes
- [4]. Design and construction of soft ground
- [5]. Design and construction of tunnels

**Research
Interests:**

- [1]. Geotechnical centrifuge modelling
- [2]. Ground modifications (improvement and reinforcement)
- [3]. Numerical modelling in geotechnical engineering
(ABAQUS, Plaxis3D, FLAC and others)
- [4]. Shield TBM
- [5]. Constitutive modelling of soils
(critical state soil mechanics, soil plasticity)

**Current
Research
Projects:**

- [1]. Behaviour of pre-augered steel pipe piles
- [2]. Seismic analysis of breakwaters
- [3]. Behaviour of piles to adjacent tunneling
- [4]. Shield TBM (slurry type)

- Teaching:**
- [1]. Soil mechanics and geotechnical engineering
 - [2]. Design of geostructures
 - [3]. Tunnel engineering
 - [4]. Construction technology

Book chapters:

- [1]. **C J Lee**, C W W Ng & S S Jeong. (2009). Linear and non-linear numerical analysis of foundations (Edited by J W Bull), Taylor and Francis, Chapter 6 (The effects of negative skin friction on piles and pile groups), 181-230.
- [2]. Shallow Foundations (2013). Chapter 3 (Settlement of shallow foundations) (*in Korean*), Korean Geotechnical Society.

Major publications:

- [1]. **Lee, C.J.**, M.D.Bolton., & A. Al-Tabbaa. (2002). Numerical modelling of group effects on the distribution of dragloads in pile foundation, *Geotechnique*, 52(5), 325-335.
- [2]. S. S. Jeong., J. H. Lee., & **C. J. Lee**. (2004). Slip effect at the pile-soil interface on dragload, *Computers and Geotechnics*, 31(2), 115-126.
- [3]. Zhang, L. M., Ng, C.W.W., & **Lee, C.J.** (2004). Effects of slope and sleeving on the behavior of laterally loaded piles, *Soils and Foundation*, 44(4), 99-108.
- [4]. **Lee, C. J.**, & Ng, C. W. W. (2004). Development of downdrag on piles and in pile groups in consolidating soil. *Journal of Geotechnical and Geoenvironmental Engineering*, 130(9), 905-914.
- [5]. **Lee, C. J.**, J. H. Lee. & Jeong, S. S. (2006). The influence of negative skin friction on piles in groups connected to a cap, *Geotechnique*, 56 (1), 53-56.
- [6]. **C. J. Lee.**, & S. W. Jacobsz. (2006). The Influence of Tunnelling on Adjacent Piled Foundations, *Tunnelling and Underground Space Technology*, 21, 430(Abstract)
- [7]. **C. J. Lee.**, S. H. Yoon., J. Y. Lee., & J. S. Kim. (2006). Design and construction of the Geum Ho Riverbed Tunnel in the 2nd Dae Gu Subway Construction Project, A Case History, *Tunnelling and Underground Space Technology*, 21, 459(Abstract)
- [8]. A. S. Balasubramaniam, E. Y. N. Oh, **C. J. Lee**, S. Handali., & T. H. Seah. (2007). A more fundamental approach to predict pore pressure for soft clay, *Lowland Technology International*, 9(1), 11-17.
- [9]. **Lee, C. J.**, C W W Ng & S S Jeong. (2009). *Linear and non-linear numerical analysis of foundations* (Edited by J W Bull), Taylor and Francis, Chapter 6 (The effects of negative skin friction on piles and pile groups), 181-230.
- [10]. **C. J. Lee**. (2012). Numerical analysis of the interface shear

- transfer mechanism of a single pile to tunnelling in weathered residual soil, *Computers and Geotechnics*, 42, 193-203.
- [11]. **C. J. Lee**. (2012). Three-dimensional numerical analyses of the response of a single pile and pile groups to tunnelling in weak weathered rock, *Tunnelling and Underground Space Technology*, 32, November, 132-142.
- [12]. **C. J. Lee**. (2013). Numerical modelling of pile response to tunneling in stiff clay, *Computers and Geotechnics*, 51, 116-127.
- [13]. S. Jeong, J. Ko, **C. J. Lee** & J. Kim. (2014). Response of Single Piles in Marine Deposits to Negative Skin Friction from Long-term Field Monitoring, *Marine Georesources & Geotechnology*, 32:239–263.
- [14]. **Cheol-Ju Lee**, Young-Jin Jeon, Sung-Hee Kim and Inn-Joon Park. (2016). The influence of tunnelling on the behaviour of pre-existing piled foundations in weathered soil, *Geomechanics and Engineering*, 11(4), 553-570.