

CHAI Jin chun

Name CHAI Jin chun

Affiliation [Saga University](#)

Section Department of Civil Engineering, Faculty of Science and Engineering

Job title Professor

Degree Dr.Eng.(Asian Institute of Technology(ThaiLand))

Research Interests

[Geotechnical Engineering\(130\)](#) , [Civil Engineering Environmental System\(3\)](#)

Research Areas

- Civil engineering / [Geotechnical engineering](#) /
- Civil engineering / [Civil and environmental engineering](#) /

Academic & Professional Experience

1992 : Associate Researcher, China Academy of Railway Sciences

1993: Research Engineering, Asian Institute of Technology

1996: Associate Proffesor, Saga University

Education

1992: Soil Engineering, Graduate School, Division of Engineering, Asian Institute of Technology

1982: Geotechnical Engineering, Faculty of Engineering, Tongji University

Awards & Honors

Sep 2015: Consolidation analysis of clayey deposits under vacuum pressure with horizontal drains, Honourable mention, International Geosynthetics Society

Winner: Chai, J.-C., Horpibulsuk, S., Shen, S.-L. and Carter, J. P.

Jul 2013: Outstanding Reviewer Award in 2012, Computers and Geotechnics, Elsevier

Sep 2006: Modeling strain-softening of clayey soils, Best paper, International Association of Lowland Technology

Published Papers

Pore pressures induced by piezocone penetration

(5) Chai, J.-C., Hossain, Md. J., Yuan, D.-J., Shen, S.-L. and Carter, J.

Canadian Geotechnical Journal 53(3) 540-550 Mar 2016 [Refereed]

3D FEM investigation on bending failure mechanism of column inclusion under embankment load

Shrestha, S., Chai, J.-C., Bergado, D. T., Hino, T. and Kamo, Y.

Lowland Technology International 17(3) 157-166 Dec 2015 [Refereed]

Minimizing Lateral Displacement of Clayey Deposit under Combined Vacuum and Surcharge Loads. Tunneling and Underground Construction

(2) Rondonuwu, S. G., Chai, J.-C. and Saito, A.

ASCE GSP 242 525-535 2014

Interpreting chp Value from Non-standard Piezocone Dissipation Curve. Advances in Soil Dynamics and Foundation Engineering

ASCE GSP 240 579-589 2014

Performance of reinforced embankment on Muar clay deposit

Soils and Foundations, Japanese Society of Geotechnical Engineering 33(4) 1-17 1993

[Investigation of factors affecting vertical drain behavior](#)

Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineering 125(3) 216-226 1999

Some techniques for FE analysis of embankment on soft ground

Canadian Geotechnical Journal 30(4) 710-719 1993

Books etc

Chapter 13 Geotextiles used in drainage, in Geotextiles: From Design to Applications

CHAI Jin chun (Part:Contributor, Chapter 13)

Woodhead Publishing, ISBN-10: 0081002211 ISBN-13: 978-0081002216 Jan 2016

Deformation analysis in soft ground improvement

CHAI Jin chun, John P. Carter (Part:Joint Work)

Springer Aug 2011

Ground modification and seismic mitigation

Porbaha, A., Shen, S. L. Wartman, J. and Chai, J.-C. (Part:Joint Editor)

ASCE 2006

Cahpert 10, Ground Improvement – Case Histories

Chai, J.C. and Miura, N. (Part:Contributor, Chapter 10)

Elsevier 2005

Improvement techniques of soft ground in subsiding and low land environment.

Balkema(Rotterdam) 1994

Association Memberships

[Southeast Asian Geotechnical Society\(5\)](#)

Works

Research on environmental conservation of groundwater and subsoil
1998 – 2001

Site investigation of Landsubsidence and suggestions about water policy of Moriyama
District
2001

Research Grants & Projects

Effect of bacteria on the properties of cement/lime treated soil
Japanese Society of Promotion of Science: Grant-in Aid

Project Year: Apr 2012 - Mar 2015 Investigator(s): CHAI Jin chun
Consolidation induced deformation under the combination of vacuum pressure and surcharge
load

Project Year: Apr 2012 - Mar 2013 Investigator(s): CHAI Jin chun
Predicting traffic load induced long – term settlement of tunnel in soft clayey deposit
JSPS: Bilateral joint research

Project Year: Apr 2009 - Mar 2011 Investigator(s): CHAI Jin chun
Settlement calculzation methoid for floating type soil-cement column improved soft clayey
deposit
Project Year: 2006 – 2008

A simple method of calculating the consolidation settlement of floating type soil-cement
column-slab improved soft subsoil under embankment load has been proposed and applied to
three case histories in Fukuoka, Japan. The proposed method adopts t...
FEM simulation of progressive failure considering strain softening behavior
Project Year: 2005 – 2008

A pragmatic strain-softening constitutive model, which is based on Modified Cam Clay, was
applied to the simulation of the progressive failure of an embankment constructed on a
deposit of sensitive (strain-softening) clay in Saga, Japan. A compar...