

CURRICULUM VITAE – Dr Annan Zhou

Senior Lecturer in Geomechanics, ARC DECRA Fellow, School of Engineering, Royal Melbourne Institution of Technology (RMIT), Melbourne 3001, Australia

1. Short Biography

Dr Annan Zhou (born in Dec/1982, 35-year-old) obtained his PhD degree in Geotechnical Engineering from the University of Newcastle in 2011, under the supervision of Professors Daichao Sheng and Scott Sloan, with a financial support of the Australian Endeavor Scholarship. After his graduation, he joined RMIT as a tenured Lecturer in Geotechnical Engineering and was promoted to a Senior Lecturer in 2014. He was awarded the *ARC DECRA Fellowship* in 2012, the *AGS Hugh Trollope Medal* in 2014 and the *CGJ Outstanding Reviewer* in 2016.

The major research area of Dr Annan Zhou includes constitutive/numerical modelling of multi-phase porous media and advanced laboratory testing on unsaturated soils. Dr Annan Zhou has published more than 45 referred journal papers with over 850 citations (h-index = 15). The quality of his publications has been recognised by being awarded several international awards like the *ISSMGE ECR International Best Paper Award* (2015) and the *CGJ Editor's Choice* (2016).

As a Chief Investigator, Dr Annan Zhou has secured several competitive research grants over 1.5million, including ARC DE, DP, and LP etc. He has successfully supervised 2 PhDs and 2 Masters to their successful completion. From 2014 to 2016, Dr Annan Zhou was elected to be a RMIT University Research Committee Board Member to represent the ECR academics over the University. Since 2015, Dr Annan Zhou serves as an editorial board member for Canadian Geotechnical Journal (NRC) and Underground Space (Elsevier). He also is invited as an external reviewer for several national grants (like ARC, ISF, NSFC) and numerous flagship journals (like Scientific Reports, Geotechnique, Computers and Geotechnics).



2. Selected National Competitive Research Grants

- 1) **ARC Discovery Early Career Researcher Award: DE130101342** (Chief Investigator: **Zhou, A. N.**)
- *Coupled thermo-hydro-mechanical behaviour of unsaturated soils and its modelling*, Total Fund: **\$361,000** (2013-2015)
- 2) **ARC Discovery Project: DP140101547** (Chief Investigator: Li, C. Q., Setunge, S. and **Zhou, A. N.**)
- *Accurate prediction of safe life of buried pipelines*, Total Fund: **\$280,000** (2014-2016)
- 3) **ARC Linkage Project: LP160100649** (Chief Investigator: Li, J., Cameron, D., **Zhou, A. N.** and Moore, G.)
- *Sustainable planting of trees in suburban environments on shrinkable clays*, Total Fund: **\$378,302** (2016-2019)

3. Ten Career-Best Publications in Unsaturated Soil Mechanics

(Note: * = corresponding author)

1. **Zhou, A. N.***, Wu, S. S., Li, J., and Sheng, D. (2018). Including degree of capillary saturation into constitutive modelling of unsaturated soils. *Computers and Geotechnics*, **95**: pp.82-98.
2. **Zhou, A. N.***, Huang, R., Sheng, D. (2016). Capillary water retention curve and shear strength of unsaturated soils. *Canadian Geotechnical Journal*, **53**: pp.974-987.
 - This article was awarded 2016 Canadian Geotechnical Journal Editor's Choice
3. Zhang, Y. and **Zhou, A. N.*** (2016). Explicit integration of a porosity-dependent hydro-mechanical model for unsaturated soils. *International Journal for Numerical and Analytical Methods in Geomechanics*, **40**: pp.2353-2382.
4. **Zhou, A. N.*** and Sheng, D. (2015). An advanced hydro-mechanical constitutive model for unsaturated soils with different initial densities. *Computers and Geotechnics*, **65**: pp.46-66.
 - This article was awarded 2016 International Award for the Best Journal Paper by an Early Career Researcher by ISSMGE TC106 Unsaturated Soils
5. **Zhou, A. N.***, Sheng, D. and Li J. (2014). Modelling water retention and volume change behaviours of unsaturated soils in non-isothermal conditions. *Computers and Geotechnics*, **55**: pp.1-13.
6. **Zhou, A. N.*** (2013). A contact angle-dependent hysteresis model for soil-water retention behaviour. *Computers and Geotechnics*, **49**: pp.36-42.
7. **Zhou, A. N.***, Sheng, D. Sloan, S. W., and Gens, A. (2012). Interpretation of unsaturated soil behaviour in the stress – saturation space, I: Volume change and water retention behaviour. *Computers and Geotechnics*, **43**: pp.178-187.
 - This article was awarded 2014 D. H. Trollope Medal by Australian Geomechanics Society
8. **Zhou, A. N.***, Sheng, D. Sloan, S. W., and Gens, A. (2012). Interpretation of unsaturated soil behaviour in the stress – saturation space, II: Constitutive relationships and validations. *Computers and Geotechnics*, **43**: pp.111-123.
9. **Zhou, A. N.***, Sheng, D. and Carter, J. P. (2012). Modelling the effect of initial density on soil-water characteristic curves, *Geotechnique*, **62**: pp.669-680.
10. **Zhou, A. N.** and Sheng, D.* (2009). Yield stress, volume change and shear strength behaviour of unsaturated soils: Validation of the SFG model. *Canadian Geotechnical Journal*, **46**: pp.1034-1045.
 - This article was shortlisted for 2010 R. M. Quigley Award by Canadian Geomechanics Society