

Name, rank: Kallol Sett, Assistant Professor

Contact information:

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Educational background:

Ph.D., Civil Engineering, University of California, Davis (2007)
M.S., Civil Engineering, University of Houston (2003)
B.E., Civil Engineering, Jadavpur University (1997)

Honors and awards (selected):

Exceptional Service Award, College of Engineering, The University of Akron
UC Davis Prize for Excellence in Geotechnical Engineering

Research areas:

Geomechanics, earthquake engineering, uncertainty quantification, risk analysis

Courses taught:

Risk and Reliability
Mechanical Behavior of Geomaterials
Computational Geomechanics
Soil Mechanics
Foundation Engineering
Mechanics of Materials
Statics

Current and recent research:

Stochastic Nonlinear Dynamic Simulation for Prediction of Seismic Ground Motion
Performance-Based Evaluation of Self-Centering Concentrically Braced Frames
Framework for Stochastic Simulation of 3-D Constitutive Behavior of Granular Materials
Towards Improving the Sustainability of Urban Infrastructures and Groundwater Usage in Growing Cities

Selected publications:

Parida, S. S., Sett, K., and Singla, P., "An Efficient PDE-Constrained Stochastic Inverse Algorithm for Probabilistic Geotechnical Site Characterization using

Geophysical Measurements", *Soil Dynamics and Earthquake Engineering*, 2018, in print

Huang, Q., Dyanati, M., Roke, D. A., Chandra, A., and Sett, K., "Economic Feasibility Study of Self-Centering Concentrically Braced Frame Systems", *Journal of Structural Engineering*, 2018, in print

Chandra, A., Huang, Q., Roke, D. A., and Sett, K., "Improving Precision in Earthquake Loss Estimation", *Sustainable and Resilient Infrastructure*, 2017, in print, DOI: 10.1080/23789689.2017.1365231

Sadrinezhad, A., Sett, K., and Hariharan, S. I., "Efficient Solution Algorithms for Multiaxial Probabilistic Elasto-Plastic Constitutive Simulations of Soils", *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 41, No. 18, pp. 1807-1827, 2017

Wang, F. and Sett, K., "Time-Domain Stochastic Finite Element Simulation of Uncertain Seismic Wave Propagation through Uncertain Heterogeneous Medium", *Soil Dynamics and Earthquake Engineering*, Vol. 88, pp. 369-385, 2016

Karapiperis, K., Sett, K., Kavvas, M. L., and Jeremić, B., "Fokker–Planck Linearization for Non-Gaussian Stochastic Elastoplastic Finite Elements", *Computer Methods in Applied Mechanics and Engineering*, Vol. 307, pp. 451-469, 2016

Gandomi, A. H., Roke, D. A., and Sett, K., "Genetic Programming for Moment Capacity Modeling of Ferrocement Members", *Engineering Structures*, Vol. 57, pp. 169-176, 2013

Sett, K., Unutmaz, B., Çetin, K. Ö., Koprivica, S., and Jeremić, B., "Soil Uncertainty and Its Influence on Simulated G/Gmax and Damping Behavior", *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 137, No. 3, pp. 218-226, 2011