

Journal Papers

1. **Sachan, A.** and Penumadu, D. (2007) Effect of microfabric on shear behavior of kaolin clay, *Journal of Geotechnical and Geo-environmental Engineering*, ASCE, Vol. 133, No. 3, 306-318.
2. **Sachan, A.**, and Penumadu, D. (2007) Strain localization in solid cylindrical clay specimens using digital image analysis, *Soils and Foundations*, Vol. 47, No. 1, 67-78.
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5. **Sachan, A.** (2007) Effect of stress paths on shear behavior of clays under lubricated end boundary conditions, *Indian Geotechnical Journal*, Vol. 37, No. 4, pp. 301-320.
6. **Sachan, A.** (2008) Use of atomic force microscopy (AFM) for microfabric study of cohesive soils, *Journal of Microscopy*, Vol. 232, No. 2, pp. 422-431.
7. **Sachan, A.** and Mehrotra V. (2008) Evaluation of microfabric of clay using atomic force microscopy (AFM), *Current Science*, Vol. 95, No. 12, pp. 1699-1706, Featured Research Article.
8. **Sachan, A.** and Penumadu, D. (2009) Effect of shear deformation on microfabric of clay using XRD technique, *Geotechnical and Geological Engineering*, Springer, Vol. 27, No. 2, pp. 249-264.
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11. **Sachan, A.** (2012) Strain localization patterns of cohesive soil with controlled microfabric under cyclic loading using DIA technique, *International Journal of Geotechnical Engineering*, Taylor & Francis, Vol. 6, No. 4, pp. 467-483.
12. **Sachan, A.** (2013) Effect of intermediate microfabric on shear strength and strain localization response of Kaolin clay under compression and extension loading, *Geotechnical and Geological Engineering*, Springer, Vol. 31, No. 1, pp. 213-228.
13. **Sachan, A.**, Vikash, G., and Prashant, A. (2013) Development of intermediate microfabric in Kaolin clay and its consolidation behavior, *Geotechnical and Geological Engineering*, Springer, Vol. 31, No. 1, pp. 23-34.
14. Bhuria, N. R. and **Sachan, A.** (2014) Shear strength and constant rate of strain consolidation behavior of cement-treated slurry-consolidated soft soil, *Current Science*, Vol. 106, No. 7, pp. 972-979.
15. Smitha, S. and **Sachan, A.** (2016) Use of agar biopolymer to improve the shear strength behavior of Sabarmati sand, *International Journal of Geotechnical Engineering*, Taylor & Francis, Vol. 10, No. 4, pp. 387-400.
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17. Mehta, B. and **Sachan, A.** (2017) Effect of mineralogical properties of expansive soil on its compressibility & shear strength behavior, *Geotechnical and Geological Engineering*, Springer, Vol. 35, No. 6, pp. 2923-2934.
18. Hussain, M. and **Sachan, A.** (2017) Evaluation of earthquake liquefaction hazard of Kutch region, *Journal of Geotechnical and Transportation Engineering*, Vol. 3, No. 2, pp. 52-61.
19. Gupta, K. and **Sachan, A.** (2018) Effect of crushing and strain rate on mechanical behavior of Type-F fly ash, *Transportation Infrastructure Geotechnolgy*, Springer, Vol. 5, No. 1, pp. 4-23.
20. Seethalakshmi, P. and **Sachan, A.** (2018) Effect of successive impact loading on compactability, microstructure and compressibility behaviour of micaceous sand, *Transportation Infrastructure*

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21. Pandya, S. and **Sachan, A.** (2018) Effect of matric suction and initial static loading on dynamic behavior of unsaturated cohesive soil, *International Journal of Geotechnical Engineering*, Taylor & Francis, Vol. 12, No. 5, pp. 438-448.
22. Pandya, S., and **Sachan, A.** (2018) Matric suction, swelling and collapsible characteristics of unsaturated expansive soils, *Journal of Geotechnical and Transportation Engineering*, Vol. 4, No. 1, pp. 1-9.
23. Pandya, S. and **Sachan, A.** (2018) Variation of collapse potential and stiffness degradation with matric suction of compacted unsaturated cohesive soil, *International Journal of Geotechnical Engineering*, Taylor & Francis, online available, 07 Nov 2017.
24. Seethalakshmi, P. and **Sachan, A.** (2018) Effect of mica content on pore pressure and stress-strain response of micaceous sand using energy dissipation and different failure mechanisms, *International Journal of Geotechnical Engineering*, Taylor & Francis, online available, 08 Oct 2018.
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30. Hussain, M. and **Sachan, A.** (2019) Static Liquefaction and Effective Stress Path Response of Kutch soils, *Soils and Foundations*, Elsevier, In Review.
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Conference Papers

1. **Sachan, A.** and Penumadu, D. (2005) The use of standard X-ray diffractometer for identifying the microfabric of clay, *2005 Joint ASME/ASCE/SES Conference on Mechanics and Materials*, Louisiana, USA, pp. 1-6.
2. **Sachan, A.** and Penumadu, D. (2005) Shear strength parameters as a function of clay microfabric, *International Conference on Computational & Experimental Engineering and Sciences (ICCES'05)*, Chennai, India.
3. Penumadu, D., **Sachan, A.**, and Prashant A. (2005) Experimental and theoretical aspects of strain localization for kaolin clay, *International Conference on Computational & Experimental Engineering and Sciences (ICCES'05)*, Chennai, India.
4. **Sachan, A.**, Han, L., and Penumadu, D. (2006) Use of digital imaging technique for studying strain

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6. **Sachan, A.** (2006) Effect of microfabric on dynamic properties of kaolin clay, *13th Symposium on Earthquake Engineering (13SEE-06)*, Roorkee, India.
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9. **Sachan, A.** (2014) Liquefaction Behavior of Gujarat Soil, *Workshop on Soil Liquefaction, Technical University Darmstadt, Darmstadt, Germany*, May 15-16, 2014.
10. Pandya, S. and **Sachan, A.** (2015) Dynamic behaviour of unsaturated CH soil under cyclic loading in unconsolidated undrained conditions, *5th Tongji-UBC Symposium on Earthquake Engineering, Tongji University Shanghai, China*, May 4-8, 2015.
11. Pandya, S. and **Sachan, A.** (2016) Stiffness degradation and cyclic response of naturally available combination Soil, *International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues*, Mumbai, India, September 23-24, 2016.
12. Seethalakshmi, P. and **Sachan, A.** (2016) Crushing effect of mica particles on mechanical behavior of micaceous sand at macro and micro level, *International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues*, Mumbai, India, September 23-24, 2016.
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15. Seethalakshmi, P. and **Sachan, A.** (2017) Stress-strain and pore pressure behavior of micaceous sand in comparison with pure sand under K_0 conditions, *International Association for Computer Methods and Advances in Geomechanics (15th IACMAG)*, Wuhan, China, October 19-23, 2017.
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18. Pandya, S., Sharma, N. and **Sachan, A.** (2018) Role of matric suction in mechanics behind swelling characteristics of expansive soils, *20th International Conference on Soil Mechanics and Geotechnical Engineering*, Paris, France, February 19 - 20, 2018.
19. Seethalakshmi, P. and **Sachan, A.** (2018) Effect of mica content on compactability and compressibility behavior of micaceous sand, *International Conference on Modeling in Mechanics & Materials*, San Francisco, USA, Mar 23-25, 2018.
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