

Geotechnical Engineer

Ashok Kumar T

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Mobile: +91 8072559852

Professional summary:

- Geotechnical engineer with the exposure of research (7+) and consultancy (2+) works. Self-motivated, adaptable, team worker and independent consultant
- Having interest in the area of **Geotechnical Investigation, Soft Clay Engineering, Shallow and Deep Foundations, Slope Stability Analysis, Ground Improvement & Advanced Laboratory Testing**
- Computer literate and competent in use of wide range of geotechnical design programs including: **PLAXIS-2D & 3D, Wallap, Slope W, Seep W**
- Familiar with **Indian Standards, IRC, ASTM, Eurocode 7**

Educational Qualification:

- **Ph.D in Geotechnical Engineering / 2020**
Indian Institute of Technology Madras – Chennai, India
- **M.Eng. in Soil Mechanics and Foundation Engineering / 2011**
College of Engineering Guindy, Anna University, Chennai, Tamil Nadu, India.
- **B.Eng. in Civil Engineering / 2009**
Government College of Engineering – Tirunelveli, Tamil Nadu, India.

Professional experience:

Organization	Designation	Experience
Indian Institute of Technology Madras- Chennai	Project Officer	16/7/2018 –9/4/2020 1/7/2020 - present
Indian Institute of Technology Madras- Chennai	Senior Research Fellow	15/7/2013- 18/4/16- (2 years 9 months)
Jeppiaar Engineering College, Chennai	Assistant Professor	20/6/2011 - 30/4/2013 (1 year 10 months)

Industrial consultancy works involved as a Project officer at IIT Madras

Design experience:

- Geotechnical interpretation and recommendation of foundation for Box culvert construction across a canal - Construction of box culvert in Kizhakketheruvu, Kerala.
- Geotechnical interpretation and foundation recommendation for station building (G+4) for southern Railways - Kavalakkat construction.
- Geotechnical interpretation, recommendation and monitoring of routine pile load test- KIIFB_Augmentation of water supply scheme, kollam corporation, phase -2.

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- Geotechnical interpretation and foundation recommendation for the construction of Research Park at TKM College of engineering, Kerala.

Preparation of Technical Reports :

- Geotechnical factual Report on vane Shear Test on Soil Samples - Keller India Pvt Ltd. Chennai.
- Geotechnical factual Report on Permeability Testing of Jet Grout Samples - Keller India Pvt Ltd. Chennai.
- Geotechnical factual Report on Permeability Testing and confined compressive strength of plastic concrete samples -Navayuga Engineering Ltd.
- Geotechnical report on-site inspection of constructed primary clay liner and evaluation of its engineering properties- Ramky Enviro Engineers Ltd.
- Geotechnical report on slope stability analysis of hazardous waste landfill using Plaxis 2D - Ramky Enviro Engineers Ltd.

Work involved for Soft Clay Engineering & Ground Improvement

Client

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|---|---|
| 1. Determination of volume change behavior of expansive soils by conducting various swell pressure test to verify swell parameters in Odometer apparatus | Rail Vikas Nigam Ltd. |
| 2. Characterization of soil for blanket layer and subgrade material in railway track formation by performing laboratory tests i.e., Grain size distribution, modified Proctor compaction and CBR test | RITES Ltd. |
| 3. Tests on Prefabricated vertical drains (PVD)
PVD was suggested to improve the shear strength of very soft clay
Tests Performed: Tensile strength test, cross-plane and in-plane permeability tests | Southern Railways/ RS Developers |
| 4. Hydraulic conductivity and unconfined compressive strength of jet grouted soil samples:
Jet grouting technique was suggested to control seepage. Test performed: Flexible wall permeability test and Strain controlled compression test | Keller India Pvt Ltd. Chennai |
| 5. Characterization of clay liner for landfill construction | Tamil Nadu Waste management limited (TNWML) – Chennai |
| 6. Identification and classification of the dispersive nature of the soil
By performing - Crump test and double hydrometer test | Rail Vikas Nigam Ltd. |

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7. Determination of undrained shear strength of very soft and soft clay: Undrained shear strength - both undisturbed and remoulded state Keller India Pvt Ltd. Chennai
8. Characterization of soil for ash dyke construction at Ennore thermal power plant. Tamil Nadu Electricity Board

Journal publications and Conference proceedings:

- **Ashok Kumar, T.,** Raheena, M., Robinson, R.G. and Thyagaraj, T (2020) A rapid method of determination of swell potential and swell pressure of expansive soils using constant rate of strain apparatus. **Geotechnical Testing Journal, ASTM**, <https://doi.org/10.1520/9GTJ2018041410>.
- **Ashok Kumar, T.,** Thyagaraj, T and Robinson, R.G. (2020) A critical review on stabilization of expansive soils with compensating materials. *Proceedings of Indian Geotechnical Conference, Andhra University, Visakhapatnam, India.* 355-361.
- **Ashok Kumar, T.,** Thyagaraj, T and Robinson, R.G. (2019) Effect of lime treatment on expansive soils at higher initial water content. *Proceedings of the 7th young geotechnical engineering conference, NIT Silchar, Assam.*
- **Ashok Kumar, T.,** Robinson, R. G., and Thyagaraj, T. (2018). Distress of an industrial building constructed on an expansive soil: a case study from India. *Proceedings of the Institution of Civil Engineers-Forensic Engineering*, 171(3), 121-126
- **Ashok Kumar, T.,** Thyagaraj, T and Robinson, R.G. (2018) Stabilization of swelling soils at higher water content using deep soil mixing method. *Proceedings of the Conference on Next frontiers in civil engineering: sustainable and resilient infrastructure, IIT Bombay.* 77-78

Personal information:

Year of Birth: 1988
Nationality: Indian
Contact details: 54, Nenmeni Road, Sattur,
Virudhunagar District- 626203
Tamil Nadu, India

Languages: English and Tamil (Native)

Declaration:

I hereby declare that all the information furnished herein is true to the best of my knowledge.

Place: Chennai

Date: 28/12/2020

(Ashok Kumar T)