Editorial

G. L. Sivakumar Babu¹

Published online: 28 April 2015
© Indian Geotechnical Society 2015

The April–June Issue of Indian Geotechnical Journal has ten papers and cover wide spectrum of topics in Geotechnical Engineering. Contribution by Jamal et al. on *consolidation Grouting Quality Assessment using Artificial Neural Network (ANN)* assesses consolidation grouting quality, secondary permeability using artificial neural network (ANN) and the linear regression method. For this aim, datasets of 68 blocks which include first permeability, cement take and secondary permeability were analysed and the results indicate that ANN can predict secondary permeability in dam foundation better than the linear regression method. The paper on *Effect of Spatial Variability of Soil Properties on Slope Reliability Using Random Finite Element and First Order Second Moment Methods* by Sanjay Jha recommends the use of RFEM and determination of realistic scales of fluctuation, coefficient of variation of soil properties is recommended for slope reliability analysis.

Javad et al. propose an *Analytical Model Determining the Optimal Block Size in the Block Caving Mining Method* and validate the results using different block sizes. Satyajit and Nihar present a closed form method of analysis to predict the stresses and pore water pressure developed in soil mass due to the expansion of cylindrical cavity in their paper on *undrained condition Undrained Cylindrical Cavity Expansion in Critical State Soils Considering Soil Structure*.

Total Risk Rating and Liquefaction Analysis of Farrokhi Earth Embankment Dam, Eastern Iran is a useful contribution

by Noferesti et al. on dam safety. Vijayendra et al. propose *An Alternative Method to Estimate Fundamental Period of Layered Soil Deposit*. Sunil and Singh et al. examined the *Influence of Load Obliquity on Pullout Capacity of Micropile in Sand* to assess the applicability of existing theories to estimate the ultimate pullout capacity of micropiles under oblique loads.

Ayub Khan et al. presented a *Comparative Study of Linear and Non-Linear Theories of Radial Consolidation of Lightly OC Clays* and showed that the rate of change of degree of settlement is relatively faster in the case of non-linear theory compared to that in the linear theory of radial consolidation of lightly OC clays. Reddy et al. *conducted Performance Studies on Cement Stabilized Gravelly Soil Exposed to Sulfate Environment* using comprehensive laboratory work is carried out on the durability characteristics of cement stabilized gravelly soils exposed to three sodium sulfate solutions.

Binu Sharma and Padma Bora presented *A Study on Correlation Between Liquid Limit, Plastic Limit and Consolidation Properties of Soils* and *experimental verification was made in three different ways using three different soil state parameters*.

All the above articles are useful contributions to the understanding and practice of geotechnical engineering and it is hoped that the readers go through them and also contribute articles on novel ideas, better analysis procedures and practices, innovative geotechnical design constructions.

✉ G. L. Sivakumar Babu
glsivakumar@gmail.com

¹ Indian Institute of Science, Bangalore, India