**Deep mixing columns**

ABSTRACT

The deep mixing columns (DMCs) is a stabilisation technique that uses cement and lime as stabilisation agents to improve the ultimate bearing capacity of soils. This method has numerous applications, such as foundation engineering, providing supporting wall for excavation, liquefaction mitigation, hydraulic cut-off wall, and environmental remediation. This current paper presents a brief history and a review of this promising technique for the purpose of ground improvement. Moreover, several previous works related to the ultimate bearing capacity of DMCs ground are reviewed which includes analytical analyses, laboratory works (small scale), and full scaled field tests. Finally the paper suggests further study and development topics and proposes steps forward to enhance the potential of alternatives for cement and lime replacement in this promising technique.