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Innovations in design and construction of granular pavements and railways

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ABSTRACT: This paper describes some of the work related with the International Technical Committee TC3 – Geotechnics of Pavements of ISSMGE. For brevity, some topics are selected to be described in some detail, while others are acknowledged for reference purposes. These topics cover: (1) Data Mining tools in transportation geotechnics showing the capabilities to predict real-value from several attributes and also the possibility to develop a formal updating framework to reduce uncertainty and increase reliability of deformability modulus updating in pavement and rail track structures; (2) Design aspects related with the mechanist approach in the framework of soil mechanics; (3) construction and quality control aspects covering compactor technologies and advanced tools for continuous compaction control and bearing capacity surveys during and after construction.

These contributions aim to promote the use of some powerful available tools in the design and construction processes with impacts in the reduction of maintenance costs.

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