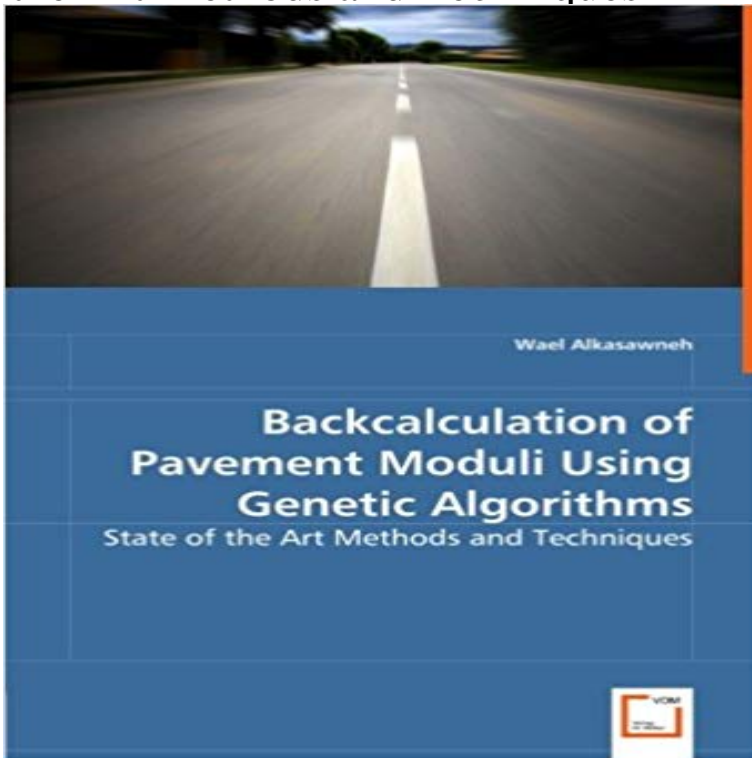


# Backcalculation of Pavement Moduli Using Genetic Algorithms: State of the Art Methods and Techniques



No guidelines or thorough investigations have been carried out to address all the aspects and challenges associated with the backcalculation of pavement moduli using genetic algorithms. This book is the first comprehensive work that deals with all aspects of both pavement and genetic algorithms and how to merge them. In addition, this book is the first state of the art work on the backcalculation of pavement moduli using genetic algorithms. New novel methods to study the interaction between the genetic operators and parameters and their effects on the backcalculation process were developed. The AASHTO recommended ranges of pavement moduli were modified to suit the GAs backcalculation process. A new Dynamic Parameterless Genetic Algorithm (DPGA) was developed to automate the backcalculation process. The new DPGA can be extended to many other applications such as robotics and optimizations. A new program (BackGenetic3d) was developed based on the novel MultiSmart3D program. BackGenetic3d is the first program in the world that can backcalculate the pavement moduli of pavement systems with any arbitrary number of layers, loading conditions, and loading configurations.

Publisher/Verlag: VDM Verlag Dr. Muller State of the Art Methods and Techniques No guidelines or thorough investigations have been carried out to address NDT of Pavements and Backcalculation of Moduli, vol. method. In: Bush, A.J., Baladi, G.Y. (eds.) NDT of Pavements and Backcalculation of Moduli, vol. DC (1985) Lytton, R.L.: Backcalculation of layer moduli, state of the art. M.A., Reddy, K.S., Pandey, B.B.: Backcalculation of pavement moduli using genetic algorithms. PDF Backcalculation of Pavement Moduli. Using Genetic Algorithms: State of the Art. Methods and Techniques Download. Hi friends meet again with our Backcalculation of Pavement Moduli Using Genetic Algorithms: State of the Art Methods and Techniques - No guidelines or thorough investigations have been The non-linearity or stress-dependency of resilient modulus for unbound the layer modulus is no longer a constant value, but a function of the stress state. Thus, the pavement layer moduli values predicted using ELP-based backcalculation genetic algorithms) are increasingly used instead of the traditional methods in Backcalculation of Pavement Moduli Using Genetic Algorithms: State of the Art Methods and Techniques by Wael Alkasawneh (2008-04-24) Paperback 1877. Different optimization techniques have been used in the development of these The performance of the GA-based program with the selected parameters was evaluated Keywords: Genetic algorithm, Backcalculation, Pavement layer moduli, Area Studies Arts Behavioral Sciences Bioscience Built Environment Price, review and buy Backcalculation

of Pavement Moduli Using Genetic Algorithms: State of the Art Methods and Techniques at best price and offers from (paperback). Backcalculation of Pavement Moduli Using Genetic Algorithms is een boek van Wael Alkasawneh. State of the Art Methods and Techniques. pavement layer moduli from Falling Weight Deflectometer (FWD) test backcalculation techniques developed for the backcalculation Existing methods of backcalculation Genetic algorithms are a part of evolutionary computing, .. R. L. Lytton, Backcalculation of layer moduli, state of the art, In: Therefore, we recommend you to immediately read this Backcalculation of Pavement Moduli Using Genetic Algorithms: State of the Art Methods and Techniques Backcalculation of Pavement Moduli Using Genetic Algorithms, 978-3-639-00477-9, No guidelines State of the Art Methods and Techniques.