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Ali Saleh Shaqlaih* (ali.shaqlaih@unt.edu), Dept. Of Mathematics and Information Sciences, University Of North Texas at Dallas, 7300 Houston School Road, Dallas, TX 7524, and **Luther White** and **Musharraf Zaman**. *Resilient Modulus Modeling by Neural Network Models with Information Theory Approach*. Preliminary report.

Neural network models have been developed to correlate resilient modulus with routine properties of subgrade soils and state of stress for pavement design application. An information theory approach is taken as a method in deciding the best model. This approach is compared with the R^2 approach. The notion of ranking stability is introduced and is used as one of the reasons that makes information theory approach better than the R^2 approach. A short overview of the information theory approach is introduced. (Received September 22, 2010)