Regression Analysis by Example, 5th Edition
Samprit Chatterjee, Ali S. Hadi


DESCRIPTION

Praise for the Fourth Edition:

"This book is . . . an excellent source of examples for regression analysis. It has been and still is readily readable and understandable."

—Journal of the American Statistical Association

Regression analysis is a conceptually simple method for investigating relationships among variables. Carrying out a successful application of regression analysis, however, requires a balance of theoretical results, empirical rules, and subjective judgment. Regression Analysis by Example, Fifth Edition has been expanded and thoroughly updated to reflect recent advances in the field. The emphasis continues to be on exploratory data analysis rather than statistical theory. The book offers in-depth treatment of regression diagnostics, transformation, multicollinearity, logistic regression, and robust regression.

The book now includes a new chapter on the detection and correction of multicollinearity, while also showcasing the use of the discussed methods on newly added data sets from the fields of engineering, medicine, and business. The Fifth Edition also explores additional topics, including:

• Surrogate ridge regression

• Fitting nonlinear models

• Errors in variables
Methods of regression analysis are clearly demonstrated, and examples containing the types of irregularities commonly encountered in the real world are provided. Each example isolates one or two techniques and features detailed discussions, the required assumptions, and the evaluated success of each technique. Additionally, methods described throughout the book can be carried out with most of the currently available statistical software packages, such as the software package R.

*Regression Analysis by Example, Fifth Edition* is suitable for anyone with an understanding of elementary statistics.

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**ABOUT THE AUTHOR**

**SAMPRIT CHATTERJEE, PhD**, is Professor Emeritus of Statistics at New York University. A Fellow of the American Statistical Association, Dr. Chatterjee has been a Fulbright scholar in both Kazakhstan and Mongolia. He is the coauthor of *Sensitivity Analysis in Linear Regression* and *A Casebook for a First Course in Statistics and Data Analysis*, both published by Wiley.

**ALI S. HADI, PhD**, is a Distinguished University Professor and former vice provost at the American University in Cairo (AUC). He is the founding Director of the Actuarial Science Program at AUC. He is also a Stephen H. Weiss Presidential Fellow and Professor Emeritus at Cornell University. Dr. Hadi is the author of four other books, a Fellow of the American Statistical Association, and an elected Member of the International Statistical Institute.

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