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The rough and fuzzy set approaches presented here open up many new frontiers for continued research and development. Computational Intelligence and Feature Selection provides readers with the background and fundamental ideas behind Feature Selection (FS), with an emphasis on techniques based on rough and fuzzy sets. For readers who are less familiar with the subject, the book begins with an introduction to fuzzy set theory and fuzzy-rough set theory. Building on this foundation, the book provides: . A critical review of FS methods, with particular emphasis on their current limitations. Program files implementing major algorithms, together with the necessary instructions and datasets, available on a related Web site. Coverage of the background and fundamental ideas behind FS. A systematic presentation of the leading methods reviewed in a consistent algorithmic framework. Real-world applications with worked examples that illustrate the power and efficacy of the FS approaches covered. An investigation of the associated areas of FS, including rule induction and clustering methods using hybridizations of fuzzy and rough set theories. Computational Intelligence and Feature Selection is an ideal resource for advanced undergraduates, postgraduates, researchers, and professional engineers. However, its straightforward presentation of the underlying concepts makes the book meaningful to specialists and nonspecialists alike.
