1. Record Nr. UNINA9910523719903321 Autore Catak Muammer Titolo Probability and random variables for electrical engineering: probability : measurement of uncertainty / / Muammer Catak, Tofigh Allahviranloo, Witold Pedrycz Cham, Switzerland:,: Springer,, [2022] Pubbl/distr/stampa 2022 **ISBN** 3-030-82922-7 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (XII, 170 p. 40 illus., 1 illus. in color.) Collana Studies in systems, decision and control;; Volume 390 Disciplina 621.30151 Soggetti Electrical engineering - Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Continuous Random Variables -- Discrete Random Variables -- Multiple Random Variables -- Statistical Analysis of Random Variables -- Random Processes -- Spectral Analysis of Random Processes -- Linear Systems with Random Inputs -- Random Samples. Sommario/riassunto This book delivers a concise and carefully structured introduction to probability and random variables. It aims to build a linkage between the theoretical conceptual topics and the practical applications, especially in the undergraduate engineering area. The book motivates the student to gain full understanding of the fundamentals of probability theory and help acquire working problem-solving skills and apply the theory to engineering applications. Each chapter includes solved examples at varying levels (both introductory and advanced) in addition to problems that demonstrate the relevance of the probability and random variables in engineering. As authors, we focused on to find out the optimum ways in order to introduce the topics in probability and random variables area.