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	Nota di contenuto	Cover; Half Title; Title Page; Copyright Page; Table of contents; Preface; Acknowledgements; About the Author; 1 Research Objectives and Process; 1.1 Introduction; 1.2 Research Objectives; 1.3 Types of Research; 1.4 Research Process and Research Output; 1.5 Phases in Research; 1.6 Innovation and Research; 1.7 Changing Nature and Expanding Scope of Research; 1.8 Need for Research Methodology; Concluding Remarks; 2 Formulation of Research Problems; 2.1 Nature of Research Problems; 2.2 Choice of Problem Area; 2.3 Formulation of Research Problems; 2.4 Role of Counter-Examples and Paradoxes 2.5 Illustrations of Problems2.6 Concretizing Problem Formulation; 3 Research Design; 3.1 Introduction; 3.2 Choice of Variables; 3.3 Choice of Proxy Variables; 3.4 Design for Gathering Data; 3.4.1 Need for Data; 3.4.2 Mechanisms for Data Collection; 3.4.3 Design for Data Collection; 3.5 Measurement Design; 3.6 Quality of Measurements; 3.7 Design of Analysis; 3.8 Credibility and Generalizability of Findings; 3.9 Interpretation of Results; 3.10 Testing Statistical Hypotheses; 3.11 Value of Information; 3.12 Grounded Theory Approach; 3.13 Ethical Considerations; 4 Collection of Data 4.1 Introduction4.2 Collection of Primary Data; 4.2.1 Sample Surveys and Designed Experiments; 4.2.2 Design of Questionnaires; 4.2.3 Scaling of Responses; An Example; 4.2.4 Survey Data Quality; 4.3

	 Planning of Sample Surveys; 4.3.1 Some General Remarks; 4.3.2 Problems in Planning a Large-Scale Sample Survey; Problems in Developing a Sampling Frame; Problems in Use of Stratification; Sample Size Determination; 4.3.3 Abuse of Sampling; 4.3.4 Panel Surveys; 4.4 Use of Designed Experiments; 4.4.1 Types and Objectives of Experiments; 4.5 Collection of Secondary Data 4.6 Data for Bio-Medical Research4.7 Data for Special Purposes; 4.8 Data Integration; 5 Sample Surveys; 5.1 Introduction; 5.2 Non-Probability Sampling; 5.3 Randomized Response Technique; 5.4 Panel Surveys; 5.5 Problems in Use of Stratified Sampling; 5.5.1 Problem of Constructing Strata; 5.5.2 Problem of Allocation of the Total Sample across Strata; 5.6 Small-Area Estimation; 5.7 Network Sampling; 5.8 Estimation without Sampling; 5.9 Combining Administrative Records with Survey Data; 6 More about Experimental Designs; 6.1 Introduction; 6.2 Optimality of Designs 6.3 Fractional Factorial Experiments6.4 Other Designs to Minimize the Number of Design Points; 6.5 Mixture Experiments; 6.6 Sequential Experiments; 6.8 Design Augmentation; 6.9 Designs for Clinical Trials; 7 Models and Modelling; 7.1 The Need for Models; 7.2 Modelling Exercise; 7.3 Types of Models; 7.4 Probability Models; 7.4.6 Choosing a Probability Model; 7.5 Models Based on Differential Equations
Sommario/riassunto	Research Methodology is meant to provide a broad guideline to facilitate and steer the whole of a research activity in any discipline. With the ambit and amount of research increasing by the day, the need for Research Methodology is being widely appreciated. Against this backdrop, we notice the dearth of well-written books on the subject. A Guide to Research Methodology attempts a balance between the generic approach to research in any domain and the wide array of research methods which are to be used in carrying out different tasks in any research. Discussions on these research methods appropriate in various disciplines have focused on the research tasks, keeping in mind the fact that a single such task like a comparison among alternatives may involve several methods from seemingly distinct areas. Unique features of this volume, as will be evident to a discerning reader, include: A detailed discussion on problem areas for research in several domains An illustrative and ampliated list of research problems drawn from different disciplines which can be pursued by interested research workers A comprehensive delineation of Research Design supported by illustrations An elaborate engagement with models with a note on model uncertainty Focus on recent and emerging models, methods and techniques A novel treatment of data analysis where the nature of data and the objective(s) of analysis justify drawing upon a variety of techniques for analysis This book will serve the purpose of a pre-PhD or a Master-level course-work for students of any discipline with a basic knowledge of quantitative analysis. In fact, anyone aspiring to take up meaningful research work will find the content useful and interesting.