

## Research Methods A Modular Approach

Focuses entirely on demystifying the field and subject of ICME and provides step-by-step guidance on its industrial application via case studies This highly-anticipated follow-up to Mark F. Horstemeyer's pedagogical book on Integrated Computational Materials Engineering (ICME) concepts includes engineering practice case studies related to the analysis, design, and use of structural metal alloys. A welcome supplement to the first book—which includes the theory and methods required for teaching the subject in the classroom—Integrated Computational Materials Engineering (ICME) For Metals: Concepts and Case Studies focuses on engineering applications that have occurred in industries demonstrating the ICME methodologies, and aims to catalyze industrial diffusion of ICME technologies throughout the world. The recent confluence of smaller desktop computers with enhanced computing power coupled with the emergence of physically-based material models has created the clear trend for modeling and simulation in product design, which helped create a need to integrate more knowledge into materials processing and product performance. Integrated Computational Materials Engineering (ICME) For Metals: Case Studies educates those seeking that knowledge with chapters covering: Body Centered Cubic Materials; Designing An Interatomic Potential For Fe-C Alloys; Phase-Field Crystal Modeling; Simulating Dislocation Plasticity in BCC Metals by Integrating Fundamental Concepts with Macroscale Models; Steel Powder Metal Modeling; Hexagonal Close Packed Materials; Multiscale Modeling of Pure Nickel; Predicting Constitutive Equations for Materials Design; and more. Presents case studies that connect modeling and simulation for different materials' processing methods for metal alloys Demonstrates several practical engineering problems to encourage industry to employ ICME ideas Introduces a new simulation-based design paradigm Provides web access to microstructure-sensitive models and experimental database Integrated Computational Materials Engineering (ICME) For Metals: Case Studies is a must-have book for researchers and industry professionals aiming to comprehend and employ ICME in the design and development of new materials.

Research Methods for Public Administrators contains a thorough overview of research methods and statistical applications for advanced undergraduate and graduate students, and practitioners. The material is based on established social science methods. Concepts and applications are discussed and illustrated with examples from actual research. The book covers research design, methods of data collection, instructions on formulating research plans, measurement, sampling procedures, and statistical applications from basic statistics to more advance techniques. The basics of conducting experiments, survey research, case studies, and focus groups are discussed. Data organization, management, and analysis are also covered, as are data analysis and hypothesis testing. Descriptive and inferential statistics are discussed and illustrated with examples. The book also includes a chapter on obtaining and analyzing secondary data (data already collected for other purposes) and a chapter on reporting and presenting research results to a variety of audiences. This is a general textbook written primarily for students of public administration and practitioners in public and not-for-profit organizations. It includes materials shown to be useful in gathering and assessing information for making decisions and implementing policies. The material is discussed at a level to be accessible and with enough detail to be useful. New to the seventh edition: Additional and expanded material on qualitative research, big data, metadata, literature reviews, and causal inference New material on experiments and experimental research New examples and case studies, including those dealing with public policy Expanded material on using computers for data management Information on new NSF and NIH ethics and protection of human subjects requirements for researchers New data sets and Power Point slides for each chapter.

## Read Book Research Methods A Modular Approach

This book provides students with accessible and authoritative knowledge of the essential topics of nursing and healthcare research. Psychology: A Modular Approach is an adaptation of the best-selling text by renowned authors and educators John O. Mitterer and Dennis Coon. This first Canadian edition, adapted by Brock University's Tanya Martini, continues to combine the highly effective SQ4R (Survey, Question, Read, Recite, Reflect, Review) active learning system, an engaging style, appealing visuals, and detailed coverage of core topics and cutting-edge research in one remarkable, comprehensive text. Current and relevant to students studying in Canada, this new edition builds on the proven modular format, extensive special features, and teaching and learning tools integrated throughout the text. While the text provides a broad overview of essential psychology topics ideal for introductory courses, its modular design also readily supports more specialized curricula, allowing instructors to use the self-contained instructional units in any combination and order.

Language acquisition research is challenging—the intricate behavioral and cognitive foundations of speech are difficult to measure objectively. The audible components of speech, however, are quantifiable and thus provide crucial data. This practical guide synthesizes the authors' decades of experience into a comprehensive set of tools that will allow students and early career researchers in the field to design and conduct rigorous studies that produce reliable and valid speech data and interpretations. The authors thoroughly review specific techniques for obtaining qualitative and quantitative speech data, including how to tailor the testing environments for optimal results. They explore observational tasks for collecting natural speech and experimental tasks for eliciting specific types of speech. Language comprehension tasks are also reviewed so researchers can study participants' interpretations of speech and conceptualizations of grammar. Most tasks are oriented towards children, but special considerations for infants are also reviewed, as well as multilingual children. Chapters also provide strategies for transcribing and coding raw speech data into reliable data sets that can be scientifically analyzed. Furthermore, they investigate the intricacies of interpretation so that researchers can make empirically sound inferences from their data and avoid common pitfalls that can lead to unscientific conclusions.

Never HIGHLIGHT a Book Again! Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanies: 9781285750491. This item is printed on demand.

This straightforward, concise, conversational introduction to statistics presents a plain-and-simple overview of statistics that is sparing in its use of jargon. Readers develop a strong awareness of the interaction between statistical methods and research methods along with a solid working knowledge of basic statistical cautions in research design, an understanding of the concept of significance, and the critical thinking skills necessary to apply these ideas. Available with InfoTrac Student Collections <http://goengage.com/infotrac>. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Sherri Jackson's straightforward, conversational introduction to statistics presents just what its title promises -- a plain and simple overview of statistics that is clear, concise, and sparing in its use of jargon. Ideal for behavioral sciences majors, STATISTICS PLAIN AND SIMPLE, Fourth Edition, is designed to build students' confidence in understanding, calculating, and interpreting statistics. It instills a strong awareness of the interaction between statistical methods and research methods. It also helps students develop a solid working knowledge of basic statistical cautions in research design, a strong understanding of the concept of significance, and the critical thinking skills necessary to apply these ideas. A modular format presents the material in brief segments that make concepts manageable. Jackson shows why each statistical technique is necessary before explaining it, and skillfully uses narrative to connect one module to the next. Important Notice: Media content

referenced within the product description or the product text may not be available in the ebook version.

Sherri Jackson's RESEARCH METHODS: A MODULAR APPROACH combines a lively writing style with a novel approach to offer a refreshing alternative for the research methods course. Topics are treated in relatively compact units that, though logically sequenced, can be used in any order. The critical thinking theme that threads through the book engages your thinking by asking you to continually evaluate evidence. .Brief, yet comprehensive, this text will help you master the material in an engaging way. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This text provides guidance for building curriculum structures and examines the models that can be used. Options such as accreditation of prior and experiential learning, incompany accreditation, work-based learning, In Matarenda/Talents in Zimbabwean Pentecostalism, the contributors reflect on how Pentecostalism contributes to the empowerment of marginalised societies, empowers women through the matarenda practices, and contributes to the development of wider society.

The Oxford Handbook of Clinical and Healthcare Research is a practical, concise, and easy-to-use reference for the full range of clinical and healthcare research topics, while incorporating evidence based medicine. Comprehensively providing a wide breadth of knowledge, this handbook clearly covers both the qualitative and quantitative aspects. This handbook includes clear instructions on the legislative requirements as well as the practical requirements of commissioning, conducting, analysing, and reporting research for those in clinical or healthcare practice, education or training. This book has been written with Good Clinical Practice (GCP) education in mind, giving valuable information needed for the accredited certificates and diploma-level benchmark exams now commonly required by employers. Whether you need practical advice on setting up and running a trial, negotiating regulations, learning vital research skills, or to study the underpinning concepts of research methods, this handbook will give you the vital information, clinical evidence, and guidance you need.

Never HIGHLIGHT a Book Again Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanies: 9780872893795. This item is printed on demand.

This is a book for anyone who has ever considered engaging in the scholarship of teaching and learning – known familiarly as SoTL – and needs a better understanding of what it is, and how to engage in it. The authors describe how to create a SoTL project, its implications for promotion and tenure, and how it fosters: \* Increased satisfaction and fulfillment

in teaching \* Improved student learning \* Increased productivity of scholarly publication \* Collaboration with colleagues across disciplines \* Contributing to a growing and important body of literature This guide provides prospective SoTL scholars with the necessary background information, foundational theory, tools, resources, and methodology to develop their own SoTL projects, taking the reader through the five stages of the process: Generating a research question; Designing the study; Collecting the data; Analyzing the data; and Presenting and publishing your SoTL project. Each stage is illustrated by examples of actual SoTL studies, and is accompanied by worksheets to help the reader refine ideas and map out his or her next steps. The process and worksheets are the fruit of the successful SoTL workshops the authors have offered at their institution for many years. SoTL differs from scholarly and reflective teaching in that it not only involves questioning one's teaching or a teaching strategy, but also formally gathering and exploring evidence, researching the literature, refining and testing practices, and finally going public. The purpose of SoTL is not just to make an impact on student learning, but through formal, peer-reviewed communication, to contribute to the larger knowledge base on teaching and learning. While the roots of SoTL go back some 30 years, it was Ernest Boyer in his classic *Scholarship Reconsidered* who made the case for the parity of the scholarships of integration, of discovery, of application, and of scholarship of teaching as vital to the health of higher education. Glassick, Huber, and Maeroff's subsequent *Scholarship Assessed* articulated the quality standards for SoTL, since when the field has burgeoned with the formation of related associations, a proliferation of conferences, the launching of numerous journals, and increasing recognition and validation by institutions.

This book contains the refereed proceedings of the 10th International Conference on Knowledge Management in Organizations, KMO 2015, held in Maribor, Slovenia, in August 2015. The theme of the conference was "Knowledge Management and Internet of Things." The KMO conference brings together researchers and developers from industry and academia to discuss how knowledge management using big data can improve innovation and competitiveness. The 59 contributions accepted for KMO 2015 were selected from 163 submissions and are organized in topical sections on: knowledge management processes, successful knowledge sharing and knowledge management practices, innovations for competitiveness, knowledge management platforms and tools, social networks and mining techniques, knowledge management and the Internet of Things, knowledge management in health care, and knowledge management in education and research.

This book was written in response to the needs for a growing number of schools that are teaching an integrated research methods/statistics course. *Basic Research Methods and Statistics* has detailed, comprehensive and even-handed coverage of the fundamental issues in research design and data analysis, and is written in a conversational style that

students can easily comprehend. The text is comprehensive in its coverage of basic and intermediate topics, however, the modular format allows professors to skip or rearrange the order of chapters without loss of continuity. Therefore, the text is appropriate for either a one-semester or two-semester course.

What is research in education? And what is it for in a digital age? Reflecting upon these questions, this engaging introduction provides critical discussion about the dilemmas of researching education in the digital age and ways forward for research in this complex area. *Research Methods for Education in the Digital Age* begins by outlining forms of education that are seen as digital, such as virtual, blended, immersive learning and examining the extent to which these are different or just adapted versions of earlier methods and approaches to education. Maggi Savin-Baden and Gemma Tombs explore current practices in research, identifying the successful adoption and adaptation of theories and present practical guidance on new and emerging methodologies, methods, and analytical practices for undertaking educational research. New methodologies discussed include digital arts-based inquiry and digital visual methodologies, as well as adaptations of widely used methodologies such as ethnography, for the specific needs of researching digital teaching and learning. The book outlines the major challenges faced by today's digital researchers, exploring approaches to digital ethics, the relationship between qualitative and quantitative data in the digital age, digital data representations and portrayal and suggests helpful ways of dealing with the complexities and ethical challenges of undertaking research in and for digital spaces. Using case studies, research tips, a glossary and annotated further reading, the authors take a step by step approach from conceptualizing the research ideas, selecting the appropriate method to the dissemination of the findings. At a time when education is changing rapidly with digital and technological advances, *Research Methods for Education in the Digital Age* is essential reading for researchers wanting to undertake sound and rigorous research in the digital domain. "This book provides an overview of online research methods in urban and planning studies, exploring and discussing new digital tools and Web-based research methods, as well as the scholarly, legal, and ethical challenges associated with their use"--Provided by publisher.

Genre theory has been used to describe patterns within certain types of mass media, especially patterns associated with written and spoken language. These same methods can be applied to interviewing and the planning and creation of focus groups. *Elicitation Strategies for Interviewing and Fieldwork: Emerging Research and Opportunities* is a pivotal reference source that provides vital research on the application of textual strategies associated with initiating or eliciting texts and strategies for keeping responders on task. While highlighting topics such as microgenre, interview protocol, and cultural context, this publication explores interview techniques as well as the methods of using these strategies to keep interviews relevant. This book is ideally designed for academicians, researchers, journalists, communication specialists, and interviewers seeking current research on interview strategies and textual strategies important to recognizing and evaluating patterns within responses.

*Approaches to Specialized Genres* provides a timely update of the field of genre studies, with 14 cutting-edge contributions split into five sections using and integrating an exceptionally wide variety of methods and perspectives (such as ESP genre research,

corpus linguistics, systemic functional linguistics, ethnographic and multimodal research) to analyse genres in written, spoken, visual and auditory modes across a multiplicity of pedagogic, professional and digital settings. It highlights and illustrates the growing trend of a multiperspective and inter-theoretic approach to genre studies and demonstrates how such methodological rigour can extend our knowledge of language, in general, and genres, in particular. It also examines a rich variety of underexplored genres such as the digital genre of synchronous videoconferencing, instructional slides, video ads, engineers' training log book entries, the narrative story genres, fundraising letters and retraction notices. It demonstrates not only the prominent value of genre research, but wide applications of genre knowledge in various educational and professional domains. The book brings together experts spreading across the world, including countries in South-East Asia, Europe, America, West Africa and South America. Accordingly, it will appeal to readers of diversified socio-cultural backgrounds working in all the aforementioned inter-related fields of applied linguistics and communication studies.

A CONCISE GUIDE TO STATISTICAL ANALYSES USING EXCEL, SPSS, AND THE TI-84 CALCULATOR, First Edition, is precisely what its title conveys--a brief, simple-to-understand introduction to analyzing data using Excel, SPSS, and the TI-84 calculator. The text progresses from descriptive statistics and how to create various types of graphs (i.e., bar graphs, histograms, and frequency polygons) to coverage of both parametric and nonparametric inferential statistics. The book also covers single sample z and t tests, two-group t tests, one- and two-way ANOVAs, Wilcoxon tests, chi-square tests, and correlation and regression analyses. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

In an era of climate change, deforestation, melting ice caps, poisoned environments, and species loss, many people are turning to the power of the arts and humanities for sustainable solutions to global ecological problems. Introduction to the Environmental Humanities offers a practical and accessible guide to this dynamic and interdisciplinary field. This book provides an overview of the Environmental Humanities' evolution from the activist movements of the early and mid-twentieth century to more recent debates over climate change, sustainability, energy policy, and habitat degradation in the Anthropocene era. The text introduces readers to seminal writings, artworks, campaigns, and movements while demystifying important terms such as the Anthropocene, environmental justice, nature, ecosystem, ecology, posthuman, and non-human. Emerging theoretical areas such as critical animal and plant studies, gender and queer studies, Indigenous studies, and energy studies are also presented. Organized by discipline, the book explores the role that the arts and humanities play in the future of the planet. Including case studies, discussion questions, annotated bibliographies, and links to online resources, this book offers a comprehensive and engaging overview of the Environmental Humanities for introductory readers. For more advanced readers, it serves as a foundation for future study, projects, or professional development.

The majority of research on eyewitness memory has traditionally studied children and young adults. By contrast, this volume is designed to provide an overview of empirical research on the cognitive, social, and health related factors that impact the accuracy

of eyewitness testimony given by the elderly. The book takes a lifespan developmental perspective that incorporates research on witnesses of all ages, but uses the findings to focus on issues unique to the elderly. This includes research on recognition memory with lineup identifications and recall memory that occurs when an elderly witness is asked to describe an event in court. The *Elderly Eyewitness* also examines jurors' reactions to the testimony of an elderly witness, and the legal and social policy issues that emerge when the elderly witness participate in legal proceedings. While reviewing what is known about the elderly witness, the book also provides a direction for future research into this new frontier of scientific inquiry. Its audience spans researchers in cognitive and developmental psychology, and professionals working in the growing area of psychology and law.

*Online Research Essentials: Designing and Implementing Research Studies* Online Research Essentials Written by experts in the field, *Online Research Essentials* provides step-by-step guidance to the student or new practitioner in how to create, test, and deploy online survey research. The book includes everything needed for planning and developing a survey, putting it online, and formatting data for further analysis. Russell and Purcell provide support for using the popular Microsoft Expression Web and Adobe Dreamweaver web page authoring tools and for using the Access database that is used to collect and store survey results. *Online Research Essentials* is a comprehensive resource that discusses the practical aspects of survey development and applied research and offers information on a wide range of research-related topics that include: Scientific method and research design Ethical considerations on using the Internet for research Creating web pages Planning the research study Creating a simple survey on the Internet Developing an e-survey Creating more complicated Internet surveys Sampling procedures Developing experimental designs JavaScript and web programming and advanced JavaScript programming Repeated measures and matched group designs

*Research Methods: A Modular Approach* Cengage Learning

*RESEARCH METHODS AND STATISTICS: A CRITICAL THINKING APPROACH*, 5th Edition, successfully illustrates the integration between statistics and research methods by demonstrating the ways to use statistics in analyzing data collected during research. Jackson's combined text adopts an inviting narrative style that speaks directly to students and draws them into the material, helping them overcome the initial apprehension they may feel at having to learn both subject areas at once. Focusing on the logic of the process and the methodology aspect of research, Jackson incorporates a student-friendly critical-thinking approach and presents examples and exercises to which students can relate. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The book looks into how developing a new identity can assist an individual that is affected by mental illness to overcome both the self-perceived and public stigma they might be going through owing to mental illness. Individuals that are affected by mental illness often live in denial; the book provides through which these people can come out of denial.

Lastly, the factors that can enhance the mental health recovery process are looked into; they include among others employment, relationships, spirituality, resilience and recovery orientated language.

Social science researchers in the global South, and in South Africa particularly, utilise research methods in innovative ways in order to respond to contexts characterised by diversity, racial and political tensions, socioeconomic disparities and gender inequalities. These methods often remain undocumented – a gap that this book starts to address. Written by experts from various methodological fields, *Transforming Research Methods in the Social Sciences* is a comprehensive collation of original essays and cutting-edge research that demonstrates the variety of novel techniques and research methods available to researchers responding to these context-bound issues. It is particularly relevant for study and research in the fields of applied psychology, sociology, ethnography, biography and anthropology. In addition to their unique combination of conceptual and application issues, the chapters also include discussions on ethical considerations relevant to the method in similar global South contexts. *Transforming Research Methods in the Social Sciences* has much to offer to researchers, professionals and others involved in social science research both locally and internationally. *Teaching Research Methods in Political Science* brings together experienced instructors to offer a range of perspectives on how to teach courses in political science. It focuses on numerous topics, including identifying good research questions, measuring key concepts, writing literature reviews and developing information literacy skills.

A psychology text that you'll actually want to read! *PSYCHOLOGY: A JOURNEY* is guaranteed to spark your curiosity, insight, imagination, and interest. Using the proven SQ4R (Survey, Question, Read, Recite, Reflect, and Review) active learning system to help you study smarter, Coon leads you to an understanding of major concepts as well as how psychology relates to the challenges of everyday life. Each chapter of this book takes you into a different realm of psychology, such as personality, abnormal behavior, memory, consciousness, and human development. Each realm is complex and fascinating, with many pathways, landmarks, and detours to discover. Take the journey and find yourself becoming actively involved with the material as you develop a basic understanding of psychology that will help you succeed in this course and enrich your life. Available with InfoTrac Student Collections <http://gocengage.com/infotrac>. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This comprehensive title is among the first to extensively use newly released 2010 U.S. Census data to examine multiculturalism today and tomorrow in America. This distinction is important considering the following NPR report by Eyder Peralta: “Based on the first national numbers released by the Census Bureau, the AP reports that minorities account for 90 percent of the total U.S. growth since 2000, due to immigration and higher birth rates for Latinos.”

According to John Logan, a Brown University sociologist who has analyzed most of the census figures, “The futures of most metropolitan areas in the country are contingent on how attractive they are to Hispanic and Asian populations.” Both non-Hispanic whites and blacks are getting older as a group. “These groups are tending to fade out,” he added. Another demographer, William H. Frey with the Brookings Institution, told The Washington Post that this has been a pivotal decade. “We’re pivoting from a white-black-dominated American population to one that is multiracial and multicultural.” Multicultural America: A Multimedia Encyclopedia explores this pivotal moment and its ramifications with more than 900 signed entries not just providing a compilation of specific ethnic groups and their histories but also covering the full spectrum of issues flowing from the increasingly multicultural canvas that is America today. Pedagogical elements include an introduction, a thematic reader’s guide, a chronology of multicultural milestones, a glossary, a resource guide to key books, journals, and Internet sites, and an appendix of 2010 U.S. Census Data. Finally, the electronic version will be the only reference work on this topic to augment written entries with multimedia for today’s students, with 100 videos (with transcripts) from Getty Images and Video Vault, the Agence France Press, and Sky News, as reviewed by the media librarian of the Rutgers University Libraries, working in concert with the title’s editors. APPROACH Sherri Jackson's RESEARCH METHODS: A MODULAR combines a lively writing style with a novel approach to offer a refreshing alternative for the research methods course. Topics are treated in relatively compact units that, though logically sequenced, can be used in any order. The critical thinking theme that threads through the book engages your thinking by asking you to continually evaluate evidence. Brief, yet comprehensive, this text will help you master the material in an engaging way Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

RESEARCH METHODS AND STATISTICS: A CRITICAL THINKING APPROACH, 3e, successfully illustrates the integration between statistics and research methods by demonstrating the ways to use statistics in analyzing data collected during research. Jackson’s combined text adopts an inviting narrative style that draws you into the material, helping you overcome the initial apprehension you may feel at having to learn both subject areas at once. She incorporates a student-friendly critical-thinking approach and presents examples and exercises to which you can relate. Jackson focuses on the logic of the process and the methodology aspect of research. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The field of health is an increasingly complex and technical one; and an area in which a more multidisciplinary approach would undoubtedly be beneficial in many ways. This book presents papers from the conference ‘Health – Exploring Complexity: An Interdisciplinary Systems Approach’, held in Munich, Germany, from August 28th to September 2nd

2016. This joint conference unites the conferences of the German Association for Medical Informatics, Biometry and Epidemiology (GMDS), the German Society for Epidemiology (DGEpi), the International Epidemiological Association - European Region, and the European Federation for Medical Informatics (EFMI). These societies already have long-standing experience of integrating the disciplines of medical informatics, biometry, epidemiology and health data management. The book contains over 160 papers, and is divided into 14 sections covering subject areas such as: health and clinical information systems; eHealth and telemedicine; big data and advanced analytics; and evidence-based health informatics, evaluation and education, among many others. The book will be of value to all those working in the field of health and interested in finding new ways to enable the collaboration of different scientific disciplines and the establishment of comprehensive methodological approaches.

In the name of ALLAH, The most powerful, kind and the creator of all creations. Without Almighty nothing is possible, so we owe the successful completion of our work to Almighty ALLAH for HIS grace and blessing. We would like to firstly acknowledge Dr. Naveed Iqbal (Professor, Jamia Millia Islamia) for his encouraging guidance, untiring efforts, valuable suggestions, and moral support at all times throughout our career and work. We express our heartiest thanks to our parents and other family members especially Mrs. Maala Begum, Mr Ali Mohd Fafoo, Mr. Gh Nabi Fafoo, Mrs. Rafeeka Begum, Mrs. Shafeeka Begum, Mrs. Dilshada, Ajaz Ali, Umer Nabi, Shahid Nabi, Aamir Zaffer, Danish Anjum, Ather Rayess, Ubaid Kaiser, Kounser Nabi, Mohd Imran, Jan Mohd, Aaliya, Rubeena, Bilal Khanday and Asmat Jaan for their care, moral support and coherence. We are also very much thankful to all our friends like Mr.Asif Tantray, Dr. Mudasir Tantray, Dr. Ajaz, Mr. Ajaz Lone, Mr. Shamsudin, Mr.Suhail Yousuf, Mr.Waseem Qayoom, Dr. Masood, Mr.Umer lone, Samullah Sultan and Dr. Shah Sajad Hyder for their valuable suggestions, encouragement, and support throughout the whole work. Finally, we also appreciate all the authors of consulted books and other publications whose precious work guided us very much to complete this assignment successfully...

Having the ability to measure and explore the geographic space that surrounds us provides endless opportunities for us to utilize and interact with the world. As a broad field of study, geospatial research has applications in a variety of fields including military science, environmental science, civil engineering, and space exploration. Geospatial Research: Concepts, Methodologies, Tools, and Applications is a multi-volume publication highlighting critical topics related to geospatial analysis, geographic information systems, and geospatial technologies. Exploring multidisciplinary applications of geographic information systems and technologies in addition to the latest trends and developments in the field, this publication is ideal for academic and government library inclusion, as well as for reference by data scientists, engineers, government agencies, researchers, and graduate-level students in GIS programs.

[Copyright: 0fb7aef623a6c7b93be1be2c85a8d74a](#)