1. Record Nr. UNINA9911034935103321

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Titolo Practice of Research Methodology in Civil Engineering and Architecture :

A Comprehensive Guide / / by Amjad Almusaed, Asaad Almssad,

Ibrahim Yitmen

Pubbl/distr/stampa Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025

ISBN 3-031-97393-3

Edizione [1st ed. 2025.]

Descrizione fisica 1 online resource (1202 pages)

Collana Engineering Series

Altri autori (Persone) AlmssadAsaad

YitmenIbrahim

Disciplina 624

Soggetti Civil engineering

Research - Methodology Engineering design Civil Engineering Research Skills Engineering Design

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

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Part I: Foundations of Research Methodology -- 1: Introduction to Research Methodology -- 2: Identifying Research Gaps -- 3:

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This book offers a comprehensive exploration of research methodology, providing invaluable insights for students and researchers in the AEC industry and engineering fields. Through this book, readers learn the theoretical and practical aspects of research design and academic writing, making it an indispensable resource for anyone engaged in scholarly investigation. This book covers a wide range of topics essential to robust research practices. Readers explore identifying research gaps, formulating problem statements, crafting precise research questions, objectives, and aims. This book delves into the philosophical foundations of different research paradigms ontological and epistemological factors that impact methodological decisions. It also provides an in-depth examination of qualitative methods such as ethnography, grounded theory, narrative analysis; quantitative methods including experimental design, survey techniques; as well as mixed-methods approaches that combine both to yield comprehensive results. In addition to theoretical content, this book offers practical tools like templates for research proposals and checklists for data collection. These resources are designed to aid researchers in efficiently applying their knowledge in real-world settings. The authors emphasize clarity, coherence, and scholarly rigor in academic writing while providing practical techniques to overcome common obstacles faced by researchers. This book is essential for researchers, scholars, students at all levels who seek to enhance their understanding of research methodology. It provides clear guidance on structuring and organizing research articles, performing literature reviews, presenting findings with scholarly rigor. Whether you are a novice researcher or an experienced academician looking to refine your skills or gain new perspectives on methodological practices—this book is tailored to meet your needs. Researchers in fields such as architecture, engineering construction (AEC), environmental design find this work particularly beneficial. Its comprehensive scope guarantees its authenticity usefulness rendering it indispensable literary essential study academic writing methodological investigation.

2. Record Nr. UNINA9911011859603321

Autore Mehan Julie

Titolo Artificial Intelligence : Ethical, Social, and Security Impacts for the

Present and the Future, Second Edition

Pubbl/distr/stampa Ely:,: IT Governance Ltd,, 2024

©2024

ISBN 1-78778-513-0

Edizione [1st ed.]

Descrizione fisica 1 online resource (409 pages)

Soggetti Artificial intelligence

Ethics

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

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Acknowledgements -- Contents -- Introduction -- Chapter 1: Al defined and common depictions of AI - Is it a benevolent force for humanity or an existential threat? -- A very brief history of AI - and perceptions of AI -- What exactly is AI? -- AI learning styles -- Back to the original question -- Chapter 2: Is AI really ubiquitous - Does it or will it permeate everything we do? -- Ubiquitous AI -- What is allowing Al to become almost a "common utility"? -- What makes people refer to Al as ubiquitous? -- Chapter 3: Human-machine collaboration - Can we talk to them in English (or any other language)? -- The "Age of With™" -- The five Ts of human-machine collaboration -- Types of human-machine collaboration -- How can humans and machines communicate? -- Challenges to human-machine collaboration --Chapter 4: AI, ethics, and society - Are they compatible? -- How do ethics relate to AI? -- Potential positive ethical and security/safety impacts of AI -- AI in the time of COVID -- Potential negative ethical and security/safety impacts of AI -- The reasons it is difficult for humans to fully address these potential challenges from AI -- Chapter 5: Bias in AI - Why is it important and potentially dangerous? -- Where does AI bias come from? -- Real-life examples of bias in AI -- Can AI's decisions be less biased than human ones? -- Identifying and removing bias in AI -- Chapter 6: AI and cybersecurity - AI as a sword or a

shield? -- AI as a sword -- AI as a shield -- It's more than just AI tools -- Chapter 7: AI and our society - Will the result be professional, ethical, and social deskilling, or upskilling? -- Professional deskilling and upskilling -- Ethical deskilling and upskilling -- Social deskilling and upskilling -- Chapter 8: AI and privacy - Is anything really private anymore?.

Privacy and security -- Data privacy -- Monitoring and surveillance --Privacy laws and regulations in the age of AI -- Chapter 9: Misinformation, disinformation, fake news, manipulation, and deep fakes - Do we know how to think critically about information? --Misinformation -- Disinformation -- User manipulation -- Thinking critically about information and information sources -- Become a digital detective -- Chapter 10: Al and social media - How is it affecting us? -- What is the relationship between social media and AI? -- The unforeseen effects of AI and social media -- Chapter 11: "The measure of a man"- Can Al become more like a human? -- What does it mean to be "human"? -- Applying human characteristics to AI -- But can AI be considered alive? -- AI - A new species -- Chapter 12: what's next in AI - Less artificial and more intelligent? -- The future of AI -What comes next? -- A primer for integrating ethics and safety into new AI developments -- Policy and legal considerations -- Chapter 13: Ethical challenges of Al 2024 and beyond: The moral imperative of navigating this new terrain -- 2023 was a tipping point for AI -- How do we set safeguards for AI, especially generative AI? --Misinformation, disinformation, and malinformation through the use of generative AI -- Weaponization of AI -- Copyright, intellectual property, and other legal risks -- Privacy, surveillance, and social media -- Al-induced loss of jobs -- Al in education -- Environmental impact of increased AI -- AI and changes in human relationships --2024 and beyond - the years of Al legislation -- Chapter 14: Final thoughts -- Further reading.

Sommario/riassunto

This book presents a concrete approach to identifying appropriate ethical principles in AI solutions.