Preface

Artificial intelligence (AI) has significantly enhanced the capabilities of drone technology, opening up new possibilities across various industries. This book explores the transformative impact of AI-driven drone systems in sectors such as smart infrastructure, healthcare, security, and sustainability. AI-powered drones are revolutionizing smart infrastructure by enabling autonomous inspections, real-time data analysis, and predictive maintenance for urban development. In healthcare, drones equipped with AI deliver medical supplies and provide essential monitoring in remote areas. In the security sector, AI-driven drones are used for surveillance and threat detection, enhancing public safety and crime prevention. Furthermore, AI-enabled drones are crucial in environmental monitoring, conservation, and natural resource management, contributing to more sustainable practices. By combining AI with drone technology, this book highlights how these intelligent systems are reshaping industries, addressing global challenges, and improving efficiency, safety, and sustainability. It provides a comprehensive understanding of the future potential of AI-driven drones.