Preface

The integration of Machine Learning (ML), Deep Learning (DL), and the Internet of Things (IoT) is reshaping engineering applications, offering innovative solutions to complex challenges across industries. This book, Advanced Engineering Applications of Machine Learning, Deep Learning, and IoT, delves into the convergence of these technologies, highlighting their transformative impact on engineering disciplines. ML and DL techniques empower systems to learn from data, make intelligent decisions, and optimize performance in real-time. The combination with IoT enables the creation of smart, interconnected systems that adapt and evolve. Through this volume, we explore practical applications in various engineering fields, including mechanical, electrical, civil, and biomedical engineering. The chapters, contributed by leading experts, cover both theoretical foundations and real-world case studies, demonstrating how these technologies enhance system efficiency, reduce costs, and drive sustainability. This book aims to provide readers with the knowledge to leverage ML, DL, and IoT in advancing engineering practices.