

# AI-Driven Innovations in Digital Healthcare: Emerging Trends, Challenges, and Applications

Part of the Advances in Medical Diagnosis, Treatment, and Care Book Series

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## Description:

Within the healthcare sector, a pressing need for transformative changes is growing. From chronic diseases to complex diagnostic procedures, the industry stands at the crossroads of technological innovation and a burgeoning demand for more efficient, precise interventions. Patient expectations are soaring, and the deluge of medical data is overwhelming traditional healthcare systems. It is within this challenging environment that **AI-Driven Innovations in Digital Healthcare: Emerging Trends, Challenges, and Applications** emerges as a beacon of insight and practical solutions.

The traditional healthcare framework is struggling to keep pace with the diverse demands of patients and the ever-expanding volume of medical data. As diseases become more intricate, attempts to provide timely identification and precise treatment of ailments become increasingly elusive. The urgency for a paradigm shift in healthcare delivery is emphasized by the critical need for early interventions, particularly in disease prediction. This challenge necessitates a holistic approach that harnesses the power of artificial intelligence (AI) and innovative technologies to steer healthcare toward a more responsive and patient-centric future.

**AI-Driven Innovations in Digital Healthcare: Emerging Trends, Challenges, and Applications** serves as a comprehensive guide for academic scholars seeking to understand, implement, and contribute to the transformative impact of AI-driven solutions in the digital healthcare sector. The book's core objective is to unravel the complexities surrounding AI-based innovations, presenting a roadmap for addressing challenges, reaping benefits, and effectively applying these technologies. By exploring diverse topics, from AI models and green computing to quantum computing and emerging deep learning frameworks, the book equips scholars with the knowledge and insights needed to revolutionize healthcare practices.

For academic scholars at the forefront of healthcare research, **AI-Driven Innovations in Digital Healthcare: Emerging Trends, Challenges, and Applications** is a vital resource that empowers them to spearhead change in the industry. As we navigate the intricate web of AI-driven solutions together, the book invites scholars to join the forefront of healthcare transformation, ensuring that the future of patient care is innovative but deeply informed by the latest advancements in artificial intelligence. This book is not just about understanding the challenges; it is a call to action, an invitation to shape the future of healthcare through knowledge and implementation.



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## Topics Covered:

- Artificial Intelligence Innovation in Healthcare
- Big Data and Data Analytics for Digital Healthcare
- Cybersecurity and Cloud Computing
- Deep Learning Techniques in Healthcare Image Segmentation
- Disease Detection using Recurrent Neural Networks
- Emerging Deep Learning Frameworks
- Healthcare Cloud-Based Data Management System
- Monitoring Patient Health Using Smart Technology
- Quantum Computing in Healthcare

**Subject:** Medical, Healthcare, and Life Sciences

**Classification:** Edited Reference

**Readership Level:** Advanced-Academic Level (Research Recommended)

**Research Suitable for:** Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners

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