

### Blockchain for biomedical and healthcare system - Concept, Trends, and Future Implications



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#### Topics of Interest

##### Chapter Contributions

1. Introduction of Blockchain for biomedical and healthcare system
2. Existing Tools and Technologies in biomedical and healthcare system
3. Biomedical research acceleration using Blockchain
4. Applicability aspect of Blockchain for IoT-based biomedical system
5. Significance of Blockchain in exiting IoT-based healthcare System
6. Innovating traditional models of biomedical and healthcare
7. Blockchain and Digital microbiology
8. Infrastructure requirement for the blockchain-based healthcare system
9. Improved and secure medical record management
10. Securing drug/biomolecule supply chain management using Blockchain
11. Healthcare process improvement using Blockchain
12. Prospective issues and challenges for adopting Blockchain for biomedical and healthcare system
13. Patient benefits by adopting blockchain for IoT-based biomedical and healthcare system
14. Case Studies and Testbeds of IoT-based biomedical and healthcare
15. The futuristic trends of blockchain-based biomedical and healthcare system

#### Scope of the Book

- The biomedical and healthcare system is one of the prime focuses by the researchers nowadays through the adoption of Blockchain Technology as an underlying infrastructure could secure information exchange between different stakeholders such as medical practitioners, patients, healthcare providers, and other applicable parties. The past decade has seen a sharp escalation in the adoption of Blockchain Technology in various application such as financial system, smart grid, etc. that has proved its effectiveness due to immutability, security, and other features. In case of biomedical and health care system, blockchain takes into consideration for better patient treatment structure by the expert doctor that could be arranged throughout the world using IoT-enabled electronic system. It facilitates to enhance medical record management, improved insurance claim process, and speed up biomedical/clinical research. Blockchain-based biomedical and healthcare system can also be used as a magnificent tool for the detection of different medical weapons, explosives, chemicals, harmful gases, and cyber-attacks towards a precautionary measure of the healthcare industry 5.0. In addition, blockchain technology has also found its role in digital microbiology, food and biomass supply chain, etc.
- This book aims to present a variety of perspectives on the most pressing questions in the field, for example: how IoT can connect billions of biomedical and healthcare devices together; how the blockchain-based secure access control mechanisms in biomedical and healthcare environment works; how to address the Quality-of-Service (QoS) and real-time accessibility requirements for healthcare applications; and how to ensure communication and computing efficiency. This book would acts as a professional guide for the practitioners in information security and related topics with healthcare application.

#### Important Dates

<b>Abstract with title keywords and author detail:</b>	<b>July 15, 2023</b>
Preliminary acceptance/rejection notification	: July 20, 2023
Full chapter Submission	: July 30, 2023
First review notification	: August 05, 2023
Revised chapter submission	: August 20, 2023
Final Acceptance/Rejection notification	: August 30, 2023
Camera Ready submission	: Sept 15, 2023
Book Publication (Tentative)	: Sept-Oct 2023

#### Submission Procedure

Please submit your one-page write up (with abstract of 300- 500 words and 6 keywords) of your chapter along with tentative Table of Contents through Online Submission System (ONLY). Easy Chair [Submission Link](https://easychair.org/conferences/?conf=elsevierbca5ghealthc) <https://easychair.org/conferences/?conf=elsevierbca5ghealthc> on or before **15th July 2023**. Upon acceptance of the proposal, further instructions for submission guidelines according to the Springer will be communicated.

#### Reasons to contribute in this edited book

The Editor (Dr. Prasun Kumar) of this book has successfully completed "7 Edited Books" with Elsevier and Springer, some of them are as follows.  
<https://www.springer.com/gp/book/9789811626760>, this book has **2.6 million downloads till 30th June 2023**.  
 Microbial Applications Vol. I Editors: Kalia VC, Kumar P. (2017): Springer ISBN 978-3-319-52666-9  
 • Soil Microenvironment for Bioremediation and Polymer Production. Editors: Nazia Jamil, Kumar P, Rida Batool (2019). Publisher: Scrivener-Wiley. ISBN: 978-1-119-59205-1  
 • Bioelectrochemical systems: Vol.- 1 Principles and Processes. Ed.: Kumar P, Kuppam C (2021): Springer ISBN 978-981-15-6872-5  
 • Fast processing of all Chapters and within a span of 'SIX Months' at max, the complete book will be submitted to Springer.  
 • All the chapters published in this book will be submitted for indexing in Academic Press, imprint of Springer.  
 • The lead contributor of each chapter will receive a free copy of the book from Springer

#### For further inquiry, you can contact:

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