

**Springer****Call for Book Chapters:****Vision, Sensing and Analytics: Integrative Approaches**

About: Recent technology advancements in vision, sensing and analytics have brought to us the new trends and made significant impacts in our societies. Especially the advancement of their tools opens the door to highly impactful innovations and applications as a result of effective and efficient use of them. Examples may include the automated vehicles that are realized as a result of integrating multiple technologies in vision, sensing, communication, and diagnosis (analytics); as well as, the population health, the major trend and efforts of healthcare quality assurance in the United States, as a result of mainly integrating analytics and information management technologies together with various medical sensing. This book collects such innovations and applications that are potentially impactful in our societies in the near future. Future challenges, prospects, scopes are core attention of this book as well.

This book also contains overviews, guidelines and challenges of such integrative approaches for scholars and practitioners. Contributions are recruited from the leaders and experts of those fields, who participated in relevant international conferences and/or are active in the academic and professional societies.

Keywords: Health informatics, Medical Informatics, Biomedical signal, Signal processing, AI, IoT, HCI, Deep Learning, Big Data, image processing, information management.

Submission date:

Full chapter submission in 15~30 single-column pages : 30 Sept. 2020

Review comments : 15 Oct. 2020

Revision (after having review-rebuttals) : 30 Oct. 2020

Publication date : 30 Nov. 2020

Submission Site: <https://cmt3.research.microsoft.com/ViSA2019/Submission/Index>

Template: Select DOC or LaTeX template from <https://www.springer.com/gp/authors-editors/book-authors-editors/resources-guidelines/book-manuscript-guidelines/manuscript-preparation/5636>

Editors:

Md Atiqur Rahman Ahad, PhD, SMIEEE

University of Dhaka | Osaka University <http://AhadVisionLab.com>

Atsushi Inoue, PhD

Amazon Web Service

Contact: [please make the email's subject as: "ViSA book: ..." and email to both of us]

atiqahad@du.ac.bd inoueatsushij@gmail.com

Table of Contents: (tentative – you are welcome to propose a chapter related to the book)

1. Vision, Sensing and Analytics – An Overview
2. Computer Vision and Applications
3. Vision-based Sensing Systems
4. Varieties of Sensing Systems [cover all sensing systems, except vision-based]
5. Basics on Analytics – statistics and machine learning, we focus on using tools for analytics purpose
6. Fuzzy-based Approaches in Vision, Sensing and Analytics
7. Trends on RGB-camera based Vision
8. Trends on Depth-camera based Vision
9. Aspects of Skeleton-based Vision Systems and Analysis
10. Aspects of Egocentric camera based Systems and Analysis
11. Wearable Sensing based Systems and Analysis
12. Off-body Sensors and Systems
13. Medical Applications and Sensors
14. Recent Sensors in Robotics
15. Deep Learning in Analytics
16. Deep Learning based Vision Research
17. Deep Learning based Sensor Research
18. Future of Sensors
19. Future of Vision Systems
20. Challenges Ahead in Analytics
21. Challenges Ahead in Vision and Sensors
22. Challenges Ahead in Healthcare Applications for Vision and Sensors