



Artificial Intelligence and Machine Learning for Edge Computing AIM -EC 2021

AIM-EC 2021 To be published by Elsevier Book Series

Editors:

Dr. Rajiv Pandey, Amity University, India

Dr. Sunil Kumar Khatri, Director of Campus, Amity University,
Tashkent, Uzbekistan

Dr. Neeraj Kumar Singh, INPT-ENSEEIH/IRIT, CEDEX 7, France

Dr. Parul Verma, Amity University, India

The growing number of Devices and applications in the diversified domain of Industry, gaming, speech recognition, medical diagnostics, robotics and computer vision to name a few are impacting human lives. These devices and applications are vastly driven by Big data, AI and M/L, Distributed computing may it be Cloud or the evolving Fog and Edge.

Edge computing is a new area of focus for communication service providers, enterprises and technology vendors. It has been viewed as the next area of innovation and a key component of any 5G and IoT strategy. The edge holds a significant promise for service providers as a new business opportunity. But Edge is more or less related to the IoT technology only. But the emergence of AI has been surprising in its power to accelerate what is happening on the edge.

Machine learning and deep learning have combined with increased computing power to make edge devices extraordinarily smart — and getting smarter all the time. It's allowing devices to provide insights and predictive analyses in real-time. Whether it means a small device on a lamp-post can now recognize a car that is speeding, who is in the car, and whether they have a license. Or that a manufacturer can see hiccups in its supply chain and proactively avoid unplanned downtime. Or that entirely new service providers can spring up, to help companies in areas like risk management or resource efficiency. With on-device AI, reliability no longer depends on network availability or bandwidth, and data processing becomes instantaneous. Sophisticated machine learning models on the edge will impact video frames, speech synthesis, and both time-series unstructured data that's generated by sensors, cameras, and microphones. In other words, voice assistants get smarter, photography and video shooting get more sophisticated, cars get safer, data security gets better, and robotics — both consumer and industrial — take innovative leaps. Health care outcomes improve.

AI along with edge computing is drawing attention of the technologists. As per the Gartner blog mentioned by Thommas Bitman Edge is going to eat cloud. The purpose of writing this book is to focus on the role of AI and Machine Learning along with edge computing. What benefits will be drawn by the integration of the two technologies? How they are going to integrate and what will be the challenges for this integration?

Book Publisher: Elsevier

Elsevier has a proud publishing history built on valued partnerships with authors to bring quality products to professionals and institutions throughout the world. Today, as an information analytics company on the forefront of digital innovation,

Elsevier's commitment to these content partnerships has not wavered.

Edited book/chapters on meeting the quality parameters will be submitted to Scopus, the largest abstract and citation database of peer-reviewed literature: scientific journals, books, and conference proceedings.

Recommended Topics for the **Book Title: Artificial Intelligence and Machine Learning for Edge Computing** to be published by Elsevier , (but are not limited to).

- **AI and Machine Learning**
Regression Analysis
Bayesian Statistics
Learning Theory
Supervised Learning
Unsupervised Learning
Reinforcement Learning
Instance Based Learning & Feature Engineering
- **Data Science and Predictive Analysis**
Data Science and Analysis
Linear Algebra
Statistics, Probability
Hypothesis and Inference
Gradient Descent
Predictive Analysis
- **Edge Computing**
Distributed Computing
Cloud to Fog to Edge
Edge Computing
Integrating AI with Edge Computing
Machine Learning integration with Edge Computing
Application of AI/ML at edge

Chapter Submission Guidelines:(No Submission Fee)

Book title web site: <https://sites.google.com/view/aim-ec2021>

Please visit the Book Manuscript Guidelines on

<https://drive.google.com/open?id=12O5RwhzXGqWxKf0m-kEO6YqHt-Y1Owr0>

Abstract and Chapter to be submitted compulsorily through easy chair:

<https://easychair.org/conferences/?conf=aimec2021>

Call for Chapters may be viewed at: <https://easychair.org/cfp/AIM-EC2021>

With a copy to Dr. Parul Verma at pverma1@lko.amity.edu

Important Dates:

Chapter Proposal (500-1000 Words) to submitted at https://easychair.org/conferences/?conf=aimec2021	:	July 15, 2020
Primary Notification/Proposal Acceptance	:	Aug 15, 2020
50% of manuscript complete	:	January 15, 2021
Full Chapter Submission	:	March 15, 2021
Review Results to Chapter Authors	:	April 15, 2021
Revised Chapter Submission from Chapter Authors	:	May 15, 2021
Final Notifications to Chapter Authors	:	June 15, 2021
Submission of Final Chapters to Publisher	:	August 15, 2021
Expected Publication of the edited book	:	End 2021/Beginning 2022