Contents

Preface --- V

About editors --- IX

List of contributors ---- XI

Anoop Mishra, Abhishek Tripathi, Deepak Khazanchi
Chapter 1
A framework for applying artificial intelligence (AI) with Internet
of nanothings (IoNT) — 1

Sujith Jayaprakash, V. Kathiresan, N. Shanmugapriya, Manish Dadhich Chapter 2

Opportunities and challenges in transforming higher education through machine learning —— 17

Radha Guha

Chapter 3

Efficient renewable energy integration: a pertinent problem and advanced time series data analytics solution —— 31

Saeed Mian Qaisar, Doaa A. Bashawyah, Futoon Alsharif, Abdulhamit Subasi Chapter 4

A comprehensive review on the application of machine learning techniques for analyzing the smart meter data —— 53

Uma Maheswari V., Rajanikanth Aluvalu, Krishna Keerthi Chennam Chapter 5

Application of machine learning algorithms for facial expression analysis — 77

Ammu Anna Mathew, S. Vivekanandan

Chapter 6

Prediction of quality analysis for crop based on machine learning model ---- 97

Mehul Mahrishi, Girish Sharma, Sudha Morwal, Vipin Jain, Mukesh Kalla Chapter 7

Data model recommendations for real-time machine learning applications: a suggestive approach —— 115



Ashok Bhansali, Swati Saxena, Kailash Chandra Bandhu Chapter 8

Machine learning for sustainable agriculture —— 129

Rohit Mittal, Vibhakar Pathak, Geeta Chhabra Gandhi, Amit Mithal, Kamlesh Lakhwani

Chapter 9

Application of machine learning in SLAM algorithms —— 147

Shruti Dadhich, Vibhakar Pathak, Rohit Mittal, Ruchi Doshi Chapter 10

Machine learning for weather forecasting —— 161

Roopa B. Hegde, Vidya Kudva, Keerthana Prasad, Brij Mohan Singh, Shyamala Guruvare

Chapter 11

Applications of conventional machine learning and deep learning for automation of diagnosis: case study —— 175

Index — 199