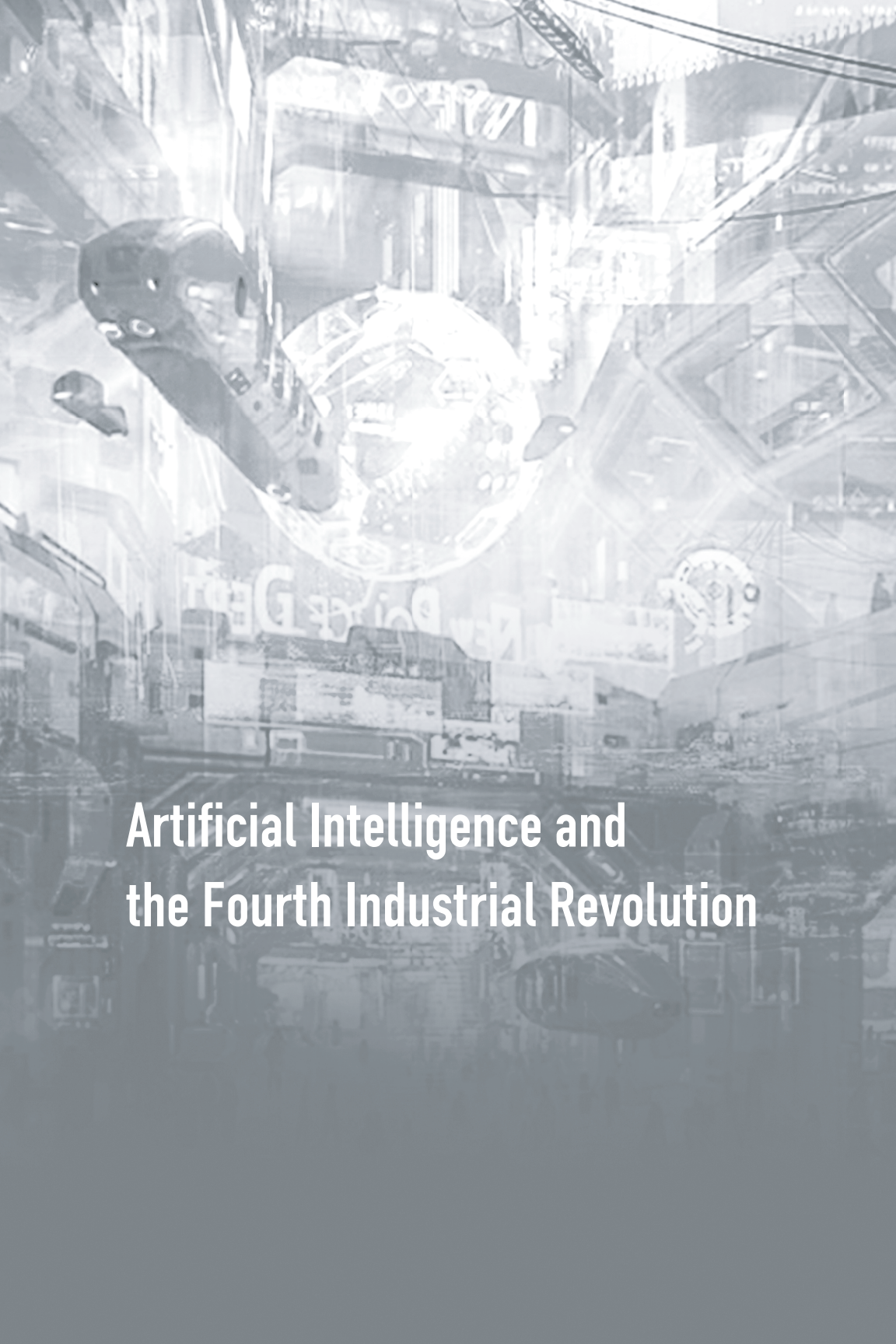

Artificial Intelligence and the Fourth Industrial Revolution

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Contents

Preface xiii

Section I AI in Industry 4.0

1 Computer Vision–Based System for Automation and Industrial Applications 3
Huan Ngoc Le, Ngoc Vuong Bao Tu, and Narayan C. Debnath
1.1 Introduction 4
1.2 Previous Research 6
1.3 AOI System Application on a Scanning Machine 8
1.3.1 Detecting Rubber Keypads Defects on a Scanning Machine 8
1.3.2 Theoretical Framework, Materials, and Methods 11
1.3.2.1 Mobile image processing unit 11
1.3.2.2 Image calibration 11
1.3.2.3 Image segmentation 19
1.3.2.4 Automatic defect detection algorithm 21
1.3.2.5 Results and discussion 28
1.4 AOI System Application on Electronic Boards 30
1.4.1 Detecting Defects on Electronic Boards 31
1.4.2 Theoretical Framework, Materials, and Methods 32
1.4.2.1 Mobile image processing unit 32
1.4.2.2 Image calibration 33
1.4.2.3 Editing and automatic defect detection algorithm 34
1.4.2.4 Result and discussion 37
1.5 Conclusions 40

2 Opportunities and Challenges of the Fourth Industrial Revolution **45**
Poonam Jindal and Rakesh K. Sindhu
2.1 Introduction 46
2.2 Evolving Fields in the Fourth Industrial Revolution 47
2.3 Artificial Intelligence: Technology Driving Change 48
2.4 Relationship between Artificial Intelligence, Deep Learning, and Machine Learning 50
2.4.1 Machine Learning 50
2.4.1.1 Types of machine learning 51
2.4.1.2 Types of reinforcement learning 52
2.4.1.3 Applications of reinforcement learning 52
2.4.2 Deep Learning 53
2.4.2.1 Role of deep learning in big data 53
2.4.2.2 Deep learning applications for big data analytics 54
2.5 AI Challenges by Potential Environmental Areas 55
2.5.1 Climate Modeling 56
2.5.2 Clean Oceans 57
2.5.3 Water Preservation 57
2.5.4 Weather and Disaster Management 58
2.6 Emerging Technologies 58
2.6.1 Key Drivers 59
2.6.1.1 Digitization/integration of value chains 60
2.6.1.2 Digitization of product and service offerings 61
2.6.1.3 Digital business models and customer access 63
2.7 The Role of Robotics in the 4IR 65
2.7.1 Applications of AI and Robotics 66
2.8 Conclusion 68
2.9 Future Scope 69

3 Role of AI in the Advancement of Drug Discovery and Development **73**
Shantanu K. Yadav, Poonam Jindal, and Rakesh K. Sindhu
3.1 Introduction 74

3.2 Artificial Intelligence 75
3.3 Machine Learning and Deep Learning in Artificial Intelligence 76
3.4 Application of Machine Learning in Pharmaceutical Science 77
3.4.1 Disease Identification and Diagnosis 77
3.4.2 Drug Discovery and Manufacturing 77
3.4.3 Smart Electronic Health Records 77
3.5 Building an AIF 78
3.6 Classification of Artificial Intelligence 79
3.6.1 Type 1 79
3.6.2 Type 2 80
3.7 General Aspects of AI 81
3.7.1 AI Use in Drug Development: R&D Proficiency 82
3.7.2 Application of AI in Drug Designing 83
3.7.2.1 Protein-protein interaction modeling 85
3.7.2.2 Virtual screening 86
3.7.2.3 Quantitative structure-activity relationship 87
3.7.2.4 Assessment of ADME 89
3.7.2.5 Drug repurposing/drug reposing 90
3.7.2.6 De novo drug design 91
3.8 Challenges and Limitations of AI 96
3.9 Conclusion 97

Section II Internet of Medical Things (IoMT)

4 Internet of Health Things: Opportunities and Challenges 105
Emeka Chukwu, Lalit Garg, and Ryan Zahra
4.1 Introduction: Health System 106
4.1.1 Health Information Revolution 106
4.1.2 Health Workforce and Task Shifting 107
4.1.3 Digitization: Hope, Hype, and Harm 107
4.2 Internet of Health Things 108
4.2.1 Opportunities 110
4.2.2 Applications 111
4.2.3 Describing a Maternal Health Use Case 112
4.2.4 Challenges 115
4.2.5 Limitations 115

4.3 Modeling an IoHT 116
4.3.1 Service Implementation 116
4.3.2 Electric Power Module 118
4.3.3 Networking Module 120
4.3.4 Server Architecture 120
4.3.5 Application Module 124
4.3.6 User Journey 125
4.4 Conclusion and Future Perspective 126

5 Internet of Things for Smart Healthcare and Digital Well-Being 133
Niloy Sarkar and Amitava Das
5.1 Introduction 133
5.2 Internet of Things 135
5.3 Technologies behind IoT 139
5.3.1 Cloud Computing 139
5.3.2 Sensors 140
5.3.3 Location 141
5.3.4 Communication 141
5.3.5 Identification 141
5.4 Healthcare and the Internet of Things 142
5.5 Internet of Things for Health 143
5.5.1 Digital Wellness 144
5.5.2 Continuous Health Monitoring 144
5.5.3 Easy Way of Continuous TREWS 144
5.6 Integration of Different Disciplines of Science toward Better Application of AI and IOT 147
5.7 AI: Major Areas of Application in the Health Field 147
5.8 Present Applications of AI in Healthcare 148
5.9 Conclusion and Future Work 149

6 Automated Chatbots for Autism Spectrum Disorder Using AI Assistance 153
Vamsidhar Enireddy, Karthikeyan C., and Ramkumar J.
6.1 Introduction to Autism 154
6.1.1 Need to Study Autism 155
6.1.2 Identification Symptoms 156
6.1.3 Challenges Faced in a Community 157

6.1.3.1 Challenges in verbal communication 157
6.1.3.2 Challenges in nonverbal communication 158
6.2 Behavior of Autistic Children 158
6.2.1 Reasons for Autism 158
6.2.2 Other Reasons That Contribute to ASD 159
6.2.3 Negligence during Pregnancy 159
6.2.4 Formative Screening Assessment 159
6.2.5 Exhaustive Diagnostic Evaluation 160
6.2.6 Associated Medical and Mental Health Conditions 160
6.3 Financial Burden on the Families and Effect on the Economy of a Country 161
6.3.1 World Status on Autism 162
6.4 Artificial Intelligence and Machine Learning 163
6.4.1 Machine Learning 163
6.4.2 Interchange of AI and Machine Learning 166
6.5 Autism, AI, and Machine Learning 167
6.5.1 JIBO-Human ROBO 168
6.5.2 Autism Study Using ROBO 169
6.5.3 Autism Prediction Using ML Algorithms 170
6.5.4 Chatbot 171
6.5.4.1 Algorithm to create a simple chatbot 173
6.5.4.2 Process to create a chatbot 173
6.5.4.3 Framework of the chatbot 174
6.5.5 Role of AI Chatbots 176
6.5.6 Chatbot Model 177
6.5.6.1 Creating a chatbot for diagnosis 178
6.5.6.2 Creating a simple text chat 179
6.5.6.3 Creating a dashboard and a 3D chatbot model 183
6.6 Conclusion 183
6.7 Future Scope 184

7 Emergence of Artificial Intelligence and Its Legal Impact 191
Amol Deo Chavhan
7.1 Introduction 191
7.2 What Is Artificial Intelligence? 193

7.3 Why Artificial Intelligence Is Necessary for Study? 195
7.3.1 Jurisprudence Analysis of Artificial Intelligence 196
7.3.2 AI Technologies and Liability 198
7.4 Rights, Duties, and Liabilities of the AI Inventor 200
7.4.1 Ethical Responsibilities 204
7.4.2 Criminal, Civil, and Constitutional Responsibility of the Inventor and AI 208
7.5 Civil Remedies under the Law of Torts 210
7.5.1 Principle of *Res Ipsa Loquitur* 211
7.5.2 Compensation under the Law of Tort 212
7.5.2.1 General damages 213
7.5.2.2 Special damages 213
7.5.2.3 Common principles for the contemplation of damages 213
7.5.2.4 Standard principles for granting any damages 214
7.6 Liability under Criminal Law 215
7.7 Challenges Ahead 215
7.8 Conclusion 216

8 Jurisprudential Approach to Artificial Intelligence and Legal Reasoning 219
Arup Poddar
8.1 Introduction 220
8.2 History and Origin of Artificial Intelligence and Law 224
8.3 Types of Nonhuman Computational Capabilities 226
8.4 Introduction of Artificial Intelligence to Law 230
8.5 Do We Have Any International Regulation on Artificial Intelligence? 235
8.6 Should Artificial Intelligence Be Taught to Law Students? 239
8.7 Story of IBM's Watson and Law Firms 243
8.8 ROSS: A New Venture of AI 245
8.9 Law Practicum and Artificial Intelligence 248
8.10 Methods of Computation for Developing Reasoning with Legal Rules and Cases 248
8.11 Scheme of Argument and Legal Reasoning 251
8.12 Reasoning with Open-Textured Texts 252

8.13 Reasoning with Cases, Hypothetical Situations, and Precedence Citing 253
8.14 MOOCs: Is It an Example of an Intelligent Tutorial System Coupled with Ethics? 254
8.15 What Future Do We See of Legal Reasoning Associated with Artificial Intelligence? 255
8.16 Conclusion 257

9 Legal Ethical and Policy Implications of Artificial Intelligence 263
Subir Kumar Roy
9.1 Introduction 263
9.2 Genesis and Concept of AI 264
9.3 Ethics and Artificial Intelligence 267
9.4 AI and Its Challenges 269
9.5 Issues of Human Rights, Governance, and AI 272
9.6 Destiny of Humanity in the World of AI 278
9.7 Laws and Policies Related to AI 280
9.8 Concluding Remarks 284

Index 289

Preface

This book presents the overall technology spectrum in artificial intelligence (AI) and the fourth industrial revolution that, as we know it, is set to revolutionize the world. The book covers case studies from industry, academics, administration, law, finance and accounting, and educational technology and will be useful for CEOs, entrepreneurs, and university VCs as well as for the vast workforce and students with technical or non-technical backgrounds. The contributing authors are experts in the field and have, from the many interesting topics, focused on gesture recognition prototype for specially abled people, jurisprudential approach to AI and legal reasoning, automated Chatbot for autism spectrum disorder using AI assistance, Big Data Analytics and IoT, role of AI in advancement of drug discovery and development, opportunities and challenges of the fourth industrial revolution, legal ethical and policy implications of AI, Internet of Health Things for smart healthcare and digital well-being, technologies, architecture and opportunities, Internet of Health Things—opportunities and challenges, machine learning and computer vision, computer vision–based system for automation and industrial applications, AI–IoT in home-based healthcare—an effective model for low cost healthcare, and AI in super precision human brain and spine surgery, in this book.

The book covers comprehensive theoretical, methodological, well-established, and validated empirical examples and are of interest for a very vast audience from basic science to engineering and technology experts and learners. It can also be used as a textbook for engineering and biomedical students or science

master's programs as well as for researchers. It also serves common public interest by presenting new methods to improve the quality of life in general, with a better integration into society.

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Jayanta Kumar Saha
Niloy Sarkar
Chinmay Chakraborty
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