Lecture Notes in Electrical Engineering

Volume 1056

Series Editors

Leopoldo Angrisani, Department of Electrical and Information Technologies Engineering, University of Napoli Federico II, Napoli, Italy

Marco Arteaga, Departament de Control y Robótica, Universidad Nacional Autónoma de México, Coyoacán, Mexico Samarjit Chakraborty, Fakultät für Elektrotechnik und Informationstechnik, TU München, München, Germany Jiming Chen, Zhejiang University, Hangzhou, Zhejiang, China

Shanben Chen, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai, China Tan Kay Chen, Department of Electrical and Computer Engineering, National University of Singapore, Singapore,

Rüdiger Dillmann, University of Karlsruhe (TH) IAIM, Karlsruhe, Baden-Württemberg, Germany

Haibin Duan, Beijing University of Aeronautics and Astronautics, Beijing, China

Gianluigi Ferrari, Dipartimento di Ingegneria dell'Informazione, Sede Scientifica Università degli Studi di Parma, Parma, Italy

Manuel Ferre, Centre for Automation and Robotics CAR (UPM-CSIC), Universidad Politécnica de Madrid, Madrid,

Faryar Jabbari, Department of Mechanical and Aerospace Engineering, University of California, Irvine, CA, USA Limin Jia, State Key Laboratory of Rail Traffic Control and Safety, Beijing Jiaotong University, Beijing, China Janusz Kacprzyk, Intelligent Systems Laboratory, Systems Research Institute, Polish Academy of Sciences, Warsaw,

Alaa Khamis, Department of Mechatronics Engineering, German University in Egypt El Tagamoa El Khames, New Cairo City, Egypt

Torsten Kroeger, Intrinsic Innovation, Mountain View, CA, USA

Yong Li, College of Electrical and Information Engineering, Hunan University, Changsha, Hunan, China Qilian Liang, Department of Electrical Engineering, University of Texas at Arlington, Arlington, TX, USA Ferran Martín, Departament d'Enginyeria Electrònica, Universitat Autònoma de Barcelona, Bellaterra, Barcelona,

Tan Cher Ming, College of Engineering, Nanyang Technological University, Singapore, Singapore Wolfgang Minker, Institute of Information Technology, University of Ulm, Ulm, Germany

Pradeep Misra, Department of Electrical Engineering, Wright State University, Dayton, OH, USA

Subhas Mukhopadhyay, School of Engineering, Macquarie University, NSW, Australia

Cun-Zheng Ning, Department of Electrical Engineering, Arizona State University, Tempe, AZ, USA

Toyoaki Nishida, Department of Intelligence Science and Technology, Kyoto University, Kyoto, Japan Luca Oneto, Department of Informatics, Bioengineering, Robotics and Systems Engineering, University of Genova, Genova, Genova, Italy

Bijaya Ketan Panigrahi, Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi, Delhi,

Federica Pascucci, Department di Ingegneria, Università degli Studi Roma Tre, Roma, Italy

Yong Qin, State Key Laboratory of Rail Traffic Control and Safety, Beijing Jiaotong University, Beijing, China Gan Woon Seng, School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore, Singapore

Joachim Speidel, Institute of Telecommunications, University of Stuttgart, Stuttgart, Germany

Germano Veiga, FEUP Campus, INESC Porto, Porto, Portugal

Haitao Wu, Academy of Opto-electronics, Chinese Academy of Sciences, Haidian District Beijing, China Walter Zamboni, Department of Computer Engineering, Electrical Engineering and Applied Mathematics,

DIEM-Università degli studi di Salerno, Fisciano, Salerno, Italy

Junjie James Zhang, Charlotte, NC, USA

Kay Chen Tan, Department of Computing, Hong Kong Polytechnic University, Kowloon Tong, Hong Kong

The book series *Lecture Notes in Electrical Engineering* (LNEE) publishes the latest developments in Electrical Engineering—quickly, informally and in high quality. While original research reported in proceedings and monographs has traditionally formed the core of LNEE, we also encourage authors to submit books devoted to supporting student education and professional training in the various fields and applications areas of electrical engineering. The series cover classical and emerging topics concerning:

- Communication Engineering, Information Theory and Networks
- Electronics Engineering and Microelectronics
- Signal, Image and Speech Processing
- Wireless and Mobile Communication
- Circuits and Systems
- Energy Systems, Power Electronics and Electrical Machines
- Electro-optical Engineering
- Instrumentation Engineering
- Avionics Engineering
- Control Systems
- Internet-of-Things and Cybersecurity
- Biomedical Devices, MEMS and NEMS

For general information about this book series, comments or suggestions, please contact leontina.dicecco@springer.com.

To submit a proposal or request further information, please contact the Publishing Editor in your country:

China

Jasmine Dou, Editor (jasmine.dou@springer.com)

India, Japan, Rest of Asia

Swati Meherishi, Editorial Director (Swati.Meherishi@springer.com)

Southeast Asia, Australia, New Zealand

Ramesh Nath Premnath, Editor (ramesh.premnath@springernature.com)

USA, Canada

Michael Luby, Senior Editor (michael.luby@springer.com)

All other Countries

Leontina Di Cecco, Senior Editor (leontina.dicecco@springer.com)

** This series is indexed by EI Compendex and Scopus databases. **

Basabi Chakraborty · Arindam Biswas · Amlan Chakrabarti Editors

Advances in Data Science and Computing Technologies

Select Proceedings of ADSC 2022



Editors
Basabi Chakraborty
School of Computing
Madanapalle Institute of Technology
and Science
Angallu, Andhra Pradesh, India

Iwate Prefectural University Iwate, Japan

Amlan Chakrabarti A.K. Choudhury School of Information Technology University of Calcutta Kolkata, West Bengal, India Arindam Biswas Kazi Nazrul University Asansol, West Bengal, India

ISSN 1876-1100 ISSN 1876-1119 (electronic) Lecture Notes in Electrical Engineering ISBN 978-981-99-3655-7 ISBN 978-981-99-3656-4 (eBook) https://doi.org/10.1007/978-981-99-3656-4

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2023

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Singapore Pte Ltd. The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Contents

on Prediction Model: A Comparative Analysis Bhuvaneswari Swaminathan, P. Saravanan, and V. Subramaniyaswamy	1
Prediction of Future Career Course of Students Through RF Algorithm Sukarna Dey Mondal, Dipendra Nath Ghosh, and Pabitra Kumar Dey	9
Survey of Various Machine Learning Techniques for Analyzing IoMT-Based Remote Patient Monitoring System Sayyed Johar and G. R. Manjula	27
A Novel Approach to Predicting the Cardiovascular Sickness	33
Intelligent System for Detecting Spam Emails Using Machine Learning Classifiers Debabrata Swain, Naresh Chillur, Meet Kava, and Amol Bhilare	43
Optical Flow-Based Movement Alert System for Assisting Visually Impaired People Jyoti Madake, Rohan Aparajit, Pranjali Balikai, Akhil Bhalgat, Shripad Bhatlwande, and Swati Shilaskar	51
Detection of Fallen Trees and Vehicles Plying on the Road for Safety of Visually Impaired People Swati Shilaskar, Ruturaj Desai, Shripad Bhatlawande, Nishit Chaudhari, Soham Bugad, and Jyoti Madake	63
Electronic Travel Aid for Bus Detection and Bus-Route Number Recognition for Blind People Shripad Bhatlawande, Harshita Agrawal, Adhiraj Jagdale, Anusha Agrawal, and Swati Shilaskar	71

vi Contents

LSTM-Based Encoder—Decoder Model for Transliteration of English, Marathi, and Hindi Query Ranjana Jadhav, Adwait Bhosale, Tejas Gadi, Sanskruti Bahure, Akshay Bargaje, and Amey Chopde	79
A Study on Hiding Internet of Things (IoT) Communication	89
Automatic Speech Recognition Using Acoustic Modeling Deepali Joshi, Pratik Waso, Rushikesh Shelke, Swapnil Jadhav, Kaustubh Bhale, and Akshada Padalkar	109
Effect of Dropout on Convolutional Neural Network for Hyperspectral Image Classification Somenath Bera and Vimal K. Shrivastava	121
State Derivative Optimal Control Law for Submersible Autonomous Robotic Vehicle in Steering Plane Siddhartha Vadapalli and Subhasish Mahapatra	133
ASR for Indian Regional Languages Using Fine-Tuned Wav2Vec2 Model Premanand Ghadekar, Khushi Jhanwar, Ameya Karpe, Akash Sivanandan, Tanishka Shetty, and Prannay Khushalani	141
Intelligent Online Voting System for Twenty-First Century and Smart Cities 5.0: An Empirical Approach through Blockchain with ML Techniques Rohit Rastogi, Priyanshu Arora, Luv Dhamija, and Rajat Shrivastava	151
An Empirical Study on Credit Risk Assessment Using Ensemble Classifiers Arijit Bhattacharya, Souvik Kumar Parui, Saroj Kr. Biswas, and Ardhendu Mandal	157
Audio Based Text Summarization Using Natural Language Processing Premanand Ghadekar, Divsehaj Singh Anand, Aryan Kumar Gupta, Preeti Oswal, Dheeraj Sharma, and Shreyas Khare	171
Blockchain-Enabled Security in Vehicular Ad Hoc Network	181
Stock Selection Using Ontological Financial Analysis Bikram Pratim Bhuyan and Hanumat Sastry	191
Components of Information Diffusion and Its Models in Online Social Networks; a Comparative Study Aaquib Hussain Ganai, Rana Hashmy, and Hilal Ahmad Khanday	199

Development of a Residual Neural Network Architecture for the Detection of Diabetic Retinopathy in Retinal Fundus Images Sachin S. Bhat	207
Prediction Markets Using Machine Learning	219
Evaluation of Optimum Batting Order Based on Partnership Analysis Using Ant Colony Optimization Technique Mousumi Tarafder, Soumen Santra, Sweta Sharma, and Arpan Deyasi	227
Identification of Rock Images in Mining Industry: An Application of Deep Learning Technique	235
Evaluation of Teachers' Performance Using Fuzzy Inferences System Ashadul Haque and Md Firoj Ali	243
A Detailed Analysis on Intrusion Detection Systems, Datasets, and Challenges Chetan Gupta, Amit Kumar, and Neelesh Kumar Jain	259
Object Detection Under Low-Lighting Conditions Using Deep Learning Architectures: A Comparative Study Arrun Sivasubramanian, J. Arun Prakash, K. S. Dharshan Kumar, V. R. Prashanth, V. Sowmya, and V. V. Sajith Variyar	269
Terahertz Image Processing: A Boon to the Imaging Technology Jayashree Karmakar, Debabrata Samanta, Amit Banerjee, and M. P. Karthikeyan	277
Developing a Talent Identification Model for Predicting Player Position in Football Using Machine Learning Algorithms R. Sujatha, B. Uma Maheswari, D. Kavitha, and Kiran Kandaswamy	285
Implementation of Anticipated Technique in Digital Mammography for Piloting Classification of Breast Cancer Using CNN Sarbjit Kaur Dhillon and Jasmeen Gill	295
Three-Layered Hybrid Analysis Technique for Android Malware Detection Tejpal Sharma and Dhavleesh Rattan	303
A Survey on LSB Replacement-Based Statistical Image Steganalysis Techniques	313
Bibek Ranjan Ghosh, Siddhartha Banerjee, and Joytsna Kumar Mandal	

viii Contents

Emotion Recognition Using Text and Speech Through Machine	221
Learning Chaitanya Singla and Sukhdev Singh	321
Condition-Based Monitoring of Power Transformer with Graphical Analysis of Incipient Faults Using Fuzzy Inference Expert System	331
Disease Classification in the Cotton Using Convolution Neural Networks Aviral Sharma and Gunjan Chhabra	341
A Short Review on XAI Techniques in Text Data Mahuya Ghosh, Amit Kumar Das, and Amlan Chakrabarti	353
Performance of Multi Hop, Multi Link CRN with Energy Harvesting in Presence of CCI Souvik Manna, Chanchal Kumar De, and Debasis De	365
Performance Evaluation of Path Restoration Techniques in a Network Vidhu Baggan, Jyoti Snehi, Manish Snehi, and Varinder Kaur Attri	375
An Insight to Bitcoin Price Using Weber's Law Manan Roy Choudhury, Anurag Dutta, and Arnab Kumar De	385
Named Entity Recognition Using Deep Learning and BERT for Tamil and Hindi Languages Sreelekshmi Menon, J. P. Sanjanasri, B. Premjith, and K. P. Soman	395
Brain Signal Classification Using Decomposition Techniques and Deep Learning T. R. Karthik, Rohith Ramakrishnan, Anirudh Vadakedath, V. Sowmya, E. A. Gopalakrishnan, and G. Jyothish Lal	405
PSO-Based Traffic Signals in a Real-World City Vandana Singh, Sudip Kumar Sahana, and Vandana Bhattacharjee	411
BERT-Based Dependency Parser for Hindi Aparna Nambiar, B. Premjith, J. P. Sanjanasri, and K. P. Soman	421
Game Theory Strategies in Cloud Security with Implementation	429
Detection of Phishing Attack Using Machine Learning Uttkarsh Rastogi, Tanu, Vinayak Singhal, Ankush Gupta, and Vimal Kumar	441
An Efficient Framework to Maximize Street Lighting Coverage Tanmoy Dey and Parag Kumar Guha Thakurta	451

Contents ix

Traveling Tournament Problem and the Different Methods of Solutions: A Brief Review	461
Rajarshi Basu, Pratik Chowdhury, Baisakhi Das, Shyama Mondal, Kingshuk Chatterjee, and Alok Mukherjee	
Application of Binary Flower Pollination Optimization in Radial Distribution System Nasim Ali Khan, Sanjib Deb, Mir Abubakkar Siddik, Prabir Mondal,	469
Swarnali Bhar, Sourav Majumdar, and Soumya Basu	
Development of a Natural Calamity Alert System for Tourists: An Application of PEAS Technology Goldina Ghosh, Anwesa Das, Anasuya Dev, Abhinandan Das, Birol Roy, Debapriya Bhowmick, and Prasenjit Saha	481
Resource Allocation and Optimization Scheduling Scheme of Edge Resources in Fog Computing Access Network Balajee Maram, T. Daniya, and Veerraju Gampala	491
On Multi-objective Fuzzy Shortest Path Problem Swapna Halder, Saibal Majumder, Arindam Biswas, Bijoy Kumar Mandal, and Sheng-Lung Peng	499
Design and Simulation of Microstrip Patch Antennas with Textile	
Dielectrics for Body Sensor Networks (BSNs) and Wearable IoT Applications Chaitanya Vijaykumar Mahamuni	511
An Investigation into the Efficacy of Interactive Tools in the Online	500
Teaching-Learning Process Subhechha Majumdar, Tanmay Bhowmik, Amitava Choudhury, and Rajesh Srivastava	523
Steganography Tools and Their Analysis Concerning Distortion	
in Stego Image Urmila Pilania, Rohit Tanwar, and Keshav Kaushik	531
Density-Based Spatio-Temporal Clustering Model for Earthquake Analysis and Seismo-Tectonic Zoning Ashish Sharma, Sandeep Vyas, and Anand Nayyar	539
Reconfigurable Intelligent Surface-Based Cooperative Spectrum Sensing Over Noisy Reporting Channel Girraj Sharma, Sandeep Vyas, Anand Nayyar, and Ritu Sharma	547
Optimization of Crystalline Silicon Solar Cell Parameters Using	
PC1D Md. Irfan, Sudipta Banerjee, Hasnain Rza, and Abhigyan Maji	557

x Contents

Machine Learning-Based Approach for Prediction of Forest Fire	
Using Ensemble Learning Tanuj Bhatt and Arun Malik	567
Artificial Intelligence in Military Applications of 21st Century	575
Quality of Service of the Internet of Things—A Survey of Current Research Trends for Evolving 5G-IoT Scenario Dipankar Chatterjee and A. C. Mondal	585
Optimization of Classification Algorithm for Improving Semantic-Based Text Classification Rahul Bhandari, Anuj Kumar Jain, Mukund Pratap Singh, and Kamal Deep Garg	593
Meme-Text Analysis: Identifying Sentiment of Memes P. Aditya Krishna Rohit, S. Sachin Kumar, and K. P. Soman	605
Augmented Reality in Chemistry Education: An Exploratory Analysis Priyanka Datta, Amanpreet Kaur, and Archana Mantri	613
Survey of Pedestrian Trajectory Prediction Techniques Using Surveillance Videos Adya Bansal, Aroma Agarwal, Muskan Lalit, and K. R. Seeja	623
Oil Spill Detection from Images Using Deep Learning Vignesh Gopinath, S. Sachin Kumar, Neethu Mohan, and K. P. Soman	631
An Efficient 8T GDI Enable Full Adder Design for Data Path Subsystem Dolly Thakur, Hemant Patidar, Vikas Maheshwari, Rajib Kar, and Prashant Upadhyay	641
A Transfer-Learning-Based Deep Network for Detecting Violence in Real-Time Videos Soma Hazra, Sounak Saha, Sunirmal Khatua, and Banani Saha	659
Detection of Chaotic Cellular Automata Using Convolutional Neural Networks: A Comparative Study Supreeti Kamilya and Soumyadeep Paty	667
Bird Species Identification and Classification Based on Feature Analysis Using VGG19 Framework Nilanjana Adhikari, Bikramjit Das, Biplab Roy, Suman Bhattacharya, and Mahamuda Sultana	677

Contents xi

Exploring the Human USP Gene Family and Its Association with Cancer: An In Silico Study Sujay Ray and Arundhati Banerjee	685
AI in Pervasive Healthcare: A Survey Kaushik Ghosh, Sugandha Sharma, Sulagna Sarkar, and Alka Kaushik	695
Analysis and Detection of Alzheimer's Disease Using Machine Learning Approach Raghubir Singh Salaria and Neeraj Mohan	703
Design of Cost-Effective WSN by Minimizing Energy Consumption Using Hybrid Algorithm Avishek Banerjee, Nitin Arvind Shelke, Navneet Pratap Singh, Tanmay Bhowmik, Bishwajit Roy, and Arindam Biswas	711
U-Net Convolutional Neural Network Brijit Bhattacharjee, Bikash Debnath, Jadav Chandra Das, and Debashish De	721
Plant Disease Identification Through Study of Leaf Images Aniket Das, Piyasi Das, Amlan Chakrabarti, Rik Das, and Chira Dutta	729
An Analysis of Random Non-deterministic Signals Using Recursive Methods and Stochastic Control System Tanmoy Singha, Lisha Misra, Joydeep Dutta, Rudra Sankar Dhar, and Arindam Biswas	737
A Machine Learning-Based Approach to Identify Hand Gestures Kunal Bhardwaj, Sakshi Bansal, and Kaushik Ghosh	749

About the Editors

Basabi Chakraborty received B.Tech., M.Tech., and Ph.D. degrees in Radio Physics and Electronics from Calcutta University, India, and worked at Indian Statistical Institute, Calcutta, India until 1990. From 1991 to 1993 she worked as a part-time researcher in Advanced Intelligent Communication Systems Laboratory in Sendai, Japan. She received another Ph.D. in Information Science from Tohoku University, Sendai in 1996. From 1996 to 1998, she worked as a postdoctoral research fellow at the Research Institute of Electrical Communication, Tohoku University, Japan. In 1998 she joined as a faculty in the Software and Information Science department of Iwate Prefectural University, Iwate, Japan. Her research areas are pattern recognition, image processing, soft computing techniques, biometrics, data mining, and online social media mining.

Arindam Biswas received M.Tech. in Radio Physics and Electronics from the University of Calcutta, India, in 2010 and a Ph.D. from NIT Durgapur in 2013. He was a postdoctoral researcher at Pusan National University, South Korea with the prestigious BK21PLUS Fellowship, Republic of Korea. He was a visiting Professor at the Research Institute of Electronics, Shizuoka University, Japan. Dr. Biswas has 12 years of teaching, research, and administrative experience. Presently, Dr. Biswas is working as an Associate Professor in the School of Mines and Metallurgy at Kazi Nazrul University, Asansol, West Bengal, India. He has 54 papers in journals, 36 conference papers, 8 books, 06 Edited Volumes, and 01 book chapter to his credit. His research interest is in carrier transport in the low dimensional system and electronic device, non-linear optical communication, and THz semiconductor source.

Amlan Chakrabarti is a Full Professor in the A. K. Choudhury School of Information Technology at the University of Calcutta. He is an M.Tech. from the University of Calcutta and did his Doctoral research at Indian Statistical Institute, Kolkata. He was a Post-Doctoral fellow at the School of Engineering, Princeton University, the USA during 2011–2012. He is the recipient of the prestigious DST BOYSCAST fellowship award in Engineering Science (2011), Indian National Science Academy (INSA) Visiting Faculty Fellowship (2014), JSPS Invitation Research Award (2016),

xiv About the Editors

Erasmus Mundus Leaders Award from EU (2017), and Hamied Visiting Professorship from University of Cambridge (2018) and Siksha Ratna Award by Department of Higher Education Government of West Bengal (2018). He has also served in various capacities in various higher education organizations both at national and international levels. He has received multiple project grants in the areas of Security in Cyberphysical Systems, Embedded System Design, VLSI Design, Quantum Computing, Computer Vision, and Data Science from various national and international agencies (DST, DRDO, MietY, UGC, DAE, Ministry of Social Empowerment, WB-DST, Tata Consultancy Services, Intel India, etc.). He has published around 150 research papers in referred journals and conferences. His areas of research interest are quantum computing, reconfigurable computing, embedded systems design, VLSI design, computer vision, and machine learning.

= Menu

Q Search

🗀 Cart

Home > Advances in Data Science and Computing Technologies > Conference paper

Prediction of Future Career Course of Students Through RF Algorithm

| Conference paper | First Online: 30 September 2023

| pp 9–26 | Cite this conference paper



Advances in Data Science and Computing Technologies

(ADSC 2022)

Sukarna Dey Mondal , Dipendra Nath Ghosh & Pabitra Kumar Dey

Part of the book series: Lecture Notes in Electrical Engineering ((LNEE, volume 1056))

Included in the following conference series:

International Conference on Advances in Data Science and Computing Technologies

260 Accesses

Abstract

"Life without an aim is like a ship without a sail". This is very true with the present generation. They are very focused and at a very young age, they set their career goals. While in school, they know about their strengths, abilities, and start working on them. From the secondary level, they start thinking about the particular area of studies they will opt for in their future, whether they will opt for science, commerce, humanities, or opt for a joboriented course. The parents also play an important role and help their wards with the selection of their streams so that they have a secure future. This is possible when the right decision is taken at the right time. Thus, it is very important to choose the right course and complete giving your best, and fulfill one dream of reaching the top. The right decision taken helps to allow the student to discover both their interests and skills. So, an effort has been made to develop a mathematical model (math model) with these features, which is made up of multiple decision trees. This study is based on the RFs Algorithm (RFA), an innovative assemble classifier that figures a large number of decision trees to improve the decision over the single tree classifier. With the help of the RFA, a classification model was proposed and the outcome of the model is depending on the voting system in which several classifiers are running autonomously.

1 This is a preview of subscription content, log in via an institution ∠ to check access.

Access this chapter Log in via an institution Chapter EUR 29.95 Price includes VAT (India) Available as PDF Read on any device Instant download Own it forever

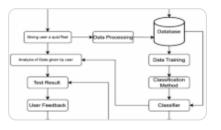
Buy Chapter		
∨ eBook	EUR 160.49	
➤ Softcover Book	EUR 199.99	
➤ Hardcover Book	EUR 199.99	
Tax calculation will be finalised at checkout Purchases are for personal use only		
<u>Institutional subscriptions</u> →		

Similar content being viewed by others



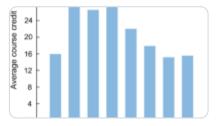
A Study of Decision Tree
Classifier to Predict
Learner's Progression

Chapter © 2022



A Novel Approach for
Better Career Counselling
Utilizing Machine
Learning Techniques

Article 08 October 2024



Predicting academic performance using tree-based machine learning models: A case study of ...

Article 21 June 2022

References

1.	Dey S, Ghosh DN (2016) An integrated approach of multi-criteria group of techniques to evaluate the overall performance of teachers. Int J Adv Res (7(5):38–45	_
		Google Scholar
2.	Dey S, Ghosh DN (2015) Non-teaching staff performance analysis using group decision making approach. Int J Educ Learn 4(2):35–50	multi-criteria
		Google Scholar
3.	Mondal SD, Ghosh DN, Dey PK (2021) Prediction of NAAC grades for affil with the help of statistical multi criteria decision analysis. Int J Eng Appl 126	
		Google Scholar
4.	Dey S, Ghosh DN (2019) Comparative evaluation of students' performant recruitment of a technical institution through Fuzzy-MCDM techniques. Sci Eng 7(1):232–236	
		Google Scholar
5.	Breiman L (1996) Bagging predictors. Mach Learn 24:123–140	
		Google Scholar
6	Ho TK (1998) The random subspace method for constructing decision fo	rests IFFF

6. Ho TK (1998) The random subspace method for constructing decision forests. IEEE Trans Pattern Anal Mach Intell 20(8):832–844

Google Scholar

7. Breiman L (2001) RFs. Mach Learn 45:5–32

Google Scholar

8. Breiman L, Friedman JH, Olshen RA, Stone CJ (1984) Classification and regression trees. Chapman & Hall, New York

Google Scholar

9. Dietterich TG (2000) An experimental comparison of three methods for constructing ensembles of decision trees: bagging, boosting, and randomization. Mach Learn 40:139–157

Google Scholar

10 Kwok SW, Carter C (1988) Multiple decision trees. Uncertainty Artif Intell, pp 213–220

Google Scholar

11. Criminisi A, Shotton J, Konukoglu E (2011) Decision forests: a unified framework for classification, regression, density estimation, manifold learning, and semi-supervised learning. Found Trends Comput Graph Vis 7(2–3):81–227

Google Scholar

12. Criminisi A, Shotton J (2013) Decision forests for computer vision and medical image analysis. Springer Science & Business Media

Google Scholar

Author information

Authors and Affiliations

Department of Mathematics, Dr. B.C. Roy Engineering College, Makaut, West Bengal, India Sukarna Dey Mondal

Controller of Examinations, Kazi Nazrul University, Asansol, West Bengal, India Dipendra Nath Ghosh

Department of Computer Applications, Dr. B.C. Roy Engineering College, Makaut, West Bengal, India Pabitra Kumar Dey

Corresponding author

Correspondence to Sukarna Dey Mondal.

Editor information

Editors and Affiliations

School of Computing, Madanapalle Institute of Technology and Science, Angallu, Andhra Pradesh, India

Basabi Chakraborty

Kazi Nazrul University, Asansol, West Bengal, India Arindam Biswas

A.K. Choudhury School of Information Technology, University of Calcutta, Kolkata, West Bengal, India

Amlan Chakrabarti

Rights and permissions

Reprints and permissions

Copyright information

© 2023 The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.

About this paper

Cite this paper

Mondal, S.D., Ghosh, D.N., Dey, P.K. (2023). Prediction of Future Career Course of Students Through RF Algorithm. In: Chakraborty, B., Biswas, A., Chakrabarti, A. (eds) Advances in Data Science and Computing Technologies. ADSC 2022. Lecture Notes in Electrical Engineering, vol 1056. Springer, Singapore. https://doi.org/10.1007/978-981-99-3656-4_2

.RIS坐 .ENW坐 .BIB坐

DOI Published Publisher Name
https://doi.org/10.1007/97 30 September 2023 Springer, Singapore
8-981-99-3656-4_2

Print ISBN Online ISBN eBook Packages
978-981-99-3655-7 978-981-99-3656-4 Intelligent Technologies

and Robotics
Intelligent Technologies
and Robotics (R0)

Publish with us

Policies and ethics <a>C