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Financial Markets Fraud Detection and Prevention using Kernel Adatron Algorithm with Machine Learning

Dr. Om Prakash Yadav[1], Mr. Ravi Kant Sahu[2], Mr. Anand Soni[3]
om.26121@lpu.co.in[1], ravi.16920@lpu.co.in[2], anand.soni@bti.moe.bh[3]
Assistant Professor, School of Computer Science and Engineering[1,2]
Lovely professional University, Phagwara, Punjab, India
Sr. Lecturer, Commercial Studies Division Bahrain Training Institute[3]
Ministry of Education, Kingdom of Bahrain

Abstract: *The investors may have great interest to invest in stock market. Moreover, financial markets like stock markets are driven by explosive factors such as social media, micro blogs and news that make it hard to predict stock market index based on purely the historical data. The financial services industries that involve financial transactions are suffering from fraud- related losses and damages. Machine Learning (ML) is being rapidly adopted for a range of applications. It is important to begin considering the financial stability implications for every financial asset"s organization. Using the machine learning tools and techniques in the finance sector will become necessary because it will closely monitor nascent and rapidly evolving landscape, wherein data on usage are largely unavailable, and bereft of any analysis. Financial assets fraud has seriously affected investors' confidence in the stock market and economic stability. The huge economic losses incurred because of several serious financial fraud events and because of this the intelligent financial fraud detection has thus been the topic of recent advances. In recent years, several studies have used stock market and machine learning techniques to provide solutions to this problem. In this paper, we propose various a state of art fraud detection techniques such as classification, clustering, and regression. This study aims to identify the techniques and methods that give the best results that have been perfected so far. Stock markets can benefit if fraud identification and prevention can be incorporated by using machine learning algorithms.*

Keywords: Financial Market, Fraud Detection & Prevention, Machine Learning. Kernel Adatron.

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AUTHOR'S DETAILS

- Dr. Om Prakash Yadav, Assistant Professor in School of Computer Science and Engineering, Lovely Professor University. He worked ISL Engineering College, Sri Sarada Institute of Science and Technology and Grahmbell P.G. College, Hyderabad, Telangana. He has 16 years of teaching. He has published 16 International and 4 National Journals. He has participated and papers presented in in various National and International conferences. He had received Ph.D. degree from SSSTUMS, Bhopal, M.Tech from IETE, New Delhi and M.C.A from SMU.

- Mr. Ravi Kant Sahu, Assistant Professor, in School of Computer Science and Engineering, Lovely professor University. He has 10 years of teaching experience. He is awarded with M.Tech(CSE-Mobile Computing) from NIT Hamirpur (H.P.) [Gold Medalist] and B.Tech (I.T.) from Uttar Pradesh Technical University degrees. He is Oracle Certified Associate Java Programmer and qualified UGC NET and GATE exams. He has published 15+

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