To

The https://link.springer.com/journal/146,

here i am doing a part time PhD research scholar, i am trying to focus my research area to social media on the celebration of social media day at SR university.  
so my research plan for stock prediction using machine learning algorithms   
Title: Stock Closing Price Prediction Using Machine Learning Algorithms :   
A Critical Review Analysis of Techniques  
  
Introduction: stock market prediction is a challenging task due to its complex and dynamic nature. This research aims to explore the application of ensemble the methods Random Forest and KNN and evaluate future plan with deep learning techniques  
  
objectives:   
1. investigate the performance of random forest and KNN machine learning methods for stock prediction  
2. compare the machine learning results with traditional methods   
3. create and execute machine learning environment such as jupytor lab, importing required packages pandas,matlib,plotpy, etc python environment  
4.Analyze the effectiveness of using ensemble methods for stock market prediction with real values.   
  
Methodology:  
  
1. Data Collection: Gather historical stock data from reliable sources  
2. Data Preprocessing: Clean, normalize and transform the data for modeling  
3. Ensemble Methods : Train Random Forest and KNN models on the data and evaluate their performance using metrics like accuracy,based on mean squared error and mean absolute error  
4. comparison and analysis about trained and test data  
  
Expected outcomes:   
  
1. Identification of the most effective ensemble methods RF and KNN  
2. insights into the strengths and limitations of using RF and kNN methods for stock prediction  
  
Time line:  
  
1. Data collection and preprocessing : 2 weeks  
2. Machine learning methods and evaluation: 4 weeks  
3. Comparison and analysis: 4 weeks  
  
Future Plans:  
  
1. Integrate additional features like economic indicators and new sentiment analysis.  
2.Explore other deep learning architectures LSTM , GAN  
3. Develop a hybrid model combining GAN and LSTM for stock prediction  
  
Collaboration:  
seeking collaboration with finance and AI experts to validate the research and provide industry insights  
  
this research plan outlines a comprehensive approach to exploring ensemble methods and deep learning techniques for stock prediction. The expected outcomes and future plans demonstrate the potential for advancing the field and improving stock market closing price prediction accuracy.  
  
Thank You