VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnana Sangama", Belagavi-560014, Karnataka

A PROJECT REPORT ON

"PREDICTION ACCURACY IMPROVEMENT FOR BIT COIN MARKET PRICES BASED ON NEURAL NETWORK APPROACH"

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE & ENGINEERING

Submitted By

GAGANA N	(1SV18CS015)
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Under the guidance of

Dr. Charan KV B.E., M.Tech.,Phd

Associate Professor, Dept. of CSE,
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SHRIDEVI
EDUCATION

Department of Computer Science and Engineering

SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Affiliated To Visvesvaraya Technological University)
Sira Road, Tumakuru – 572 106, Karnataka.
2021-22
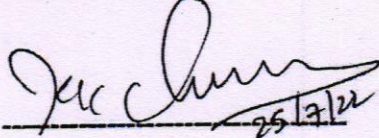
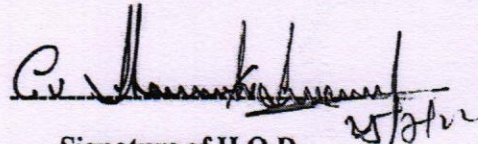## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

<u>CERTIFICATE</u>

This is to certify that, the project entitled "Prediction accuracy improvement for bitcoin market price based on neural network approach" has been successfully carried out by GAGANA N [1SV18CS015], CHANDRASHEKARA T [1SV18CS008], MANORANJAN P M [1SV18CS025], KUSHAL KUMAR D [1SV18CS022], in partial fulfillment for the award of **Bachelor of Engineering in Computer Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2021-22**. It is certified that all the corrections/suggestions indicated for internal assessments have been incorporated in the report. The project report has been approved as it certifies the academic requirements in respect of **Project work-II** prescribed for the Bachelor of Engineering Degree.
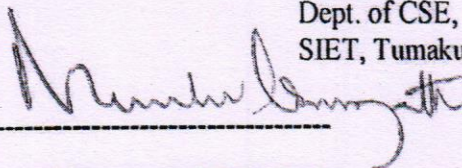
<u>**Signature of Guide**</u>
Dr.Charan KV B.E., M.Tech.,Phd
Associate Professor, Dept. of CSE
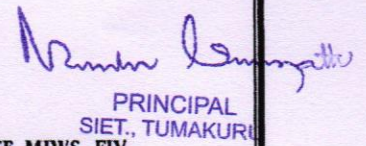& HOD Dept. of AI&DS
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<u>**Signature of H.O.D**</u>
Prof. Shanmukaswamy C V B.E., ME., MISTE,
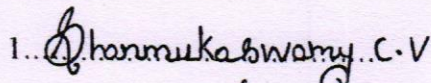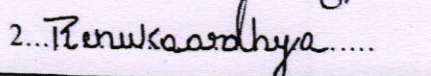Associate Professor & HOD
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<u>**Signature of Principal**</u>

PRINCIPAL
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Dr.Narendra Viswanath M.E., Ph.D., MIE, MISTE, MIWS., FIV.,
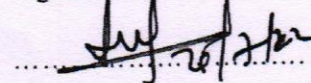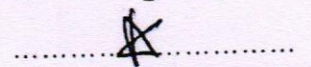Principal,
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Name of the Examiners

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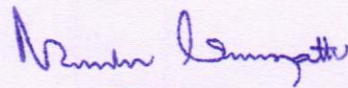
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ABSTRACT

The relationship between the features of Bitcoin and the next day change in the price of Bitcoin using an Artificial Neural Network ensemble approach called Genetic Algorithm based Selective Neural Network Ensemble, constructed using Multi-Layered Perceptron as the base model for each of the neural network in the ensemble. To better understand the practicality and its effectiveness in realworld application, the ensemble was used to predict the next day direction of the price of Bitcoin given a set of approximately 200 features of the cryptocurrency over a span of 2 years. Over a span of 50 days, a trading strategy based on the ensemble was compared against a "previous day trend following" trading strategy through back-testing. The former trading strategy generated almost gives high accuracy.

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