

# INTERNSHIP REPORT

FINDING A BEST FIT ARIMA MODEL FOR FORECASTING FUTURE STOCK PRICES OF APPLE

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment of the requirement for award of Post-Graduation in Econometrics*

By

BISMI SAJEEV (220011032686)

Under supervision of

MS Sneha JoJo

Assistant Professor on Contract

Department of Economics

Alphonsa College Pala

Kerala, India

(Duration: 9th May to 9th June 2023)



Department of Economics


Alphonsa College, Pala

2022 – 2024



Valued by

J. K. Jacob

  
20/2/24

# ALPHONSA COLLEGE, PALA

## CERTIFICATE

This is to certify that this internship report entitled Finding a Best Fit Arima Model for Forecasting Future Stock Prices of Apple Using ARIMA "is a report prepared on the internship work done by Ms BISMI SAJEEV, in the scipy Technologies in partial fulfilment of the requirements for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College, Pala under my supervision and guidance.

Mrs. Smitha Clary Joseph



Head of the Department of Economics

Alphonsa college, Pala

Department of Economics  
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Mrs. Sneha JoJo

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Place: Pala

Date: 19/2/2024

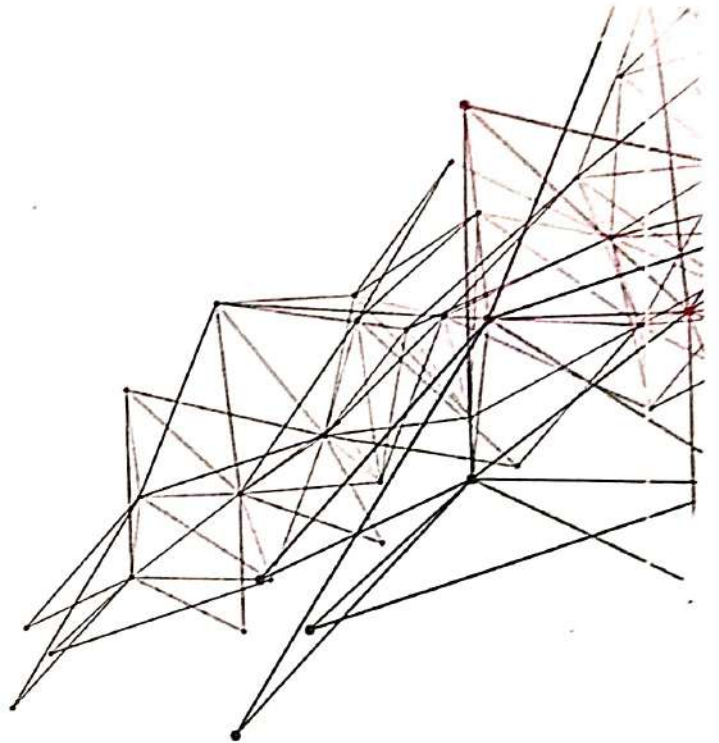


# CERTIFICATE OF COMPLETION

PROUDLY PRESENTED TO

**Bismi Sajeev**

Of Alphonso College Pala Completed Advanced python  
and Stock Price Forecasting Internship on May 9 to June 9



10-06-2023

DATE



*Ebrahim*

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SC10805

# INTERNSHIP REPORT

## FORECASTING EXCHANGE RATE USING ARIMA MODEL AS A MACHINE LEARNING MODEL IN PYTHON

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment of the requirement for award of Post Graduation in Econometrics*

By

**MALU BIJU (220011032689)**

Under supervision of

Ms. Karthika V Menon

Assistant professor

Department of Economics

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Kerala, India

(Duration: 9th May to 9th June 2023)



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Department of Economics

Alphonsa College, Pala


2022 – 2024




**ALPHONSA COLLEGE, PALA**

**CERTIFICATE**

This is to certify that this Internship report entitled “finding best fit model for forecasting exchange rate using machine learning model python” is a report prepared on the internship work done by Malu Biju, in the Scipy Technologies, Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

  
Ms. Smitha Clap Joseph  
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Ms. Karthika V Menon  
Department of Economics  
Alphonsa college, Pala

Pala

Date:

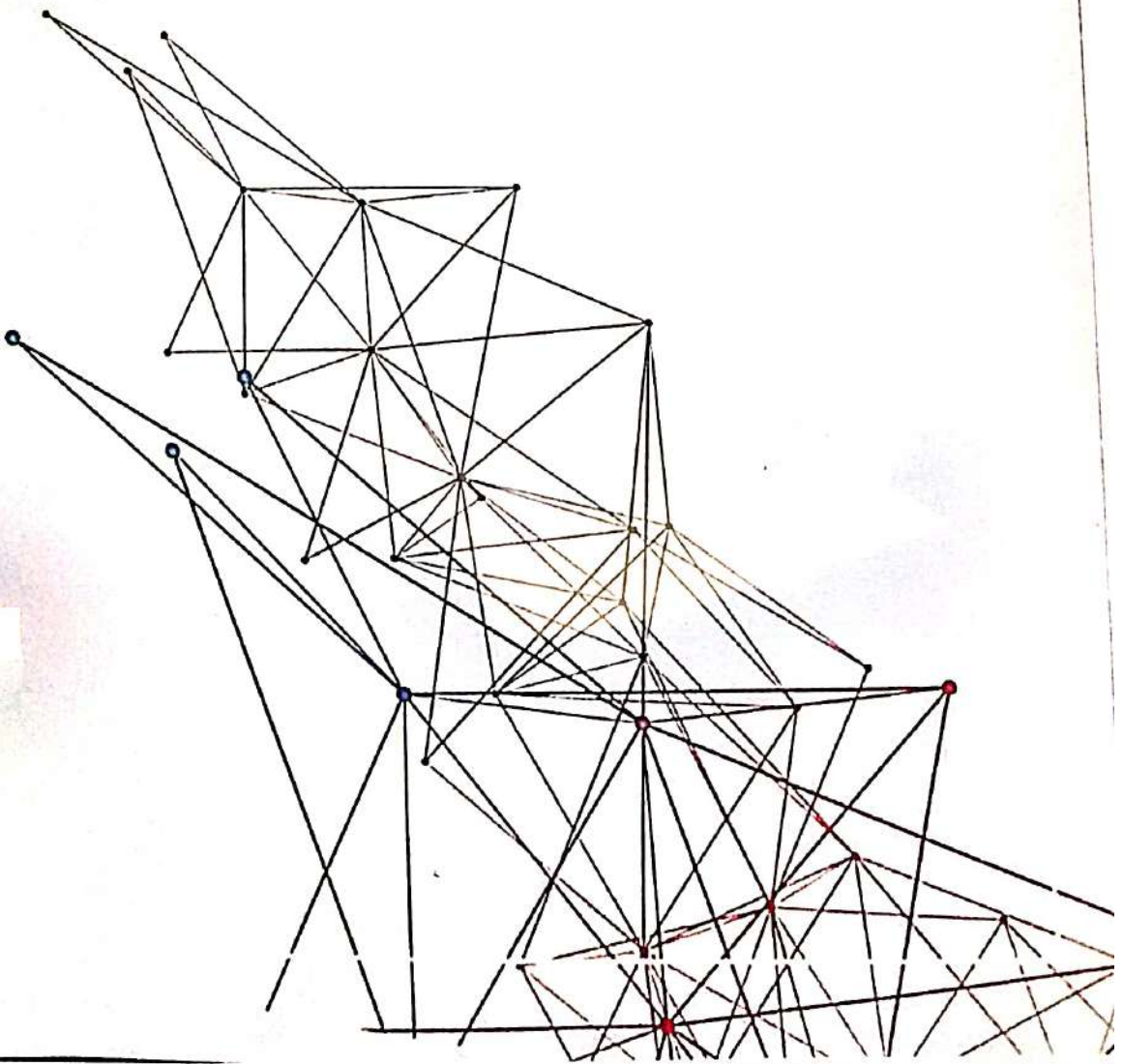


# CERTIFICATE OF COMPLETION

PROUDLY PRESENTED TO

**Malu Biju**

Of Alphonso College Pala Completed Advanced  
python and Exchange rate forecasting Internship on  
May 9 to June 9



10-06-2023

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SCI0610

# INTERNSHIP REPORT

## FINDING A BEST FIT ARIMA MODEL FOR FORECASTING FUTURE STOCK PRICES OF APPLE

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment of the requirement for award of Post Graduation in Econometrics*

By

An Maria Jose (220011032682)

Under supervision of

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Assistant Professor on Contract

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(Duration: 9th May to 9th June 2023)



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## CERTIFICATE

This is to certify that the internship report entitled as” Finding a Best Fit ARIMA Model for Forecasting Future Stock Prices of Apple “is a report prepared on the internship work done by ANMARIA JOSE, in the scipy Technologies in partial fulfilment of the requirements for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa Collage, Pala under my supervision and guidance.

  
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Ms. Sneha Jojo

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PROUDLY PRESENTED TO

**Anmaria Jose**

Of Alphonsa College Pala Completed Advanced python  
and Stock Price Forecasting Internship on May 9 to June 9

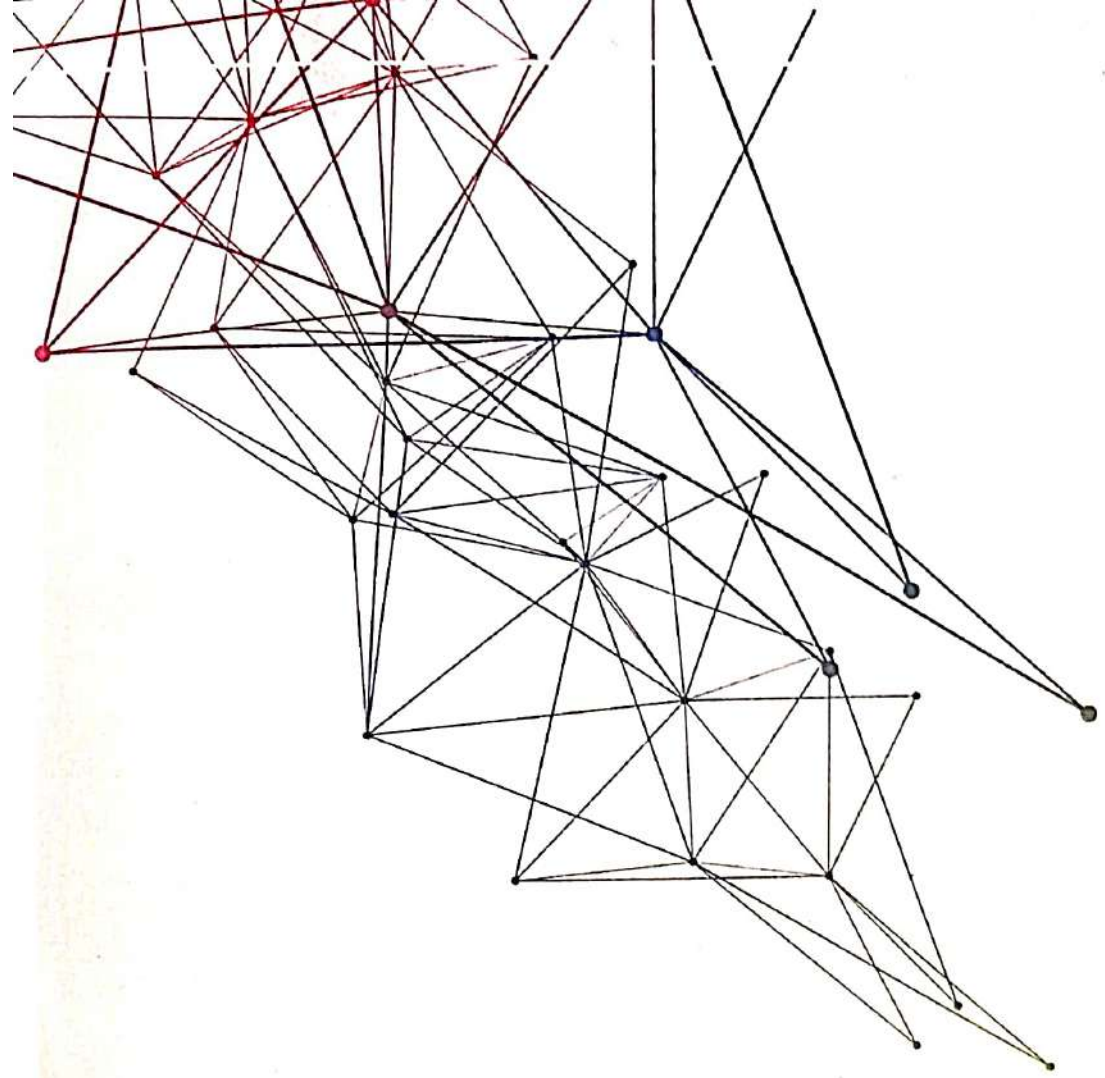
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SCI0601



**INTERNSHIP REPORT**

**FINDING A BEST FIT ARIMA MODEL FOR FORECASTING FUTURE STOCK  
PRICES OF APPLE Inc.**

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment of the  
requirement for award of Post Graduation in Econometrics*

**By**

**ATHIRA SOMAN (220011032685)**

Under supervision of

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Assistant Professor on Contract

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Kerala, India

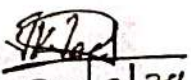
(Duration; 9th May to 9th June 2023)



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**ALPHONSA COLLEGE, PALA**

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This is to certify that this Internship report entitled as "Finding a Best Fit ARIMA Model for Forecasting Future Stock Prices of Apple Inc." is a report prepared on the internship work done by ATHIRA SOMAN, in the Scipy Technologies Thiruvananthapuram in partial fulfillment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

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Ms. Sneha Jojo

Assistant Professor on Contract

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PROUDLY PRESENTED TO

**Athira Soman**

Of Alphonso College Pala Completed Advanced python  
and Stock Price Forecasting Internship on May 9 to June 9



10-06-2023

DATE

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SCI0604

# INTERNSHIP REPORT

## FORECASTING EXCHANGE RATE WITH ARIMA TIME SERIES ANALYSIS: A MACHINE LEARNING APPROCH IN PYTHON

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial  
fulfilment of the requirement for award of Post Graduation in Econometrics*

by

**MERIN ELSA SEBASTIAN (220011032690)**

Under supervision of

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Assistant professor on Contract

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(Duration; 9th May to 9th June 2023)



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ALPHONSA COLLEGE, PALA

**CERTIFICATE**

This is to certify that this Internship report entitled FORECASTING EXCHANGE RATE WITH ARIMA TIME SERIES ANALYSIS: A MACHINE LEARNING APPROCH IN PYTHON is a report prepared on the internship work done by Merin Elsa Sebastian, in the SciPy Technologies Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

  
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Ms. Karthika V Menon  
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**PROUDLY PRESENTED TO**

**Merin Elsa Sebastian**

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python and Exchange rate forecasting Internship on  
May 9 to June 9

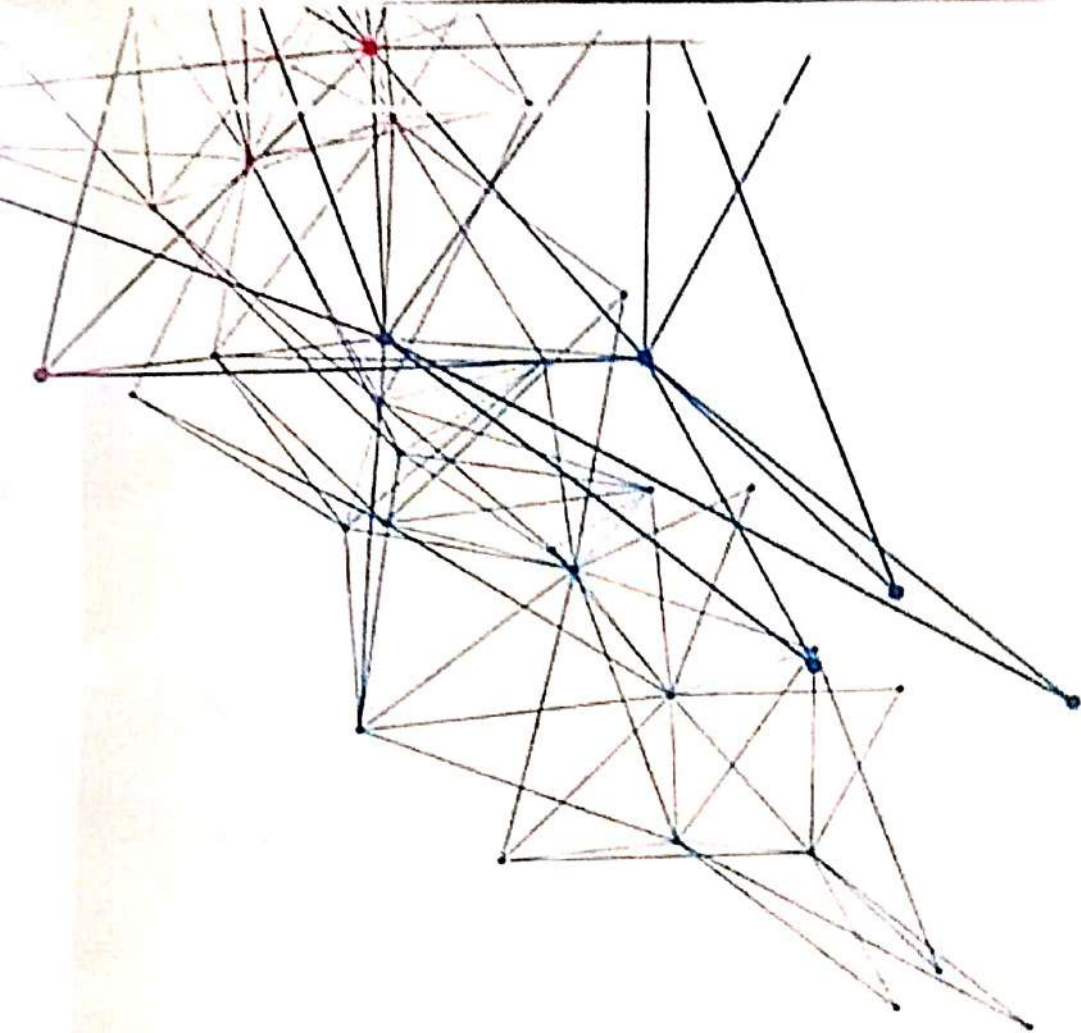
10-06-2023

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SC10611



# INTERNSHIP REPORT

## FORECASTING EXCHANGE RATE USING ARIMA MODEL AS A MACHINE LEARNING MODEL PYTHON

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial  
fulfilment of the requirement for award of Post Graduation in Econometrics*

By

**JOMOL JOSE (220011032688)**

Under supervision of

**Ms. Karthika V Menon**

**Assistant professor on Contract**

**Alphonsa College Pala**

**Kerala, India**

**(Duration;09 May to 09 June 2024)**



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**Alphonsa College, Pala**

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J.K. Jacob


  
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ALPHONSA COLLEGE, PALA

**CERTIFICATE**

This is to certify that this Internship report entitled FORECASTING EXCHANGE RATE USING ARIMA MODEL AS A MACHINE LEARNING MODEL PYTHON "is a report prepared on the internship work done by Jomol Jose, in the Scipy Technologies Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

  
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PROUDLY PRESENTED TO

**Jomol Jose**

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python and Exchange rate forecasting Internship on  
May 9 to June 9

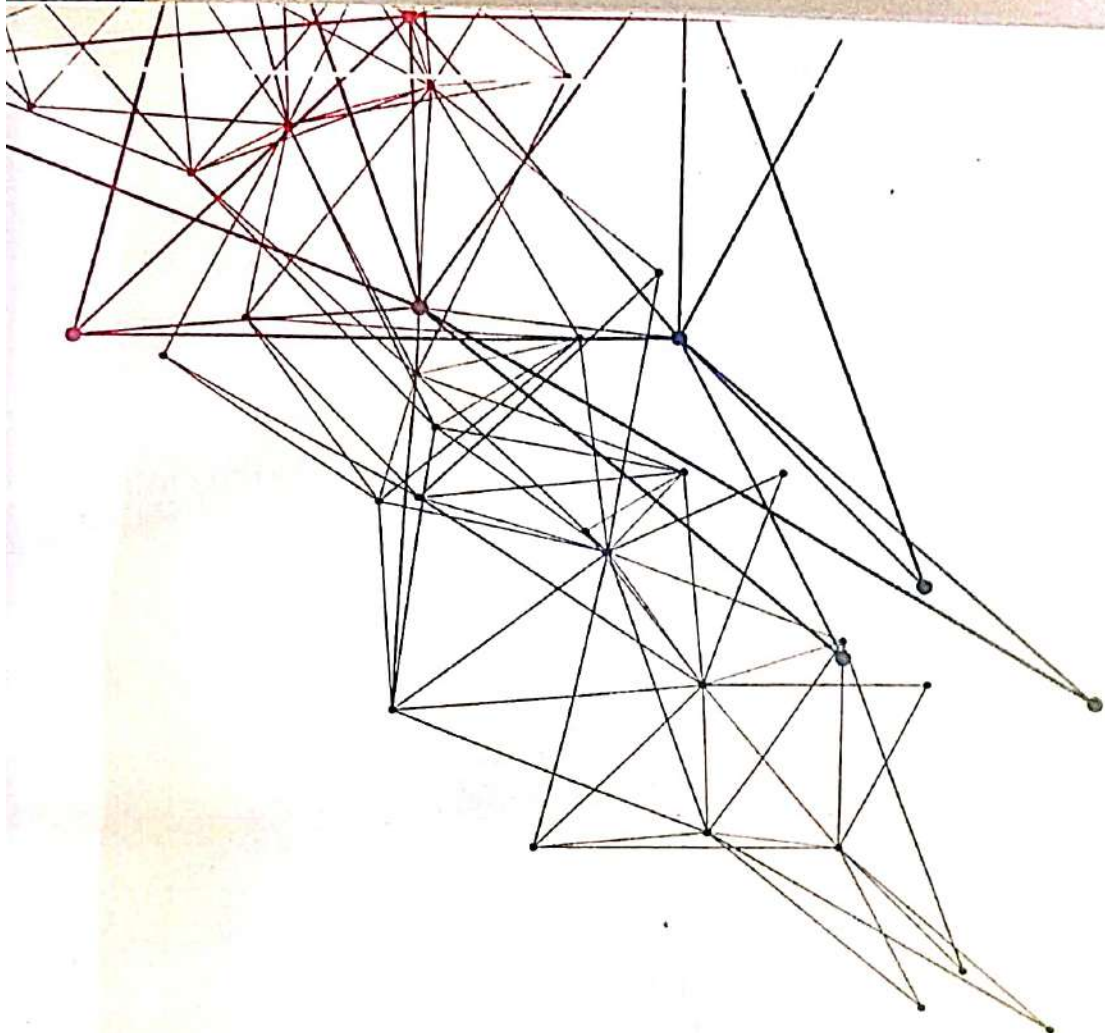
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SC10509



# INTERNSHIP REPORT

## FINDING THE BEST FIT MODEL FOR FORECASTING STOCK PRICES OF APPLE INC. USING PYTHON

*Internship report submitted to the Mahatma Gandhi University, Kottayam, partial fulfilment  
of the requirement for the award of Post Graduation in Econometrics*

Submitted by,

**SNEHA S**

Reg No:220011032691

Under the supervision and guidance of

**Anupama S Anilkumar**

Assistant Professor on Contract

Department of Economics

Alphonsa college Pala

Kerala, India

(Duration: 9<sup>th</sup> May to 9<sup>th</sup> June, 2023)



Alphonsa College, Pala

2022 - 2024




**ALPHONSA COLLEGE, PALA**  
**CERTIFICATE**

This is to certify that this internship report entitled "Finding the Best Fit Model for Forecasting Stock Prices of Apple Inc. Using Python" is a report prepared on the internship work done by Sneha S, in the SciPy Technologies Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

  
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Mrs. Smitha Clary Joseph  
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Ms. Anupama S Anilkumar  
Assistant Professor on Contract  
Department of Economics

Place: Pala

Date:



# CERTIFICATE OF COMPLETION

PROUDLY PRESENTED TO

**Sneha S**

Of Alphonsa College Pala Completed Advanced python  
and Stock Price Forecasting Internship on May 9 to June 9



10-06-2023

DATE

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SCI0606

# INTERNSHIP REPORT

## FORECASTING EXCHANGE RATE OF INDIA AGAINST USD USING MACHINE LEARNING LANGUAGE PYTHON

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial  
fulfilment of the requirement for award of Post Graduation in Econometrics*

By

**DONA SABU (220011032687)**

Under supervision of

Ms Anupama S Anilkumar

Assistant Professor on Contract

Alphonsa College Pala

Kerala, India

(Duration: 9th May to 9th June 2023)

Valued by  
J.K. Jacob  
  
20/2/24



**Department of Economics**

**Alphonsa College, Pala**

**2022 – 2024**



ALPHONSA COLLEGE, PALA

CERTIFICATE

This is to certify that this Internship report entitled "Forecasting Exchange Rate of India Against USD Using Machine Learning Language Python" is a report prepared on the internship work done by Dona Sabu, in the SciPy Technologies Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

Ms. Smitha Clary Joseph



Head of the Department of Economics

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Ms. Anupama S Anilkumar



Department of Economics

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# CERTIFICATE OF COMPLETION

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PROUDLY PRESENTED TO

**Dona sabu**

Of Alphonsa College Pala Completed Advanced  
python and Exchange rate forecasting Internship on  
May 9 to June 9

10-06-2023

DATE



*Dona Sabu*

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SCI0608



# INTERNSHIP REPORT

## FINDING A BEST FIT ARIMA MODEL FOR FORECASTING FUTURE STOCK PRICES OF APPLE

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment of the requirement for award of Post Graduation in Econometrics*

By

An Maria Jose (220011032682)

Under supervision of

Ms Sneha Jojo

Assistant Professor on Contract

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Kerala, India

(Duration: 9th May to 9th June 2023)




Department of Economics

Alphonsa College, Pala


2022 – 2024



Valued by  
J.K. Jacob  
  
20/2/24

## CERTIFICATE

This is to certify that the internship report entitled as” Finding a Best Fit ARIMA Model for Forecasting Future Stock Prices of Apple “is a report prepared on the internship work done by ANMARIA JOSE, in the scipy Technologies in partial fulfilment of the requirements for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa Collage, Pala under my supervision and guidance.

  
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Head of the Department of Economics  
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Ms. Sneha Jojo

Department of Economics  
Alphonsa college, Pala

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PROUDLY PRESENTED TO

**Anmaria Jose**

Of Alpha College Pala Completed Advanced python  
and Stock Price Forecasting Internship on May 9 to June 9

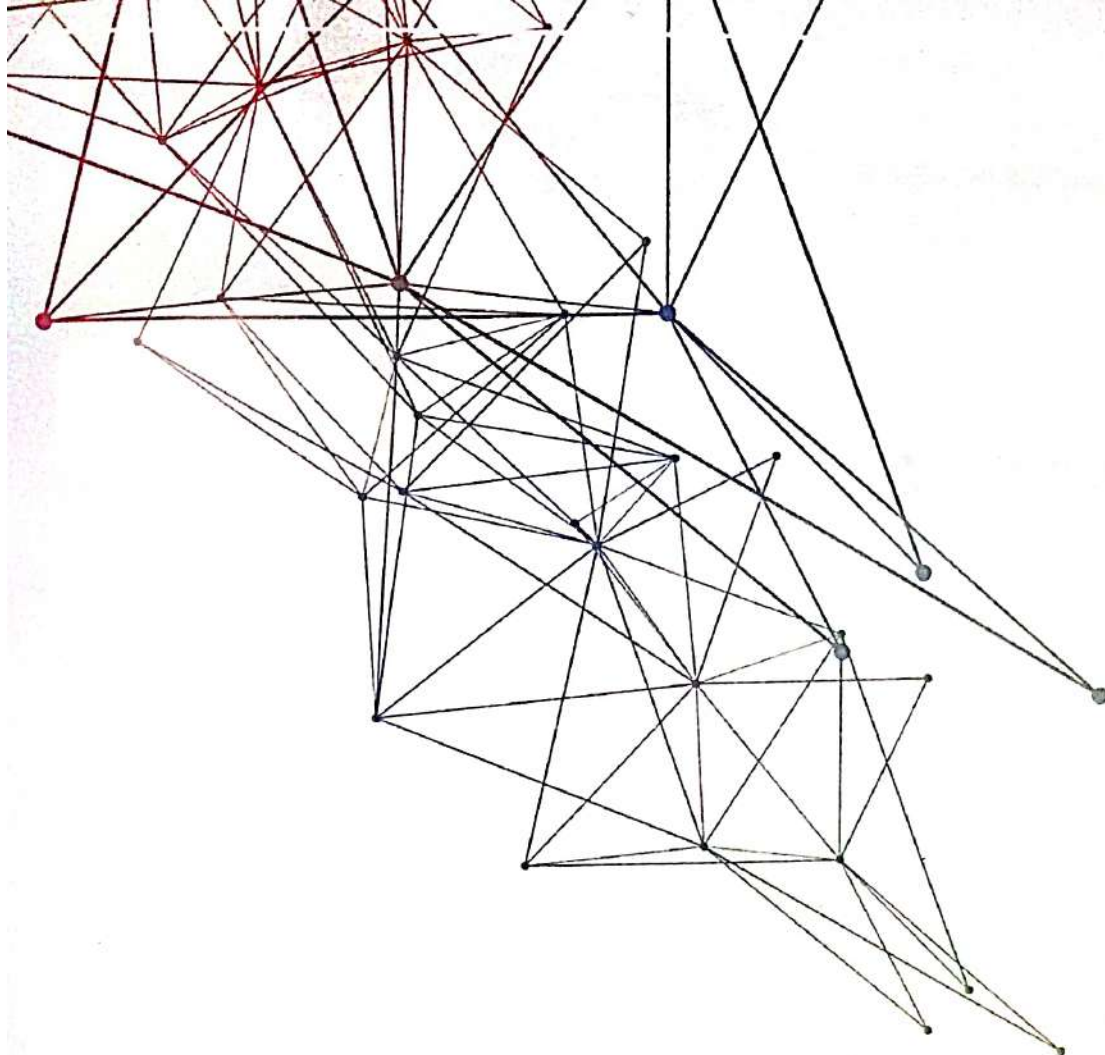
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SCI0601



# INTERNSHIP REPORT

## FINDING A BEST FIT ARIMA MODEL FOR FORECASTING FUTURE STOCK PRICES OF APPLE

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment of the requirement for award of Post-Graduation in Econometrics*

By

**ARCHANA PRASANTH (220011032684)**

Under the supervision and guidance of

Anupama S Anilkumar

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Kerala, India

(Duration;9th May to 9th June 2023)



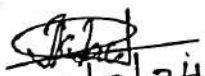
**Department of Economics**

**Alphonsa College, Pala**

**2022 – 2024**




Valued by  
J.K. Jacob

  
20/2/24

## CERTIFICATE

This is to certify that this Internship report entitled “Finding A Best Fit Arima Model for Forecasting Future Stock Prices of Apple” is a report prepared on the internship work done by ARCHANA PRASANTH in the SciPy Technologies Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

  
H.O.D.  
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Head of the Department of Economics  
Alphonsa college Pala



Ms. Anupama s Anilkumar  
Department of economics  
Alphonsa college Pala

Pala

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# CERTIFICATE OF COMPLETION

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PROUDLY PRESENTED TO

**Archana Prasanth**

Of Alphaonsa College Pala Completed Advanced python  
and Stock Price Forecasting Internship on May 9 to June 9

10-06-2023

DATE



SIGNATURE

# INTERNSHIP REPORT

## FORECASTING EXCHANGE RATE OF INDIA AGAINST USD USING PYTHON

*Internship report submitted to Mahatma Gandhi University, Kottayam, partial fulfilment  
of the requirement for award of Post-Graduation in Econometrics*

By

ANUJAKUMAR (220011032683)

Under the supervision and guidance of

Ms Anupama S Anilkumar

Assistant professor


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Kerala, India

(Duration: 9th May to 9th June 2023)



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Department of Economics

Alphonsa College, Pala


2022 - 2024




ALPHONSA COLLEGE, PALA

CERTIFICATE

This is to certify that this Internship report entitled "FORECASTING EXCHANGE RATE OF INDIA AGAINST USD USING PYTHON" is a report prepared on the internship work done by Anujakumar, in the SciPy Technologies Thiruvananthapuram in partial fulfilment for the award of Masters in Econometrics, during 2022-2024, in the Department of Economics, Alphonsa College Pala, under my supervision and guidance.

  
Ms. Smitha Clary Joseph H.O.D.  
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Alphonsa College, Pala  
Alphonsa college Pala

  
Anupama S Anilkumar  
Assistant professor on contract  
Department of Economics  
Alphonsa College Pala

Pala:

Date:





# CERTIFICATE OF COMPLETION

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PROUDLY PRESENTED TO

**Anujakumar**

Of Alphonsa College Pala Completed Advanced  
python and Exchange rate forecasting Internship on  
May 9 to June 9

10-06-2023

DATE



A handwritten signature in black ink, appearing to read 'Anujakumar', is written over a horizontal line.

SIGNATURE

SCI0607

