

**DEEP LEARNING PREDICTION OF ADVERSE DRUG  
REACTION ANALYSIS USING ARTIFICIAL NEURAL  
NETWORK MODEL**

**A THESIS**

*Submitted by*

**SARATHKUMAR R. (19CAR03)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION  
IN  
DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)  
(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "DEEP LEARNING PREDICTION OF ADVERSE DRUG REACTION ANALYSIS USING ARTIFICIAL NEURAL NETWORK MODEL" is the bonafide work of SARATHKUMAR R. (19CAR03) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*E.K. Vellingiri Raj* 26/5/22  
Signature of the HOD with Date

Dr. E.K.VELLINGIRI RAJ, M.E., Ph.D.,  
HEAD OF THE DEPARTMENT,  
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*K.E. Esuari* 26.5.22.  
Signature of SUPERVISOR with Date

Ms. K.E.ESWARI, M.C.A.,M.Phil.,M.E.,SET  
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Submitted for Project and Viva-Voce Examination held on 15/06/2022

*E.K. Vellingiri Raj* 15.6.22  
INTERNAL EXAMINER

*M. S. Kumar* 15/6/22  
EXTERNAL EXAMINER



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# Optech Software India (P) Ltd

Date.....

23.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.R.SARATHKUMAR (Reg.No:20CAR03), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "DEEP LEARNING PREDICTION OF ADVERSE DRUG REACTION ANALYSIS USING ARTIFICIAL NEURAL NETWORK MODEL" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager

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**PHISHING PAGE AND MALICIOUS URL DETECTION VIA  
SUPPORT VECTOR MACHINE USING PAGE LAYOUT  
FEATURE**

**A THESIS**

*Submitted by*

**SAVITHA G. (Reg No. 20CAR12)**

*in partial fulfillment for the award of the degree of*  
**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "PHISHING PAGE AND MALICIOUS URL DETECTION VIA SUPPORT VECTOR MACHINE USING PAGE LAYOUT FEATURE" is the bonafide work of SAVITHA G. (20CAR12) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*E. K. Vellingiriraj* - 24.5.22  
Signature of the HOD with Date

Dr. E. K. Vellingiriraj,  
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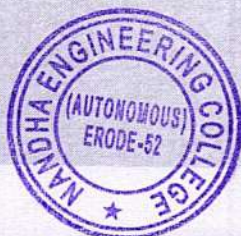
*E. K. Vellingiriraj* - 24.5.22  
Signature of the SUPERVISOR with Date

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23.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.G.SAVITHA (Reg.No:20CAR12), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "PHISHING PAGE AND MALICIOUS VRL DETECTION VIA SUPPORT VECTOR MACHINE USING PAGE LAYOUT FEATURE" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

Project Manager



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**EFFICIENT AUDITING SCHEME FOR SECURE DATA  
STORAGE IN FOG TO CLOUD COMPUTING**

**A THESIS**

*Submitted by*

**THASLEEMA NASREEN. D (Reg No. 20CAR16)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "EFFICIENT AUDITING SCHEME FOR SECURE DATA STORAGE IN FOG TO CLOUD COMPUTING" is the bonafide work of THASLEEMA NASREEN. D (20CAR16) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T. E. K. Vellingiriraj*  
Signature of the HOD with Date 24.5.22

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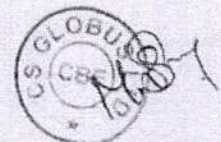
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DATE: 21.05.2022

PROJECT COMPLETION LETTER

This is to certify that the student Ms. THASLEEMA NASREEN D (Reg.No : 20CARI6) from the department of master computer application studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS), Perundhurai, Erode. has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "EFFICIENT AUDITING SCHEME FOR SECURE DATA STORAGE IN FOG TO CLOUD COMPUTING" in our organization during the period from JAN 2022 to MAY 2022.

During this project her performance was good. We wish her all the best for a successful in future.



AUTHORIZED SIGNATORY



  
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# IDENTIFICATION OF COVID-19 FUTURE FORECASTING

A THESIS

*Submitted by*

**MOHAMED ALI JINNA.M (Reg No. 20CAR22)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

IN

**DEPARTMENT OF COMPUTER APPLICATIONS**



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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "IDENTIFICATION OF COVID-19 FUTURE FORECASTING" is the bonafide work of MOHAMED ALI JINNA.M (20CAR22) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T. P. d. Vellingiriraj*  
Signature of the HOD with Date

Dr. E.K. VELLINGIRIRAJ,  
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*T. P. d. Vellingiriraj*  
Signature of the SUPERVISOR with Date

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*T. P. d. Vellingiriraj*  
Internal Examiner

*M. S. S. S. S.*  
External Examiner



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DATE: 20.05.2022

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This is to certify that the student Mr. MOHAMED ALI JINNA. M (Reg. No : 20CAR22) from the department of master computer application studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS), Perundhurai, Erode, has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "IDENTIFICATION OF COVID 19 FUTURE FORCASTING" in our organization during the period from JAN 2022 to MAY 2022.

During this project her performance was good. We wish her all the best for a successful in future.



AUTHORIZED SIGNATORY



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**LIVE SOCIAL DISTANCING DETECTION USING DEEP  
LEARNING MODEL**

**A THESIS**

*Submitted by*

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*in partial fulfillment for the award of the degree of*

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**IN**

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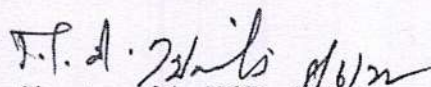
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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "**LIVE SOCIAL DISTANCING DETECTION USING DEEP LEARNING MODEL**" is the bonafide work of **SHANMUGA PRIYA G. (20CAR24)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

  
Signature of the HOD with Date

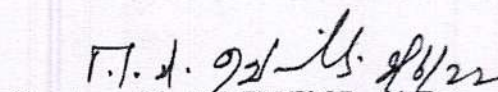
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Signature of the SUPERVISOR with Date

Dr. E. K. Vellingiriraj, M.E.,M.B.A.,Ph.D.,


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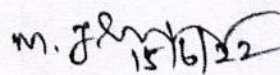
Department of Computer Applications,

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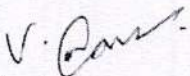
Date:.....

20.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.G.SHANMUGAPRIYA (Reg.No:20CAR24), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "LIVE SOCIAL DISTANCING DETECTION USING DEEP LEARNING MODEL" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

  
Project Manager



---

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# AUTOMATIC MOVABLE ARM ROBOT USING ARDUINO

A THESIS

*Submitted by*

**DHARMARAJ R (20CAR04)**

*In partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATIONS**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACTULTY OF INFORMATION AND  
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NANDHA ENGINEERNG COLLEGE**

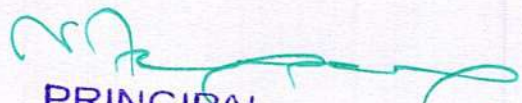
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**MAY 2022**



  
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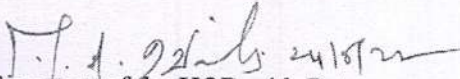
# NANDHA ENGINEERING COLLEGE

(Autonomous)

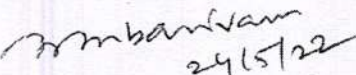
(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "AUTOMATIC MOVEABLE ARM ROBOT USING ARDUINO" the bonafide work of **DHARMARAJ R (20CAR04)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

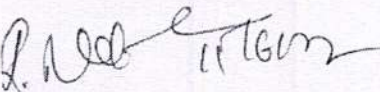
  
Signature of the HOD with Date

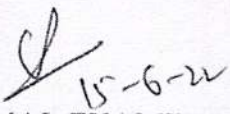
Dr. E.K. VELLINGIRIRAJ, M.E., Ph.D.,  
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Signature of the SUPERVISOR with Date

Mr. S. SAMBASIVAM, M.C.A., M.Phil.,  
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Professor,  
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Submitted for the project Viva-Voice examination held on 15.06.22.

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER



  
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**TECHVOLT SOFTWARE PVT.LTD**  
Simple But Marvellous...

Date:21/05/2022

TO WHOMSOEVER IT MAY CONCERN

This is to inform you that Mr.Dharmaraj R (Reg.No.20CAR04) student of MCA, Nandha Engineering College(Autonomous), Erode has successfully completed his internship project work in "IoT" at our company from January 2022 to May 2022. During the period he entitled his project work "Automatic Movable ARM ROBOT using Arduino".

During the internship period his performance found to be good and satisfactory.

With Regards,

For Techvolt Software Pvt.Ltd

HR Manager



  
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# MARKET BASKET ANALYSIS

A THESIS

*Submitted by*

**NANDHINI N (20CAR10)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
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**MAY 2022**



  
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# NANDHA ENGINEERING COLLEGE

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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "MARKET BASKET ANALYSIS" is the bonafide work of NANDHINI N (20CAR10) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*E.K. Vellingiraj*  
Signature of the HOD with Date

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*S. Sambasivam*  
Signature of the SUPERVISOR with Date

Mr.S. Sambasivam, M.C.A., M.Phil.,  
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Submitted for the Project Viva-Voce examination held on 15/06/2022

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Date.....

21.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.N.NANDHINI (Reg.No:20CAR10), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "MARKET BASKET ANALYSIS" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

Project Manager

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ERODE - 638 052, ✓

**SIGNIFICANT PERMISSION IDENTIFICATION FOR  
ANDROID MALWARE DETECTION**

**A THESIS**

*Submitted by*

**SANTHOSH KUMAR V (Reg No. 20CAR11)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
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**MAY 2022**



  
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(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "SIGNIFICANT PERMISSION IDENTIFICATION FOR ANDROID MALWARE DETECTION" is the bonafide work of SANTHOSH KUMAR V (20CAR11) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T. P. A. Vellingiriraj* 24/5/22  
Signature of the HOD with Date

Dr. E. K. Vellingiriraj, B.E., M.B.A., Ph.D.,  
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*S. Sambasivam* 24/5/22  
Signature of the SUPERVISOR with Date

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Submitted for the Project Viva-Voce examination held on 15.06.2022

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External Examiner



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Coimbatore, Tamilnadu, IN - 641012, Ph:9791930199

Date.....

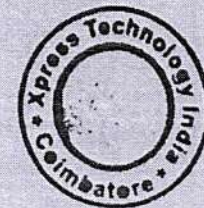
20.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.V.SANTHOSH KUMAR (Reg.No:20CAR11), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "SIGNIFICANT PERMISSION IDENTIFICATION FOR ANDROID MALWARE DETECTION" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager



PRINCIPAL,

NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

[xpresstechnology.in](http://xpresstechnology.in)

Mail : [xpresstecpro@gmail.com](mailto:xpresstecpro@gmail.com)





**REDUCED ENERGY CONSUMPTION OF DATA  
TRANSMISSION FOR TCP DOWNLOAD/UPLOADS  
A THESIS**

*Submitted by*

**SURIYA SUGAN S (20CAR15)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION  
IN  
DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING  
NANDHA ENGINEERING COLLEGE**

(Autonomous)  
(Affiliated to Anna University, Chennai)

**ERODE – 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

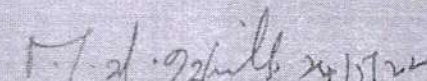
# NANDHA ENGINEERING COLLEGE

(Autonomous)

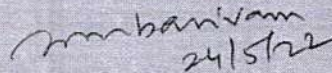
(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "REDUCED ENERGY CONSUMPTION OF DATA TRANSMISSION FOR TCP DOWNLOAD/UPLOADS" is the bonafide work of SURIYA SUGAN S (20CAR15) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

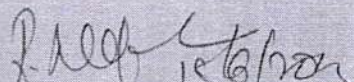
  
Signature of The HOD With Date

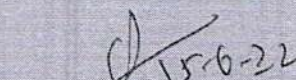
Dr. E.K.VELLINGIRI RAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

  
Signature of The SUPERVISOR with Date


Mr.S. SAM. BASIVAM, M.C.A., M.Phil.,  
Supervisor,  
Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15/06/2022

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER



  
PRINCIPAL,  
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ERODE - 638 052.



# XPRESS Technology India

347-D2, SLI Complex, 3<sup>rd</sup> Floor, 7<sup>th</sup> street, Gandhipuram,  
Coimbatore, Tamilnadu, IN - 641012, Ph:9791930199

Date.....

23.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student **Mr.S.SURIYASUGAN (Reg.No:20CAR15)**, from the Department of MCA studying in **NANDHA ENGINEERING COLLEGE (AUTONOMOUS)** has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "**REDUCED ENERGY CONSUMPTION OF DATA TRANSMISSION FOR TCP DOWNLOAD / UPLOADS**" in our organization during the period from **January 2022 to May 2022**.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager



[xpresstechnology.in](http://xpresstechnology.in)

Mail : [xpresstecpro@gmail.com](mailto:xpresstecpro@gmail.com)



PRINCIPAL,  
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ERODE - 638 052.

**SEPERABLE AND REVISIBLE DATA HIDING USING  
TRIPLE ENCRYPTION STANDARD IN CLOUD COMPUTING**

**A THESIS**

*Submitted by*

**BALAJI S. (20CAR02)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATIONS  
IN  
DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING  
NANDHA ENGINEERING COLLEGE**

(Autonomous)  
(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

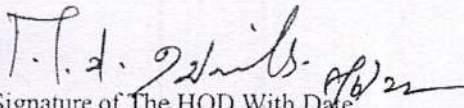
# NANDHA ENGINEERING COLLEGE

(Autonomous)

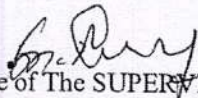
(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "SEPERABLE AND REVISIBLE DATA HIDING USING TRIPLE ENCRYPTION STANDARD IN CLOUD COMPUTING" is the bonafide work of **BALAJI S. (20CAR02)** who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

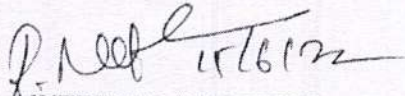
  
Signature of The HOD With Date

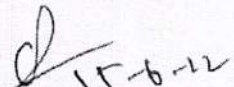
Dr. E.K.VELLINGIRI RAJ, M.E.,Ph.D.,  
HEAD OF THE DEPARTMENT,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

  
Signature of The SUPERVISOR with Date


Ms.K.E.ESWARI, M.C.A.,M.Phil.,M.E., SET.,  
Associate Professor,  
Department of Computer Applications,  
Nandha Engineering College, Erode-  
638052.

Submitted for Project and Viva-Voce Examination held on 15-06-2022

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER



  
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347-D2, SLI Complex, 3<sup>rd</sup> Floor, 7<sup>th</sup> street, Gandhipuram,  
Coimbatore, Tamilnadu, IN - 641012, Ph:9791930199

Date.....

21.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.S.BALAJI (Reg.No:20CAR02), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "SEPARABLE AND REVISIBLE DATA HIDING USING TRIPLE ENCRYPTION STANDARD IN CLOUD COMPUTING" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager



[xpresstechnology.in](http://xpresstechnology.in)

Mail : [xpressteepro@gmail.com](mailto:xpressteepro@gmail.com)



PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**ADAPTIVE COAL CLASSIFICATION USING CENTROID  
CONTOUR DISTANCE OBJECT RECOGNITION METHOD  
USING DEEP LEARNING**

**A THESIS**

*Submitted by*

**DHIVYAPRIYA.K (Reg No. 20CAR05)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE – 638052**

**MAY 2022**



  
**PRINCIPAL,  
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(AUTONOMOUS)  
ERODE - 638 052.**

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## BONAFIDE CERTIFICATE

Certified that this Thesis titled "ADAPTIVE COAL CLASSIFICATION USING CENTROID CONTOUR DISTANCE OBJECT RECOGNITION METHOD USING DEEP LEARNING" is the bonafide work of DHIVYAPRIYA.K (20CAR05) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*[Handwritten Signature]*

Signature of the HOD with date

Dr. E. K. VELLINGIRAJ, M.E., M.B.A.,

Ph.D.,

Professor and Head,

Department of Computer Applications,

Nandha Engineering College,

Erode-638052.

*[Handwritten Signature]*  
25-5-22

Signature of the SUPERVISOR with date

Ms. K. E. ESWARI, M.C.A., M.Phil., M.E.,

SET.,

Associate Professor,

Department of Computer Applications,

Nandha Engineering College,

Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15.06.22

*[Handwritten Signature]*  
15/6/22

INTERNAL EXAMINER

*[Handwritten Signature]*  
15-6-22

EXTERNAL EXAMINER



*[Handwritten Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.





# FALCON INFOTECH

140-c, 2<sup>nd</sup> Floor, Ponmani Tower, Avarampalayam Road,  
New Sidhapudur, Coimbatore- 641 044

Date:.....

21.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.K.DHIVYAPRIYA (Reg.No:20CAR05), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "ADAPTIVE COAL CLASSIFICATION USING CENTROID CONTOUR DISTANCE OBJECT RECOGNITION METHIOD USING DEEP LEARNING" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

Project Manager



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Mob : 7397183676 , Web: falconinfotec.in

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Mail : falconinformationtech@gmail.com

PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**IMPROVE WORKFLOW SCHEDULING TECHNIQUE  
USING SEMO IN CLOUD COMPUTING**

**A THESIS**

*Submitted by*

**NAVEENCHANDAR U. (20CAR23)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)  
(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

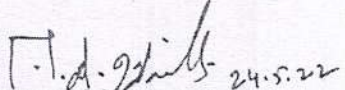
# NANDHA ENGINEERING COLLEGE

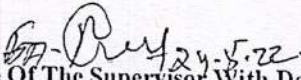
(Autonomous)

(Affiliated to Anna University, Chennai)

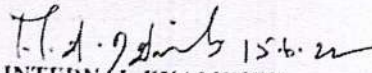
## BONAFIDE CERTIFICATE

Certified that this Thesis titled "IMPROVE WORKFLOW SCHEDULING TECHNIQUE USING SEMO IN CLOUD COMPUTING" is the bonafide work of NAVEENCHANDAR U. (20CAR23) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

  
Signature of the hod with date  
Dr. E. K. VELLINGIRIRAJ, M.E., M.B.A.,  
Ph.D.,  
Professor And Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

  
Signature Of The Supervisor With Date  
Ms. K. E. ESWARI, M.C.A., M.Phil., M.E.,  
SET.,  
Associate Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15.06.2022

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER



  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# XPRESS Technology India

347-D2, SLI Complex, 3<sup>rd</sup> Floor, 7<sup>th</sup> street, Gandhipuram,  
Coimbatore, Tamilnadu, IN - 641012, Ph:9791930199

Date.....

25.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.U.NAVEENCHANDAR (Reg.No:20CAR23), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "IMPROVE WORKFLOW SCHEDULING TECHNIQUE USING SEMO IN CLOUD COMPUTING" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager



[xpresstechnology.in](http://xpresstechnology.in)

Mail : [xpresstecpro@gmail.com](mailto:xpresstecpro@gmail.com)



PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**EYE PUPIL MOVEMENT BASED ON CURSOR CONTROL  
MECHANISM USING IMAGE PROCESSING**

**A THESIS**

*Submitted by*

**SEDHU M. (20CAR25)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

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**ERODE - 638052**

**MAY 2022**



  
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(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "EYE PUPIL MOVEMENT BASED ON CURSOR CONTROL MECHANISM USING IMAGE PROCESSING" is the bonafide work of SEDHU M. (20CAR25) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*[Signature]* 24.5.22  
SIGNATURE OF THE HOD WITH DATE

Dr. E.K.VELLINGIRI RAJ, M.E., Ph.D.,  
HEAD OF THE DEPARTMENT,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*[Signature]* 24.5.22  
SIGNATURE OF THE GUIDE WITH DATE

Ms. K.E.ESWARI M.C.A., M.Phil., M.E., SET.,  
Associate Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15.06.2022.

*[Signature]* 15.6.22  
INTERNAL EXAMINER

*[Signature]* 15/6/22  
EXTERNAL EXAMINER



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# Optech Software India (P) Ltd

Date.....

23.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.M.SEDHU (Reg.No:20CAR25), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "EYE PUPIL MOVEMENT BASED CONTROL MECHANISM" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager

**OPTECH SOFTWARE INDIA PRIVATE LTD**  
39, SHANMUGAM STREET, RAMANATHAPURAM,  
OPP TO NILGIRIS, COIMBATORE.

#20, First Floor,  
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Ramanatha Puram,  
Coimbatore - 641045. Ph : 0422 2314067.



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Email: [optechsoftwares@gmail.com](mailto:optechsoftwares@gmail.com)  
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B.O: Trichy, Chennai, Madurai.

PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**TIME SERIES ANALYSIS AND FORECASTING OF AIR  
POLLUTION PARTICULATE MATTER USING SARIMA AND  
SVM APPROACH**

**A THESIS**

*Submitted by*

**ARUNKUMAR.S (20CAR01)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
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NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**



# NANDHA ENGINEERING COLLEGE

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(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "TIMES SERIES ANALYSIS AND FORECASTING OF AIR POLLUTION PARTICULATE MATTER USING SARMIA AND SVM APPROACH" is the bonafide work of ARUNKUMAR.S (20CAR01) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T.P.d. g... 25/5/22*  
Signature of the HOD with Date  
Dr. E.K.VELLINGIRIRAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*[Signature]*  
Signature of the SUPERVISOR With Date  
Mr. C. MANI, M.C.A., M.E.,  
Supervisor,  
Associate Professor,  
Department of Computer Science and  
Engineering,  
Nandha Engineering College,  
Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15/08/2022

*[Signature]* 15/6/22  
INTERNAL EXAMINER

*[Signature]* 15-6-22  
EXTERNAL EXAMINER



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052. ✓



# FALCON INFOTECH

140-c, 2<sup>nd</sup> Floor, Ponmani Tower, Avarampalayam Road,  
New Sidhapudur, Coimbatore- 641 044

Date:..20.05.2022.....

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.S.ARUNKUMAR (Reg.No:20CAR01), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "TIME SERIES ANALYSIS AND FORECASTING OF AIR POLLUTION PARTICULATE MATTER USING SARIMA AND SUM APPROACH" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager



Mob : 7397183676 , Web: falconinfotec.in

Email : falconinformationtech@gmail.com



PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052. ✓

**A LION OPTIMIZATION BASED K-PROTOTYPE CLUSTERING**

**ALGORITHM FOR MIXED DATA**

**A THESIS**

*Submitted by*

**MEHALA C. (Reg No. 20CAR09)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**


(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,**  
**NANDHA ENGINEERING COLLEGE**  
**(AUTONOMOUS)**  
**ERODE - 638 052.**

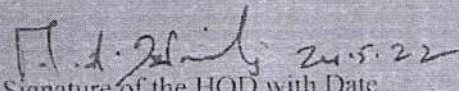
# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "A LION OPTIMIZATION BASED K-PROTOTYPE CLUSTERING ALGORITHM FOR MIXED DATA" is the bonafide work of MEHALA C. (20CAR09) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

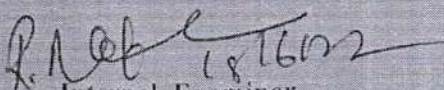
  
Signature of the HOD with Date

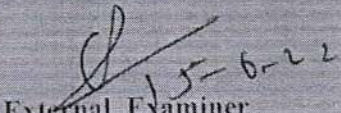
Dr. E.K. VELLINGIRAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode - 638052.

  
Signature of the SUPERVISOR with Date

Mr. C.MANI M.C.A., M.E.,  
Supervisor,  
Associate Professor,  
Department of Computer Science and  
Engineering,  
Nandha Engineering College,  
Erode - 638052.

Submitted for the Project Viva-Voce examination held on 15.06.2022

  
Internal Examiner

  
External Examiner



  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# Optech Software India (P) Ltd

Date.....

23.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.C.MEHALA (Reg.No:20CAR09), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "A LOIN OPTIMIZATION BASED K-PROTOTYPE CLUSTERING ALGORITHM FOR MIXED DATA" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

Project Manager

OPTTECH SOFTWARE INDIA PRIVATE LTD  
27/1 SHANMUGAR STREET RAMAKRISHNAPURAM,  
OPP TO ALEGRIS COIMBATORE.

#20, First Floor,  
Vinayagar Kovil Street,  
Krishnasami Nagar,  
Ramanatha Puram,  
Coimbatore - 641045. Ph : 0422 2314067.

Web: [www.optechsoft.com](http://www.optechsoft.com)  
Email: [optechsoftwares@gmail.com](mailto:optechsoftwares@gmail.com)  
H.O: Coimbatore.  
B.O: Trichy, Chennai, Madurai.



PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**AN EFFECTIVE ALERTING SYSTEM OF SEWAGE  
MONITORING TO SECURE HUMANS BY IDENTIFYING  
THE TOXIC GASES**

**A THESIS**

*Submitted by*

**USHANANTHINI D. (20CAR17)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**


(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "AN EFFECTIVE ALERTING SYSTEM OF SEWAGE MONITORING TO SECURE HUMANS BY IDENTIFYING THE TOXIC GASES" is the bonafide work of USHANANTHINI D. (20CAR17) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*E.K. Vellingiriraj*  
Signature of the HOD with Date

Dr. E.K. VELLINGIRIRAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*C. Mani*  
Signature of the SUPERVISOR with Date

Mr. C. MANI, M.C.A., M.E.,  
Supervisor,  
Associate Professor,  
Department of Computer Science and  
Engineering,  
Nandha Engineering College,  
Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15.06.2022

*M. J. J. J.*  
INTERNAL EXAMINER

*M. J. J. J.*  
EXTERNAL EXAMINER

*M. J. J. J.*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.





Date:21/05/2022

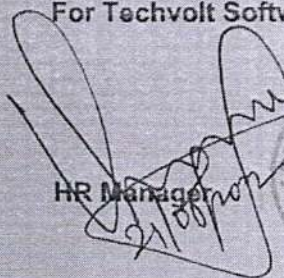

TO WHOMSOEVER IT MAY CONCERN

This is to inform you that Ms.Ushananthini D (Reg.No.20CAR17) student of MCA, Nandha Engineering College (Autonomous), Erode has successfully completed her internship project work in "IoT" at our company from January 2022 to May 2022. During the period she entitled her project work "An Effective Alerting System of Sewage Monitoring to Secure Humans by Identifying the Toxic Gases".

During the internship period her performance found to be good and satisfactory.

With Regards,

For Techvolt Software Pvt.Ltd

  
HR Manager  


  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.





**ATTENDANCE MANAGEMENT SYSTEM BY USING FACE  
RECOGNITION**

**A THESIS**

*Submitted by*

**KIRUBAA V. (20CAR21)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

**ERODE - 638052**

(Autonomous)

(Affiliated to Anna University, Chennai)

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "ATTENDANCE MANAGEMENT SYSTEM BY USING FACE RECOGNITION" is the bonafide work of KIRUBAA V. (20CAR21) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*[Handwritten Signature]*  
Signature of the HOD with Date

Dr. E.K.VELLINGIRIRAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*[Handwritten Signature]*  
Signature of the SUPERVISOR with Date

Mr. C. MANI, M.C.A., M.E.,  
Supervisor,  
Associate Professor,  
Department of Computer Science and  
Engineering,  
Nandha Engineering College,  
Erode-638052.

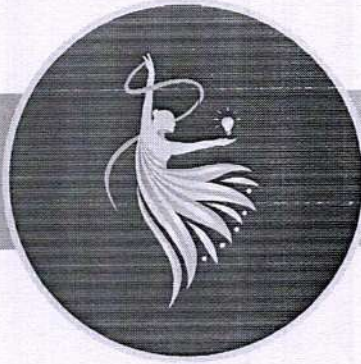
Submitted for Project and Viva-Voce Examination held on 15/06/2022.

*[Handwritten Signature]* 15.6.22  
INTERNAL EXAMINER

*[Handwritten Signature]* 15/6/22  
EXTERNAL EXAMINER



*[Handwritten Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



## The Reciprocal Solutions

WE CREATE ALTERNATE SOLUTIONS

### TO WHOM MAY IT CONCERN

This is to certify that V. Kirubaa has done his internship in Machine Learning Development in The Reciprocal Solutions, Coimbatore, from 3 Jan 2022 to 21 May 2022.

He has worked on a project titled Attendance Management System by using Face Recognition. During his internship he has demonstrated his skills with self-motivation to learn new skills. His performance exceeded our expectations and he was able to complete the project on time.

We wish him all the best for his upcoming career.

*V. Kishore Karthi*

**Kishore Karthi**  
[FOUNDER]



*Kavin Raja*

**Kavin Raja**  
[CO-FOUNDER]



thereciprocalsolutions.com



97915 97993



thereciprocalsolutions@gmail.com



N302 Third Floor,  
Socrates Block, SNS College of Engineering,  
Saravanampatti, Tamil Nadu-641035.

*N. J.*  
**PRINCIPAL,**  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**PREDICTION OF ENVIRONMENTAL POLLUTION USING  
NEURAL NETWORK**

**A THESIS**

*Submitted by*

**DHANALAKSHMI R. (Reg No. 20CAR03)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



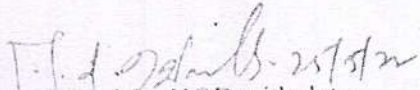
  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)  
(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "PREDICTION OF ENVIRONMENTAL POLLUTION USING NEURAL NETWORK" is the bonafide work of DHANALAKSHMI R (20CAR03) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

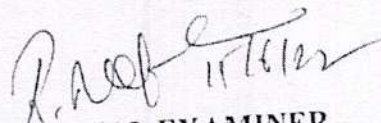
  
Signature of the HOD with date

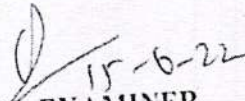
Dr. E. K. Vellingiriraj, ME., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode - 638052.

  
Signature of the SUPERVISOR with date

Ms. N. Zahira Jahan, M.C.A., M.Phil.,  
Associate Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode - 638052.

Submitted for the Project and Viva-Voce examination held on 15/06/2022

  
INTERNAL EXAMINER

  
EXTERNAL EXAMINER



  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# XPRESS Technology India

347-D2, SLI Complex, 3<sup>rd</sup> Floor, 7<sup>th</sup> street, Gandhipuram,  
Coimbatore, Tamilnadu, IN - 541012, Ph:9791930199

Date.....

23.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.R.DHANALAKSHIMI (Reg.No:20CAR03), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "PREDICTION OF ENVIRONMENTAL POLLUTION USING NEURAL NETWORK" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

Project Manager



[xpresstechnology.in](http://xpresstechnology.in)

Mail : [xpressteepro@gmail.com](mailto:xpressteepro@gmail.com)



PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**SOFTWARE VULNERABILITY CLASSIFICATION  
USING NEURAL NETWORK**

**A THESIS**

*Submitted by*

**MADESHWARAN S(Reg No. 20CAR07)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE – 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "SOFTWARE VULNERABILITY CLASSIFICATION USING NEURAL NETWORK" is the bonafide work of MADESHWARAN S (20CAR07) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*H. K. Vellingiriraj* 25/5/22

Signature of the HOD with date

Dr. E. K. Vellingiriraj, M.E., Ph.D.,

Professor and Head,

Department of Computer Applications,

Nandha Engineering College,

Erode-638052.

*N. Zahira Jahan* 25/5/22

Signature of the SUPERVISOR with date

Ms. N. Zahira Jahan, M.C.A., M.Phil.,

Associate Professor,

Department of Computer Applications,

Nandha Engineering College,

Erode-638052.

Submitted for the Project Viva-Voce examination held on 15.06.2022

*P. N. S. Srinivasan*

INTERNAL EXAMINER

*[Signature]* 15-6-22

EXTERNAL EXAMINER



*[Signature]*  
 PRINCIPAL,  
 NANDHA ENGINEERING COLLEGE  
 (AUTONOMOUS)  
 ERODE - 638 052





# FALCON INFOTECH

140-c, 2<sup>nd</sup> Floor, Ponmani Tower, Avarampalayam Road,  
New Sidhapudur, Coimbatore- 641 044


Date:.....

21.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.S.MADESWARAN (Reg.No:20CAR07), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "SOFTWARE VULNERABILITY CLASSIFICATION USING NEURAL NETWORK" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

  
Project Manager



  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

Mob : 7397183676 , Web: falconinfotec.in

Mail : falconinformationtech@gmail.com

# HEART DISEASE IDENTIFICATION USING MACHINE LEARNING METHODOLOGIES

A THESIS

*Submitted by*

**VIGNESHKUMAR S (20CAR18)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

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**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "HEART DISEASE IDENTIFICATION USING MACHINE LEARNING METHODOLOGIES" is the bonafide work of VIGNESHKUMAR S (20CAR18) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T.K. Vellingiriraj*  
Signature of the HOD with date

Dr. E.K.Vellingiriraj, M.E.,Ph.D.,  
Professor And Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*N. Zahira Jahan* 25/5/22  
Signature of the SUPERVISOR with date

Ms.N.Zahira Jahan, M.C.A.,M.Phil.,  
Associate Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

Submitted for the Project and Viva-Voce Examination held on 15/06/2022

*T.K. Vellingiriraj* 15.6.22  
INTERNAL EXAMINER

*M. g...* 15/6/22  
EXTERNAL EXAMINER



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# FALCON INFOTECH

140-c, 2<sup>nd</sup> Floor, Ponmani Tower, Avarampalayam Road,  
New Sidhapudur, Coimbatore- 641 044

Date:.....

20.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student **Mr.S.VIGNESHKUMAR** (Reg.No:20CAR18), from the Department of **MCA** studying in **NANDHA ENGINEERING COLLEGE (AUTONOMOUS)** has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "**HEART DISEASE IDENTIFICATION USING MACHINE LEARNING METHODOLOGIES**" in our organization during the period from **January 2022 to May 2022**.

During this project period his performance was good. We wish him all the best for a successful Future.

*V. Bansi*

Project Manager



Mob : 7397183676 , Web: falconinfotec.in

Mail : falconinformationtech@gmail.com

*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

# A PROFICIENT PRIVACY PROTECTION METHOD FOR CLOUD COMPUTING

A THESIS

*Submitted by*

**VIJAY S (20CAR19)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "A PROFICIENT PRIVACY PROTECTION METHOD FOR CLOUD COMPUTING" is the bonafide work of VIJAY S. (20CAR19) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T. T. V. Vellingiriraj*  
Signature of the HOD with date

Dr. E.K.VELLINGIRIRAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*N. Zahira Jahan* 25/5/22  
Signature of the SUPERVISOR with date

Ms. N. Zahira Jahan, M.C.A., M.Phil.,  
Associate Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

Submitted for the Project and Viva-Voce Examination held on 15.06.2022

*T. T. V. Vellingiriraj* 15.6.22  
INTERNAL EXAMINER

*M. J. Jeyaraj* 15/6/22  
EXTERNAL EXAMINER



*N. Jeyaraj*  
PRINCIPAL  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# Optech Software India (P) Ltd

Date.....

20.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.S.VIJAY (Reg.No:20CAR19), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "A PROFICIENT PRIVACY PROTECTION METHOD FOR CLOUD COMPUTING" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager

OPTECH SOFTWARE INDIA PRIVATE LTD  
399, SHANMUGAM STREET, RAMANATHAPURAM,  
OPP TO NILGIRIS, COIMBATORE.

#20, First Floor,  
Vinayagar Kovil Street,  
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Coimbatore - 641045. Ph : 0422 2314067.  
Mob +91 98422 90667

Web: www.optechsoft.com  
Email: optechsoftwares@gmail.com  
H.O: Coimbatore.  
B.O: Trichy, Chennai, Madurai.

PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



**DETECTION AND CLASSIFICATION OF FRUIT DISEASES  
USING IMAGE PROCESSING**

**A THESIS**

*Submitted by*

**MANIKANDAN R (Reg No. 20CAR08)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATIONS**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE - 638052**

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**



# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "DETECTION AND CLASSIFICATION OF FRUIT DISEASES USING IMAGE PROCESSING" is the bonafide work of MANIKANDAN R (20CAR08) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*M. A. Vellingiriraj 24/6/22*  
Signature of the HOD with Date

Dr. E.K. Vellingiriraj, M.E., M.B.A., Ph.D.,  
Head of the Department,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode - 638052.

*R. Navin Kumar 24/6/22*  
Signature of the SUPERVISOR with Date

Mr. R. Navin Kumar, M.C.A., M.Phil.,  
Assistant Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode - 638052.

Submitted for the Project Viva-Voce examination held on 15/06/2022

*R. Navin Kumar 15/6/22*  
Internal Examiner

*[Signature] 15-6-22*  
External Examiner



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# FALCON INFOTECH

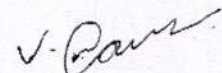
140-c, 2<sup>nd</sup> Floor, Ponmani Tower, Avarampalayam Road,  
New Sidhapudur, Coimbatore- 641 044

Date: 20.05.2022.....

## PROJECT COMPLETION LETTER

This is to certify that the student **Mr.R.MANIKANDAN** (Reg.No:20CAR08), from the Department of MCA studying in **NANDHA ENGINEERING COLLEGE (AUTONOMOUS)** has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "**DETECTION AND CLASSIFICATION OF FRUIT DISEASES USING IMAGE PROCESSING**" in our organization during the period from **January 2022 to May 2022**.

During this project period his performance was good. We wish him all the best for a successful future.

  
Project Manager



  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



Mob : 7397183676 , Web: falconinfotec.in

Mail : falconinformationtech@gmail.com

**MULTI-STRATEGY SENTIMENT ANALYSIS OF CONSUMER  
REVIEWS WITH PARTIAL PHRASE MATCHING**

**A THESIS**

*Submitted by*

**SNEHA S. (Reg No. 20CAR13)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

**ERODE - 638052**

(Autonomous)

(Affiliated to Anna University, Chennai)

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "MULTI-STRATEGY SENTIMENT ANALYSIS OF CONSUMER REVIEWS WITH PARTIAL PHRASE MATCHING" is the bonafide work of SNEHA S. (20CAR13) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T. J. A. Vellingiri Raj* 23/5/22  
Signature of the HOD with Date

Dr. E.K. Vellingiri Raj, M.E., Ph.D.,  
Head of the Department,  
Department of MCA,  
Nandha Engineering College,  
Erode - 638052.

*R. Navin Kumar* 23/5/22  
Signature of the SUPERVISOR with Date

Mr. R. Navin Kumar MCA., M.Phil.,  
Assistant Professor,  
Department of MCA,  
Nandha Engineering College,  
Erode - 638052.

Submitted for the Project Viva-Voce examination held on 15/06/2022

*R. Navin Kumar*  
15/6/22

Internal Examiner

*[Signature]*  
15-6-22

External Examiner



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# Optech Software India (P) Ltd

Date.....

21.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Ms.S.SNEHA (Reg.No:20CAR13), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed her final year project in our concern. Entire resource provided regarding this project, named "MULTI-STRATEGY SENTIMENT ANALYSIS OF CONSUMER REVIEWS WITH PARTIAL PHRASE MATCHING" in our organization during the period from January 2022 to May 2022.

During this project period her performance was good. We wish her all the best for a successful Future.

Project Manager

OPTECH SOFTWARE INDIA PRIVATE LTD  
35, SHANMUGAM STREET, RAMANATHAPURAM,  
UPP TO NEDURIS, COIMBATORE.

Opportunity Through Technology

#20, First Floor,  
Vinayagar Kovil Street,  
Krishnasami Nagar,  
Ramanatha Puram,  
Coimbatore - 641045. Ph : 0422 2314067.

Web: www.optechsoft.com  
Email: optechsoftwares@gmail.com  
H.O: Coimbatore.  
B.O: Trichy, Chennai, Madurai.



8422 90667

PRINCIPAL  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.

**DATA ANALYSIS OF CONSUMER COMPLAINTS IN  
BANKING INDUSTRY USING HYBRID CLUSTERING AND  
SENTIMENT ANALYSIS**

**A THESIS**

*Submitted by*

**SUJITHKUMAR S (Reg No. 20CAR14)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION  
ENGINEERING**

**NANDHA ENGINEERING COLLEGE**


**ERODE - 638052**

(Autonomous)

(Affiliated to Anna University, Chennai)

**MAY 2022**



  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "DATA ANALYSIS OF CONSUMER COMPLAINTS IN BANKING INDUSTRY USING HYBRID CLUSTERING AND SENTIMENT ANALYSIS" is the bonafide work of SUJITHKUMAR S. (20CAR14) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*[Signature]*  
Signature of the HOD with Date

*[Signature]*  
Signature of the SUPERVISOR with Date

Dr. E.K. Vellingiri Raj, M.E., Ph.D.,  
Head of the Department,  
Department of MCA,  
Nandha Engineering College,  
Erode - 638052.

Mr. R. Navin Kumar MCA., M.Phil.,  
Assistant Professor,  
Department of MCA,  
Nandha Engineering College,  
Erode - 638052.

Submitted for the Project Viva-Voce examination held on 15/06/2022

*[Signature]*  
-----

*[Signature]*  
-----

Internal Examiner

External Examiner



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# Optech Software India (P) Ltd

Date.....

20.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.S.SUJITHKUMAR (Reg.No:20CARI4), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "DATA ANALYSIS OF CONSUMER COMPLAINTS IN BANKING INDUSTRY USING HYBRID CLUSTERING AND SENTIMENT ANALYSIS" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

Project Manager

**OPTECH SOFTWARE INDIA PRIVATE LTD**  
399, SHANMUGAM STREET, RAMANATHAPURAM,  
OPP TO NILGIRIS, COIMBATORE.

#20, First Floor,  
Vinayagar Kovil Street,  
Krishnasami Nagar,  
Ramanatha Puram,  
Coimbatore - 641045. Ph : 0422 2314067.  
22 90667



Web: [www.optechsoft.com](http://www.optechsoft.com)  
Email: [optechsoftwares@gmail.com](mailto:optechsoftwares@gmail.com)  
H.O: Coimbatore.  
B.O: Trichy, Chennai, Madurai

PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



**ARMA BASED CROP YIELD PREDICTION USING  
TEMPERATURE AND RAINFALL PARAMETERS WITH  
GROUND WATER LEVEL CLASSIFICATION  
A THESIS**

*Submitted by*

**EMAYAVARMAN V. (20CAR20)**

*in partial fulfillment for the award of the degree of*

**MASTER OF COMPUTER APPLICATION**

**IN**

**DEPARTMENT OF COMPUTER APPLICATIONS**



**FACULTY OF INFORMATION AND COMMUNICATION**

**ENGINEERING**

**NANDHA ENGINEERING COLLEGE**

(Autonomous)

(Affiliated to Anna University, Chennai)

**ERODE – 638052**

**MAY 2022**



*[Signature]*  
**PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.**

# NANDHA ENGINEERING COLLEGE

(Autonomous)

(Affiliated to Anna University, Chennai)

## BONAFIDE CERTIFICATE

Certified that this Thesis titled "ARMA BASED CROP YIELD PREDICTION USING TEMPERATURE AND RAINFALL PARAMETERS WITH GROUND WATER LEVEL CLASSIFICATION" is the bonafide work of EMAYAVARMAN V. (20CAR20) who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported here in does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

*T. Vel. 24/5/22*  
Signature of The Hod with Date

Dr. E.K.VELLINGIRI RAJ, M.E., Ph.D.,  
Professor and Head,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

*R. Navinkumar 24/5/22*  
Signature of The Supervisor with Date

Mr.R.NAVINKUMAR,M.C.A.,M.Phil.,  
Assistant Professor,  
Department of Computer Applications,  
Nandha Engineering College,  
Erode-638052.

Submitted for Project and Viva-Voce Examination held on 15.06.2022

*T. Vel. 15.6.22*  
INTERNAL EXAMINER

*M. J. 15/6/22*  
EXTERNAL EXAMINER



*[Signature]*  
PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# XPRESS Technology India

347-D2, SLI Complex, 3<sup>rd</sup> Floor, 7<sup>th</sup> street, Gandhipuram,  
Coimbatore, Tamilnadu, IN - 641012, Ph:9791930199

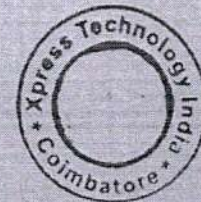
Date.....  
21.05.2022

## PROJECT COMPLETION LETTER

This is to certify that the student Mr.V.EMAYAVARMAN (Reg.No:20CAR20), from the Department of MCA studying in NANDHA ENGINEERING COLLEGE (AUTONOMOUS) has successfully completed his final year project in our concern. Entire resource provided regarding this project, named "ARMA BASED CROP YIELD PREDICTION USING TEMPERATURE AND RAINFALL PARAMETERS WITH GROUND WATER LEVEL CLASSIFICATION" in our organization during the period from January 2022 to May 2022.

During this project period his performance was good. We wish him all the best for a successful Future.

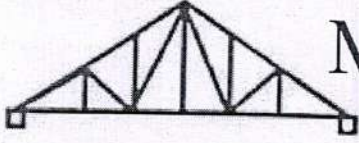
Project Manager



[xpresstechnology.in](http://xpresstechnology.in)

Mail : [xpresstecpro@gmail.com](mailto:xpresstecpro@gmail.com)

PRINCIPAL,  
NANDHA ENGINEERING COLLEGE  
(AUTONOMOUS)  
ERODE - 638 052.



# M. PONMANI INDUSTRIES

23,Chennimalai Road, Diesel Shed Opp, Erode -638001.


## TO WHOMSOEVER IT MAY CONCERN

This is certify that **Mrs.Aanandhi (Reg no.20BA001), II MBA (HR & Finance )** student in Nandha Engineering College, Perundurai has successfully completed her internship training program during the period from **7<sup>th</sup>March 2022 to 7<sup>th</sup>june 2022.**

During the above period she was found sincere, dedicated and hard working.

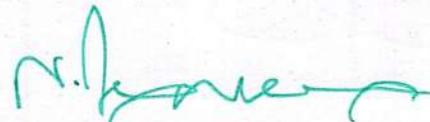
Thanking you,

For PONMANI INDUSTRIES

  
Proprietor

**PONMANI INDUSTRIES**  
23, Chennimalai Road,  
Diesel Shed (OPP),  
ERODE - 638 001





**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode 638 052.

This is to certify that **Ms. Aarthi B (Reg No. 20BA002)**, IInd year MBA (HR & Operation) student in Nandha Engineering College, Perundurai has successfully completed her internship training program during the period from 7<sup>th</sup> March to 31<sup>st</sup> May.

During the above period she was found sincere, dedicated and hard working.

We wish her all success in her future endeavors.

Regards,  
Ajay Alanki  
Talent Acquisition  
**Larsen & Toubro Infotech Ltd.**  
Phone : 8247814018



  
**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**



# NEPTUNE AUTOMATION

Manufacturer and Supplier of Battery Operated Vehicles and Solid Waste Management Equipments



NA023/2022

Date: 06-06-2022

## Certificate of Training and Completion

This certifies that

**Miss. Abharna.M.S, Nandha Engineering college, Erode**

Has Successfully completed Internship training of

**ACCOUNTS DEPARTMENT** in Our Organization

**From April 12 2022 to June 06 2022**



  
HR Manager





**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**

06.06.2022

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Mr. Antony Sham Kumar .C (Reg No. 20BA005)**, 2nd year MBA (HR & Finance) student of Nandha Engineering (Autonomous) College, Perundurai has successfully completed his project work during the period from **“07 March 2022 to 31 May 2022”**

During the above period he was found sincere, dedicated and hard working. We wish his all success in his future endeavour.

For Honeywell Creation,

Tiruppur



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

REGD OFFICE :

21-B/4, Murugasamy Lay-out,  
1st Street, Kongu Nagar,  
TIRUPUR - 641 607.

FACTORY :

Avishka Garden, S.F.NO:161/1B,  
Guruvayurappan Nagar (North),  
Poyampalayam, Tirupur -641 602

Ph : 0421 - 2485551, 2485552, 2485553, 2485554

Mob : 96293 63999 Fax : 0421 - 2485556

E-mail : honeywell@honeywellcreation.com

GSTIN : 33AAEFH4448R1ZX

IE Code No : 3206014191

DATE: 06.06.2022

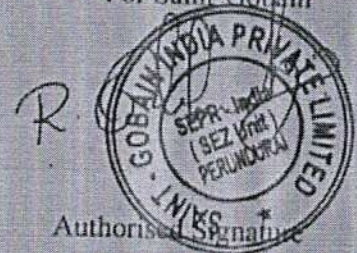
TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. G.Deepak (Reg.No.20BA006), 11<sup>th</sup> Year MBA (HR& Finance Management) student in Nandha Engineering college,Perundurai has successfully completed his internship training program during the period 07<sup>th</sup> Mar'22 to 23<sup>rd</sup> Mar'22.

During the above period he was found sincere, dedicated and hard working.

We wish his all success in his future endeavors.

For Saint-Gobain



*[Handwritten Signature]*  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

SAINT-GOBAIN INDIA PRIVATE LIMITED

SEPR INDIA

Perundurai Work: SEZ Unit, Plot No. S-23S-24, S25, S-37, S-40, S-41, SIPCOT Industrial Growth Centre -Engineering SEZ, Perundurai - 638052  
Erode Dt., Tamilnadu. Tel : 04294 - 331100, 04294 - 331200 Fax:04294 - 331104.

Regd. Office: Sigapf Aachi Building, Floor No.7, 1B/3 Rukmini Lakashimpaihy Road, Egmore, chennai - 600008, Tamil Nadu, India

CIN No : U26109TN1907PTC07875





# PRABHA GARMENTS

Mfrs. & Exporters of Hosiery Garments

DATE:

## TO WHOM SOEVER IT MAY CONCERN

This is to certify that Mr. ELAVARASAN.R (REG.NO: 20BA008)

II- MBA student of Nandha Engineering College (Autonomous) had done project work in our concern from 7<sup>th</sup> March 2022 to 7<sup>th</sup> June 2022.

During this period his conduct and character was found to be good.



PG: PRABHA GARMENTS

**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.



# NEPTUNE AUTOMATION

Manufacturer and Supplier of Battery Operated Vehicles and Solid Waste Management Equipments



NA023/2022

Date: 06-06-2022

## Certificate of Training and Completion

This certifies that

**Miss. Haripriya.G, Nandha Engineering college, Erode**

Has Successfully completed Internship training of

**HR DEPARTMENT** in Our Organization

**From April 12 2022 to June 06 2022**



  
HR Manager





**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**

Cell : 98433 - 94012  
97502 - 77888

# JAI MAARUTHI TEX

CLOTH MERCHANT

190, Birnda Street, ERODE - 638 001.

Date : .....

## TO WHOM SOEVER IT MAY CONCERN

This is to certify that Mr. HARISILP (REG.NO: 20BA011)

II- MBA student of Nandha Engineering College (Autonomous) had done project work in our concern from 7<sup>th</sup> March 2022 to 7<sup>th</sup> June 2022.

During this period his conduct and character was found to be good.

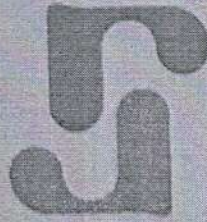
For JAI MAARUTHI TEX

*[Signature]*  
Proprietor



*[Signature]*

**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode 638 052.



# SUNRAJA

OIL INDUSTRIES PRIVATE LIMITED

88/1, Puliyankadu, Moolakkarai, Perundurai Main Road, Nasianur (P.O), ERODE – 638 107 (TN).

Phone : 0424 – 2556644, 2556664 | E-mail : [accounts@sunraja.com](mailto:accounts@sunraja.com) | Web : [www.sunraja.com](http://www.sunraja.com)

FSSAI No.: 10012042000132 | PAN No. : AAICS2682M

DATE: 1-6-2022

## TO WHOM SO EVER IT MAY CONCERN

This is to certify Mr.S.KANNAN (20BA014), student of NANDHA ENGINEERING COLLEGE has successfully completed his internship in the field of oil manufacturing from 7<sup>th</sup> March-2022 to 23 May-2022.

During the period of internship she was exposed to different processes and was found to be diligent and hardworking.

We wish her all the success in his career.

For Sunraja oil industries private limited,

Authorised signatory

Head of Human Resource Executive.



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.



2B.SENGUNDHA PURAM 5<sup>TH</sup> STREET,  
MANGALAM ROAD, TIRUPPUR- 641604

DATE: 01-06-2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify **Ms. M KOUSALYA (20BA015)**, student of **NANDHA ENGINEERING COLLEGE (AUTONOMOUS)** has successfully completed her internship training program during the period from March-2022 to May-2022

During the period of internship she was exposed to different processes and was found to be diligent and hardworking.

We wish her all the success in his career.

Factory Manager

For HERO FASHION

Operation Manager



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode 638 052



*The Salem Co-Operative Sugar Mills Ltd.,*

**ISO 9001 : 2000 QMS CERTIFIED SUGAR MILLS**

MOHANUR – 637 015, Namakkal District, Tamil Nadu.



CST. No. 413036  
TIN. No. 33513100028

ISO 9001:2008  
Reg. No. 663369

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that LEVIN HARRISSON (Reg No: 20BA017) is studying II-MBA in Nandha Engineering College, Erode. He has done for his project work in our Concern. During the Project period from 7<sup>th</sup> March 2022 to 7<sup>th</sup> June 2022.

Project period, he was found to be punctual, enthusiastic and taken keen interest in learning.

Thanking You,

For The Salem Co-op. Sugar Mills Ltd,



*V. Sathyanarayana*  
Office Manager I/C

*N. R. Srinivasan*

**PRINCIPAL**

**Nandha Engineering College  
(Autonomous)  
Erode - 638 052.**

Grams: "SALEMSUGAR"

Phone: EPABX: STD: 04286 - 255221, cell: 8903063266, Mohanur

E-MAIL: [sacos07@yahoo.co.in](mailto:sacos07@yahoo.co.in)

Fax: 04286 255264

"ஒளிமயமாக வாழ ஒன்றே போதுமே"

# ARUN FABRICS

(Printed Bed spreads, Printed Rolls, Drill, Sharteen Cloth)  
60-A, Thiruvengata Samy Street, Erode - 638001.  
Mobile: 93450 02388

Date: 06-06-2022

## TO WHOM SOEVER IT MAY CONCERN

This is to certify that Mr. MANIKANDAN.K (REG.NO: 20BA018)

MBA student of Nandha Engineering College (Autonomous) had done project work in our concern from 24<sup>th</sup> March 2022 to 27<sup>th</sup> May 2022.

During this period his conduct and character was found to be good.

Thanking You

*P. S. Sengupta*  
For Proprietor



*M. Sengupta*

PRINCIPAL  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

Email ID: [jegan@arunfabrics.in](mailto:jegan@arunfabrics.in)



# SANMA KNIT FASHIONS

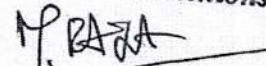
Mfrs & Exporters of Knitted Garments

Date: 31-05-2022

## Certificate

Certified that shri **R Manikandan** , MBA II Year Student of **NANDHA ENGINEERING COLLEGE , ERODE** has Undergone Internship training in the area of **Human Resource** at Sanma Knit Fashions During the period from **07/03/2022** to **31/05/2022**.

*For Sanma Knit Fashions*

  
Authorized Signatory





**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**

SF No. 173/B, D.No. 1/244C, Sri Ragavandhara Thottam, Kalampalayam, Pongupalayam Post,  
AVP School Backside, Tirupur - 641 666.

Factory : S.F.No. 305/3B, Alukuli Village, Gobipalayam (P.O), Gobichettipalayam (T.K), Erode District - 638 453.

E-mail : shan@sanmaknitfashions.com, Web : www.sanmaknitfashion.com

GSTIN : 33ABFFS7425R1ZK, PAN : ABFFS7425R



# PHOENIX FASHION

Sf No 323/1c, Nochipalayam, Karaipudur Village, Tirupur - 641 605.  
Cell : 97870 70782 | Email : phoenixfashion3@gmail.com | GSTIN : 33AYLPR2280G1ZB

DATE :08/06/2022

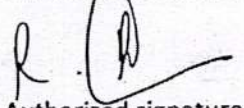
TO WHOM IT MAY CONCERN

This is to certify Ms. S.MANJUBASINI (20BA020), student of NANDHA ENGINEERING COLLEGE has successfully completed her internship in the field of garment manufacturing from March-7 2022 to June-7 2022.


During the period of internship she was exposed to different processes and was found to be diligent and hardworking.

We wish her all the success in her career .

For PHOENIX FASHION

  
Authorized signature



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode 638 052.



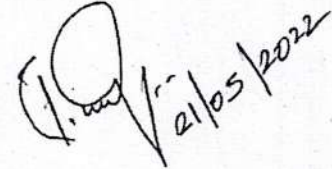
स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED  
सेलम इस्पात संयंत्र  
SALEM STEEL PLANT

Ref No TR-15(4)/034842

21/05/2022

## Certificate

Certified that **Shri NARENDRA KUMAR.K,MBA, II year student of NANDHA ENGINEERING COLLEGE, ERODE** has undergone Internship Training in the area of **MARKETING** at Salem Steel Plant during the period from **01/04/2022 to 21/05/2022**.

  
21/05/2022

R Ulaganathan

GM(HRD&CSR)





**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode 638 052.

सेलम - 636 013 तमिलनाडु दूरभाष : 0427-238 3021 फॅक्स : 0427-238 2800  
Salem-636 013 Tamil Nadu Phone : 0427-238 3021 Fax : 0427-238 2800

ई-मेल : genladmn@sailssp.in वेबसाइट : www.sail.co.in  
E-mail : genladmn@sailssp.in Website : www.sail.co.in

हर किसी की ज़िन्दगी से जुड़ा हुआ है सैल

There's a little bit of SAIL in everybody's life

**CoralKnit  
wear**

Manufacturing and Export of Knitted,  
Ready Made Garments



No.62/1, 60 Feet Road, Maruthachalapuram,  
Kumarananthapuram, Tirupur-641602,  
Tamil Nadu, INDIA.  
Tel. 914214352050, 4341224.  
E-mail : kandasamy@coralknitwear.com  
accounts@coralknitwear.com

**TO WHOMSOEVER IT MAY CONCERN**

Date: 03-06-2022


This is to certify that Mr. **Nishaanth.G (20BA022)** an MBA student with the specialization of HR & Finance from Nandha Engineering College (Autonomous), Erode has been successfully completed his project work at Coral Knit Wear on "**HUMAN RESOURCES POLICIES & ITS IMPLEMENTATION**" in our company from 7<sup>th</sup> March 2022 to 31<sup>st</sup> May 2022.

During this tenure period, we found him dedicated, punctuality, hardworking and his character was good.

We hereby certify that his overall performance was good to the best of our knowledge. We wish him good luck for his future endeavour.

For CORAL KNIT WEAR  
  
Partner



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

# KMS TVS PRIVATE LTD.,



94, Lakshmi Nagar,

Erode Road,

Bhavani-638 315.

Phone: +91 90951 43915

Email: kmstv@gmail.com

Date: 03-06-2022

## TO WHOM SOEVER IT MAY CONCERN

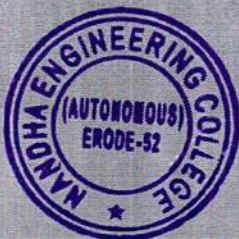
This is to certify that Mr. PON SHANKAR.B (REG.NO: 20BA023)


II- MBA student of Nandha Engineering College (Autonomous) had done project work in our concern from 28<sup>th</sup> March 2022 to 20<sup>th</sup> May 2022.

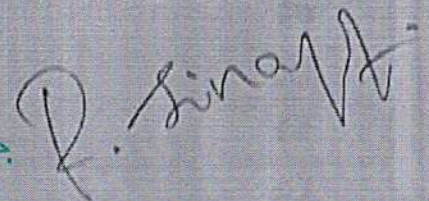
During this period his conduct and character was found to be good.

Thanking you

For KMS TVS, Bhavani



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.





+91 94421 70000

+91 99523 77777

rnd@podaranfoods.com

www.podaranfoods.com

TO WHOM SO EVER IT MAY CONCERN

This is to certify that L.Ranjith kumar (Reg No : 20BA025) is studying MBA in Nandha Engineering College , Erode . He has done for his project work in our Concern, During the Project period from 7<sup>th</sup> March 2022 to 7<sup>th</sup> June 2022.

Project period, he was found to be punctual enthusiastic and taken keen interest in learning,

Thanking you,



  
**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**

For PODARAN FOODS INDIA PRIVATE LIMITED

  
AUTHORISED SIGNATORY

**Podaran Foods India Private Limited**

**Unit-1**

D.No. 6/110-8,  
Malapalayam, Chitampalayam, Palayakottai (Kaspa) Village,  
Nathakadaiyur - 638 108. Kangayam T.K, Tirupur Dist. Tamil Nadu. INDIA

**Unit-2**

Plot No. 12, 13, 18, 19,  
SrInl Food Park, Mogili Village, Bangarupalayam Mandal,  
Chittoor - 517 429. Andhra Pradesh. INDIA



**POPPYS Knit Wear Pvt. Ltd.,**

**DATE:**

**TO WHOM SOEVER IT MAY CONCERN**

This is to certify that Mr. SARAN,B (REG.NO: 20BA026)

II- MBA student of Nandha Engineering College (Autonomous) had done project work in our concern from 7<sup>th</sup> March 2022 to 7<sup>th</sup> June 2022.

During this period his conduct and character was found to be good.

Thanking you

For Poppys knit wear, Tiruppur



**MANAGER**

**PRINCIPAL**

**Nandha Engineering College  
(Autonomous)**

**Erode 638 052.**

**33, M.P.Nagar, Kongu Nagar Extn,  
Tiruppur, Tamil Nadu – 641 607**

**Phone : +91 421 2221144 / 55 / 66.**

**Email : info@poppysknitwear**



[www.poppysonline.com](http://www.poppysonline.com)

## PROJECT COMPLETION CERTIFICATE

June 6, 2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. SIVARANJANI S (Reg no: 20BA028), IInd year MBA (HR & OPERATION) student in Nandha Engineering College, Perundurai has successfully completed her project work in our concern during the period from 07th March 2022 to 31st May 2022.

During the above period she was found sincere, dedicated, and hard working.

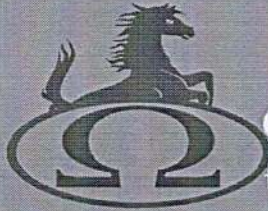
We wish her all success in her future endeavours.

Thanking You,

Regards,  
Ajay Alanki  
Talent Acquisition  
**Larsen & Toubro Infotech Ltd.**  
Phone: 8247814018



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.



**omega**  
techniks India (P) Ltd

DATE: 1-6-2022


## TO WHOMSOEVER IT MAY CONCERN

This is to certify Ms.P.SOUNDARYA (20BA030), student of NANDHA ENGINEERING COLLEGE has successfully completed her internship in the field of steel manufacturing from March-2022 to May-2022

During the period of internship she was exposed to different processes and was found to be diligent and hardworking.

We wish her all the success in his career.

For Omega techniks India private limited,



Authorised Signatory,



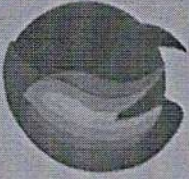
No. 2B, Sidco Industrial Estate, (NP), 6th Street, Ambattur, Chennai – 600098.

Phone: +9144430 99654 E-mail: [contact@omegatechniks.com](mailto:contact@omegatechniks.com) / [www.omegatechniks.com](http://www.omegatechniks.com)



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.





# NEPTUNE AUTOMATION

Manufacturer and Supplier of Battery Operated Vehicles and Solid Waste Management Equipments



NA023/2022

Date: 06-06-2022

## Certificate of Training and Completion

This certifies that

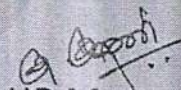
**Miss. Sriranjani.S, Nandha Engineering college, Erode**

Has Successfully completed Internship training of

**HR DEPARTMENT** in Our Organization

From **April 12 2022** to **June 06 2022**



  
HR Manager



  
**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**


25.05.2022

## COMPLETION CERTIFICATE

This is to certify that SURIYARANJINI.R(REG NO:20BA032)Final Year MBA student of Nandha Engineering College(Autonomus) she Has successfully completed her main project in "A STUDY ON EMPLOYEE WELFARE PERTAINING TO SATISFACTION IN AKSHERA PAPER MILL WITH REFERENCE TO SATHYAMANGALAM "from 07/03/2022 to 20/05/2022. All necessary details were provided from our side for the establishment of this project and during this period her performance was good. We wish the very best in her future endeavors.

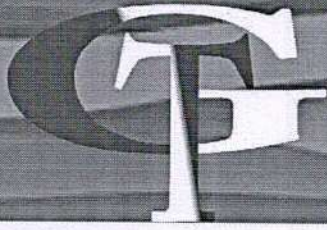


Akshera Papers

  
(Authorized Signatory)



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.



**GALVANX TECHNOLOGY**

*way to career*

Date : 25-05-2022

**To Whom It May Concern**

Certified that Shri **K.SUTHAKAR**, **MBA II** year student of **NANDHA ENGINEERING COLLEGE, ERODE** has undergone Internship Training in the area of Human Resource at Erode, Galvanx Technology during the period from 1/4/2022 to 21/5/2022.

We wish her every success in life.



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

**GALVANX TECHNOLOGY**

2<sup>ND</sup> FLOOR NITHIN COMPLEX, NEAR OLD BUS  
STAND, PERUNDURAI-638052



DATE: 1-6-2022

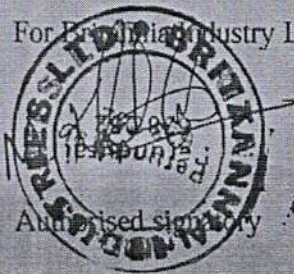
## TO WHOMSOEVER IT MAY CONCERN

This is to certify Ms.S.VASUKI (20BA034), student of NANDHA ENGINEERING COLLEGE has successfully completed her internship in the field of Biscuits manufacturing from 7<sup>th</sup> March-2022 to 31<sup>st</sup> May-2022

During the period of internship she was exposed to different processes and was found to be diligent and hardworking.

We wish her all the success in his career.

For Britannia Industry Limited,



Head of Human Resource Executive.

Britannia Industry Limited  
Plot No MM9 Sipcot Industries Growth Centre, Ingur,  
Perundurai - 638052, Erode Dist, Tamil Nadu.  
CIN NO: U18204TZ2010PTC016384  
Website :WWW.britannia.co.in



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

# INFRA TEX

No.326,PSG MILL PREMISES, COVAI MAIN ROAD,  
PERUNDURAI Ho, PERUNDURAI, ERODE(Dt)- 638 052  
Cell : 04294-221436,222326

Date: 03-06-2022

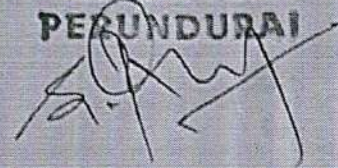
## TO WHOM SOEVER IT MAY CONCERN

This is to certify that Mr. VENKATESHIWARAN.M  
(REG.NO: 20BA035) II- MBA student of Nandha Engineering College  
(Autonomous) had done project work in our concern from 28<sup>th</sup> March 2022  
to 20<sup>th</sup> May 2022.

During this period his conduct and character was found to be good.

Thanking you

INFRA TEX  
PERUNDURAI



Email ID: srisakthiinfra@gmail.com



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

To Whom It May Concern


Certified that Shri R. VISHNU VARTHAN, MBA II year student of NANDHA ENGINEERING COLLEGE, ERODE has undergone Internship Training in the area of Human Resource at Erode, KOUSIC & CO during the period from 1/4/2022 to 21/5/2022.

We wish him every success in life.

For KOUSIC & CO



PARTNER



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.



# Arrow Garments

ISO CERTIFIED COMPANY - ISO 9001:2008

Tel : 0421 - 2424863  
Fax : 0421 - 2426480  
Mobile : 95664 37370  
E - Mail : mani@arrowgarments.in  
: sales@arrowgarments.in  
Web : www.arrowgarments.in

DATE:

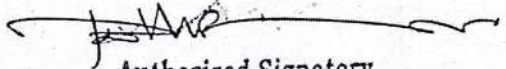
## TO WHOM SOEVER IT MAY CONCERN

This is to certify that Mr. ABINESH.R (REG.NO: 20BA037)

II- MBA student of Nandha Engineering College (Autonomous) had done project work in our concern from 7<sup>th</sup> March 2022 to 7<sup>th</sup> June 2022.

During this period his conduct and character was found to be good.

For ARROW GARMENT

  
Authorized Signatory



  
**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052.

SF 14, Kadir Nagar, (Opp. to Selvi Furniture), Kangayam Road, TIRUPUR - 641 604. S.INDIA.

TIN No : 33362423099  
CST : 761632 DT. 17-10-2000  
NSIC : NSIC/GP/COI/2016/0022747

AIRFORCE : 2015/CLMO/QAS/06  
INDIAN NAVY : A4248K  
DGQA : 667-25/11/2010

Textile Committe : TIP - 04588  
AEPC : 200905  
IEC : 3200004568



# NEPTUNE AUTOMATION

Manufacturer and Supplier of Battery Operated Vehicles and Solid Waste Management Equipments



NA023/2022

Date: 06-06-2022

## Certificate of Training and Completion

This certifies that

**Mr. Kishorekumar.V, Nandha Engineering college, Erode**

Has Successfully completed Internship training of

**ACCOUNTS DEPARTMENT** in Our Organization

**From April 12 2022 to June 06 2022**



  
HR Manager



  
**PRINCIPAL**  
**Nandha Engineering College**  
**(Autonomous)**  
**Erode - 638 052.**





# SCM TEXTTILE PROCESSING MILLS

( A UNIT OF SCM GARMENTS PVT. LTD.,)

Quality Processors and Exporters of 100% Cotton Knitted Fabrics

29-C, Marapalam Road, KAS Nagar, Karungalpalayam (East), Erode - 638 003. (India)

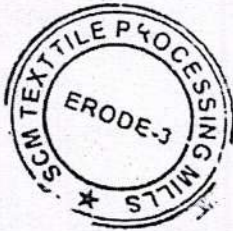
Ph.: 91-424-2210888, 2213171, 2227098 E-Mail : scmtpm@scmgroups.com

Ref. SCMTPM /

Date : 21/05/2022

## Certificate

Certified that Shri SABARI.K,MBA student of NANDHA ENGINEERING COLLEGE, ERODE has undergone Internship Training in the office area of HR ( HUMAN RESOURCES ) at SCM TEXTTILES PROCESSING MILLS during the period from 01/04/2022 to 21/05/2022

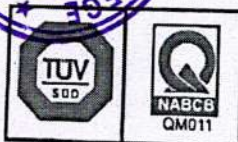


For SCM Texttile Processing Mills,

Authorized Signatory.



**PRINCIPAL**  
Nandha Engineering College  
(Autonomous)  
Erode - 638 052



H.O. : 57, V.O.C. Nagar (South), Valayankadu, Tirupur - 641 603. INDIA.

Phone : 91 - 421 - 4319888 , Fax : 91 - 421 - 2248889