IMAGE DENOISING IN EDGE DETECTION USING CONVOLUTIONAL NEURAL NETWORK(CNN)

A PROJECT REPORT

Submitted by

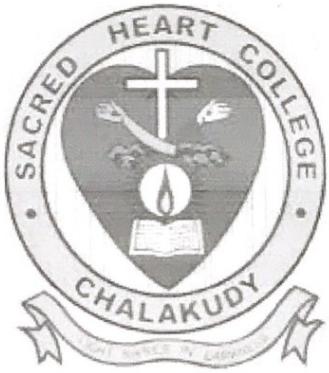
ASWINI.P.A

For the award of the Degree of

Master of Science

In Computer Science

(University of Calicut)



Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+ grade(CGPA 3.28 outof 4)

Chalakudy - 680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"IMAGE DENOISING IN EDGE DETECTION USING CONVOLUTIONAL NEURAL NETWORK"** Submitted by **ASWINI PA** (SHAVMCS001) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs.Julie.P.A
Assistant Professor

DEPT. OF COMPUTER SCIENCE
Date ....
SACRED HEART COLLEGE CHALAKUDY

Department of Computer Science
Sacred Heart College,Chalakudy

9/8/2023
Dr. Sr. Mini.TV
Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Place: Chalakudy

Date: 10/8/23

Certified that the candidate was examined by us in the Project Viva Voice Examination held on .....10/8/23.....and her Register Number is .....SHAVMCS001...

Examiners

1. Dr. Soni P.M.
2. JULIE. P. A

star innovations
your digital horizon

Date: 07/08/2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Aswini P A (SHAVMCS001),** *Final semester Master in Computer Science Student of Sacred Heart College , Chalakudy has successfully completed her Academic Main project work titled* **'Image Denoising in Edge Detection using Convolutional Nural Network'** *in* **MATLAB Platform** *in our concern during the period April 2023 - July 2023.*

Authorized Signatory

Phone: +91- 8301 813673 Email: info@starinnovations.in Website: www.starinnovations.in

ROBUST VIDEO ANOMALY DETECTION METHOD WITH AUTOENCODER ARCHITECTURE

A PROJECT REPORT

Submitted by

BLESSY BABY

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)

Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+ grade (CGPA 3.28out of 4)

Chalakudy-680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"ROBUST VIDEO ANOMALY DETECTION METHOD WITH AUTOENCODER ARCHITECTURE"** submitted by **BLESSY BABY** (SHAVMCS002) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Sindhu T

Assistant Professor

DEPT. OF COMPUTER SCIENCE
SACRED HEART COLLEGE, CHALAKUDY

9/8/2023

Dr. Sr. Mini.TV

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Department of Computer Science

Sacred Heart College, Chalakudy

Place: Chalakudy

Date: 10/08/2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on ...10/08/2023.....and her Register Number is ...SHAVMCS002...

Examiners

1. Dr. Soni P.M

2. JULIE. P. A

IMAGE WATERMARKING USING LEAST SIGNIFICANT BIT AND CANNY EDGE DETECTION

A PROJECT REPORT

Submitted by

FANSILA P J

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)

Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+ grade (CGPA 3.28 out of 4)

Chalakudy - 680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled "IMAGE WATERMARKING USING LEAST SIGNIFICANT BIT AND CANNY EDGE DETECTION" submitted by FANSILA P J(SHAVMCS003) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Julie P A

Assistant Professor

DEPT. OF COMPUTER SCIENCE * Date .... * SACRED HEART COLLEGE, CHALAKUDY

Department of Computer Science

Sacred Heart College, Chalakudy

Dr. Sr. Mini.TV 9/8/2023

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Place: Chalakudy

Date: 10-8-2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on .....10-8-2023.....and her Register Number is ...SHAVMCS003.....

Examiners

1. Dr. Soni P.M

2. JULIE. P. A

star innovations
your digital horizon

Date: 07/08/2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Fansila P J (SHAVMCS003),** *Final semester Master in Computer Science Student of Sacred Heart College , Chalakudy has successfully completed her Academic Main project work titled* **'Image watermarking Using Least Significant Bit And Canny Edge Detection '** *in* **MATLAB Platform** *in our concern during the period April 2023 - July 2023.*

Authorized Signatory

Phone: +91- 8301 813673 Email: info@starinnovations.in
Website:

A MENTAL HEALTH CHATBOT USING RECURRENT NEURAL NETWORK

A PROJECT REPORT

Submitted by

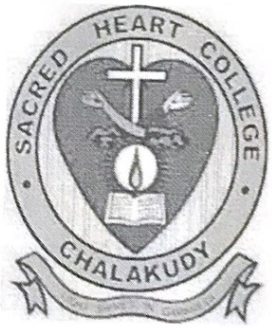
JESTEENA JOY

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)



Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut

Re-accredited with A+ grade (CGPA 3.28 out 4)

Chalakudy-680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"A MENTAL HEALTH CHATBOT USING RECURRENT NEURAL NETWORK"** submitted by **JESTEENA JOY**(SHAVMCS004) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Dr. Jisha Jose Panackal
Assistant Professor

Dr. Sr. Mini.TV
Head of Department

9/8/2023

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Department of Computer Science

Sacred Heart College, Chalakudy

Place: Chalakudy

Date: 10-08-2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on ....10-08-2023.....and her Register Number is ..SHAVMCS004...

Examiners

1. Dr. Soni P.M.
2. JULIE.P.A

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Ph: +919947299050, 9645755742 E-mail: rk@purpose3dtech.com

Date of Issuance: 29-07-2023

To Whom It May Concern

This is to certify that **Ms. Jesteena Joy (SHAVMCS004)**, student of Msc. Computer Science, Sacred Heart College, Chalakudy has successfully completed the project training on the topic **'A Mental Health Chatbot by Using Recurrent Neural Network (RNN)'** held at Purpose Technology LLP from April 2023 to July 2023. As per our measurement, the candidate was excellent during the training period.

For Purpose Technology LLP

For PURPOSE TECHNOLOGY LLP

Radhakrishnan A D
CEO Designated Partner

PURPOSE TECHNOLOGY LLP
PIN-683 513
N. PARAVUR

UNDER WATER IMAGE CLASSIFICATION

Submitted by

KRISHNANJANA M G

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)

Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+ grade (CGPA 3.28 out 4)

Chalakudy-680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"A NOVEL METHOD FOR UNDERWATER IMAGE CLASSIFICATION USING INCEPTION V3"** submitted by **KRISHNANJANA.M.G.** (SHAVMCS005) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Sindhu T

Assistant Professor

Dr. Sr. Mini.TV

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Department of Computer Science

Sacred Heart College, Chalakudy

Place: Chalakudy

Date: 10/8/2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on 10/8/2023 and her Register Number is SHAVMCS005.

Examiners

1. Dr. Soni P.M.

2. JULIE. P.A

CERTIFICATE

This is to certify that the project report entitled **"A NOVEL METHOD FOR UNDERWATER IMAGE CLASSIFICATION USING INCEPTION V3"** submitted by **KRISHNANJANA.M.G.** (SHAVMCS005) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Sindhu T

Assistant Professor

Dr. Sr. Mini.TV

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Department of Computer Science

Sacred Heart College, Chalakudy

Place: Chalakudy

Date: 10/8/2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on 10/8/2023 and her Register Number is SHAVMCS005.

Examiners

1. Dr. Soni P.M.

2. JULIE. P.A

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ate of Issuance: 29-07-2023

To Whom It May Concern

This is to certify that **Ms. Krishnanjana M.G (SHAVMCS005)**, student of Msc. Computer Science, acred Heart College, Chalakudy has successfully completed the project training on the topic **'Underwater mage Classification'** held at Purpose Technology LLP from April 2023 to July 2023. As per our neasurement, the candidate was excellent during the training period.

For Purpose Technology LLP

For PURPOSE TECHNOLOGY LLP

Radhakrishnan A D
CEO Designated Partner

PURPOSE TECHNOLOGY LLP * N. PARAVUR * PIN-683 513

WASTE AND NATURAL DISASTER IMAGE CLASSIFICATION USING MOBILENETV2 AND CNN

A PROJECT REPORT

Submitted by

NAVYA VASU

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)

Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+ grade (CGPA 3.28 out 4)

Chalakudy-680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"WASTE AND NATURAL DISASTER IMAGE CLASSIFICATION USING MOBILENETV2 AND CNN"** submitted by **NAVYA VASU** (SHAVMCS006) to University Of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Julie P.A

Assistant Professor

DEPT. OF COMPUTER SCIENCE * SACRED HEART COLLEGE, CHALAKUDY * Date .....

Department of Computer Science

Sacred Heart College, Chalakudy

9/8/2023

Dr. Sr. Mini.TV

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Place: Chalakudy

Date: 10/8/2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on .....10/8/2023.....and her Register Number is .....SHAVMCS.006..

Examiners

1 Dr. Soni P.M.

2 JULIE. P. A

HUMAN ACTIVITY RECOGNITION

A PROJECT REPORT

Submitted by

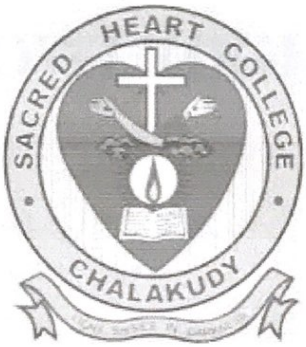
SANIKA M B

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)



Department of Computer Science

SACRED HEART COLLEGE
(Affiliated to the University of Calicut)

Re-accredited with A+ grade (CGPA 3.2 out 4)

Chalakudy - 680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"HUMAN ACTIVITY RECOGNITION"** Submitted by **SANIKA M B** (SHAVMCS007) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Deepa M

Assistant Professor

Department of Computer Science

Sacred Heart College, Chalakudy

Dr. Sr. Mini.TV

9/8/2023

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Place: Chalakudy

Date: 10/8/2023

Certified that the candidate was examined by us in the Project Viva Voice Examination held on 10/8/2023 and her Register Number is SHAVMCS007

Examiners

1. Dr. Soni P.M.

2. JULIE. P. A

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Date of Issuance: 29-07-2023

To Whom It May Concern

This is to certify that **Ms.Sanika M.B (SHAVMCS007)**, student of Msc. Computer Science, Sacred Heart College, Chalakudy has successfully completed the project training on topic **'Human Activity Recognition'** held at Purpose Technology LLP from April 2023 to July 2023. As per our measurement, the candidate was excellent during the training period.

For Purpose Technology LLP

For PURPOSE TECHNOLOGY LLP

Radhakrishnan A D
CEO Designated Partner

PURPOSE TECHNOLOGY LLP PIN-683 513 N. PARAVUR

REVEALING INFLUENCE OF METEOROLOGICAL CONDITIONS ON AIR QUALITY PREDICTION

Submittedby

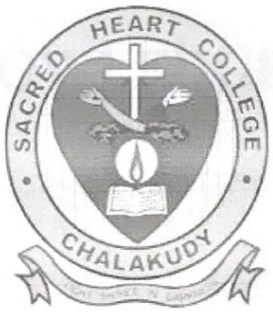
SREELAKSHMI

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)



Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+grade (CGPA 3.28 out of 4) .

Chalakudy - 680307

MARCH 2023

CERTIFICATE

This is to certify thatthe project report entitled**"REVEALING INFLUENCES OF METEOROLOGICAL CONDITIONS ON AIR QUALITY PREDICTION"** submitted by **SREELAKSHMI** (SHAVMCS008) to University of Calicut for the award of the Degree of Master of Science(M.Sc.) in Computer Science is a bonafide record of the project work carried out by her undermy supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs.Deepa M

Assistant Professor

DEPT. OF COMPUTER SCIENCE
Date .....
SACRED HEART COLLEGE, CHALAKUDY

Department of Computer Science
Sacred Heart College, Chalakudy

9/8/2023
Dr.Sr.Mini.TV

Head of Department

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Sacred Heart College
Chalakudy - 680 307

Place:Chalakudy

Date:

Certified that the candidate was examined by us in the Project Viva Voce Examination held on..10/8/2023.....and her Register Number is..SHAVMCS008.....

Examiners

1. Dr. Soni P.M

2. JULIE. P. A

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Date of Issuance: 29-07-2023

To Whom It May Concern

This is to certify that **Ms. Sreelakshmi (SHAVMCS008)**, student of Msc. Computer Science, Sacred Heart College, Chalakudy has successfully completed the project training on the topic **'Revealing Influence of Meteorological Conditions on Air Quality Prediction'** held at Purpose Technology LLP from April 2023 to July 2023. As per our measurement, the candidate was excellent during the training period.

For Purpose Technology LLP

FOR PURPOSE TECHNOLOGY LLP

Radhakrishnan A D
CEO

Designated Partner

PURPOSE TECHNOLOGY LLP ★ N. PARAVUR ★ PIN-683 513

TRANSFER LEARNING BASED REAL-WORLD ANOMALY DETECTION IN SURVEILLANCE VIDEOS USING FUSIONNET-LSTM-G

A PROJECT REPORT

Submitted by

SREELAKSHMI P M

For the award of the Degree of

Master of Science (M.Sc.)

In Computer Science

(University of Calicut)

Department of Computer Science

SACRED HEART COLLEGE

(Affiliated to the University of Calicut)

Re-accredited with A+ grade (CGPA 3.28 out 4)

Chalakudy - 680307

MARCH 2023

CERTIFICATE

This is to certify that the project report entitled **"TRANSFER LEARNING BASED REAL-WORLD ANOMALY DETECTION IN SURVEILLANCE VIDEOS USING FUSIONNET-LSTM-G"** Submitted by **SREELAKSHMI P M**(SHAVMCS009) to University of Calicut for the award of the Degree of Master of Science (M.Sc.) in Computer Science is a bonafide record of the project work carried out by her under my supervision and guidance. The content of the report, in full or parts have not been submitted to any other Institute or University for the award of any other degree or diploma.

Mrs. Sindhu T

Assistant Professor

DEPT. OF COMPUTER SCIENCE * S.H. COLLEGE, CHALAKUDY * Date ....

Department of Computer Science

Sacred Heart College, Chalakudy

9/8/2023

Dr. Sr. Mini.TV

Head of Department

Dr. Mini T V, MCA, MPhil, PhD.
HOD, Dept. of Computer Science
Sacred Heart College
Chalakudy - 680 307

Place: Chalakudy

Date:

Certified that the candidate was examined by us in the Project Viva Voice Examination held on .....10/08/2023.....and her Register Number is .....SHAVMCS009.....

Examiners

1. Dr. Soni P.M
2. JULIE. P. A

star innovations
your digital horizon

Date: 07/08/2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Sreelakshmi P M (SHAVMCS009),** *Final semester Master in Computer Science Student of Sacred Heart College , Chalakudy has successfully completed her Academic Main project work titled* **'Transfer Learning Based Real-World Anomaly Detection in Surveillance Videos Using FUSIONNET-LSTM-G'** *in* **Python Platform** *in our concern during the period April 2023 - July 2023.*

Authorized Signatory

Phone: +91- 8301 813673 Email: info@starinnovations.in Website: www.starinnovations.in