



D. SYNTHIYA VINOETHINI

OBJECTIVE

To be an integral part of an industry in an ever-learning manner and to utilize my skills progressively so as to help my growth as well as that of the organization. I am working in to meet its ever-growing demands and have a successful and distinguished career.

CONTACT

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7010452334

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synthiyavinothini@gmail.com

ADDRESS:

No:9, Sathya nagar,
Opp to ABT Maruti car showroom,
Thathaneri post,
Madurai - 625018.

EDUCATION

PhD – Thiagarajar College of Engineering (Madurai)

PhD Title: Super Resolution of Satellite Images Using Deep Learning Techinques

Faculty: Information and Communication Engineering

Year of Award of Degree: 2021

M Tech – Applied Electronics : Karunya University (Coimbatore)

Year of Passing: May 2011

CGPA: 9.06 (First Class – 4 Gold Medals – Department Topper)

Project: Speaker Identification using PYKFEC

BE – Electronics & Communication Engg : Karunya University

Year of Passing: May 2009

CGPA: 8.31 (First Class with Distinction)

Project: Digital Controller for a Buck Converter based on VHDL

HSC –Bio Maths : Noyes Matric Hr Sec School (Madurai)

Year of Passing: March 2005

Percentage: 85.67% (First Class)

SSLC : Noyes Matric Hr Sec School (Madurai)

Year of Passing: March 2003

Percentage: 83% (First Class)

WORK/RESEARCH EXPERIENCE

UGC-Senior Research Fellow : Thiagarajar College of Engineering

01/04/2015–31/03/2020 (5 years)

Full Time Research Scholar : Thiagarajar College of Engineering

14/12/2013–31/03/2015 (1.4 years)

Assistant Professor : Nehru Institute of Engineering and Technology

06/06/2011–11/12/2012 (1.5 years)

Job Profile: Class Advisor for final year students

Subject Handled: Digital Signal Processing, Signals and Systems, Aircraft Electronics

ACHIEVEMENTS

- ❖ **Filed a patent** "Machine Vision Based, Automatic, Non-Destructive Testing of Fruits and Vegetables" with Patent Application No. 201941016140
- ❖ Paper titled, "Residual Dense Network for Pan-Sharpener Satellite data" Published in **IEEE Sensors Journal**
- ❖ Completed a **TEQIP sponsored project** on "Super resolution-based tree counting for urban forest monitoring in Madurai city" in 2016

AREAS OF INTEREST

- ❖ Deep Learning
- ❖ Digital Image Processing
- ❖ Machine Vision

TECHNICAL SKILLS

- ❖ Software: Matlab
- ❖ Language: C, C++, PYTHON, VHDL
- ❖ MS office proficient

PERSONAL TRAITS

- ❖ Sincere and hard working
- ❖ Quick Learning
- ❖ Good analytical skills
- ❖ Success oriented, outgoing with a positive attitude, and with a strong sense of responsibility.
- ❖ Ability to live and work in a group excellently

NPTEL COURSE COMPLETED

- ❖ Completed a 12-week course on "**DEEP LEARNING**" with a consolidated score of 71% (Roll No: NPTEL18CS41S11610253).

PATENT

- ❖ **Filed a patent** "Machine Vision Based, Automatic, Non-Destructive Testing of Fruits and Vegetables" with Patent Application No. 201941016140.

JOURNAL PUBLICATIONS

- ❖ "Residual Dense Network for Pan-Sharpener Satellite data", **IEEE Sensors Journal**, Volume.19, issue. 24, pp. 12279-12285, December 15, 2019. DOI: [10.1109/JSEN.2019.2939844](https://doi.org/10.1109/JSEN.2019.2939844).
- ❖ "Quaternion-Based Sparse Model for Pan-Sharpener of IRS Satellite Images", **Journal of the Indian Society of Remote Sensing**, Volume 46, Issue. 12, pp. 2069-2079, December 2018. DOI: <https://doi.org/10.1007/s12524-018-0878-8>.
- ❖ "Texture and morphology-based conductivity analysis of fuel cell-bipolar plate using scanning electron microscopic images", **Indian Journal of Engineering & Material Sciences**, Volume 24, pp.261-269, Aug 2017. DOI: <http://nopr.niscair.res.in/handle/123456789/43161>.
- ❖ "Saliency based multi-focus image fusion", **Australian Journal of Basic and Applied Sciences** Volume-5 Issue-5 pg:54-58 2016.
- ❖ "Speech Parameterization based on AM-FM model and its application in Speaker Identification using AANN", **International Journal of Advanced Computer Research (IJACR)** Volume-3 Number-1 Issue-9 March-2013.
- ❖ "A Survey on AM-FM Model of Speech for Speaker Identification", **International Journal of Trends in Electronics Engineering (IJTEE)** Volume-1 Issue-4 April-2013.

CONFERENCE PUBLICATIONS

- ❖ "Super Resolution Land Cover Mapping using Deep Multi Scale Residual Dense Network" presented in the **National conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIGP) 2019**.
- ❖ "Super Resolution Mapping of Trees for Urban Forest Monitoring in Madurai city Using Remote Sensing" presented in the **Workshop on Computer Vision Applications (WCVA) 2016** and published in **Springer LNCS**.
- ❖ "Super Resolution Based Tree Cover Estimation Using Satellite Images for Urban Forest Monitoring in Madurai City" has been published in the proceedings of the **5th International Conference on Innovations in Electronics and Communication Engineering (ICIECE-2016)** and accepted for publication in **Springer LNCS**.
- ❖ "Speaker Identification using PYKFEC and AANN" presented and published in the proceedings of **International Conference on Electronics and Computer Technology (ICECT 2011)**. The paper is listed in **IEEE Xplore** and indexed by both **El Compindex** and **ISI Proceeding**.
- ❖ "A Confidence Measure – based Score Fusion Technique to Integrate MFCC and Pitch for Speaker Verification" published in the proceedings of **International Conference on Electronics and Computer Technology (ICECT2011)**. The paper is listed in **IEEE Xplore** and indexed by both **El Compindex** and **ISI Proceeding**.
- ❖ "A Proficient Vocal Training System with Pitch Deflection using SHR" published in the proceedings of **International Conference on Electronics and Computer Technology (ICECT 2011)**. The paper is listed in **IEEE Xplore** and indexed by both **El Compindex** and **ISI Proceeding**.

MANAGEMENT SKILLS

- ❖ Good problem-solving ability and organizing skill.
- ❖ Possess excellent interpersonal, communication and organizational skill.
- ❖ Always ready to accept challenges

PERSONAL PROFILE

Sex : Female.
Marital Status : Married.
Spouse : D. Giffen Francis Samuel
Nationality : Indian.
Category : OBC
Date of Birth : 17th March 1988.

LANGUAGE KNOWN

English & Tamil (Read, Speak & Write).

- ❖ "Extraction of Frame Average PYKFEC for Speaker Identification using AANN" presented in **International Conference on Communication and Signal Processing (ICCOS 2011)**.
- ❖ "Integration of LPC based MFCC and Pitch for Speaker Verification" published in the proceedings of **International Conference on Communication and Signal Processing (ICCOS 2011)**.
- ❖ "Extraction of Features and Entropy Coding for Noise Robust Distributed Speaker Recognition" published in the proceedings of **International Conference on Communication and Signal Processing (ICCOS2011)**.
- ❖ "Reconfigurable Digital Controller for a Buck Converter based on FPGA" presented in the **National Conference on Recent Trends in Communication and Signal Processing**.
- ❖ "Parameterization of Speech Based on AM-FM Model with application to speaker identification using GMM" published in the proceedings of **National Conference on Emerging Trends in Communication and Signal Processing (NCETCSP 2011)**.

SYMPOSIUM

- ❖ Presented the work titled "Super Resolution for Reconstructing High Resolution Data from its Low Resolution" in **The Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP) – Doctoral Symposium 2016**.
- ❖ Paper titled "Building extraction from fine resolution map using pixel swapping" has been published in the proceedings of the **National Symposium On 'Geomatics for Digital India & Annual Conventions of Indian society of Geomatics and Indian society of remote sensing** December 2015.

WORKSHOPS/SEMINARS

- ❖ Attended a TEQIP – Phase II sponsored One Day workshop on "Research Paper Writing" organized by Thiagarajar College of Engineering, Madurai.
- ❖ Attended a TEQIP – Phase II sponsored Two Day workshop on "SAR Image Processing" organized by Thiagarajar College of Engineering, Madurai.
- ❖ Attended a Two Days' National seminar on "Land Use/Land Cover changes and its Impact: Spatial Challenges and Geospatial Technologies" organized by the School of Earth and Atmospheric Sciences, Madurai Kamaraj University.
- ❖ Attended a Two Days' workshop on "Image Processing" organized by Sethu Institute of Technology in association with **Computer Society of India**.
- ❖ Attended a one-day workshop on "Wireless Network Applications using QUALNET 5" organized by **Applied Digital Micrologics India Pvt. Ltd.**, Coimbatore

DECLARATION

I hereby declare that all the above given details are true to the best of my Knowledge.

Place: Madurai

Yours Truly

Date:

(D.Synthiya Vinothini)