



ANNAMACHARYA UNIVERSITY

EXCELLENCE IN EDUCATION; SERVICE TO SOCIETY
(ESTD, UNDER AP PRIVATE UNIVERSITIES (ESTABLISHMENT AND REGULATION) ACT, 2016)
Rajampet, Annamayya District, A.P – 516126, INDIA

Faculty Profile

Basic Information:

NAME : Dr. FAHIMUDDIN SHAIK
DESIGNATION : Associate Professor
DEPARTMENT : ECE
DATE OF BIRTH : 06-02-1983
DATE OF JOINING : 12-08-2006
EMAIL ID : sfmaits@gmail.com
: sfn@aiterajampet.ac.in
EMPLOYEE ID : 59



Academic Profile:

Qualification	Name of the Board/University	YEAR
Ph.D.	Sun Rise University, Rajasthan	2016
M. Tech	JNTU, Hyderabad	2007
B. Tech	JNTU, Hyderabad	2005

Research Details:

1. Areas of Specialization	:	Digital Image Processing
2. No. of Publications	:	119
3. Awards Received	:	<ul style="list-style-type: none">• Early Career Research Award (ECRA) Scheme by SERB (DST) in August 2016 as Co-Principal Investigator for the project titled “Feature Extraction from Medical Images Related to Tuberculosis Bacilli and Study of ADR on Quality of TB Patient Life Undergoing Short Course Observed Treatment” with a sanctioned grant of ₹34.6 Lakhs• AGAR - Research Excellence Award 2023 from the <i>Association of Global Academician and Researchers (AGAR)</i>, Tirupattur, Tamil Nadu on 16th May 2023 in recognition of active contributions to research and innovation.
4. Research Guidance		



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	No. of PhD Guided	:	05 (Under Guidance)
	No. of MTech. Guided	:	20
	No. of B.Tech. Guided	:	53 Batches
5. Details of Professional Membership :			Senior Member - IEEE, US Life Member-ISTE, India Life Member - BMESI, India
6. Subjects Taught	:		Digital Image Processing Cellular Mobile Communications Optical Fiber Communication Design Thinking and Innovation Signals and Systems Analog Communication Digital Communication Electromagnetic Waves and Transmission Lines Antenna and Wave Propagation Electronic Devices and Circuits Radar Engineering Wireless Communications and Networks Digital Signal Processing Probability Theory and Stochastic Processes Nano Electronics

Publication Details:

Title	Publisher	Published Year
Detection of Cardio Vascular abnormalities using gradient descent optimization and CNN	Springer Science and Business Media Deutschland GmbH	2024
Smart Reflection Surface with Low Complexity and Maximum Sum Capacity Using MIMO System	Springer	2025
Image Segmentation Using a Robust Fuzzy Subspace Clustering Approach	Springer	2025
Time-Related Fading Channels for Minimization of Energy Consumption in Wireless Networked Control Systems	Springer	2025
Experimental investigation to analyze cognitive impairment in diabetes mellitus	Springer Verlag	2019
Enhancing Breast Cancer Detection Through Optimized Thermal Image Analysis Using PRMS-Net Deep Learning Approach	Springer Nature	2025
Diabetic Retinopathy: Detection of Exudates and Glaucoma	Springer Science and Business Media Deutschland GmbH	2016
Design of Optimal Waste Management System Using IOT and Machine Learning Technique in Educational Institutions	Springer Science and Business Media Deutschland GmbH	2024
Facemask Detection Using Bounding Box Algorithm Under COVID-19 Circumstances	Springer Science and Business Media Deutschland GmbH	2024



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Detection of lung cancer in CT scans using grey wolf optimization algorithm and recurrent neural network	Springer Science and Business Media Deutschland GmbH	2022
Programmable Wireless World with Reconfigurable Intelligent Surfaces for High Speed and Low Noise Data Transmission	Springer	2025
Artifacts correction in MRI images	Springer Verlag	2017
Advanced Brain Tumor Diagnosis using Haralick Texture Features and Multiclass SVM in MRI Imaging	Institute of Electrical and Electronics Engineers Inc.	2024
Integrated Methodology for Early Glaucoma Diagnosis Using Retinal Fundus Images	Institute of Electrical and Electronics Engineers Inc.	2024
Retinal Vessel Tracking Using Gaussian and Radon Methods	Springer Science and Business Media Deutschland GmbH	2021
Machine Learning Analysis of Free Convection Flow through a Porous Medium in a Third-Grade Vertical Channel: A Comprehensive Exploration	Institute of Electrical and Electronics Engineers Inc.	2024
Enhancement of Cerebral and Retinal Vascular Structures Using Hessian Based Filters	Springer Science and Business Media Deutschland GmbH	2021
Design and Implementation of Theft Detection using YOLO based Object Detection Methodology and Gen AI for Enhanced Security Solutions	Institute of Electrical and Electronics Engineers Inc.	2025
Enhanced multi-grade diabetic retinopathy detection and classification via ensembled deep learning model from retinal fundus images	Elsevier Ltd	2025
UART Implementation for RFID Modules with Various FPGA Technologies	Springer	2025
Optimization of Cluster Head Selection Using Bacterial Foraging Algorithm for Energy-Efficient Routing in Wireless Body Area Networks	Institute of Electrical and Electronics Engineers Inc.	2025
Optimizing Image Quality and Information Content with NSCT -PCNN Fusion for Medical and Remote Sensing Image	Institute of Electrical and Electronics Engineers Inc.	2024
VIP Development of SPI Controller for Open-Power Processor-Based Fabless SOC	Springer	2023
A Tuberculosis Management Through ADR Study, Feature Extraction and Medical Bio Informatics	Springer Science and Business Media Deutschland GmbH	2021
AI-Enhanced Analysis of Unsteady Convection in Copper-Water Nanofluid Flow over a Vertically Moving Porous Plate	Institute of Electrical and Electronics Engineers Inc.	2024
Automated Glaucoma Detection and Classification via Deep Neural Networks and Feature Extraction	Institute of Electrical and Electronics Engineers Inc.	2024



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An Effective Clustering-Based Color Image Segmentation via Substantial Extracted Features	Springer	2025
Spiral cone-beam CT reconstruction	Springer Verlag	2017
Comprehensive Methodology to the Detection and Classification of Emotion in Human Face using EMOTE-Net	American Scientific Publishing Group (ASPG)	2025
An IoT Framework to Support Rural Population with Diabetic Related Issues via Optimization Algorithms	Springer Science and Business Media Deutschland GmbH	2024
Design of a power efficient ALU using reversible logic gates	Springer Verlag	2019
Multi-modal Medical Novel Image Fusion by Using DTNP Systems	Springer	2025
Retinal Boundary Segmentation in OCT Images Using Active Contour Model	Springer Science and Business Media Deutschland GmbH	2023
Making Cell-Free Massive MIMO Using MRC Technique	Springer	2023
UAV Position Optimization Using PSO and SWIPT	Institute of Electrical and Electronics Engineers Inc.	2024
An Enhanced Image Processing Model for Earlier Detection and Analysis of Diabetic Foot Hyperthermia Through Cognitive Approach	Springer Science and Business Media Deutschland GmbH	2022
Revolutionizing E-Commerce Customer Support: Advanced AI-Powered Chatbots for Enhanced User Experience & Operational Efficiency	Institute of Electrical and Electronics Engineers Inc.	2025
A Comprehensive Study on Significance of Optimization Algorithms Applied in Various Fields for Better Results	Springer	2025
Speckle Reduction for the SAR Images Using an Improved Truncated Variational Method—Based Array	Springer	2025
Automatic Segmentation of Retinal Blood Vessel Using the Homomorphic Filter and Multilevel Algorithm	Springer	2025
Image Dehazing Using Improved Dark Channel and Vanherk Model	Springer Science and Business Media Deutschland GmbH	2023
Performance Evaluation of GA, HS, PSO Algorithms for Optimizing Area, Wirelength Using MCNC Architectures	Springer Science and Business Media Deutschland GmbH	2024
Innovative Lung Cancer Diagnosis Using the AIReM-Net Hybrid Approach	Institute of Electrical and Electronics Engineers Inc.	2025
Smart Filtering Strategy for Enhancing ECG Signal Quality via Improved Kalman Filter for Gaussian Noise	Institute of Electrical and Electronics Engineers Inc.	2024
Superpixel Driven Multispectral Image Fusion for Enhanced Remote Landscape Analysis	Institute of Electrical and Electronics Engineers Inc.	2024



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Detection and analysis of Diabetic Myonecrosis using an improved hybrid image processing model	Institute of Electrical and Electronics Engineers Inc.	2016
A Novel Optimization for Detection of Foot Ulcers on Infrared Images	Institute of Electrical and Electronics Engineers Inc.	2017
Glaucoma Screening Using Vessel Segmentation	Institute of Electrical and Electronics Engineers Inc.	2024
Multimodal Medical Image Fusion Using Minimization Algorithm	Springer	2023
Diabetic Myonecrosis	Springer Science and Business Media Deutschland GmbH	2016
Hybrid model for analysis of abnormalities in diabetic cardiomyopathy and diabetic retinopathy related images	SpringerOpen	2016
Integrated Deep Learning Methodology for Early Glaucoma Detection and Diagnosis using Retinal Fundus Images	Institute of Electrical and Electronics Engineers Inc.	2024
Unsupervised Segmentation of Image Using Novel Curve Evolution Method	Springer Science and Business Media Deutschland GmbH	2021
An integrated method for detecting lung cancer via CT scanning via optimization, deep learning, and IoT data transmission	Frontiers Media SA	2024
Image Segmentation with Complex Artifacts and Correction of Bias	Springer Science and Business Media Deutschland GmbH	2021
Colour Image Segmentation Using Random Walker Approach	Springer	2025
Enhancing Remote Sensing Image Quality with Advanced ADMM-Based Stripe Noise Removal	Institute of Electrical and Electronics Engineers Inc.	2025
Extreme Learning Machine (ELM) Algorithm for the Detection of Diabetic Retinopathy	Institute of Electrical and Electronics Engineers Inc.	2024
Optimizing Natural Language Understanding: A Comprehensive Study of Python's Top Libraries	Institute of Electrical and Electronics Engineers Inc.	2024
A Sparse Code Multiple Access for 5G Radiotransmission	Springer Science and Business Media Deutschland GmbH	2024
Lung Nodule Classification and Detection Using SVM-CAD	Springer Science and Business Media Deutschland GmbH	2024
Integrated Rasnet Model for Efficient Automated Assessment and Sorting of Leaf Diseases in Agriculture	Institute of Electrical and Electronics Engineers Inc.	2024
Improved Spectral Efficiency Using Vehicular Visible Light Communication with 16-Bit DCO in OFDM	Springer Science and Business Media Deutschland GmbH	2024
PAPR and SER Performance Analysis of OFDMA and SCFDMA	Springer Science and Business Media Deutschland GmbH	2024
Implementation of Improved High Speed SHA-256 Algorithm from RTL to GDSII Using Verilog HDL	Springer Science and Business Media Deutschland GmbH	2024
Message from the Publication Committee	Institute of Electrical and Electronics Engineers Inc.	2017



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Perimeter Degree Technique for the Reduction of Routing Congestion during Placement in Physical Design of VLSI Circuits	Hindawi Limited	2022
An Improved Harmony Search Approach for Block Placement for VLSI Design Automation	Hindawi Limited	2022
Optic Disk Segmentation for Glaucoma Detection in Retinal Images	Springer Science and Business Media Deutschland GmbH	2021
Cardiovascular Disease Detection through Integrated Spectral Analysis and Deep Learning	Institute of Electrical and Electronics Engineers Inc.	2024
Optimization of Area and Wirelength Using Hybrid BPSO Algorithm in VLSI Floorplan and Placement for IC Design	Springer Science and Business Media Deutschland GmbH	2024
Integrating IoT, Computational Analysis, and Genetic Insights for Improved Accessibility and Early Intervention	Institute of Electrical and Electronics Engineers Inc.	2024
Design and Development of Fossil Image Segmentation System Using Hybrid Evolutionary Algorithms	Springer	2025
Exploring Diabetic Retinopathy Diagnosis: Insights from a Comprehensive Literature Review and Initial Fundus Image Analysis	Institute of Electrical and Electronics Engineers Inc.	2024
DEEP LEARNING-BASED CONGESTION CONTROL IN VLSI FOR PLACEMENT AND ROUTING	Little Lion Scientific	2024
Exploring the Landscape of Diabetic Retinopathy Diagnosis: Insights from Extensive Literature Review and Preliminary Fundus Image Analysis	Institute of Electrical and Electronics Engineers Inc.	2024
Geometric programming-based automation of floorplanning in ASIC physical design	Springer Verlag	2019
Design of a low-power low-kickback-noise latched dynamic comparator for cardiac implantable medical device applications	Springer Verlag	2018
Holistic Evaluation of UPMC, FBMC, and F-OFDM Modulation Schemes for Enhanced Spectral Efficiency in 5G Communication Networks	Institute of Electrical and Electronics Engineers Inc.	2025
Emotion Recognition from Physiological Signals Using Ensembled Machine Learning Strategy	Institute of Electrical and Electronics Engineers Inc.	2024
Image Processing Methods Utilized	Springer Science and Business Media Deutschland GmbH	2016
Systematic Review and Development of Advanced CNN Models for Enhanced Diagnostic Accuracy in Retinal Diseases	Institute of Electrical and Electronics Engineers Inc.	2025
Food Detection with Image Processing Using Convolutional Neural Network (CNN)	Springer Science and Business Media Deutschland GmbH	2024
Modified Brainstorm Optimization for Enhanced Energy-Efficiency in Wireless Sensor Networks with Low Energy Clustering	Institute of Electrical and Electronics Engineers Inc.	2024



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Improved Spectral Efficiency and Channel Estimation Parameters in Visible Light Vehicular Communication by Integrating Simulation of Urban Mobility Data	Institute of Electrical and Electronics Engineers Inc.	2025
Cell-Free Massive MIMO Versus Small Cells	Springer	2023
Blockchain-Enhanced Convolutional Neural Networks for Efficient Detection of Cardiovascular Abnormalities	CRC Press	2024
Home Automation without Internet to Run Electrical Devices	Institute of Electrical and Electronics Engineers Inc.	2024
Dynamic AP-UE Association and Power Allocation in Sparse LSFD for Energy-Constrained Networks	Institute of Electrical and Electronics Engineers Inc.	2025
Enhancing Image Analysis with Hybrid Fuzzy C-Means Clustering For Embracing Data Complexity and Uncertainty	Institute of Electrical and Electronics Engineers Inc.	2024
Exploring New Horizons in Real-Time Emotion Detection through Machine Learning	Institute of Electrical and Electronics Engineers Inc.	2024
LinBGN-Net: A Unified Linguistic Framework for Multi-Task Text Classification in Telugu Using BERT, GCN, and Naive Bayes	Bilingual Publishing Group	2025
Incorporating Grey Wolf Optimization and Recurrent Neural Networks for Accurate Brain Tumor Detection	Institute of Electrical and Electronics Engineers Inc.	2024
Visual quality improvement of CT image reconstruction with quantitative measures	Springer Verlag	2017
Intelligence Pest Detection and Control in Agriculture using Computer Vision and Deep Learning	Institute of Electrical and Electronics Engineers Inc.	2025
Revolutionizing Connectivity and Mobility for the Advancements in Vehicular Ad-Hoc Networks for Modern Challenges	Institute of Electrical and Electronics Engineers Inc.	2024
Detection and Analysis of Pulmonary TB Using Bounding Box and K-means Algorithm	Springer Science and Business Media Deutschland GmbH	2021
Implementation and Performance Evaluation of Improved Hybrid Deep Learning Approach for Anomaly Detection and Classification in Lung CT Images	Institute of Electrical and Electronics Engineers Inc.	2024
A Novel Bayesian Fusion Model for IR and Visible Images	Springer Science and Business Media Deutschland GmbH	2023
Introduction to Diabetes Related Causes and Overview of Image Processing Methods	Springer Science and Business Media Deutschland GmbH	2016
Forecasting of Diabetic Cardiomyopathy	Springer Science and Business Media Deutschland GmbH	2016



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Qualitative and quantitative analysis of segmentation of human retinal images	Springer Verlag	2011
A novel approach in ECG signal processing	Springer Verlag	2016
Medical image analysis of electron micrographs in diabetic patients using contrast enhancement	Springer Verlag	2010
Importance of Image Processing	Springer Science and Business Media Deutschland GmbH	2016
An improved model for analysis of diabetic retinopathy related imagery	Indian Society for Education and Environment	2016
DNA micro array analysis	Springer Verlag	2016
Lossless embedding using pixel differences and histogram shifting technique	Springer Verlag	2010
Image enhancement of leukemia microscopic images	Springer Verlag	2016
Talc embolism: Detection of talc deposition in lungs	Springer Verlag	2016
Image processing in diabetic related causes	Springer Singapore	2015
Hybrid model for analysis of abnormalities in diabetic cardiomyopathy	Springer Verlag	2016
Qualitative analysis of segmentation methods in detection of Atherosclerosis in Diabetic Patients	Springer Verlag	2010
Computational and Clinical Approach in Lung Cancer Detection and Analysis	Elsevier	2016
Fuzzy-neurologic in segmentation of MRI images	IEEE	2012
Ricean code-based compression method for Bayer CFA images	IEEE	2010



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Patent Details:

Title of Patent	Submitted/Published/Awarded
Computer-Implemented System for Analyzing Human Brain Images Using Functional Imaging Data	Published
System and Computer Implemented Methods for Analyzing Features of Digital Medical Images	Published
System and Computer Implemented Methods for Analyzing Features to Generate Sleep Disorder Insights	Published
Computer Implemented Method and System for Processing Qualitative Imaging to Detect and Forecast Abnormalities	Published
Computer-Implemented System for Optimizing Placement and Routing in Very-Large-Scale Integrated Circuit Design	Published
Computer automated method for Detection of Brain Tumor	Published
Method for Study and Detection of Tuberculosis	Published
Design and Development of A CAD System Using IR Thermograph Images to Detect Diabetic Foot Ulcers	Published
Method for Medical Image Analysis	Published



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