Faculty Profile

K.SAKTHI , M.E., (Ph.D)
HIGHLIGHTS: AP-SG/ECE/SEC

- Number of Journal Publications: 12
- H-Index: 03
- Patents Published: 05

PROFESSIONAL LINKS:

- Scopus ID: 57214664144
- Scopus Link: https://www.scopus.com/authid/detail.uri?authorId=57214664144 • Google Scholar ID: nyFiJdkAAAAJ&hl
- Anna University Faculty ID: 269138
- AICTE Faculty ID: 1-480258591
- LinkedIn: www.linkedin.com/in/sakthi-saravanan-7a715517

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 18 years 5 months

AREA OF SPECIALIZATION:

- MICROPROCESSOR AND MICROCONTROLLERS

- DIGITAL SYSTEMS

- DIGITAL COMMUNICATIONS

Ph.Ds AWARDED WITH DETAILS:

S:No Name of Scholar	Title of Thesis	Year of Completion	Full Time/Part Time
1. K.SAKTHI	NOVEL PARTITIONED TCAM BASED CONTENT INSPECTION SYSTEM FOR NEXT GENERATION SMART NICS	2025	PART TIME

PATENTS PUBLISHED/GRANTED:

1) Published Indian Patent:

Proposal Title: SYSTEM AND DEVICE FOR FALL DETECTION AND PREVENTION

Application No.202341014652 A, Publication Date : 17/03/2023

2) Published Indian Patent:

Proposal Title: IOT AND MACHINE LEARNING BASED WIRELESS SENSOR NETWORK

Application No.202341061395 A, Publication Date : 06/10/2023

3) Design Patent:

   Proposal Title: SMART FITNESS TRACKER DEVICE

   Application No.406688-001

   Design Accepted and Published, Journal No is 17/2024 and Journal Date is 26/04/2024

   4) Published UK Patent:

   Proposal Title: HEART ATTACK PRE-DIAGNOSIS TOOL

   Design number:6375587 Publication Date : 10/07/2024

   5) Design Patent:

   Proposal Title: MULTI-SENSOR FIRECRACKER EXPLOSION ANALYZING AND
WARNING DEVICE

   Design number:439652-001 Publication Date : 06/12/2024

COURSES CERTIFIED:
   ✔ NPTEL COURSE ON "ETHICS IN ENGINEERING PRACTICE" Aug 2024 ✔
   NPTEL COURSE ON "INTRODUCTION TO MACHINE LEARNING" Jan 2023 ✔
   NPTEL COURSE ON "DIGITAL CIRCUITS" July 2022
   ✔ NPTEL COURSE ON "MICROPROCESSORS AND MICROCONTROLLERS"
      Jan 2020

   ACHIEVEMENTS AND AWARDS:

   • Best Teacher Award at Sri Ganesh Engineering College,Puducherry.

   • Best Paper Award for the paper titled as "Recognition of Face using RIQ " in Second
      National Conference on VCAN 2010 at Easwari Engineering College.

CONFERENCES/SEMINARS/WORKSHOPS ORGANIZED/ATTENDED:

- Organized "Alumni Talk" on 'Sustainable Engineering and Green Technologieses' on March 1,2025 with Mr.Rajesh Rajendran, Assistant General Manager,Hyundai Motor India Ltd.Chennai.

- Organized "Voice of Alumni " on 'Grit and Growth Mindset:The key to long term Success' on March 1,2025 with Mr.Gopinath Janarthanan, Solution Architect,Data at CMS PSP Tech2i,Westfield,Indiana ,US.

- Organized a Webinar on Next-Gen Innovations: Unfolding the World of Flexible Electronics on OCT 25,2024 with Dr.Cross T. Asha Wise, Assistant Professor, SRMIST, Kattankulathur.

- Organised SEMINAR ON "STRUCTURE- PROPERTY RELATIONSHIP OF NANO MATERIALS FOR ELECTRONIC AND BIOMEDICAL APPLICATIONS" by Dr.PRADHEEP THIYAGARAJAN,Associate Professor, Department of Micro & Nanoelectronics, School of electronics engineering,VELLORE INSTITUTE OF TECHNOLOGY,Vellore on 25-10-2024 from 8 to 10 am

- Organised VOICE OVER BY ALUMNI on "Embedded Programming – Essential Hardware and Software Tools" by Mr.G.Kannan, Alumni, 2022 PG passed out, Application and sales Engineer at QMAX Test equipments, Chennai on 31-08-2024 from 10 am to 12 pm.

- Organised Webinar on 'Analog Circuits and VLSI Signal Processing' on 01-06-23. Guest honored is Dr. K. Mariammal, an esteemed Associate Professor in the Department of Electronic Engineering at MIT Campus, Anna University, Chennai.

- Organised Webinar on 'Digital Marketing strategies for real time applications' on 15-03-23. Guest honored is Keerti samata, Deputy divisional Manager,Gmmco CAT,CK Birla group,Chennai.

- Organised VOICE OVER BY ALUMNI on 'How to successfully turn dream into reality" on 07th MARCH 2023. Guest honored is Ms.Jayasree Rajendran,First alumni of sec,Director, BloomByond Wellness.

- Organised VOICE OVER BY ALUMNI on 'Discover your inner strength' on 03rd APRIL 2023. Guest honored is Ms.Ramya sekar , alumni of sec, Costume Designer (Media),Proprietor,Founder 'Swaras Design'Chennai.

- Organised WORKSHOP ON "HOW TO BE HAPPY ALL THROUGH YOUR LIFE?" HIDDEN SECRET UNLOCKED !" at 14.11.2022. Guest honored is R.S.Mani, the founder of ADCOM.I YEAR ECE(2022-26 SEC BATCH) are participants.41 students and 6 staffs attended.

- Organised SEMINAR ON "DIGITAL INTEGRATED CIRCUITS" on 16.09.2022. Guest honored is DR. P. MANGAYARKARASI,Professor/ECE,TAKSHASHILA UNIVERSITY,TINDIVANAM. I YEAR ECE(2022-26 SEC BATCH) are participants. 91 students and 4 staffs attended.

- Organised Guest Lecture on 'COMPUTER VISION USING OPEN CV' on 11th January,2018.Guest honored is Dr.V.Sathiesh kumar,Ph.D,Asst.prof,ECE,MIT,CHROMEPET. III YEAR ECE(2015-19 SEC BATCH) are participants. 91 students and 4 staffs attended.

- Organised Guest Lecture on 'FUTURE BUSINESS TRENDS' on 13thfebruary 2018. Guest honored is Mr.R.S.Mani,DIRECTOR-ADCOM. III YEAR ECE(2015-19 SEC BATCH) are participants. 93 students attended.

Participated in

- ✔ Participated in the 5-Days FDP on " Various Facets of technlology in health care" conducted by Department of Medical electronics and biomedical Engg., Saveetha Engineering college,sponsored by IEEE from 24.02.2025 to 28.02.2025

- ✔ Participated in the 6-Days FDP on " Building the Next Wave of Indian Startups with Advanced Computing Technologies" conducted by SUPREME KNOWLEDGE FOUNDATION GROUP OF INSTITUTIONS from 06/01/2025 to 11/01/2025.

- ✔ Participated in the 6-Days FDP on " Advanced Semiconductor Devices and AI Chips – Research Opportunities and Challenges at SRI VENKATESWARA COLLEGE OF ENGINEERING from 16/12/2024 to 21/12/2024.

- ✔ Participated in the 6-Days ATAL FDP on " From code to conductor:Enhancing semiconductor device models through machine learning" conducted by Department of ECE, Thiyagarajar college of Engineering,Madurai from 18.12.2023 to 23.12.2023

- ✔ Participated in the 6-Days FEP on " Recent Trends in Electronics,Signal Processing and networks" conducted by Department of ECE, Madras Insitute of Technology,Anna University,Chennai from 6.02.2023 to 11.02.2023
  - ✔ Participated in the 6-Days FDP on " Recent Trends in Modern Smart Intelligent Systems" conducted by Dr.MGR Educational and research Institute from 8.05.2023 to 13.05.2023

- ✔ Participated in the 5-Days FDP on "Road map for Paradigm shift in higher education" conducted by STLC,Department of ECE,Saveetha Engineering college from 14.02.2023 to 18.02.2023

- ✔ Participated in the 5-Days FDP on "Societal advances in wireless systems and emerging technologies" conducted by Department of ECE,Saveetha Engineering college from 23.01.2023 to 28.01.2023

- ✔ Participated in the seminar on "Insights to Metaverse, NFT and web based AR VR Apps" by Mr.R.Vijayarajan, Project Manager, Hogarth Worldwide, Chennai organized by Innovation Club and Institute Innovation Council of Saveetha Engineering College, Thandalam, Chennai on 24/09/2022.

- ✔ Participated in the 5-Day Online International FDP on "Current Trends in Information Technology" conducted by MEASI Institute of Information Technology from 26.09.2022 to 30.09.2022.

- ✔ Five days online FDP on "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 20th December,2021 to 24th December, 2021.

- ✔ Five days online FDP on Online Elementary FDP on "Internet of Things and Human Computer Interaction" from 25/10/2021 to 29/10/2021 at National Institute of Technology Goa.

- ✔ Webinar "Brain injury Detection Using Artificial Intelligence" organized by IEEE Mysore Subsection held on 2nd March 2022.

- ✔ Online Elementary FDP on "Recent Advancements in Social Internet of Things(SIoT)

and Industrial Internet of Things(IIoT)" from 14/02/2022 to 18/02/2022 at National Institute of Technology Puducherry.

✔ Seminar on "Primary Aspects of Technical Paper Writing" held on March 12, 2022 organized by the NDLI Club of Saveetha Engineering College.

✔ Three days FDP on "Citation management in scholarly writing – Tools and techniques" by Saveetha Engineering college from 24/09/2021 to 26/09/2021.

✔ Two day SSP Workshop on INTRODUCTION TO MACHINE LEARNING,Conducted by IIT,KHARAGPUR and sponsored by MHRD on 16,17th December 2017.

✔ One day FDP on 'Digital signal processing' conducted by EEE,DMI COLLEGE OF ENGINEERING,on November 28,2017.

✔ One day FDP on 'Insights into Research' conducted by SRM UNIVERSITY,on June 29,2017.

✔ Two Week ISTE STTP CMOS, Mixed Signal and Radio Frequency VLSI Design by IIT Kharagpur,sponsored by NMEICT, MHRD from January 30,2016 to February 4,2017

✔ One day National level workshop on "Recent Trends in communication" on 12thFebruary,2010 at Vel Tech Engg.Coll.

✔ Workshop on 4G Wireless Technology during 20-21stFeb, 2015 at MIT Campus, AU. ✔ Pre-Conference Workshop on "FPGA Based Embedded Processor Overview" at AU,Chennai.

✔ Workshop on "CYFI SOLUTIONS" conducted by CYPRESS SEMICONDUCTORS at AU,Chennai.

✔ Workshop on "IMAGE PROCESSING USING IDL" conducted by TIFAC CORE at VIT,Vellore.

✔ Workshop on "OMAP PROCESSOR" conducted by TEXAS INSTRUMENTS at AU,Chennai.

PROFESSIONAL MEMBERSHIPS:

✔ IETE Associate Member, Life Member No. AM-503496
✔ Indian Society of Technical Education (ISTE) Life Member No:84701 ✔ Member of Universal Association of Renewable Energy World, California.

PUBLICATIONS:

1. Sakthi Saravanan,Vasanth,Yaswanth Veerala,Vigneswaran, 2025, "Application of hand detection and motion detection using python and C# in raspberry pi" AIP CONFERENCE PROCEEDINGS, Volume 3159, Issue 1,9 January 2025,Scopus indexed,SNIP 0.291,ISSN : 0094243X

2. K. Sakthi, Karthick R, Dhanush G, 06 February 2025,"Low-Power SRAM Memory

using Sleepy-Stack Hybrid Power Gating Technique",IEEE Xplore, Scopus indexed, ISSN : 979-8-3315-1894-3

3. Sakthi K, Karthikeyan J, Jaya surya M, 10 January 2025,"Modified FIR Filter and High Speed Adder for Signal Processing Applications" IEEE Xplore, Scopus indexed, ISSN : 979-8-3315-1809-7

4. K SAKTHI & Dr.P.NIRMAL KUMAR, 2021, "A novel attention-based feature learning and optimal deep learning approach for network intrusion detection" Journal of Intelligent & Fuzzy Systems, vol. 45, pp.5123–5140, ISSN: 1064-1246, Annexure I

5. K Sakthi, S Yeswanth,T Yogadhanush, 09 February 2024,"Microbial Inactivation Under Pulsed Electric Field For Food Treatment Using AI", IEEE Xplore, Scopus indexed, ISSN : 979-8-3503-0551-7

6. K Sakthi, M Lekha, P A Manesha, 31 January 2024, "Exploring Active Machine Learning Techniques to Boost Classification Accuracy in Image and Text Models" IEEE Xplore, Scopus indexed, ISSN : 979-8-3503-8420-8

7. K Sakthi, R Ashwin Kumar,V Chidambaram,K Gokul Saran, 24 May 2023, "System for Real-Time Monitoring and Reporting of the Weather Based on the Internet of Things" IEEE Xplore, Scopus indexed, ISSN : 979-8-3503-4821-7

8. K Sakthi, D Abishek, M Arun Kumar, 24 May 2023, Reconfigurable Hardware Implementation of CNN Architecture using Zero by-pass Multiplier, IEEE Xplore, Scopus indexed, ISSN:979-8-3503-4821-7

9. K Sakthi;,Y Mohamed Sarim Zain, S Manoj Shakthi Raj, M Manickavasakar, 14 March 2023, IoT based Soil Monitoring and Control Systems, IEEE Xplore, Scopus indexed, ISSN: 978-1-6654-7467-2

10. K SAKTHI & Dr.P.NIRMAL KUMAR, 2021, "Minimizing Subtle Errors In Computing Information Of TCAM By Partial 'N' Search Key Implementation"

International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, Annexure I, Impact Factor: 1.51 .

11. K SAKTHI & Dr.P.NIRMAL KUMAR, 2020, 'Reconfigurable parallelized TCAM architecture based on enhanced static memory cell, Microprocessor and Microsystems, Elsevier, Vol.76, April 2020,No.102985 . pp. 1-6, ISSN: 0141-9331 (Annexure I, Impact Factor: 1.045)

12. K SAKTHI & Dr.P.NIRMAL KUMAR, 2020, 'Efficient soft error resiliency by multi match packet classification using scalable TCAM implementation in FPGA, Microprocessor and Microsystems, Elsevier, Vol. 74, April 2020,No.102985 pp. 1-6, ISSN: 0141-9331 (Annexure I, Impact Factor: 1.045)

International Conferences:

· Presented paper titled: "Design and analysis of low power counter using clock gating technique" at International conference on sustainable materials and technologies in VLSI and information processing, Organized by ECE,Kalasalingam Academy of research and education on 13,14 December,2024.

· Presented paper titled: "Wearable health status monitoring device for driver using zigbee based wireless sensor network" at International conference on research trends in semiconductor design and artificial intelligence, Organized by ECE, SNS college of technology on 28th,29th February ,2024.