

PERSONAL DETAILS AND AFFILIATION		
Name of the Faculty Member	C. K. Balasundari	
Designation	Assistant Professor (Senior Grade)	
Department	Electronics and Communication Engineering	
Date of joining the institution	5 th July, 2023	
Date of Birth	31 st July, 1991	
Address for Communication	Department of ECE, National Engineering College, K.R. Nagar, Kovilpatti-628 503	
Email ID	balasundari-ece@nec.edu.in, ckbalasundari91@gmail.com	

EDUCATIONAL QUALIFICATION				
S.NO.	QUALIFICATION	INSTITUTION STUDIED	UNIVERSITY / BOARD	YEAR OF PASSING
1	B.E. (ECE)	P. S. R. Engineering College, Sivakasi	Anna University	2012
2	M.E. (VLSI Design)	Mepco Schlenk Engineering College, Sivakasi	Anna University	2014
3	Ph.D (Pursuing)	Dr.Sivanthi Aditanar College of Engineering, Tiruchendur	Anna University	-

EXPERIENCE						
S.NO.	NAME OF THE INSTITUTION / ORGANIZATION	POSITION HELD	FROM	TO	EXPERIENCE	
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1	National Engineering College, Kovilpatti	Assistant Professor (Senior Grade)	01/07/2026	Till date (as on 26.07.2026)	0	1
2	National Engineering College,	Assistant Professor	05/07/2023	30/06/2026	3	0

	Kovilpatti					
3	Sri Shanmugha College of Engineering and Technology	Assistant Professor	19/10/2022	28/06/2023	0	8
4	Mistral Solutions Pvt Ltd, Bangalore	Intern-Hardware Design	04/04/2022	07/10/2022	0	6
5	Dr.Sivanthi Aditanar College of Engineering, Tiruchendur	Assistant Professor	02/07/2014	30/06/2020	6	0
Total Experience					10	3

STUDENT FUNDED PROJECTS				
S.NO.	NAME OF THE PROJECT	BUDGET OUTLAY (in Rs.)	FUNDING AGENCY	STATUS
1	AI-Driven Identification of Inedible Fish and Tetrodotoxin Extraction for Drug Addiction Therapy	15 LAKHS	MSME	Ongoing
2	Self-Powered Piezoelectric Hand-Held Tool for Real Rubber Tapping Depth Sensing and Feedback	3,000	FAER	Completed

LIST OF JOURNAL PUBLICATIONS	
1	Published a research paper titled "A Novel Message Verification System for Vehicular Interaction Network Using EMAC Algorithm" in IJAER, Volume 10, no. 7, 2015.
2	Published a research paper titled "Analysis of Carry Select Adder Using Zero Carry Look Ahead Adder" in IJIRCCE, Volume 4, issue 4, April 2016
3	Published a research paper titled "Diagnosing Retinal Diseases Using Image Processing Techniques" in IJIRCCE, Volume 4, issue 3, March 2016

LIST OF INTERNATIONAL CONFERENCE PUBLICATIONS (SCOPUS-INDEXED)	
1	A. Aruna, S. Ariya Ram, C. K. Balasundari and Lekha Shree. V, "Design and FPGA Implementation of A Carry - Care Approximate Adder with Reduced Error Probability," 2026 8th International Conference on Intelligent Sustainable Systems (ICISS), Tirunelveli, India, 2026, pp. 563-568, doi: 10.1109/ICISS67859.2026.11453622.
2	V. Sanjay, S. K. Shaghar, C. K. Balasundari and S. Sankara Kuttralam, "Design of Performance Centric Multiplier Architecture with Dynamic Adder Selection for Digital Signal Processing Applications," 2026 8th International Conference on Intelligent Sustainable Systems (ICISS), Tirunelveli, India, 2026, pp. 543-548, doi: 10.1109/ICISS67859.2026.11453608.
3	C. J. Alex, R. S. Aashish, C. K. Balasundari, S. Sulochana and E. Karthikeyan, "Design and FPGA Implementation of High-Speed Reconfigurable Hybrid Approximate Adder for Image Processing Applications," 2026 8th International Conference on Intelligent Sustainable Systems (ICISS), Tirunelveli, India, 2026, pp. 549-555, doi: 10.1109/ICISS67859.2026.11453578.

LIST OF INTERNATIONAL CONFERENCE PUBLICATIONS	
1	Ajay K, Aswin Kumar M, Manoj Kumar T, Pathmavathi N, Balasundari C.K. , " <i>Performance Comparison of ALU Using Vedic Multiplier and Karatsuba Multiplier</i> ," presented at the International Conference on Deep Tech and Sustainable Engineering Solution (ICoDSES 2026) , National Engineering College, Kovilpatti, Tamil Nadu, India, 26-27 March 2026 .
2	S. Suresh, R. Saravanan, V. Harishwar, T. Harish and C.K. Balasundari , "Design of a Power-Efficient Wallace Tree Adder Architecture for Hardware Accelerators" Proceedings of the 1st International Conference on Sustainable Materials and Technologies in VLSI and Information Processing (SMTVIP, 2024), December 13-14, 2024, Virudhunagar, India
3	C. Yureka, A. Menaga, S. Renga Priya, R. Salini Devi and C. K. Balasundari , "Design and VLSI Implementation of Power-Efficient Multiplier Architecture", Proceedings of the 1st International Conference on Sustainable Materials and Technologies in VLSI and Information Processing (SMTVIP, 2024), December 13-14, 2024, Virudhunagar, India
4	Presented a paper in the International conference, on the topic "Radix-4 real valued FFT" in PSR Engineering college, Sivakasi, 2017
5	Presented a paper in the "National conference , in topic Design of DIF-FFT Architecture using Floating point arithmetic" in PSR Engineering college,Sivakasi, 2016
6	Presented a paper in the "International conference, on the topic "Synthesis and Implementation of Floating Point Arithmetic Based CORDIC for Adaptive FFT Processor" in International Conference held at Karpagam College of Engineering,Coimbatore,2014

7	Presented a paper in the National conference, on the topic “Fingerprint Matching For Voting System Using Steganography” in CK College of Engineering and Technology, Cuddalore,2012.
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LIST OF NATIONAL CONFERENCE PUBLICATIONS

1	Presented a paper in the “National conference , on the topic “Implementation of ABS using Fuzzy logic “ in Dr.Sivanthi Aditanar College of Engineering, Tiruchendur,2018
2	Presented a paper in the National conference, on “Fuzzy logic based PID controller transportation system” in Dr.Sivanthi Aditanar College of Engineering, Tiruchendur, 2017
3	Presented a paper in the National conference, on the topic “Early Detection of Retinal Diseases using Image Processing Techniques” in Dr.Sivanthi Aditanar College of Engineering, Tiruchendur,2016

WORKSHOPS/SEMINARS /TRAINING PROGRAMMES ATTENDED

S.NO.	NAME OF THE PROGRAMME & VENUE	DATES WITH DURATION
1.	Faculty Development Programme on "System on Chip Design: From Basics to Applications", organized by the Teaching Learning Centre of Excellence (TLCE) in association with the School of Electronics Engineering (SENSE), Vellore Institute of Technology (VIT), Vellore	01-05 December 2025. 5 days
2.	Faculty Development Programme on "Semiconductor Devices and Fabrication and Layout Design", organized by E & ICT Academy (Phase II), hosted by National Engineering College, Kovilpatti	08-12 December 2025 5 days
3.	AICTE Training and Learning (ATAL) Academy Faculty Development Programme on "Beyond Moore's Law: Machine Learning-Driven Approaches to Semiconductor Design", organized by the AICTE Training and Learning (ATAL) Academy, hosted by Kamaraj College of Engineering & Technology, Virudhunagar	16-21 December 2024 6 Days
4.	AICTE Training and Learning (ATAL) Academy Faculty Development Programme on "Semiconductor Design and Development", organized by the AICTE Training and Learning (ATAL) Academy, hosted by National Engineering College, Kovilpatti,	20-25 November 2023 6 Days
5.	FDP on RF circuits & Antenna Design using ADS in Mepco Schelenk Engineering College, Sivakasi	06/07/2016 to 10/07/2016- 5days
6.	FDP on Embedded Systems using ARM7 Microcontroller in Dr Sivanthi Aditanar College of Engineering, Tiruchendur.	01/12/15 & 02/12/15-

		2days
7.	FDP on EC6502-Principles of DSP in National Engineering College, Kovilpatti	25/05/2015 to 01/06/2015-7days
8.	FDP on EC6403-Electromagnetic Fields in Sri Vidya College of Engineering & Technology, Virudhunagar	16/12/2014 to 23/12/2014-7days
9.	Workshop on ARM architecture & interfacing practice in Dr. Sivanthi Aditanar College of Engineering, Tiruchendur.	04/10/2019 & 11/10/2016
10.	Workshop on Research avenues of ECE in Dr.SivanthiAditanar College of Engineering	24/08/2018 & 25/08/2018
11.	Workshop on Controllers & communication systems using LABVIEW in Dr.SivanthiAditanar College of Engineering	01/04/2017
12.	Workshop on Signal & image processing in Dr.SivanthiAditanar College of Engineering	29/09/2016
13.	Workshop on ARM7 With hands on training in Dr.SivanthiAditanar College of Engineering	29/09/2015 & 30/09/2015
14.	Workshop Software defined radio on in Dr.SivanthiAditanar College of Engineering	30/01/2015
15.	Workshop on Industry Orientation Workshop on Software skills and Hardware skills for Industry Needs. in Dr.SivanthiAditanar College of Engineering	10/12/2015
16.	Workshop on Embedded system using ARM microcontroller in Dr.SivanthiAditanar College of Engineering	01/12/2015 & 02/12/2015
17.	Workshop on ARM processor architecture in Dr.SivanthiAditanar College of Engineering	09/08/2014
18.	Workshop on Digital Image Processing & Its Applications in P.S.R.EngineeringCollege	2011
19.	Seminar on Trends in Antenna Design and Applications in Dr.SivanthiAditanar College of Engineering	11/04/2016
20.	Seminar on Clustering Techniques in Fuzzy Sets & Systems in University V.O.C College of Engineering, Thoothukudi.	30/10/2015

21.	Seminar on Bio-Medical Signal/Image Processing For Diagnosis Of Diseases in Mepco Schlenk Engineering College,Sivakasi	2014
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NPTEL COURSES COMPLETED				
S.NO.	Title of the Course	Duration	Marks	Certification
1.	VLSI Design Flow: RTL to GDS	Jul-Oct 2025 (12 weeks)	78%	Elite+Silver
2.	VLSI Physical Design	Jan-Apr 2025 (12 weeks)	62%	Elite
3.	Hardware Modeling Using Verilog	Jul-Sep 2023 (8 weeks)	69%	Elite
4.	Design Thinking - A Primer	Jul-Aug 2023 (4 weeks)	70%	Elite

MEMBERSHIP IN PROFESSIONAL BODIES	
1	Indian Society for Technical Education(ISTE) - Life Member- (ID : LM 104024)
2	The Institution of Electronics and Telecommunication Engineers (IETE) – Life Member – (AM-235826)
3	International Association of Engineers (IAENG)- Life Member –(545082)