


PERSONAL DETAILS AND AFFILIATION

Name of the Faculty Member	Dr.T.S.Arun Samuel	
Designation	Associate professor	
Department	Electronics and Communication Engineering	
Date of joining the institution	03.08.2016	
Date of Birth	27.06.1983	
Address for Communication	Department of ECE, National Engineering College, K.R. Nagar, Kovilpatti-628 503	
Email ID	arunsamuelece@nec.edu.in arunsamuel2002@gmail.com	

EDUCATIONAL QUALIFICATION

S.NO.	QUALIFICATION	INSTITUTION STUDIED	UNIVERSITY / BOARD	YEAR OF PASSING
1	SSLC	MJKMMSC Higher Secondary School	State Board	1998
2	HSC	L.M.S Higher Secondary School	State Board	2000
3	B.E. (ECE)	Syed Ammal Engineering College	Madurai Kamaraj University	2004
4	M.E./M.Tech.	National Engineering College, Kovilpatti	Anna University	2006
5	Ph.D.	Thiagarajar College of Engineering, Madurai	Anna University	2014

EXPERIENCE

S.NO.	NAME OF THE INSTITUTION / ORGANIZATION	POSITION HELD	FROM	TO	EXPERIENCE	
					Y	M
1.	National Engineering College	Associate Professor	27.12.2017	Till Date	2	2

2.	National Engineering College	Assistant Professor (Senior Grade)	03.08.2016	26.12.2017	1	5
3.	Einstein College of Engineering	Associate Professor	16.06.2014	15.07.2016	2	1
4.	Francis Xavier Engineering College	Lecturer	03.07.2006	25.11.2011	5	4
TOTAL EXPERIENCE					11	0

PH.D SCHOLAR DETAILS				
NAME OF THE RESEARCH SCHOLAR	MODE OF RESEARCH	INSTITUTION	UNIVERSITY	Status
R.Anand	Part time	National College of Engineering, Maruthakulam	Anna University Chennai	Completed
S.Komalavalli	Full time	NEC, K.R.Nagar, Kovilpatti	Anna University Chennai	Course work completed
S.Darwin	Part time	Dr.Sivanthi Aditanar College of Engineering, Tiruchendur	Anna University Chennai	Course work completed
M.Shenbagavalli	Part time	JP College of Engineering, Aylkudi	Anna University Chennai	Course work completed
I.Vivek Anand	Part time	NEC, K.R.Nagar, Kovilpatti	Anna University Chennai	Course work completed
M.Sathish Kumar	Part Time	NEC, K.R.Nagar, Kovilpatti	Anna University Chennai	Course work
J.E.Jeyanthi	Part Time	NEC, K.R.Nagar, Kovilpatti	Anna University Chennai	Course work

FUNDED PROJECT / CONSULTANCY WORK UNDERTAKEN				
S.NO.	NAME OF THE PROJECT AND FUNDING ORGANIZATION	DURATION WITH YEARS	AMOUNT SANCTIONED	RESPONSIBILITY
1				

LIST OF INTERNATIONAL JOURNAL PUBLICATIONS

1.	P.Vimala, T.S.Arun Samuel , M. Karthigai Pandian, "Performance Investigation of Gate Engineered tri-Gate SOI TFETs with Different High-K Dielectric Materials for Low Power Applications", Silicon (Springer) , Impact factor: 1.210 , First Online: 04 November 2019.
2.	S.Darwin, T.S.Arun Samuel and P.Vimala, "Impact of two gate oxide with no junction metal oxide semiconductor field effect transistor- an analytical model", Physica E: Low-dimensional Systems and Nanostructures (Elsevier publisher) , impact factor: 3.17 , Vol. 113803, Available online 31 October 2019.
3.	P. Vimala, T.S. Arun Samuel , D. Nirmal, Ajit Kumar Panda, "Performance enhancement of triple material double gate TFET with heterojunction and heterodielectric", Solid State Electronics Letters (Elsevier publisher) , vol. 1, pp. 64–72, Nov 2019.
4.	S. Manikandana, N.B. Balamurugan and T.S. Arun Samuel , "Impact of uniform and non-uniform doping variations for ultrathin body junctionless FinFETs" Materials Science in Semiconductor Processing (Elsevier publisher, impact factor: 2.72) , Vol.104, Dec 2019.
5.	S. Komalavalli, T.S. Arun Samuel and P. Vimala, "Performance analysis of triple material tri gate TFET using 3D analytical modelling and TCAD simulation", AEÜ - International Journal of Electronics and Communications (Elsevier publisher, impact factor:2.115) , Vol.110, Oct 2019.
6.	Vimala Palanichamy, Netravathi Kulkarni and Arun Samuel T.S , "Improved drain current characteristics of tunnel field effect transistor with heterodielectric stacked structure", International Journal of Nano Dimension (Scopus Journal) , Vol.10, No.4, pp.413-419, July 2019.
7.	V.Dharshana, N.B.Balamurugan and T.S. Arun Samuel , "An Analytical Modeling and Simulation of Surrounding Gate TFET with an Impact of Dual Material Gate and Stacked Oxide for Low Power Applications", Journal of Nano Research, Impact Factor: 0.6 , Vol. 57, pp 68-76, April 2019.
8.	Darwin.S and Arun Samuel T.S , A Holistic Approach on Junctionless Dual Material Double Gate (DMDG) MOSFET with High k Gate Stack for Low Power Digital Applications, Silicon (Springer) , Impact factor: 1.210 , First Online: 27 March 2019.
9.	P. Vanitha, T.S. Arun Samuel and D. Nirmal, "A new 2 D mathematical modeling of surrounding gate triple material tunnel FET using halo engineering for enhanced drain current", AEÜ - International Journal of Electronics and Communications (Elsevier publisher) impact factor:2.115 , Vol.99, pp:34-39, Feb 2019.
10.	Darwin.S and Arun Samuel T.S , "Mathematical Modeling of Junctionless Triple Material Double Gate MOSFET for Low Power Applications", Journal of Nano Research, Impact Factor: 0.6 Vol. 56, pp 71-79, Feb 2019.
11.	R. Solomon Roach, N.Nirmal Singh and T. S. Arun Samuel , "Resource minimization and power reduction of ESPFFIR filter using unified adder/subtractor", Analog Integrated Circuits and Signal Processing (Springer) , Impact Factor: 0.8 , Vol.98, No.1, Jan 2019.
12.	D. David Neels Ponkumar, P. Jagatheeswari, T.S.Arun Samuel , "Implementation of VIP for bus interface logic of 32-bit processor using System Verilog, Journal of Microelectronics, Electronic Components and Materials Impact Factor: 0.476 , Vol. 48, No. 4, pp.205 – 211, 2018.

13.	G. Rajakumar, T.Ananth Kumar and T.S. Arun Samuel "IOT Based Milk Monitoring System For Detection Of Milk Adulteration", <i>International Journal of Pure and Applied Mathematics</i> , Vol.118, No.9, pp.21-32, 2018.
14.	T.S.Arun Samuel and S.Komalavalli, "Analytical Modelling and Simulation of Triple Material Quadruple Gate Tunnel Field Effect Transistors", <i>Journal of nano research, Impact Factor: 0.6</i> , Vol. 54, pp 146-157, 2018.
15.	T.S. Arun Samuel , S. Darwin and N. Arumugam, "Design of adiabatic logic based comparator for low power and high speed applications", <i>ICTACT Journal On Microelectronics</i> , Vol.3, No.1, 365-369, 2017.
16.	R. Anand, T.S. Arun Samuel and P. Melba Mary 2017, "Improved dynamic response of isolated full bridge DC to DC converter using BATA optimization tuned fuzzy sliding mode controller for solar applications", <i>International Journal of Hydrogen Energy-(Elsevier)</i> , Impact Factor: 4.084 Vol. 42, pp. 21648 -21658.
17.	G. Rajakumar, A. Andrew Roobert, T. S. Arun Samuel & D. Gracia Nirmala, 2017 "Low power VLSI architecture design of BMC, BPSC and PC scheme" <i>Analog Integrated Circuits and Signal Processing (Springer)</i> , Impact Factor: 0.8 Vol.93, pp.169-178.
18.	T.S.Arun Samuel , N. Arumugam and S.Theodore Chandra, "Analytical Approach and Simulation of GaN Single Gate TFET and Gate All around TFET", <i>ECTI transactions on electrical eng., electronics, and communications</i> , Vol.15, No.02, pp. 1-7, 2017.
19.	T.S.Arun Samuel and M.Karthigai Pandian, "Comparative Performance Analysis of Multi Gate Tunnel Field Effect Transistors", <i>Journal of Nano Research, Impact Factor: 0.6</i> , Vol. 41, pp 1-8), 2016.
20.	T.S. Arun Samuel , N. Arumugam and A. Shenbagavalli, "Drain Current Characteristics Of Silicon Nanowire Field Effect Transistor", <i>ICTACT Journal On Microelectronics</i> , Vol. 2, No.3, pp 284-287, 2016.
21.	Arun Samuel T.S & Helen Ramya.J, 2015, 'Potential and electric field model for 18 nm Germanium based Dual Material Gate tunnel field effect transistor', <i>International Journal of Applied Engineering Research, Publisher: Research India Publications</i> , Vol.10, No.1, pp.253-257., 2015.
22.	S.Rama Kalangiam and T. S. Arun Samuel , 2015, 'A QOS Based EQGOR Protocol for WSN and VANET, <i>International Journal of Applied Engineering Research, Publisher: Research India Publications</i> , Vol.10, No.55, pp.1762-1766.
23.	Vanitha.P, Balamurugan.N.B, ArunSamuel.T.S 2015, "2-D Analytical Modeling and Simulation of Dual Material Surrounding Gate Tunnel FET (DMSGTFET) For Diminished SCES", <i>International Journal of Applied Engineering Research, Publisher: Research India Publications</i> , Vol.10, No.7, pp. 18551-18564, 2015.
24.	Arun Samuel, TS , Balamurugan, NB, Niranjana, T & Samyuktha, B 'Analytical Surface potential model with TCAD simulation verification for evaluation of Surrounding Gate TFET', <i>Journal of Electrical Engineering & Technology- Impact Factor: 0.59</i> , vol.9, no.2, pp. 655-661, 2014.

25.	Arun Samuel, TS & Balamurugan, NB, 'Analytical Modeling and Simulation of Germanium Single Gate Silicon on Insulator TFET', <i>Journal of Semiconductors (IOP Science)</i> , Vol.35, No.3, pp.034002-1-4, 2014.
26.	Arun Samuel, TS , Balamurugan, NB, Bhuvanewari,S, Sharmila, D & Padmapriya, K, 'Analytical modelling and simulation of single-gate SOI TFET for low-power applications', <i>International Journal of Electronics (Taylor & Francis) Impact factor:0.93</i> , Vol. 101, No. 6, pp.779–788, 2013.
27.	Arun Samuel, TS & Balamurugan, NB, Sibitha,S, Saranya,R & Vanisri, D 2013, 'Analytical Modeling and Simulation of Dual Material Gate Tunnel Field Effect Transistors', <i>Journal of Electrical Engineering & Technology Impact Factor: 0.59</i> , vol. 8, no. 6, pp. 1481-1486.
28.	Arun Samuel, TS & Balamurugan, NB, 'An Analytical Modeling and Simulation of Dual Material Double Gate Tunnel Field Effect Transistor for Low Power Applications', <i>Journal of Electrical Engineering & Technology (Impact Factor: 0.59)</i> , vol. 9, no. 1, pp. 247-253, 2013.

LIST OF NATIONAL JOURNAL PUBLICATIONS

1	S.Nithyakalyani, M.Paviyathachayini and T.S.Arun Samuel , Review On Recycling And Reuse Of Non-Metallic PCB Waste, International Journal of Advanced Research Trends in Engineering and Technology, Vol. II, Special Issue XXIII, March 2015.
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LIST OF INTERNATIONAL CONFERENCE PUBLICATIONS

1.	T.S.Arun Samuel , Design of IOT node for smart cities, International Conference on Applied soft computing Techniques (ICASCT'18) on 23rd and 24th March 2018 at Kalasalingam University , Krishnankoil.
2.	T.S.Arun Samuel , IOT Based Milk Monitoring System For Detection Of Milk Adulteration, International Conference on Data Security (INCODS 2017) at Kalasalingam Academy of research and education on 11-13th December 2017.
3.	T.S.Arun Samuel , Methodology for distance measurement: A comparative study, 3rd International conference on Advancement in engineering, Applied science and management (ICAEASM 2017) at Centre for development of Advanced computing, Jahu, Mumbai on 20th August 2017.
4.	Arun Samuel, TS and N. Arumugam, Drain Current Characteristics Of Silicon Nanowire Field Effect transistor, 3rd International Conference on Emerging Electronics, December 27-30, 2016, Indian Institute of Technology Bombay , Mumbai, India
5.	Arun Samuel, TS , A QOS based EQGOR protocol for WSN and VANET at International conference on Advances in Applied Engineering and Technology-2015 organized by Syed Ammal Engineering College , Ramanathapuram on May 14-16, 2015.
6.	Arun Samuel, TS & Balamurugan, NB, Potential and Electric Field Model for 18 nm SG Tunnel Field Effect Transistor', Proceedings of IEEE explore , International conference on Emerging trends in VLSI, Embedded Systems, Nano Electronics & Telecommunication Systems, SKP Engineering College , Tiruvannamalai, Jan 7-9, 2013.

LIST OF NATIONAL CONFERENCE PUBLICATIONS

1	T.S.Arun Samuel, 'Reversible De-Correlation And Coding Method For Progressive Transmission Of Digital Images' at NCCICC'05, organized by PET engineering College, Vallioor on 7th and 8th April 2005.
2	T.S.Arun Samuel, VLSI Implementation of Elliptic Curve Cryptography' at Emerging Trends in Computer Communication and Networks by Adhiyamaan College of Engineering, Hosur on 25-26 January 2006.
3	T.S.Arun Samuel, Analysis of Low Power High Throughput FIR Filter Using Different Algorithm' at RAIN' 2008 organized by Nooral Islam College of Engineering, Kumaracoil on 15th to 17th October, 2008.

WORKSHOPS/SEMINARS/CONFERENCES/TRAINING PROGRAMMES ORGANIZED

S.NO.	NAME OF THE PROGRAMME & VENUE	DATES WITH DURATION	NO. OF PARTICIPANTS	RESPONSIBILITY
1	5th National Conference on 'Advanced VLSI, Image Processing and Communication Systems (EINSTEIN NAVICS-2015) Einstein Engineering College, Tirunelveli	10th and 11th April 2015	75	Coordinator
2	Hands-On Training on 'Analog and Digital System Design using CADENCE Tool Einstein Engineering College, Tirunelveli	29 th and 30 th May 2015.	25	Coordinator

INDUSTRY TRAINING PROGRAMMES ATTENDED

S.NO.	NAME OF THE PROGRAMME	NAME OF THE INDUSTRY	DATES WITH DURATION
1	Train the trainers- training 1	Tessolve semiconductor pvt., Ltd., Bangalore	2 nd May 2017 to 6 th May 2017 (5 days)
2	Train the trainers- training 2	Tessolve semiconductor pvt., Ltd., Bangalore	21 st November 2017 to 23 rd November 2017. (3days)

WORKSHOPS/SEMINARS/CONFERENCES/TRAINING PROGRAMMES ATTENDED

S.NO.	NAME OF THE PROGRAMME & VENUE	DATES WITH DURATION	NO. OF PARTICIPANTS	RESPONSIBILITY
1.	Two days workshop on 'Frontiers of Excellence in Wide and Ultra-wide Band-gap Semiconductors and Electronic Systems' Indian Institute of Technology Bombay, Mumbai.	14 th and 15 th December 2019 (2 days)		PARTICIPANT
2.	Short term course on 'Modeling & Simulation of Nano-transistors' Indian Institute of Technology Kanpur	21.01.2019- 25.01.2019 (5 days)		PARTICIPANT
3.	One day Industry Institution Interaction Programme on 'Open Source EDA Tools for VLSI Design' National Engineering College	3 rd February 2017		PARTICIPANT
4.	Training Program by NITTTR, Chennai on 'Technology enabled Teaching learning process' National Engineering College	27.05.2017 to 29.05.2017		PARTICIPANT
5.	One day seminar on 'Submission of Project Proposals to Funding Agencies and Promotion of Consultancy Activities' Government College of Engineering, Tirunelveli	28 th August 2015		PARTICIPANT
6.	Two days Hands on training on CADANCE Einstein College of Engineering	12 th and 13 th June 2015		PARTICIPANT

7.	One day seminar on Enhancing the skill for writing research proposal and patent application Einstein College of Engineering	27 th June 2014		PARTICIPANT
8.	Anna University-Faculty Development Training Programme on Analog and Digital Communication SCAD College of Engineering and Technology, Tirunelveli	16 th to 22 nd June 2014		PARTICIPANT
9.	Two Days workshop on Analysis and Design of Analog Integrated Circuits Thiagarajar College of Engineering, Madurai	May 09-10, 2013		PARTICIPANT
10	Familiarization Workshop on Nanofabrication Technologies IIT Bombay, Mumbai	June 4-5, 2012		PARTICIPANT
11	International Workshop on Nanomechanical Sensing IIT Bombay, Mumbai	June 6-8, 2012		PARTICIPANT
12	VLSI Signal Processing Musaliar College of Engineering and Technology, Pathanamthitta	1 st and 2 nd March 2012		PARTICIPANT
13	Basics of Modeling Concepts and Parameter Extraction SKP Engineering College, Tiruvannamalai	30 th September, 2011		PARTICIPANT
14	System Integration Challenges and Solutions for Mixed Signal Design Thiagarajar College of Engineering, Madurai	July 04 and 05, 2011		PARTICIPANT

15	3D System Design and Device Modeling Thiagarajar College of Engineering, Madurai	December 29 and 30, 2010		PARTICIPANT
16	Solid State Device Modeling Thiagarajar College of Engineering, Madurai	November 26 and 28, 2010		PARTICIPANT
17	IEEE EDS Chapter Members Regional Meet Muthayammal Engineering College, Rasipuram	9 th April 2011		PARTICIPANT
18	Methodologies for Research & Innovation National Engineering College, Kovilpatti	18 th March 2011		PARTICIPANT
19	Semiconductors: Macro to Nano SSN College of Engineering, Kalavakkam	December 14 th and 15 th , 2009		PARTICIPANT
20	Digital Communication Einstein College of Engineering	29 th November 2008		PARTICIPANT
21	Student Professional Awareness Conferences 2005 by IEEE National Engineering College, Kovilpatti	5 th September 2005		PARTICIPANT
22	Computer aided design of RF circuits National Engineering College, Kovilpatti	15 th and 25 th July 2005		PARTICIPANT
23	Computer aided design of Light wave systems National Engineering College, Kovilpatti	17 th and 18 th February 2005		PARTICIPANT

24	VLSI and Embedded System Tools, National Engineering College, Kovilpatti by Aplab Chennai	16 th February 2005		PARTICIPANT
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MEMBERSHIP DETAILS

S.NO.	
1	Life Member of IE (1524709)
2	Member of IEEE (80072218)
3	Life Member IAENG (127744)