

List of publication in past 5years

TITLE	YEAR
Investigation of Cylindrical Channel Gate All Around InGaAs/InP Heterojunction Heterodielectric Tunnel FETs P Vimala, TSA Samuel Silicon, 1-9	2020
Modeling and simulation of a dual-material asymmetric heterodielectric-gate TFET IV Anand, TSA Samuel, P Vimala Journal of Computational Electronics, 1-13	2020
Performance Investigation of Gate Engineered tri-Gate SOI TFETs with Different High-K Dielectric Materials for Low Power Applications P Vimala, TSA Samuel, MK Pandian Silicon 12 (8), 1819-1829	2020
A 2D Analytical Modeling and Simulation of Double Halo Triple Material Surrounding Gate (DH-TMSG) MOSFET PS Dhanaselvam, P Vimala, TSA Samuel Silicon, 1-7	2020
A novel 2-D analytical model for the electrical characteristics of a gate-all-around heterojunction tunnel field-effect transistor including depletion regions C Usha, P Vimala, TS Samuel, MK Pandian JOURNAL OF COMPUTATIONAL ELECTRONICS	2020
Impact of two gate oxide with no junction metal oxide semiconductor field effect transistor-an analytical model S Darwin, TSA Samuel, P Vimala Physica E: Low-dimensional Systems and Nanostructures 118, 113803	2020
A detailed review on Double Gate and Triple Gate Tunnel Field Effect Transistors AS Geege, N Armugam, P Vimala, TSA Samuel 2020 5th International Conference on Devices, Circuits and Systems (ICDCS ...	2020
A Detailed Review on Heterojunction Tunnel Field Effect Transistors M Sathishkumar, TSA Samuel, P Vimala 2020 International Conference on Emerging Trends in Information Technology ...	2020
A holistic approach on Junctionless dual material double gate (DMDG) MOSFET with high k gate stack for low power digital applications	2020

TITLE	YEAR
S Darwin, TSA Samuel Silicon 12 (2), 393-403	
Design and Development of an Efficient Branch Predictor for an In-order RISC-V Processor CA Rathi, G Rajakumar, TA Kumar, TSA Samuel Journal of Nano-and Electronic Physics 12 (5)	2020
Design and analysis of Inp and GaAs double gate MOSFET transistors for low power applications AS Geege, P Vimala, TSA Samuel, N Arumugam ICTACT Journal on Microelectronics 5 (4), 875-879	2020
Impact of uniform and non-uniform doping variations for ultrathin body junctionless FinFETs S Manikandan, NB Balamurugan, TSA Samuel Materials Science in Semiconductor Processing 104, 104653	2019
Improved drain current characteristics of tunnel field effect transistor with heterodielectric stacked structure V Palanichamy, N Kulkarni, AS Thankamony Sarasam International Journal of Nano Dimension 10 (4), 368-374	2019
Performance analysis of triple material tri gate TFET using 3D analytical modelling and TCAD simulation S Komalavalli, TSA Samuel, P Vimala AEU-International Journal of Electronics and Communications 110, 152842	2019
Performance enhancement of triple material double gate TFET with heterojunction and heterodielectric P Vimala, TSA Samuel, D Nirmal, AK Panda Solid State Electronics Letters 1 (2), 64-72	2019
A new 2 D mathematical modeling of surrounding gate triple material tunnel FET using halo engineering for enhanced drain current P Vanitha, TSA Samuel, D Nirmal AEU-International Journal of Electronics and Communications 99, 34-39	2019
A Simulation Study on the Impact of InP Barrier on InGaAs/InP Hetero Junction Gate all around MOSFET P Vimala, TS Samuel Journal of Nano Research 60, 113-123	2019
An Analytical Modeling and Simulation of Surrounding Gate TFET with an Impact of Dual Material Gate and Stacked Oxide for Low Power Applications V Dharshan, NB Balamurugan, TS Samuel	2019

TITLE	YEAR
Journal of Nano Research 57, 68-76	
Mathematical modeling of Junctionless triple material double gate MOSFET for low power applications S Darwin, TS Samuel Journal of Nano Research 56, 71-79	2019
Implementation of VIP for bus interface logic of 32-bit processor using System Verilog DDN Ponkumar, P Jagatheeswari, TSA Samuel Journal of Microelectronics, Electronic Components and Materials 48 (4), 205 ...	2019
Resource minimization and power reduction of ESPFFIR filter using unified adder/subtractor RS Roach, NN Singh, TSA Samuel Analog Integrated Circuits and Signal Processing 98 (1), 169-179	2019
Analytical Modeling and Simulation of Advanced Silicon Nanowire Transistors TSA Samuel, MK Pandian, A Shenbagavalli, A Arumugam Journal of Experimental and Theoretical Nanotechnology Specialized ...	2018
Analytical Modelling and Simulation of Triple Material Quadruple Gate Tunnel Field Effect Transistors TS Samuel, S Komalavalli Journal of nano research 54, 146-157	2018
IoT BASED MILK MONITORING SYSTEM FOR DETECTION OF MILK ADULTERATION G Rajakumar, TA Kumar, TSA Samuel, E Muthu International Journal of Pure and Applied Mathematics 118 (9), 21-32	2018
Low power VLSI architecture design of BMC, BPSC and PC schemes G Rajakumar, AA Roobert, TSA Samuel, DGN Rani Analog Integrated Circuits and Signal Processing 93 (1), 169-178	2017
Improved dynamic response of isolated full bridge DC to DC converter using BATA optimization tuned fuzzy sliding mode controller for solar applications R Anand, TSA Samuel, PM Mary International Journal of Hydrogen Energy 42 (34), 21648-21658	2017
Analytical Approach and Simulation of GaN Single Gate TFET and Gate All around TFET TCS ARUN SAMUEL T.S, Arumugam N ECTI Transactions on Electrical Engineering, Electronics, and Communications ...	2017

TITLE	YEAR
DESIGN OF ADIABATIC LOGIC BASED COMPARATOR FOR LOW POWER AND HIGH SPEED APPLICATIONS A Samuel, Darwin, Arumugam ICTACT JOURNAL ON MICROELECTRONICS 3 (01), 365-369	2017
DRAIN CURRENT CHARACTERISTICS OF SILICON NANOWIRE FIELD EFFECT TRANSISTOR TSA Samuel, N Arumugam, A Shenbagavalli ICTACT JOURNAL ON MICROELECTRONICS 2 (3), 284-287	2016
Comparative Performance Analysis of Multi Gate Tunnel Field Effect Transistors TS Samuel, MK Pandian Journal of Nano Research 41, 1-8	2016
2-D Analytical Modeling and Simulation of Dual Material Surrounding Gate Tunnel FET (DMSGTFET) For Diminished SCES Vanitha.P, Balamurugan.N.B, ArunSamuel.T.S International Journal of Applied Engineering Research 10 (7), 18551-18564	2015
Potential and electric field model for 18 nm Germanium based Dual Material Gate tunnel field effect transistor JHR T.S.Arun Samuel International Journal of Applied Engineering Research, 10 (1), 253-257	2015