

# Total List of Accepted Papers in IEEE VLSI DCS 2022

<b>Paper ID:</b>	<b>Title of The Paper:</b>	<b>Name of the Authors:</b>	<b>Name of Presenting Author:</b>
7	Exploring the feasibility of implementing Negative-Capacitance Tunnel-FET (NC-TFET) in low-power digital circuits	Sourav Guha, Prithviraj Pachal	Sourav Guha
8	Investigation of MoS <sub>2</sub> Based Dual Gate MOSFET as a H <sub>2</sub> Sensor Considering Catalytic Metal Gate Approach	Arpan De, Ananya Karmakar, Rittik Ghosh, Priyanka Saha	Ananya Karmakar
10	All optical logic XNOR gate using dual control dual SOA TOAD (DCDSTOAD)"	Kajal Maji, Kousik Mukherjee, Mrinal Kanti Mandal	Kajal Maji
11	Backscatter Interrogation Enactment in UHF-RFID for Rayleigh Fading Channel	Aritra De, Tirthankar Datta	Aritra De
13	Linearity Performance of Double Metal Negative Capacitance Field-Effect Transistors: A Numerical Study	Yash Pathak, Bansi Dhar Malhotra, Rishu Chaujar	Yash Pathak
14	Performance Assessment of InGaN Double Gate Stack-Oxide MOSFET based Phosphine Gas Sensor: A Catalytic Metal Gate Approach	Ajay Kumar, Dipanjan Sen, Soumendu Sinha	Ajay Kumar
15	Magnesium-Silicide (Mg <sub>2</sub> Si)/Silicon (Si) Heterojunction based TFET for Optical Detection at 1550 nm	Manisha Khurana, Upasana, Manoj Saxena, Mridula Gupta	Manisha Khurana
31	Density functional theory (DFT) analysis on the Structural, Electronic, and Optical Properties of monoclinic HfO <sub>2</sub>	Jayanta Kumar Kar, Saurabh Chaudhury, Neerja Dharmale	Jayanta Kumar Kar
32	Study the Sensing Performance with Catalytic Metals of Passivated InAlN/GaN Schottky Diode Gas Sensor	Bhaskar Roy, Md Aref Billaha, Ritam Dutta, Debasis Mukherjee	Bhaskar Roy

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33	Temperature Dependence on Fin-FET Electrical Parameters for Al <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> Dielectric Materials: A Comparative Study	Salini Singh, Bhaskar Roy, Md. Aref Billaha, Ritam Dutta, Santosh K. Choudhary	Salini Singh
35	Impact of Composite Trench Stepped Hetero Channel MOSFET on Analog Performance	Soumya S Mohanty, Sikha Mishra and Guru Prasad Mishra	Soumya S Mohanty
36	An Integrated System for Drivers Drowsiness Detection using Deep Learning Frameworks	Biswarup Ganguly, Debangshu Dey, Sugata Munshi	Biswarup Ganguly
38	K Nearest Neighbor and Flexible Neural Tree based IDS in Mobile Ad-hoc Network	Indrajit Das , Piyali Roy, Puja Ghosal, Sayan Das, Debanjan Das	Sayan Das
39	Design and Implementation of Authentication System using Deep Convolved Siamese Network	Sumagna Dey, Indrajit Das, Soubarna Das, Subhpratik Nath	Soubarna Das
40	DC and Analog/RF Performance Analysis of Gate-Drain Underlapped and Channel Engineered TFET	Sudipta Ghosh, Sayan Bose, Wahid Anwar, Madhusree Banerjee, P. Venkateswaran, Subir Kumar Sarkar	Sayan Bose
41	Current Sensitivity and Power Dissipation Analysis Of Junctionless Double Gate MOSFET Biosensor	Bedantika Basu, Debosmita Ghosh, Madhusree Banerjee, Papiya Debnath	Bedantika Basu
56	DC and Analog/RF Performance Comparison of Renovated GAA JLFET structures	Sudipta Ghosh, Abhiroop Jana, Agni Kumar Agnihotri, Shirsha Kundu, Dyuti Das, Subir Kumar Sarkar	Sudipta Ghosh
57	Assessment of Filter Design for 5G Applications	Gaurav Bhargava, Shubhankar Majumdar	Gaurav Bhargava

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58	Partially Depleted Silicon-on-Insulator (PDSOI) MOSFETs for RF Switching Applications	T. P. Dash , C. K. Maiti, Devika Jena	Devika Jena
60	RF analysis of a fully gate covered Junctionless FinFET for improved performance	Aman Tyagi, Gaurav Mangal, Rishu Chaujar	Gaurav Mangal
62	Economic Analysis for the Players Participating in a Hybrid Solar Virtual Power Plant	Epsita Das, Koninika Biswas, Rajarshi Chakrabarti, Ambarnath Banerji, Sujit K. Biswas	Koninika Biswas
63	Implementation of Linear Quadratic Regulator in an Isolated Microgrid System	Prasun Sanki, Mousumi Basu, Partha Sarathi Pal and Debapriya Das	Prasun Sanki
64	A Survey on Field Effect Transistor based Hydrogen and Nitrogen Gas Sensors	Koushik Ghosh, Arpita Ghosh	Koushik Ghosh
66	An Efficient Approach to Design a Comparator for SAR-ADC	Tejender Singh, Suman Lata Tripathai	Tejender Singh
68	A Hybrid MILP-GA Algorithm to Optimize Battery Mix System in Active Distribution Networks	Subho Paul, Biswarup Ganguly, Upayan Adhikary	Dr. Subho Paul
69	Analysis of Constant On-Time Buck Converter with System Verilog Real Number Model Approach	Saikat RoyChowdhury, Sudeep Phadikar	Sudeep Phadikar
70	Emergency medical assistance by ambulance drone using machine learning,Light-weight cryptography and variable image steganography	Indrajit Das, Piyali Roy, Sanjoy Roy, Tulsi Dey, Sumagna Dey	Tulsi Dey

<b>Paper ID:</b>	<b>Title of The Paper:</b>	<b>Name of the Authors:</b>	<b>Name of Presenting Author:</b>
71	Capacitive memory using GLAD synthesized annealed SnO <sub>2</sub> Nanowire arrays as a dielectric	Priyanka Chetri, Jay Chandra Dhar	Priyanka Chetri
72	Machine Learning Classifiers for Speech Detection	Dasari Lakshmi Prasanna and Suman Lata Tripathi	Dasari Lakshmi Prasanna
82	Selective Run-Length Constrained Encoding Scheme on Extended Nucleic Acid Memory	Saptarshi Biswas, Trishita Ghosh, Subhrapratim Nath	Trishita Ghosh
83	Design of an Improved Tie-line Power Model for a PEV Based Interconnected Microgrid under AGC Operation	Prasun Sanki, Mousumi Basu, Partha Sarathi Pal, Debapriya Das and Sindhura Gupta	Prasun Sanki
84	Statistical Analysis of a Low Power Analog Current Source	Sneha Upadhyay, Trisha Sau, Susmita Mitra, Arpita Bhowmik, Saheli Sarkhel, Soumya Pandit	SNEHA UPADHYAY
85	A Deep CNN Framework for Distress Detection using Facial Expression	Bikramjit Das, Debanjana Ghosh, Ashesh Roy Choudhuri, Ankan Goswami, Avinandan Bhakta, Mahamuha Sultana, Suman Bhattacharya	Avinandan Bhakta
86	State of the Art and Future Perspectives in III-V Nanometer-scale MOSFETs	Saswati Dey, Kalyan Biswas, Angsuman Sarkar	Saswati Dey
87	Effect of Asymmetric Space Charge Region on Current Density of Heterojunction Solar Cell	Sayoni Chakraborty, Arpan Deyasi	Sayoni Chakraborty
89	Electrical Noise Analysis of L-Shaped Gate Tunnel Field Effect Transistor	Sweta Chander, Rekha Chaudhary, Sanjeet Kumar Sinha	Sweta Chander

<b>Paper ID:</b>	<b>Title of The Paper:</b>	<b>Name of the Authors:</b>	<b>Name of Presenting Author:</b>
91	Deep Learning-Based Image Segmentation on Multimodal Medical Imaging	Rahul Chanumolu, Likhita Alla, Pavankumar Chirala, Naveen Chand Chennampalli, Kolla Bhanu Prakash	Rahul Chanumolu
93	Modeling an Energy Efficient Clustering Protocol with Spider Cat Swarm Optimization for WSN	T.Saravanan, S.Saravanakumar	T.Saravanan
94	Early Alzheimers disease detection using Semi- Supervised GAN based on Deep Learning	S.Saravanakumar, T.Saravanan	S.Saravanakumar, T.Saravanan
95	Enhanced prediction of thyroid disease using machine learning method	Madhumita Pal, Smita Parija, Ganapati Panda	Madhumita pal
96	White Light Photosensitivity and Stable Photoresponse Properties of Tetrapod Shaped CdSe Nanocrystals: Polymer: Fullerene Blend	Deep Chandra Upadhyay, Rishibrind Kumar Upadhyay, Abhinav Pratap Singh and Satyabrata Jit	DEEP CHANDRA UPADHYAY
98	Identifying Differentially Expressed Genes in Different Stages of Lung Cancer – an application of ARM Model on Gene Expression Data	Subir Hazra, Amartya Roy, Rohan Sarkar, Anupam Ghosh	Amartya Roy
100	RF/Analog Performance Analysis of Electrostatically Doped Dual Pocket Vertical Tunnel Field Effect Transistor	Amit Bhattacharyya, Madhusree Banerjee, Papiya Debnath, Debashis De, Manash Chanda	AMIT BHATTACHARYYA
101	Application of Soil Sensors for Maximizing Productivity Using IoT Framework	Subhrapratim Nath, Anup Dey, Papiya Das, Dyuti Mohapatra, Jamuna Kanta Sing, Subir Kumar Sarkar	Dyuti Mohapatra
102	Signature Recognition and Detection of Skilled Forgeries using Image Transformation and Multistream CNN	Papiya Das, Swarnabja Bhaumik, Subhrapratim Nath	Papiya Das

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103	Method for Enabling RDMA transport Peer to Peer Transfer with NVMeoF Ethernet SSDs	Venkataratnam Nimmagadda, Sandeep Kumar Ananthapalli	Venkataratnam Nimmagadda
104	Silicide on Oxide based Carrier Selective Front Contact for 24% Efficient PERC Solar Cell	Savita Kashyap, Rahul Pandey, Jaya Madan and Rajnish Sharma	Savita Kashyap
105	" VLSI Routing Optimization using Hybrid PSO based on Reinforcement Learning"	Pradyut Nath,Sumagna Dey,Aditya Shankar,Subhrapratim Nath,Jamuna Kanta Sing,Subir Kumar Sarkar	Pradyut Nath
106	Study of electrical parameters of strained Si PMOS with high k dielectric material using TCAD	Debasish Mohanta, Sruti Suvadarsini Singh	Debasish Mohanta
107	Optical Characteristics of Broadband Raman Amplifier coupled with Multimode Fiber designed at 1550 nm in presence of Doping	Rikita Das, Arpan Deyasi	Rikita Das
108	Tweet Classification and Sentiment Analysis of Covid 19 Epidemic by Applying Hybrid Based Techniques	Mauparna Nandan, Soma Mitra, Sharmistha Dey	Mauparna Nandan
114	Single Event transient effect on Tapered Angle Hetero-junction Dopingless TFET for radiation-sensitive applications	Monika Sharma, Rakhi Narang, Manoj Saxena and Mridula Gupta.	Monika Sharma
115	Dependence of Gate Leakage Current on Efficacy of Gate Field Plate in AlGaIn/GaN HEMT	Chanchal	CHANCHAL
117	Design - Development of VEHICLE for Delivery of goods in Hazardous Areas (VEDHA)	Suvargha Ghosh Dastidar, Sohini Pal, Hiravra Koley, Synthya Haldar, Ambalika Saha, Prithasankar Laskar, Pratyusha Biswas Deb, Ambarnath Banerji	Sohini Pal

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118	Internet of things (IoT) based continuous growth rate monitoring System of plant stem	Shikha Nayak,S.Das,T.Chakraborty,K.Roy,B.Chakraborty	Mrs.Shikha Nayak
119	A Novel Computer Vision Model for Recognition and Evaluation of Mathematical Equations using Deep Learning Technique	Shaun Oommen Alexander, Chitresh Kansal, Devang Mehrotra, Rohit P, Shashank Mouli Satapathy	Shaun Oommen Alexander
120	ZnO-WO <sub>3</sub> Mixed Metal Thin Film Capacitive Biosensor for Food Quality Measurement	Gour Gopal Jana, Jyotirmoy Nandy, Moumita Chakraborty, Subhashis Roy, Bijoy Kantha	Gour Gopal Jana
123	Machine Learning-Based Intrusion Detection System for Healthcare Data	Amit Kumar Balyan, Sachin Ahuja, Sanjeev Kumar Sharma, Umesh Kumar Lilhore*	Umesh Kumar Lilhore
124	Comparative Study of Supervised Machine Learning Methods for Prediction of Heart Disease	Meghavi Rana, Mohammad Zia Ur Rehman, Srishti Jain	Meghavi Rana
126	Metamaterial Absorbers for IoT Applications	Prince Jain, Shonak Bansal, Piyush Samant	Prince Jain
131	Smart ECG Monitoring and Analysis System using Machine Learning	Sarab Nidhaan Singh, Megha Bhushan	Sarab Nidhaan Singh
134	A DFT Study on Sensing Performance of H <sub>2</sub> S and NO <sub>2</sub> Gas Molecules on 2D Pentagonal PdSe <sub>2</sub>	Prasanna Karki, Bibek Chettri, Bhakta Kunwar, Bikash Sharma	Prasanna Karki
135	Study of adsorption behaviour of nucleobases on Si and P doped WSe <sub>2</sub> : DFT Approach	Kabita Timsina, Somsher Lepcha, Bibek Chettri, Pronita Chettri, Bikash Sharma	Kabita Timsina