Profile Page



Name	:	Dr Tarun Chaudhary
Designation	:	Assistant Professor Grade-i
Department	:	Electronics and Comm. Engg.
Qualification	:	Ph.D Low Power VLSI Design (NIT Hamirpur)
		M.Tech Low Power VLSI Design (NIT Hamirpur)
		B.E ECE (UIET, Panjab University Chandigarh)
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Research Interests :

Nano scale device modelling, Analysis and design of low power VLSI Circuits, Characteristic study of 2D Materials based devices for analog and digital applications

Other Profile Links :

Google Scholar Link :

Tarun Chaudhary Click Here

Personal Web Link :

Linkedin Click Here

Journal Publications :

Year	Journal	Publication			
June	Silicon	Faizan Ansari, Tarun Chaudhary, Ramesh Kumar Sunkaria, Mandeep			
2022		Singh, Balwinder Raj, "Comparative Analysis of Nanowire Tunnel Field			
		Efect Transistor for Low Power Application"			
Feb	Silicon	Sadhana Singh, Tarun Chaudhary, "Performance and Comparative			
2022		Analysis of Heterojunction Structure Based GAA-NWTFET for Low			
		Power Application,"			
2022	Silicon,	Priya Kaushal, Tarun Chaudhary and Gargi Khanna, "Effect of Tensile			
	10.1007/s12633-021-01256-4	Strain on Performance Parameters of Different Structures of MoS2			
		Monolayer"			
2021	Silicon	Sadhana Singh, Tarun Chaudhary, and Gargi Khanna, "Recent			
		Advancements in Wide Band Semiconductors (SiC and GaN)			
		Technology for Future Devices,			

2017	Super lattices and Microstructures,	Tarun Chaudhary and Gargi Khanna, "Performance analysis of
	vol. 103, pp. 102-112, 2017	junctionless double gate VeSFET considering the effects of thermal
		variation- An explicit 2-D analytical model,"
2017	IETE Journal of Research	Tarun Chaudhary and Gargi Khanna, "A 2-D potential based threshold
		voltage analysis and comparison of junctionless symmetric double gate
		vertical slit FET
2017	Journal of Nanoelectronics and	Tarun Chaudhary and Gargi Khanna, "Analytical modeling of surface
	Optoelectronics.	potential and threshold voltage for junctionless double gate VeSFET,"
2017	Journal of Semiconductors, vol. 6,	Tarun Chaudhary and Gargi Khanna, "Analysis and Impact of Process
	no. 2, pp. 109-113, June 2017	variability on performance of junctionless double gate VeSFET
2016	Journal of Nanoelectronics and	Tarun Chaudhary and Gargi Khanna, "Analytical modeling of drain
	Optoelectronics, vol. 11, no.6,	current and short channel effects of junctionless double gate vertical slit
	pp.738-744, 2016	field effect transistor,"
2016	Journal of Nanoengineering and	Tarun Chaudhary and Gargi Khanna, "Compact 2-D threshold voltage
	Nanomanufacturing, vol. 6, no.2,	model based comparative analysis of junctionless double gate VeSFET
	pp. 109-113, June 2016	
2014	International Journal of	Tarun Chaudhary and Gargi Khanna, "Performance analysis of vertical
	Engineering Research and	slit field effect transistor"
	Technology, vol. 3(01), pp.	
	2093-2098, 2014.	
2014	International Journal of Emerging	Tarun Chaudhary and Gargi Khanna, "Performance enhancement and
	Technologies in Computational	characterization of junctionless VeSFET,"
	and Applied Sciences, vol. 8(01),	
	pp. 309-314, 2014.	
2012	International Journal of Computer	1. Tarun chaudhary, Gargi khanna, Rajeevan Chandel, "Performance
	Application, June 2012.	Evaluation of MISISFET- TCAD Simulation,"

Conference Publications :

Year	Conference	Publication
2022	IEEE, 2nd CONIT, 2022	Faizan Ansari, Tarun Chaudhary, Ramesh Sunkaria
		and Mandeep Singh
2022	International Conference on Recent Advances in	Raviraj Yadav, Mandeep Singh and Tarun Chaudhary,
	Engineering and Technology	" Comparative Analysis of T-shaped TFET Structure
		of Low Power Applications"
2022	SAARD Conference, International Conference on	Pragati Singhal, Tarun Chaudhary and Mandeep
	Multidisciplinary Research	Singh
2021	International Conference on Women Researchers in	Prateek Asthana, Gargi Khanna, Sahil Sankhyan and
	Electronics & Computing, AIJR Publishing	Tarun Chaudhary, "Design of Reed-Solomon Encoder
		for Error Detection in DRAM cells,
2021	International Conference on Women Researchers in	Akash Kumar, Tarun Chaudhary, Vijay Kumar Ram,
	Electronics & Computing, AIJR Publishing	"Comparative Analysis of Multiplications Technique
		Conventional, Booth, Array Multiplier And Vedic
		Arithmatic Using VHDL
2021	International Conference on Women Researchers in	Parvesh Kumar, Tarun Chaudhary, Vijay Kumar Ram,
	Electronics & Computing, AIJR Publishing	"Design of Constant Trans conductance Operational
		Amplifier By CMOS With High Gain And Low
		Operational Power,
2021	International Conference on Women Researchers in	Amarah Zahra, Tarun Chaudhary, Farhana Shahid,
	Electronics & Computing, AIJR Publishing	Hritwik Todawat, Vaishnavi Singh, Vidhya Sagar,
		"Fabrication Process of MBCFET and its
		Characteristics"

2021	International Conference on Emerging Technologies:	Mandeep Singh, Tarun Chaudhary and Balwinder
	AI, IoT, and CPS for Science & Technology	Raj, "Comparative Analysis of Multiplications
	Applications	Technique Using Vedic Mathematics"
2015	ISTE Convention NIT Hamirpur, 2015	Tarun Chaudhary and Gargi Khanna, "Comparative
		analysis of JLDG VeSFET and MOSFET,"
2014	National Conference on VLSI, Signal Processing and	Tarun Chaudhary and Gargi Khanna, "Comparative
	Communication, National Institute of Technology,	analysis of junctionless vertical slit field effect
	Hamirpur, 2014	transistor,"
2012	IEEE International Conference on Signal Processing	Tarun Chaudhary, Gargi Khanna, Rajeevan Chandel,
	Computing and Control ISPCC, pp. 33-34, March	"Behaviour of nMISISFET in Nanoregime –TCAD
	2012	simulation
2012	International conference on VLSI, NEMS and MEMS	Tarun Chaudhary, Gargi Khanna, Rajeevan Chandel,
	(VMN), pp. 262-263 January 2012.	"Performance Enhancement of MISISFET structure
		using Halo Doping"
2011	IEEE Student conference on Cognizance of Applied	Tarun chaudhary, Gargi khanna, "Comparison of
	Engineering and Research (ICAER), pp.20-21, Oct	n-MOSFET with n-MISISFET using TCAD,"
	2011. (BEST PAPER AWARD)	

Book/Chapter Publications :

Туре	Title	Publisher	Authors	ISBN/ISS	Year
				N No.	
Chapter	Variation of Sensitivity of a MEMS	Intech Open	Apoorva	Multidiscip	2021
	Capacitive Accelerometer Based		Dwivedi, Prateek	linary	
	Microphone with Suspension System		Asthana, Gargi	Teamwork	
	Topology		Khanna, Tarun	to Public	
			Chaudhary	Health	
Chapter	Gallium Nitride—Emerging Future	Springer	Sahil Sankhyan,	Nanoscale	2020
	Technology for Low-Power Nanoscale IC		Tarun	VLSI	
	Design		Chaudhary, Gargi		
			Khanna, and		
			Rajeevan		
			Chandel		
Book	Optimized spectrum allocation in	Lambert	Deepti Kakkar,	978-620-3-	2020
	cognitive radio applications- Modified	Academic	Tarun Chaudhary	30556-2	
	binary firefly algorithm	Publishers	and Ekta Dogra		
	Performance analysis and numerical	Lambert	T. Chaudhary and	978-613-9-	2019
	investigation of JLDG VeSFET	Academic	G. Khanna	99795-4	
		Publisher			
	MISISFET and DQWRTD transistor for	Lambert	T. Chaudhary	978-613-9-	2018
	low power applications	Academic		91612-2	
		Publisher			

Events Organized :

Category	Туре	Title	Venue	From	То	Designation
Conference	International	Women Researchers in	ECE Department,	22-04-2021	24-04-2021	Organizing
		Electronics &	Dr B R Ambedkar			Secretary
		Computing'2021	National Institute of			
			Technology			
			Jalandhar,			
			Punjab-144011			

STC	International	Low Power VLSI	ECE Department,	16-09-2020	20-09-2020	Coordinator
		Design for	Dr B R Ambedkar			
		Communication	National Institute of			
		Systems and Network	Technology			
			Jalandhar,			
			Punjab-144011			
STC	International	Effective Tools and	ECE Department,	10-08-2020	14-08-2020	Coordinator
		Techniques for	Dr B R Ambedkar			
		Qualitative Research	National Institute of			
			Technology			
			Jalandhar,			
			Punjab-144011			
STC	National	Submicrometer	ECE Department,	20-08-2020	24-08-2020	Coordinator
		Semiconductor Device	Dr B R Ambedkar			
		to Circuit Co Design	National Institute of			
		and Modelling	Technology			
		Techniques	Jalandhar,			
			Punjab-144011			

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Vijay Kumar	Nanoscale Devices for Low Power VLSI Circuits	Ongoing	Oct, 2020	
Ram				
Sadhana Singh	PERFORMANCE ANALYSIS AND	Ongoing	Jan, 2020	
	MODELING OF HETEROJUNCTION			
	GAA-NWTFET			

Admin. Responsiblities :

Position Held	Organization	From	То
Coordinator Infrastructure	ECE Department NIT Jalandhar	14-02-2020	28-07-2021
NBA Coordinator (MTech VLSI)	ECE Department NIT Jalandhar	14-02-2020	28-07-2021
Coordinator, Departmental	ECE Department NIT Jalandhar	14-02-2020	28-07-2021
Purchase			
Coordinator ST/SC students	ECE Department NIT Jalandhar	14-02-2020	28-07-2021
Girls Counsellor B.Tech, M.Tech	ECE Department NIT Jalandhar	28-07-2021	Ongoing
and PhD			
Departmental Information	ECE Department NIT Jalandhar	28-07-2021	Ongoing
Committee			
Coordinator Nanoelectronics	ECE Department NIT Jalandhar	14-02-2020	Ongoing
Research LAB			
Coordinator Conference	ECE Department NIT Jalandhar	28-07-2021	Ongoing
Committee			
Coordinator for SWAYAM and	ECE Department NIT Jalandhar	28-07-2021	Ongoing
ARPIT courses			
Coordinator ST/SC students	ECE Department NIT Jalandhar	14-02-2020	Ongoing
Coordinator Techniti	NIT Jalandhar	04-03-2020	Ongoing

Award and Honours :

	Title	Activity	Given by	Year
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Best Paper Award	For Paper Publication	IEEE Student chapter, UIET	2010
		Panjab University Chandigarh	