



Shaheed Rajguru College of Applied Sciences for Women
University of Delhi
Faculty Profile

Name	Prof. Sneha Kabra	
Designation	Professor	
Email	sneha.kabra@rajguru.du.ac.in snehakabra@ieee.org snehakabra1@gmail.com www.linkedin.com/in/prof-dr-sneha-kabra-7a901199	
Degree	Institution	Year
Ph. D (Electronics)	Department of Electronic Science, University of Delhi, South Campus	2008
M.Sc. Electronic Science	Department of Electronic Science, University of Delhi, South Campus	2003
B.Sc. (H) Electronics	University of Delhi	2001
Areas of Interest / Specialization		
Modelling, simulation and characterization of advanced deep submicron & nanoscale semiconductor devices applicable to bio-sensing, gas sensing, RF circuits, digital circuits and VLSI.		
Awards and Distinctions		
1. Conferred with Meritorious teacher Award by Govt of NCT of Delhi under scheme “Award for College Lecturers” in March 2022 2. Best paper award, IEEE 3rd International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI SATA), 16-17 Dec 2022, Bangalore, for paper “Comparative study of Junctionless and Inverted Mode FinFET for detection of breast cancer cell HS578t at microwave frequency 3. Best paper award, 6th International Conference on Devices, Circuits and Systems , ICDCS 2022, 21-22 April 2022, Coimbatore, for paper "Detection of poisonous gases using JL FinFET with conducting gate polymer 4. Second best paper award, 11th International Conference on Microelectronics, Circuits & Systems, Micro 2024, 16-17 May 2024, Delhi Technological University, Delhi for paper “Designing, Optimization and Statistical Analysis of Stack Oxide Junctionless FinFET based Ammonia Gas Sensor 5. Best paper Award, IEEE International Conference on Radio Frequency Communication and Networks (RFCoN-2025), 19-20 June, 2025, SASTRA Deemed University, Thanjavur, Tamilnadu		

Major Research Projects Completed

1. SERB (Ministry of Science and Technology, Govt of India) funded project entitled ***“Design, virtual fabrication and characterization of floating gate field effect transistor based toxic gas sensor for industrial applications”*** Project file no: **SPG/2021/001590, Dec2021-June 2025, Sanctioned Amount Rs.29,90,900.**
2. SERB (Ministry of Science and Technology, Govt of India) funded project entitled ***“Modeling, Simulation and development of AlGaIn/GaN HEMT based lactic acid and Uric acid biosensor for clinical research”*** Project file no: **ECR/2017/000576, June 2017-Sep 2020, Sanctioned Amount Rs. 26,60,990**

Minor Research Projects Completed

1. Project titled **“Low cost eco friendly Solar Inverter - A standalone solar power system for households”** sanctioned by Delhi University in October 2015, completed in October 2016. **Grant mobilized: 5 Lakhs**
2. Project titled **“Development of e-resources on standard procedure of operation and applications of important electronic devices used by undergraduate science students”** sanctioned by Delhi University in November 2013, completed in March2015. **Grant mobilized: 5 Lakhs**
3. **“Sensitising Community to Climate Resilience through Flash Mobs by under-graduate students”** IEEE region Region 10 Educational activities board **(R10 EAB) project April-Sep2023 Sanction amount USD 220 (IEEE R10 EAB) +USD 220 (IEEE Delhi section)**
4. **“Design and virtual fabrication of NextGen semiconductor devices based toxic gas sensors for sustainable environment monitoring”,** Institute of Eminence, University of Delhi.(Co-PI, 30 Oct 2025- 31 March 2026; Grant approved:Rs.6,00,000)
5. Empower Her- IEEE R10 EAC project (April- September 2026) Sanction Amount (1400 USD)

Ph.D. Supervision

S.No	Name of Student	Thesis Title	Degree Awarded	University
1.	Praveen Pal	Modeling, Simulation and characterization of AlGaIn/GaN HEMT based biosensors	July 2022	Delhi University
2.	Neha Garg	Modeling and Simulation of Multigate Junctionless Transistors for Low Power VLSI Design	April 2023	Delhi University
3.	Himani Dua	Modeling and Simulation of Junctionless FinFET for sensing Applications	Jan 2024	Delhi University

Association with Professional Bodies

- **Senior member**, Institute of Electrical and Electronics Engineers (IEEE), USA
- **Fellow**, Institute of electronics and telecommunications engineers (IETE), India
- **Chair**, IEEE Solid State Circuits Society Delhi Chapter

- **Secretary**, IEEE Delhi Section Women in Engineering Affinity Group
- **ExecCom Member**, IEEE EDS Delhi Chapter
- Past Secretary (2025) and Past Treasurer (2020-22 and 2025), IEEE Delhi Section
- ExecCom Member, IEEE Delhi Section SIGHT
- **Member**, IEEE India Council, SDA Sub Committee
- **Regional Editor** Region 10 (South Asia) IEEE EDS Newsletter

International Journal Publications

1. Babbar, D., **Kabra, S.** “Unveiling design and optimization of β -Ga₂O₃ FinFET for high sensitivity and reliable ammonia gas detection” *Journal of Physics D: Applied Physics*, Volume 59, Number 33 pp. 335109, 2026, DOI 10.1088/1361-6463/ae93cd.
2. Arzoo Shakya, Praveen Pal, **Sneha Kabra** “Performance Enhancement of Asymmetric gate Graded-AlGa_N/Ga_N HEMT on β -Ga₂O₃ substrate for RF applications”, *Materials Science & Engineering B*, Volume 321, Nov 2025, 118514, Impact factor 3.9, ISSN 1873-4944 <https://doi.org/10.1016/j.mseb.2025.118514>
3. Sehgal, H.D., Pratap, Y. & **Kabra, S.** Modeling and virtual fabrication of conducting polymer gate Junctionless FinFET based poisonous gas detector. *Microsystem Technol* (2025). <https://doi.org/10.1007/s00542-025-05875-4>
4. Babbar, D., Garg, N. & **Kabra, S.** Designing and Reliability Assessment of Stack Oxide Double Gate Junctionless Transistor Based Ammonia Gas Sensor. *Sens Imaging* 26, 24 (2025). <https://doi.org/10.1007/s11220-025-00554-0>
5. Garg, N., Pratap, Y. & **Kabra, S.** Investigation of stability parameters of a gate-stack junctionless double-gate transistor (GS-JLDGT)-based 6T and 3T SRAM in the presence of traps. *J Comput Electron* 24, 52 (2025). <https://doi.org/10.1007/s10825-025-02285-7>
6. Babbar, D., Garg, N. & **Kabra, S.** Stability analysis and optimization of stack oxide junctionless finFET based ammonia gas sensor. *Microsyst Technol* (2025). <https://doi.org/10.1007/s00542-025-05849-6>
7. Babbar, D., Garg, N. & **Kabra, S.** “Capacitance Modeling, Simulation and RF Characterization of Horizontal Floating Gate Field Effect Transistor (H-FGFET) for Gas Sensing Application” *Engineering Research. Express* Vol.6, no.2, pp 025351, June 2024, <https://doi.org/10.1088/2631-8695/ad51d2>
8. Babbar, D., Garg, N. & **Kabra, S.** Comparative Simulation Study of InGa_N and Silicon Channel Stack Oxide Twin Gate Field Effect Transistor Based Ammonia Gas Sensor. *Sens Imaging* 25, 20 (2024). <https://doi.org/10.1007/s11220-024-00469-2>
9. Pal, P., Pratap, Y., & **Kabra, S.** (2024) “TCAD Simulation of Novel Recess Gate Common Drain Dual Channel AlGa_N/Ga_N HEMT for Small Signal Performance” *IETE Technical Review*, Vol.41, Issue 5, pp.621-631, April 2024 <https://doi.org/10.1080/02564602.2024.2341086>.
10. N. Garg, Y. Pratap, and **S. Kabra** “Efficient implementation of a DSIG-JLT-based multiplexer and demultiplexer using different logic styles at 20-nm technology”, *Journal of*

11. H. D. Sehgal, Y. Pratap and **S. Kabra**, "Designing and Reliability Analysis of Radiation Hardened Stacked Gate Junctionless FinFET and CMOS Inverter," in IEEE Transactions on Device and Materials Reliability, vol. 23, no. 2, pp. 249-256, June 2023, doi: 10.1109/TDMR.2023.3255407
12. Praveen Pal, Yogesh Pratap and **Sneha Kabra**, "T-ZnO/AlGaIn/GaN HEMT Uric Acid Sensor- Sensitivity Analysis and Effect of Surface Wettability for Improved Performance", IEEE Sensors Journal. (I.F =4.325) Volume: 22, Issue: 12, June15, 2022, pp.11819-11826, DOP: 4 May 2022 Print ISSN: 1530-437X, Electronic ISSN: 1558-1748 doi 10.1109/JSEN.2022.3172793.
13. Praveen Pal, Yogesh Pratap and **Sneha Kabra**, "Small Signal Analysis of Double Channel AlGaIn/GaN HEMT and MOSHEMT With Undoped Barrier for Microwave Applications", Journal of Electronic Materials. (I.F = 2.04) Vol 51, Issue 7, pages4095–4103 (2022) DOP 15 May 2022, pp. 4095–4103 <https://doi.org/10.1007/s11664-022-09652-1>, ISSN: 0361-5235
14. H. D. Sehgal, Y. Pratap and **S. Kabra**, "Detection of Breast Cancer Cell-MDA-MB 231 by Measuring Conductivity of Schottky Source/Drain GaN FinFET," in IEEE Sensors Journal, (Impact factor 4.325) vol. 22, Issue 6, pp. 6108-6115, March15, 2022, doi: 10.1109/JSEN.2022.3148117. ISSN: 1530-437X Electronic ISSN: 1558-1748
15. Praveen Pal, Yogesh Pratap, Mridula Gupta, and **Sneha Kabra**, "Open gate AlGaIn/GaN HEMT biosensor: Sensitivity analysis and optimization" Superlattices and Microstructures, Vol 156, pp106968, 2021(doi: 10.1016/j.spmi.2021.106968). (I.F = 3.118) ISSN:0749-6036
16. H.D. Sehgal, Y. Pratap, M. Gupta and **S. Kabra**, "Performance Investigation of novel Pt/Pd-SiO₂ Junctionless FinFET as a high sensitive hydrogen gas sensor for Industrial applications," in IEEE Sensors Journal, (Impact factor 4.325) Volume: 21, Issue: 12, June15 pp.13356 – 13363 doi: 10.1109/JSEN.2021.3067801. Impact Factor 3.076, Print ISSN: 1530-437X Electronic ISSN: 1558-1748 DOP 22 March 2021.
17. Praveen Pal, Yogesh Pratap, Mridula Gupta, and **Sneha Kabra**. "Analytical Modeling and Simulation of AlGaIn/GaN MOS-HEMT for High Sensitive pH Sensor." *IEEE Sensors Journal*. (Impact factor 4.325) vol. 21, no. 12, pp. 12998-13005, June. 15, 2021, (d.o.i:10.1109/JSEN.2021.3069243).ISSN 1530-437X
18. H. D. Sehgal, Y. Pratap, M. Gupta and **S. Kabra**, "Performance Analysis and Optimization of Under-Gate Dielectric Modulated Junctionless FinFET Biosensor," in IEEE Sensors Journal, (Impact factor 4.325) vol. 21, no. 17, pp. 18897-18904, 1 Sept.1, 2021, doi: 10.1109/JSEN.2021.3090263 ISSN 1530-437X
19. N. Garg, Y. Pratap, M. Gupta, and **S. Kabra**, "Dielectric Separated Independent Gates Junctionless Transistor (DSIG-JLT) For Highly Scaled Digital Logic Implementation," *IEEE Trans. Nanotechnology*, vol. 20, pp. 262–269, 2021,

doi:[10.1109/tnano.2021.3066814](https://doi.org/10.1109/tnano.2021.3066814). Impact Factor: 2.967 DOP: 17 March 2021, Print ISSN:1536-125X, Electronic ISSN: 1941-0085

20. Neha Garg, Yogesh Pratap, Mridula Gupta and **Sneha Kabra**, “Reliability Assessment of GaAs/Al₂O₃ Junctionless FinFET in the presence of Interfacial layer defects and radiations” IEEE Transactions on Device and Materials Reliability. Volume: 20, Issue: 2, pp.452-458 June 2020, Impact Factor: 1.407 Print ISSN: 1530-4388, DOI: 10.1109/TDMR.2020.2991662 Impact factor: 1.886
21. Neha Garg, Yogesh Pratap, Mridula Gupta and **Sneha Kabra**, “Impact of different localized trap charge profiles on the short channel double gate junctionless nanowire transistor based inverter and Ring Oscillator circuit” AEU - International Journal of Electronics and Communications, Volume 108, August 2019, Pages 251-261, ISSN: 1434-8411, Impact Factor: 3.169 <https://doi.org/10.1016/j.aeue.2019.06.014>
22. Praveen Pal, Yogesh Pratap, Mridula Gupta and **Sneha Kabra**, “Modeling and simulation of AlGa_N/Ga_N MOS-HEMT for biosensor applications” IEEE Sensors Journal, vol. 19, no. 2, pp. 587-593, Jan. 2019, D.O.I : 10.1109/JSEN.2018.2878243 Impact Factor 4.325 (2019) ISSN 1530-437X
23. Urvashi Sharma, Shabana Urooj, **Sneha Kabra** “Investigation of InGaAs subcell to InGaP subcell in InGaP/InGaAs/Ge multijunction solar cells with Analytical framework” Materials today: Proceedings, Volume 5, Issue 9, Part 3, 2018, Impact Factor-0.99, Pages 18574-18579, <https://doi.org/10.1016/j.matpr.2018.06.201>, ISSN: 2214-7853
24. Yogesh Pratap, M. Kumar, **Sneha Kabra**, S. Haldar, R. S. Gupta and Mridula Gupta, (2017). Analytical Modeling of Gate-All-Around Junctionless Transistor based Biosensor for Detection of Neutral Biomolecule Species. Journal of Computational Electronics(first published 4 Aug 2017): 288-296. Vol 17, ISSN:1569-8025, E-ISSN: 1572-8137, Impact factor 2.5 UGC Listed <https://doi.org/10.1007/s10825-017-1041-4>
25. Sona P Kumar, A Agrawal, R Chaujar, **Sneha Kabra**, M Gupta, and R.S.Gupta Threshold voltage model for small geometry AlGa_N/Ga_N HEMTs based on analytical solution of 3-D Poisson's equation, Microelectronics Journal, Vol38 no.10-11, pp 1013-1020, 2007, ISSN: 0026-2692 UGC Listed <https://doi.org/10.1016/j.mejo.2007.09.001> Impact factor 1.992.
26. Sona P Kumar, Anju Agrawal, **Sneha Kabra**, Mridula Gupta and R.S.Gupta “An analysis for AlGa_N/Ga_N modulation doped field effect transistor using accurate velocity-field dependence for high power microwave frequency applications” Microelectronics Journal, vol.37, Issue 11, pp. 1339-1346, Nov. 2006. ISSN: 0026-2692 UGC Listed <https://doi.org/10.1016/j.mejo.2006.07.003> Impact factor 1.992
27. Harsupreet Kaur, **Sneha Kabra**, S Haldar, RS Gupta, “Impact of laterally asymmetric channel and gate stack architecture on device performance of surrounding gate MOSFETs”, Microwave and Optical Technology Letters, vol52, no.3, pp. 746-750, 2010

ISSN: 1098-2760, <https://doi.org/10.1002/mop.25022> Impact factor 1.311

28. Harsupreet Kaur, **Sneha Kabra**, Subhasis Haldar, and R. S. Gupta, "An Analytical Threshold Voltage Model for Graded Channel Asymmetric Gate Stack (GCASYMGAS) Surrounding Gate MOSFET", Solid State Electronics, vol. 52, Issue 2, pp.305-311, 2008. ISSN: 0038-1101 Impact factor 1.437 UGCListed <https://doi.org/10.1016/j.sse.2007.09.006> Impact factor 1.916
29. Harsupreet Kaur, **Sneha Kabra**, Subhasis Haldar, and R. S. Gupta, "An analytical drain current model for graded channel cylindrical/surrounding gate MOSFET" Microelectronics Journal, vol.38, Issue 3, pp. 352-359, 2007. ISSN: 0026-2692 UGCListed, <https://doi.org/10.1016/j.mejo.2007.01.003> Impact factor 1.992
30. Harsupreet Kaur, **Sneha Kabra**, Subhasis Haldar, and R. S. Gupta, "Impact of graded channel (GC) design in fully depleted cylindrical/surrounding gate MOSFET (FD CGT/SGT) for improved short channel immunity and hot carrier reliability" Solid State Electronics, vol. 51, Issue 3, pp. 398-404, 2007. ISSN: 0038-1101 UGC Listed, <https://doi.org/10.1016/j.sse.2007.01.025> Impact factor 1.916
31. **Sneha Kabra**, Harsupreet Kaur, Subhasis Haldar, Mridula Gupta and R. S. Gupta, "Temperature Dependent Analytical Model of sub-micron GaN MESFETs for Microwave Frequency Applications", Solid State Electronics, vol.52, no.1, pp.25-30, 2008. ISSN: 0038-1101 UGCListed Impact factor 1.916 (5 year-2018) <https://doi.org/10.1016/j.sse.2007.06.010>
32. **Sneha Kabra**, Harsupreet Kaur, Subhasis Haldar, Mridula Gupta and R. S. Gupta, "A Semi-Empirical Model for Admittance and Scattering Parameters of GaN MESFET for microwave circuit applications" Microwave and optical technology Letters, vol.49, no. 10, pp.2446-2450, 27 July 2007. ISSN: 1098 2760 <https://doi.org/10.1002/mop.22744> Impact factor 1.311
33. **Sneha Kabra**, Harsupreet Kaur, Subhasis Haldar, Mridula Gupta and R. S. Gupta, "Two Dimensional Subthreshold Analysis of Sub-Micron GaN MESFET" Microelectronics Journal, vol. 38, no. 4-5, pp. 547-555, 2007.ISSN: 0026-2692 Impact factor 1.992 UGC Listed <https://doi.org/10.1016/j.mejo.2007.03.006>
34. **Sneha Kabra**, Harsupreet Kaur, Subhasis Haldar, Mridula Gupta and R. S. Gupta "An Analytical Model for GaN MESFET's Using New Velocity-Field Dependence" Physica Status Solidi C, pp. 2350-2355, no.6, vol.3, June 2006.ISSN: 1610-1642 <https://doi.org/10.1002/pssc.200565318> Impact factor 1.782
35. **Sneha Kabra**, Harsupreet Kaur, Ritesh Gupta, Subhasis Haldar, Mridula Gupta and R.S.Gupta "A Semi Empirical Approach for Submicron GaN MESFET Using an Accurate Velocity Field Relationship for High Power Applications", Microelectronics Journal, pp.620-626, no.7, vol.37, 2006. ISSN: 0026-2692, Impact factor 1.992 (5 year-2018) UGCListed <https://doi.org/10.1016/j.mejo.2005.09.018>

International Conference Publications

1. D. Babbar, M.Gupta and S. Kabra "Thermal Performance Comparison of Si and GaAs Channel Stack Oxide Junctionless FinFET based Ammonia Gas Sensor" 2025 Modern Electronics Devices and Intelligent Communication Systems (MEDCOM)
2. D. Babbar, N. Garg and S. Kabra, "Linearity Assessment of Gate Stack Junctionless FinFET based Ammonia Gas Sensor," 2025 IEEE 6th India Council International Subsections Conference (INDISCON), Rourkela, India, 2025, pp. 1-5, doi: 10.1109/INDISCON66021.2025.11253970
3. A. Shakya, P. Pal and S. Kabra, "Linearity analysis of Back-Barrier engineered Graded-AlGaIn/GaN HEMT on β -Ga₂O₃ substrate for RF applications," 2025 1st International Conference on Radio Frequency Communication and Networks (RFCoN), Thanjavur, India, 2025, pp. 1-5, doi: 1109/RFCoN62306.2025.11085083
4. Arzoo Shakya, P.Pal and Sneha Kabra, "Comparative Analysis of T-gate GaN HEMT with different passivation layers for RF Applications", 3rd International Conference on Communication, Control and Intelligent systems, CCIS 2024, 6-7 December, Agra
5. D. Babbar, N. Garg and S. Kabra, "Thermal Performance of Stack Oxide Junctionless GaAs FinFET based NH₃ Gas Sensor for Sustainable Environment Monitoring", International Conference on Sustainability and Technological Advancements in Engineering Domain, Manav Rachna International Institute of Research and Studies, Faridabad, 13-14 Dec 2024
6. D. Babbar, N. Garg and S. Kabra "Sensitivity Investigation of Gate Stack Junctionless GaAs FinFET based NH₃ Gas Sensor", 3rd IEEE Electron Devices Kolkata Conference (EDKCON 2024), November 23-25, 2024. <https://doi.org/10.1109/EDKCON62339.2024.10870682>
7. Arzoo Shakya, P.Pal and Sneha Kabra, "Comparative Analysis of GaN HEMT on β -Ga₂O₃ and conventional substrates for RF Application" 12th International Conference on the Internet of Everything, Microwave, Embedded, Communication, and Networks (IEMECON 2024), Jaipur, 24th-26th October, 2024.
8. Praveen Pal and Sneha Kabra, "Linearity Performance and Distortion Characteristics of T and π – Gate AlGaIn/GaN HEMT", 2024 Second International Conference on Inventive Computing and Informatics (ICICI), 11-12 June 2024, Bangalore, India DOI: [10.1109/ICICI62254.2024.00123](https://doi.org/10.1109/ICICI62254.2024.00123)
9. D. Babbar, N. Garg and S. Kabra "Designing, Optimization and Statistical Analysis of Stack Oxide Junctionless FinFET based Ammonia Gas Sensor", 11th International Conference on Microelectronics, Circuits & Systems, Micro 2024, 16th and 17th of May 2024 at Delhi Technological University, Delhi
10. D. Babbar, N. Garg and S. Kabra, "Comparative Analysis of InGaIn and Silicon Channel Stack Oxide Twin Gate Field Effect Transistor as Ammonia Gas Sensor", International Conference on Recent Advances in Fluid Mechanics and Nanoelectronics (ICRAFMN-2023), 12-14 July 2023, Manipal Institute of Technology, Bengaluru.
11. Praveen Pal, Yogesh Pratap and Sneha Kabra "AlGaIn/GaN MOSHEMT based sensor for label free detection of lactic acid" International Conference on Recent Advances in Fluid Mechanics and Nanoelectronics (ICRAFMN-2023), 12-14 July 2023, Manipal Institute of Technology, Bengaluru.
12. Himani Dua, Yogesh Pratap, and Sneha Kabra, "Comparative study of Junctionless and Inverted Mode FinFET for detection of breast cancer cell HS578t at microwave frequency" 3rd IEEE International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI SATA-2022), 16-17 December 2022, Amrita School of Engineering, Bengaluru.
13. Bhavya Dhyani, Nandita Das, Anjali Thakur, Dr. Sneha Kabra, Himani Sehgal, Neha Garg and Naina Gautam 2022 "Low-cost MOSFET based pH-sensor Using Ag/AgCl Glass

- electrodes” IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON 2022), December 2-4, 2022 at IIIT Allahabad
14. N. Garg, Y. Pratap and S. Kabra, “Impact of Load Capacitance and Interface Trap Charges On Dynamic Behaviour of Double-Gate Junctionless Transistor Based CMOS Inverter” IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON 2022), December 2-4, 2022 at IIIT Allahabad
 15. Divya Babbar, Yogesh Pratap, Sneha Kabra, “Design and Simulation of Double gate Junctionless Field Effect Transistor for Ammonia Gas Sensing” 2nd IEEE Electron Device Kolkata Conference 2022 (EDKCON 2022), 26-27 November 2022, Kolkata
 16. Himani Dua, Yogesh Pratap, and Sneha Kabra, “Detection of poisonous gases using JL FinFET with conducting gate polymer”, Sixth International Conference on Device, Circuits & Systems (ICDCS), Karunya Institute of technology and sciences, Coimbatore, 21-22 April 2022 <https://doi.org/10.1109/ICDCS54290.2022.9780853>
 17. N. Garg, Y. Pratap and S. Kabra, "Stability and Reliability Performance of Double Gate Junctionless Transistor (DG-JLT) 6T SRAM," 2021 *International Conference on Industrial Electronics Research and Applications (ICIERA)*, December 22-24 2021, Maharaja Agrasen Institute of technology, Delhi, pp. 1-5, doi: 10.1109/ICIERA53202.2021.9726766
 18. Praveen Pal, Yogesh Pratap, Mridula Gupta and **Sneha Kabra** “Performance analysis of ScAlN/GaN High Electron Mobility Transistor (HEMT) for biosensing application.” 5 th International Conference on Devices, Circuits and Systems (ICDCS’20), at Karunya Institute of technology and sciences, Coimbatore from 5 th to 6 th March 2020.
 19. Himani Dua, Yogesh Pratap, Prof. Mridula Gupta and **Sneha Kabra** “Comparative Analysis of Junctionless FinFET and Inverted Mode FinFET as Phosphine (PH₃) Gas Sensor”, in International Conference on Device, Circuits & Systems (ICDCS), Karunya Institute, Coimbatore, 5th -6th March 2020. <https://doi.org/10.1109/ICDCS48716.2020.243579>
 20. Neha Garg, Yogesh Pratap, Mridula Gupta and **Sneha Kabra** , “Impact of Trap Charges and High Temperature on Reliability of GaAs/Al₂O₃ based JunctionlessFinFET” **7th International Conference on Computers and Devices for Communication, CODEC 2019**, 19th-20th December 2019 at Kolkata (Poster Presentation), organized by Department of Radio Physics and Electronics, University of Calcutta, India. https://doi.org/10.1007/978-981-15-8366-7_64
 21. Praveen Pal, Yogesh Pratap, Mridula Gupta and **Sneha Kabra**, Performance of AlGaN/GaN based Common Drain Dual HEMT (CDD-HEMT) for high power applications, 7th IEEE MTT-S International Microwave & RF Conference (IMaRC-2019), held at IIT Mumbai, India, December 13-15 2019 <https://doi.org/10.1109/IMaRC45935.2019.9118660>
 22. Himani Dua, Yogesh Pratap, Mridula Gupta, **Sneha Kabra**, “Comparative Analysis of Dielectric Modulated Junctionless FinFET Biosensor and Junctionless DG MOSFET Biosensor for Medical Instrumentation” International Conference on Power Electronics, Control & Automation (ICPECA 2019),16-17 November 2019, Jamia Millia Islamia, Delhi <https://doi.org/10.1109/ICPECA47973.2019.8975506>
 23. Praveen Pal, Yogesh Pratap, Mridula Gupta and **Sneha Kabra** "Comparative analysis of oxides to improve performance of DC-MOS-HEMTs” **IEEE International Conference on Modeling of System Circuits and Devices (MOS-AK India 2019)**, organised by IEEE Hyderabad Section **from February 25th to 27th 2019, IIT - Hyderabad. <https://doi.org/10.1109/MOS-AK.2019.8902420>
 24. Himani Dua, Yogesh Pratap, Mridula Gupta and **Sneha Kabra**, “Impact of different Cavity Structures on Bio-Sensing Response of Junctionless FinFET” Poster presentation in 4th

- International Conference on Emerging Electronics, December 17th-19th 2018, Bangalore.
<https://doi.org/10.1109/ICPECA47973.2019.8975506>
25. Neha Garg, Yogesh Pratap, Mridula Gupta and **Sneha Kabra**, "Analysis of Interface Trap Charges of Double gate Junctionless Nanowire Transistor (DG-JNT) for Digital Circuit Applications", IEEE Electron Device Kolkata Conference (2018 IEEE EDKCON)", November 24-25, 2018, Kolkata organized by IEEE EDS Kolkata Chapter.
<https://doi.org/10.1109/EDKCON.2018.8770427>
 26. Yogesh Pratap, Reshma Sinha, Praveen Pal, Sarul Malik and **Sneha Kabra** "Performance analysis of metalloid source/ drain GaAs-finFET for analog/rf applications", IEEE 4th International Conference on circuits, devices and systems organised by Karunya University, Coimbatore from 16-17 March 2018. Pp. 219-222, ISBN: 978-1-5386-3476-9/18 <https://doi.org/10.1109/ICDCSyst.2018.8605159>
 28. A review on the Eye Stick: Boon to Visually Impaired, Anushka Singh, Deeksha Agarwal, Pratibha Sangam, Prerna Singh, Shivani Ranjan, Yogesh Pratp, **Sneha Kabra** International Conference on Advances in Nanomaterials and Nanotechnology (ICAN 2016) 4th and 5th November 2016, Centre for Nano Science and Nanotechnology, Jamia Millia Islamia. ISBN:978-93-85000-94-2
 29. Amita Kapoor, **Sneha Kabra**, and Himani Dua "Development, use and impact of E-learning based modules for teaching Electronics To undergraduate girl students: A case study", "**2nd IEEE International Conference on MOOCs, Innovation and Technology in Education**" organized by Thapar University, Patiala, Punjab, India from 19-20 Dec, 2014. pp215-218 INSPEC Accession Number: 14871619, DOI [10.1109/MITE.2014.7020274](https://doi.org/10.1109/MITE.2014.7020274)
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