

List of Publications of Dr. Manodipan Sahoo,
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International Journals – 32
International Conferences- 38
National Conference/Symposium- 5
Books/Book Chapters - 3
Patents- 1 (Filed)
Total Publications- 79

Webpage: <https://sites.google.com/view/nanolab-iitdhanbad>

Patents:

Indian Patent filed on "2D dual gate biosensor FET device and method of performance evaluation of the device in nanometric scale through multiscale simulation approach", published in December, 2024 [Application No. 202431100980 dated 19.12.2024].

Book and Book Chapter:

1. Published a Book on "**Modelling and Simulation of CNT and GNR Interconnects**" in Lambert Academic Publishers (2019).
2. Published a Book Chapter on "**Modelling Interconnects for Future VLSI Circuit Applications**" in IET Book entitled "VLSI and Post-CMOS Electronics: Devices, Circuits and Interconnects" (2019), DOI: [10.1049/PBCS073G](https://doi.org/10.1049/PBCS073G).
3. Published a Book Chapter on "**Hybrid Cu-Carbon as Interconnect Materials and Their Interconnect Models**" in the Book entitled "Nano-Interconnect Materials and Models for Next Generation Integrated Circuit Design" (CRC Press, 2023).

International Journals:

- J32.** M. Kumari, N. K. Singh, V. Kumar and **M. Sahoo**, "Design and investigation of charge plasma-based TMD heterojunction TFET biosensor for ultrasensitive detection", Springer Nature Scientific Reports, vol. 15:15195, DOI: 10.1038/s41598-024-84677-6, April 2025.
- J31.** A. Kumari, A. Dubey, **M. Sahoo** and R. Thangavel, "Eco-friendly synthesis and characterization of high-quality reduced graphene oxide from dry coconut shells", Materials Chemistry and Physics, Elsevier publishers, May 2025, vol. 344, no. 131091, DOI: 10.1016/j.matchemphys.2025.131091.
- J30.** A. Kumari, **M. Sahoo**, S. Roy and R. Thangavel, "First-Principles Investigation of Noble Metal-decorated Reduced Graphene Oxide for Ultrasensitive Detection of Methane", Micro and Nanostructures, vol. 205, No. 208184, September 2025, DOI: <https://doi.org/10.1016/j.micrna.2025.208184>.

J29. A. Kumari, **M. Sahoo**, S. Rajput and R. Thangavel, "DFT Investigation of Metal Cluster functionalized Reduced Graphene Oxide for Efficient Detection of Carbon Monoxide", *Surfaces and Interfaces*, Elsevier publishers <https://doi.org/10.1016/j.surfin.2025.107317> , 2025

J28. B. Kumari, R. Y. Sharma and **M. Sahoo**, "ABCD parameter based analytical AC modeling of novel Cu-carbon hybrid interconnects for noise constrained nanoscale systems", *Springer Nature Scientific Reports*, May, 2025, DOI: 10.1038/s41598-024-81729-9.

J27. S. Singh, S. Neogi, I. Visen, and **M. Sahoo**, "Multiscale Simulation of 2D Material-Based Homo- and Heterostructure FET: A Material-to-Circuit Approach", *Physica Scripta*, IOP Publishers, DOI: <https://doi.org/10.1088/1402-4896/ae0839>, May 2025.

J26. S. Bardhan, **M. Sahoo**, J. Samanta, and H. Rahaman, "A Quasi-Ballistic Model For Short Channel Monolayer Graphene Field Effect Transistor Including Scattering Effects", *IETE Journal of Research*, Taylor and Francis Publishers, 2024, DOI: 10.1080/03772063.2024.2352154.

J25. N. K. Singh, and **M. Sahoo**, "Comparative Investigation of Different Doping Techniques in TMD Tunnel FET for Subdeca Nanometer Technology Nodes", *Journal of Electronic Materials*, May, 2023, DOI:10.1007/s11664-023-10505-8.

J24. S. K. Dora, H. B. Mishra, **M. Sahoo**, "Low Complexity Implementation of OTFS Transmitter using Fully Parallel and Pipelined Hardware Architecture", *Journal of Signal Processing Systems*, pg. 1-10, 2023, DOI: <https://doi.org/10.1007/s11265-023-01847-x>.

J23. M. Kumari, N. K. Singh and **M. Sahoo**, "A detailed investigation of dielectric-modulated dual-gate TMD FET based label-free biosensor via analytical modelling", *Nature Scientific Reports*, 12:21115, 2022, DOI: <https://doi.org/10.1038/s41598-022-24677-6> .

J22. B. Kumari, R. Y. Sharma and **M. Sahoo**, "Electro-Thermal Modeling and Reliability Analysis of Cu-Carbon Hybrid Interconnects for Beyond-CMOS Computing", *Applied Physics Letters*, 2022, DOI: <https://doi.org/10.1063/5.0101329>.

J21. N. K. Singh, M. Kumari and **M. Sahoo**, "All Region Analytical Modeling of 2-D Transition Metal Dichalcogenide FET by Considering effect of Fringing field and Region-wise Mobility", *Physica E: Low-dimensional Systems and Nanostructures*, 2022, DOI: <https://doi.org/10.1016/j.physe.2022.115480>.

J20. B. Kumari, P. Santosh, R. Y. Sharma and **M. Sahoo**, "Thermal-Aware Modeling and Analysis of Cu-Mixed CNT Nanocomposite Interconnects ", *IEEE Transactions on Nanotechnology*, vol. 21, pp. 163-171, IEEE Publishers, DOI: 10.1109/TNANO.2022.3160870.

J19. B. Kumari, R. Y. Sharma and **M. Sahoo**, "Performance and Reliability Improvement in Intercalated MLG NR Interconnects using Optimized Aspect Ratio ", *Nature Scientific Reports*, 12:1475 (2022), DOI: 10.1038/s41598-022-05222-x, Link: <https://rdcu.be/cFOQT>.

J18. N. K. Singh and **M. Sahoo**, "Analytical Modeling of Short-Channel TMD TFET

Considering Effect of Fringing Field and 2-D Junctions Depletion Regions", *IEEE Transactions on Electron Devices*, IEEE Publishers, February, 2022, vol. 69, no. 2, pp. 843-850, DOI: [10.1109/TED.2021.3135367](https://doi.org/10.1109/TED.2021.3135367).

J17. B. Kumari, R. Kumar, R. Y.Sharma and **M. Sahoo**, "Design, Modeling and Analysis of Cu-Carbon Hybrid Interconnects", *IEEE Access*, IEEE Publishers, vol. 9, pp. 113577 – 113584, DOI: [10.1109/ACCESS.2021.3104299](https://doi.org/10.1109/ACCESS.2021.3104299), 2021.

J16. M. Kumari, N. K. Singh, M. Sahoo and H. Rahaman, "2-D Analytical Modeling and Simulation of Dual Material, Double Gate, Gate Stack engineered, Junctionless MOSFET based Biosensor with Enhanced Sensitivity", *Silicon*, Springer, July, 2021, pp. 1-12, DOI: <https://doi.org/10.1007/s12633-021-01223-z>

J15. M. Kumari, N. K. Singh, M. Sahoo and H. Rahaman, "Work function optimization for Enhancement of sensitivity of Dual Material(DM), Double gate(DG), Junctionless MOSFET based biosensor", *Applied Physics A*, Springer, January, 2021, DOI: <https://doi.org/10.1007/s00339-020-04256-0>.

J14. N. K. Singh, M. Kumari and M. Sahoo, "A Compact Short-Channel Analytical Drain Current Model of Asymmetric Dual-gate TMD FET in Subthreshold Region including Fringing Field effects", *IEEE Access*, IEEE Publishers, November, 2020, vol. 8, no. 11, pp. 207982-207990, DOI: [10.1109/ACCESS.2020.3038421](https://doi.org/10.1109/ACCESS.2020.3038421).

J13. N. K. Singh and M. Sahoo, "Investigation on the Effect of Gate dielectric and other Device parameters on Digital Performance of Silicene Nanoribbon Tunnel FET", *IEEE Transactions on Electron Devices*, IEEE Publishers, July, 2020, vol. 67, no. 7, pp. 2966-2973, DOI: [10.1109/TED.2020.2992016](https://doi.org/10.1109/TED.2020.2992016).

J12. B. Kumari, and **M. Sahoo**, `` Performance and Signal Integrity Analysis of Intercalation Doped Multilayer Vertical Graphene Nanoribbon Interconnects", *IET Circuits, Devices and Systems*, IET Publishers 2019, DOI: <https://doi.org/10.1049/iet-cds.2019.0072>.

J11. S. Bardhan, **M. Sahoo** and, H. Rahaman, `` A Boltzmann Transport Equation Based Semiclassical Drain Current Model for Bilayer GFET Including Scattering Effects," *IET Circuits, Devices and Systems*, IET Publishers 2019, DOI: <https://doi.org/10.1049/iet-cds.2018.5104>.

J10. B. Kumari and **M. Sahoo**, `` Stability Analysis of Multilayer Vertical Graphene Nanoribbon Interconnects", *IOP Science, Materials Research Express*, DOI:<https://iopscience.iop.org/article/10.1088/2053-1591/ab1b92>, vol. 6, pp. 08560, 2019.

J9. B. Kumari and **M. Sahoo**, `` Performance and Power Optimization for Intercalation doped Multilayer Graphene Nanoribbon Interconnects", *IETE Journal of Research*, Taylor and Francis Publishers, 2019.
DOI: <https://doi.org/10.1080/03772063.2019.1621214>

J8. S. Bardhan, **M. Sahoo** and, H. Rahaman, `` Empirical Drain Current Model of Graphene Field-Effect Transistor for Application as a Circuit Simulation Tool," *IETE Journal of Research*, Taylor and Francis Publishers, 2019.

DOI: <https://doi.org/10.1080/03772063.2019.1620639>

J7. S. Bardhan, **M. Sahoo** and, H. Rahaman, ``A Surface Potential Based Model for Dual Gate Bilayer GFET Including the Capacitive Effects'', *Journal of Circuits, Systems and Computers*, *World Scientific Publishers*. <https://doi.org/10.1142/S0218126619502414>, 2019

J6. **M. Sahoo**, and H. Rahaman, "Analysis of Crosstalk Induced Effects in Multilayer Graphene Nanoribbon Interconnects", *Journal of Circuits, Systems, and Computers*, *World Scientific Publishers*, Vol. 26, No. 6 (2017) 1750102, pp. 1-21, <https://doi.org/10.1142/S021812661750102X>, 2017.

J5. **M. Sahoo**, and H. Rahaman, "Modeling and Analysis of Crosstalk Induced Overshoot/Undershoot Effects in Multilayer Graphene Nanoribbon Interconnects and Its Impact on Gate Oxide Reliability", *Microelectronics Reliability* (2016), Elsevier Publishers, Vol.63, August 2016, pp. 231–238, <https://doi.org/10.1016/j.microrel.2016.06.017>.

J4. **M. Sahoo**, P. Ghosal, and H. Rahaman, "Modeling and Analysis of Crosstalk Induced Effects in Multiwalled Carbon Nanotube Bundle Interconnects: An ABCD Parameter Based Approach", *IEEE Transactions on Nanotechnology*, *IEEE*, Vol. 14, no. 2, pp. 259–274, March 2015, <https://doi.org/10.1109/TNANO.2014.2388252>.

J3. **M. Sahoo**, and H. Rahaman, "Modeling of Crosstalk Induced Effects in Copper-Based Nanointerconnects: An ABCD Parameter Matrix-Based Approach", *Journal of Circuits, Systems, and Computers*, *World Scientific Publishers*, Vol. 24, no. 2, pp. 1-22, 2015, <https://doi.org/10.1142/S0218126615400071>.

J2. **M. Sahoo**, P. Ghosal, and H. Rahaman, "Performance Modeling and Analysis of Carbon Nanotube Bundles for Future VLSI Circuit Applications", *Journal of Computational Electronics*, *Springer Publications*, Vol. 13, no. 3, pp. 673-688, 2014, <https://doi.org/10.1007/s10825-014-0587-7>.

J1. **M. Sahoo**, H. Rahaman, and Bhargab B. Bhattacharya, "On the Suitability of Single-Walled Carbon Nanotube Bundle Interconnects for High-Speed and Power-Efficient Applications", *Journal of Low Power Electronics*, *American Scientific Publishers*, Vol. 10, no. 3, pp. 191-206, September 2014, <https://doi.org/10.1166/jolpe.2014.133>.

International Conferences:

C38. S. Singh, S. Neogi, I. Visen, and **M. Sahoo**, "Material to Circuit Simulation Approach for Performance Investigation of 2D Material Homostructure-based FET", 20th IEEE NMDC, October 2025, Salt Lake City, USA (Accepted).

C37. A. Kumari, A. Rahaman, and **M. Sahoo**, "First-Principles studies on Noble Metal-Functionalized reduced graphene oxide for ultrasensitive Methane Detection", 7th ISDCS, May-2025, IEST, Shibpur(Accepted).

C36. M. Kumari, and **M. Sahoo**, "Sensitivity Enhancement of TMD MOSFET-Based Biosensor by Modeling and Optimization of Back Gate Parameters", IEEE VLSID, January 2024, DOI: [10.1109/VLSID60093.2024.00007](https://doi.org/10.1109/VLSID60093.2024.00007).

C35. S. K. Dora, H. B. Mishra, M. Sahoo and K. Yadav, "Hardware Implementation of OTFS Modulation Using CORDIC Algorithm", IEEE SPCOM, Bangalore, July 2024, DOI: [10.1109/SPCOM60851.2024.10631593](https://doi.org/10.1109/SPCOM60851.2024.10631593).

C34. M. Kumari, and **M. Sahoo**, "Sensitivity Enhancement of TMD MOSFET-Based Biosensor by Optimization of Back Gate Parameters and Noise Analysis", IEEE CODEC, December 2023, DOI: [10.1109/CODEC60112.2023.10466064](https://doi.org/10.1109/CODEC60112.2023.10466064).

C33. M. Kumari, A. Kumari, S. Das, and **M. Sahoo**, "Low-Cost Fabrication of MoS₂ Nanosheet Biosensor for Glucose Detection", RPGR 2023 (Recent Progress in Graphene and 2D Materials Research Conference) (Accepted).

C32. S. K. Dora, R. K. Yadav, **M. Sahoo** and H. B. Mishra, "VLSI Architecture for Low Complexity Zero Forcing Equalizer in OTFS Modulation", IEEE ELEXCOM, August 2023, DOI: [10.1109/ELEXCOM58812.2023.10370165](https://doi.org/10.1109/ELEXCOM58812.2023.10370165)

C31. N. K. Singh, R. Shankar, S. Verma, and **M. Sahoo**, "Design of low-power and high-performance 10 nm SRAM using Electrostatically doped TMD TFET", IEEE ISDCS 2023, May, 2023, pp. 1-6, DOI: [10.1109/ISDCS58735.2023.10153525](https://doi.org/10.1109/ISDCS58735.2023.10153525).

C30. M. Kumari, and **M. Sahoo**, "Impact of Process Induced Strain on the Sensitivity of Charge Plasma Doped TMD TFET Biosensor", 6th IEEE ICEE, Bangalore, December, 2022, pp. 1-6, DOI: [10.1109/ICEE56203.2022.10118170](https://doi.org/10.1109/ICEE56203.2022.10118170).

C29. B. Kumari, R. Sharma and **M. Sahoo**, "Stability Analysis of Nanoscale Copper-Carbon Hybrid Interconnects", IEEE ECTC, pp. 1-6, July 2022, DOI: [10.1109/ECTC51906.2022.00158](https://doi.org/10.1109/ECTC51906.2022.00158).

C28. B. Kumari, S. Pandranki, **M. Sahoo**, R. Sharma, "Copper-MWCNT Composite: A Solution to Breakdown in Copper Interconnects", 2021 IEEE 21st International Conference on Nanotechnology, July 2021, DOI: [10.1109/NANO51122.2021.9514276](https://doi.org/10.1109/NANO51122.2021.9514276).

C27. B. Kumari, R. Kumar, **M. Sahoo** and R. Sharma, "Performance Analysis of Self Heated Multilayer Vertical Graphene Nanoribbon Interconnects", *Proceedings of the 71st IEEE Electronic Components and Technology Conference, Lake Buena Vista*, May 2021, DOI: [10.1109/ECTC32696.2021.00256](https://doi.org/10.1109/ECTC32696.2021.00256).

C26. P. Howladar, K. Mondal, **M. Sahoo**, "Machine Learning based Supraventricular Tachycardia Detection Model of ECG signal", International Conference on Data Analytics & Management, Jaipur, June, 2021 (**Got Best Paper award**).

C25. P. Howladar, **M. Sahoo**, "Machine Learning based Ventricular Tachycardia Detection of ECG Signal", 8th International Conference on Microelectronics, Circuits & Systems, Kolkata, May, 2021 (**Got Best Paper award**).

C24. R. Kumar, B. Kumari, S. Kumar, **M. Sahoo** and R Y. Sharma, "Temperature and Dielectric Surface Roughness dependent Performance Analysis of Cu-Graphene Hybrid Interconnects", *Proceedings of the IEEE Electrical Design of Advanced Packaging and Systems (EDAPS)*, Shenzhen, China, December 2020.

C23. K. Sable and **M. Sahoo**, "Electrical and Thermal Analysis of Cu-CNT Composite TSV and GNR Interconnects", Accepted in *International Symposium on Devices, Circuits and Systems (ISDCS)*, Howrah, March, 2020.

C22. N. K. Singh and **M. Sahoo**, ``Investigation of Silicene Nanoribbon Tunnel FET for Low power Digital VLSI circuit application with variation of Device parameters'', Accepted in X International Conference on Communication, Circuits and Systems (ICCCAS, 2018) held in Chengdu, China during December 22-24, 2018.

C21. P. Jha, B. Kumari and **M. Sahoo**, ``Investigation on the Impact of Various Intercalation doping on the Signal Integrity in ML-GNR Interconnects'', Accepted in X International Conference on Communication, Circuits and Systems (ICCCAS, 2018) held in Chengdu, China during December 22-24, 2018.

C20. B. Kumari and **M. Sahoo**, ``Width Optimization of Intercalation doped Multilayer Graphene Nanoribbon Interconnects'', *2018 International Symposium on Devices, Circuits and Systems (ISDCS)*, Howrah, 2018, pp. 1-5, <https://doi.org/10.1109/ISDCS.2018.8379653>.

C19. B. Kumari and **M. Sahoo**, ``Thickness Optimization of Intercalation doped Multilayer Graphene Nanoribbon Interconnects'', IEEE ICDCS-2018, March, 2018.

C18. M. Kumari, **M. Sahoo** and J. Kumar, ``Modelling and Optimization of Double barrier AlGaAs/GaAs/AlGaAs Resonant Tunneling Diode for THz applications'', Accepted in 4th IEEE ICEE, 2018 to be held in Bangalore in December, 2018 (**Got Best Poster award**).

C17. **M. Sahoo**, and H. Rahaman, "Impact of Mutual Inductance on the Crosstalk Induced Effects in Single-Walled Carbon Nanotube Bundle Interconnects'', *IEEE ICDCS, Karunya University*, 2016, pp. 286-290, <https://doi.org/10.1109/ICDCSyst.2016.7570585>

C16. S. Bardhan, **M. Sahoo** and H. Rahaman, ``Analytical Study of BTE Based Multilayer GFET Model'', *MicroCom 2016*, NIT Durgapur, 2016, pp. 1-6, <https://doi.org/10.1109/MicroCom.2016.7522594>.

C15. S. Bardhan, **M. Sahoo** and H. Rahaman, ``A Verilog-A based Semiclassical Model for Dual Gated Graphene Field-Effect Transistor'', *IEEE ICDCS, Karunya University*, 2016, pp. 37-42, <https://doi.org/10.1109/ICDCSyst.2016.7570619>.

C14. **M. Sahoo** and H. Rahaman, "Modeling of Crosstalk induced Overshoot/Undershoot effects in Multilayer Graphene Nanoribbon Interconnects'', *IEEE EICT, Khulna University*, December, 2015, pp. 416-421, <https://doi.org/10.1109/EICT.2015.7391988>.

C13. S. Bardhan, **M. Sahoo** and H. Rahaman, ``Analytical Drain Current Model for Graphene Metal-Oxide semiconductor Field-Effect Transistor'', *IEEE EICT, Khulna University*, December, 2015, pp. 422-427, <https://doi.org/10.1109/EICT.2015.7391989>

C12. **M. Sahoo**, P. Ghosal, and H. Rahaman, "An ABCD Parameter Based Modeling and Analysis of Crosstalk Induced Effects in Multiwalled Carbon Nanotube bundle Interconnects'', *IEEE 27th International Conference on VLSI Design*, IIT Bombay, India, pp. 433-438, Jan. 5-9, 2014, <https://doi.org/10.1109/VLSID.2014.81>.

C11. M. Sahoo, and H. Rahaman, "Modeling of Crosstalk Induced Effects in Nanoscale Copper Interconnects", *IEEE EICT*, KUET, Bangladesh, pp. 1–6, Feb. 13–15, 2014, <https://doi.org/10.1109/EICT.2014.6777811>.

C10. M. Sahoo, and H. Rahaman, "An ABCD Parameter Based Modeling and Analysis of Crosstalk Induced Effects in Multilayer Graphene Nano Ribbon Interconnects", *IEEE ISCAS*, Melbourne, Australia, pp. 1138–1142, June 1–5, 2014, <https://doi.org/10.1109/ISCAS.2014.6865341>.

C9. M. Sahoo, and H. Rahaman, "Impact of Line resistance variations on Crosstalk delay and noise in Multilayer Graphene Nano Ribbon Interconnects", *5th IEEE International Symposium on Electronic System Design (ISED 2014)*, NITK Surathkal, India, pp. 94–98, Dec. 15–17, 2014, <https://doi.org/10.1109/ISED.2014.27>.

C8. S. A. Mandal, S. Pal, M. Sahoo, P. Mondal and H. Rahaman, "A New Feedback Circuit Based Charge-pump for a Wide-range and Low-jitter DLL suitable for PET Imaging Applications", *Proceedings of IEEE ICDCS*, India, 2014, pp. 1–5, <https://doi.org/10.1109/ICDCSyst.2014.6926125>.

C7. S. Chakraborty, M. Sahoo and H. Rahaman, "A 1.8 V 64.9 μ W 54.1 dB SNDR 1st Order Sigma-Delta Modulator Design Using Clocked Comparator Based Switched Capacitor Technique", *IEEE Asia Symposium and Exhibit on Quality Electronic Design (ASQED)*, 2013, pp. 220–226, <https://doi.org/10.1109/ASQED.2013.6643591>.

C6. M. Sahoo, P. Ghosal, and H. Rahaman, "An ABCD Parameter Based Modeling and Analysis of Crosstalk Induced Effects in Single-Walled Carbon Nanotube Bundle Interconnects", *IEEE/ACM Asia Symposium and Exhibit on Quality Electronic Design (ASQED)*, Penang, Malaysia, pp. 264–273, Aug. 26–28, 2013, <https://doi.org/10.1109/ASQED.2013.6643598>.

C5. M. Sahoo, and H. Rahaman, "Modeling of Crosstalk Delay and Noise in Single-walled Carbon Nanotube Bundle Interconnects", *IEEE INDICON*, IIT Bombay, India, pp. 1–6, Dec. 13–15, 2013, <https://doi.org/10.1109/INDCON.2013.6725907>. (**Got Best Paper Award**)

C4. M. Sahoo, H. Rahaman and B. B. Bhattacharya, "Impact of Inductance on the Performance of Single Walled Carbon Nanotube Bundle Interconnects", *4th IEEE International Symposium on Electronic System Design (ISED)*, NTU, Singapore, pp. 16– 20, Dec. 12–13, 2013, <https://doi.org/10.1109/ISED.2013.10>.

C3. M. Sahoo and H. Rahaman, "Performance Analysis of Multiwalled Carbon Nanotube Bundles", *33rd IEEE International Scientific Conference Electronics and Nanotechnology (ELNANO)*, NTUU, Ukraine, pp. 200–204, Apr. 16–19, 2013, <https://doi.org/10.1109/ELNANO.2013.6552004>.

C2. M. Sahoo, P. Ghosal, and H. Rahaman, "Efficient and Compact Electrical Modeling of Multi Walled Carbon Nanotube Interconnects", *3rd IEEE International Symposium on Electronic System Design (ISED)*, Bengal Engineering and Science University, Shibpur Howrah, India, pp. 236–240, Dec. 19–22, 2012, <https://doi.org/10.1109/ISED.2012.24>.

C1. S. A. Kannan, M. Sahoo, S. Dwivedi, B. Amrutur and N. Bhat, "Optimal Power and Noise Allocation for Analog and Digital Sections of a Low Power Radio Receiver", *ACM/IEEE ISLPED*, India, August, 2008, pp. 271–276, <https://doi.org/10.1145/1393921.1393993>.

National Conferences/Symposium:

NC5. B. Kumari and **M. Sahoo**, ``Impact of Width on the Performance of Intercalation Doped MLG NR Interconnects'', INUP Familiarization workshop, IISc, Bangalore, November, 2017.

NC4. I. Das, **M. Sahoo**, P. Roy and H. Rahaman, ``A 45 uW 13 pJ/conv-step 7.4 ENOB 40 kS/s SAR ADC for Digital Microfluidic Biochip Applications'', International Symposium on VLSI Design and Test (VDATE) 2014, PSG College of Technology, Coimbatore, <https://doi.org/10.1109/ISVDATE.2014.6881068>.

NC3. M. Guha, A. Sengupta, **M. Sahoo** and H. Rahaman, "Effect of Defects on Performance and Signal Integrity of Multilayer GNR Interconnects", INUP Familiarization Workshop on Compact Modeling, IISc, August, 2014.

NC2. **M. Sahoo** and B. Amrutur, ``Comparison of OpAmp Based and Comparator Based Switched Capacitor Filter," *International Symposium on VLSI Design and Test (VDATE)*, 2012, Kolkata, Springer LNCS, vol. 7373, pp. 180-189, https://doi.org/10.1007/978-3-642-31494-0_21.

NC1. **M. Sahoo**, and H. Rahaman, "Analytical Modeling of Crosstalk Effects in Coupled Copper Interconnects in Deep Sub Micron Technology", *5th IEEE International Conference on Computers and Devices for Communication (CODEC)*, IRPE, Calcutta University, India, pp. 1-4, Dec. 17-19, 2012, <https://doi.org/10.1109/CODEC.2012.6509212>.