

# Faculty Details proforma for College Web-site



Title	Dr.	First Name	Anju	Last Name	Agrawal	Photograph
Designation		Professor				
Address		Department of Electronics				
		Acharya Narendra Dev College				
		University of Delhi, Govindpuri,				
		Kalkaji New Delhi-110019				
Phone No Office		26412547 ext 225				
Email/		anjuagrawal@andc.du.ac.in				A LEAD
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph.D. Depa		Department of Elect	ronic Scienc	2001		
M.Phil.		Department of Electronic Science, UDSC, New Delhi				1994
M.Sc (Electronics)		Department of Electronic Science, UDSC, New Delhi				1993
B.Sc (H)		Hansraj College, Delhi-110007				1991
Electronics						

Career Profile

Professor, Department of Electronics

Working at Acharya Narendra Dev College since 1995.

# A

Administrative Assignments					
Teacher in charge 2004-2006, 2016-17, 2021-22					
Teacher Representative in Governing Body: 2004-05 and 2017-2018.					
Staff Council Secretary 2008-2010					
Member. Courses of Committees					
Covnenor, Awards and Fellowship Committee 2022-24					
Convenor, Admission Committee 2018-2020					
Convenor, Internal Assessment Committee 2019-2021					
Coordinator, SEC/AECC Evaluation Centre 2016-2018					
Convenor, Electronica Society 2016-17, 2021-22					
Convenor, Dhun, Music Society 2019-21, 21-23					
Convenor, Examination Committee 2006-2008					
Convenor, Electronics Club 2004-2006					
Selection Committee for Appointment of Adhoc Assistant Professor in the Department of Electronics 2018-19					

# Areas of Interest / Specialization

Modelling and Simulation of HEMT structures, Specialization: Microelectronics

#### Subjects Taught

Digital Electronics and VHDL Microprocessors Embedded Systems Semiconductor Devices Operational Amplifiers and Applications (Lab) Communication Electronics (Lab)

#### Research Guidance

#### Students under Supervision

- 1. Sumit Vashista, Supervisor, "Design and Simulation of Acoustic Emission Sensor for Geohazard Survilliance", January, 2023
- 2. Sona P. Kumar, Co-supervisor for PhD. Thesis titled "Analysis, Modelling and Simulation of AlGaN/GaN Modulation Doped Field Effect transistor". 2011.

#### **Resource Person/Session Chair**

- 1. Chaired a session in the 3<sup>rd</sup> International Symposium on Ciliate Biology (ISCB-2022) organized by Acharya Narendra Dev College and Maitreyi College, University of Delhi under the aegis of DBT STAR College Scheme and IQAC held on November 8, 2022.
- 2. Resource person in "National Workshop on Skill Enhancement of Non-Teaching staff (NWSENS-2022)" organised by Acharya Narendra Dev College, University of Delhi held from July 13-20,2022.

#### **Publications Profile**

#### Journals

- "Improved Linearity Performance of AlGaN/GaN MISHFET over Conventional HFETs: An Optimization Study for Wireless Infrastructure Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Superlattices and Microstructures (SLM), Vol.50, Issue 1, pp.1-13, March 2011.
- 2. "Device Linearity and Intermodulation Distortion Comparison of Dual Material Gate and Conventional AlGaN/GaN High Electron Mobility Transistor", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, Microelectronics Reliability, pp.587-596, Vol.51, March 2011.
- 3. "RF Performance Assessment of AlGaN/GaN MISHFET at High Temperatures for Improved Power and Pinch-off Characteristics", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Microwave and Optical Technology Letters, (MOTL), Vol.51, Issue 8, pp.1942-1949, August 2009.
- 4. "Analytical Performance Evaluation of AlGaN/GaN Metal Insulator Semiconductor Heterostructure Field Effect Transistor (MISHFET) and its Comparison with Conventional HFETs for High Power Microwave Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Microwave and Optical

Technology Letters, (MOTL), Vol.50, Issue 2, pp.331-338, February 2008.

- 5. "Performance Assessment and Sub-Threshold Analysis of Gate Material Engineered AlGaN/GaN HEMT For Enhanced Carrier Transport Efficiency", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, Microelectronics Journal, Vol.39, No.12, pp.1416-1424, December, 2008.
- 6. "Gate Dielectric Engineering of Quarter Sub Micron AlGaN/GaN MISHFET: A New Device Architecture for Improved Transconductance and High Cut-off Frequency ", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Solid State Electronics, Vol.52, Issue 10, pp.1610-1614, October 2008.
- 7. "Analytical Modeling and Simulation of Subthreshold Behavior in Nanoscale Dual Material Gate AlGaN/GaN HEMT", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, Superlattices and Microstructures, Vol.44, pp.37-53, July, 2008.
- "Threshold Voltage Model for Small Geometry AlGaN/GaN HEMTs Based on Analytical Solution of 3-D Poisson's Equation", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Sneha Kabra, Mridula Gupta and R. S. Gupta, Microelectronics Journal, Vol.38, No.10-11, pp.1013-1020, October-November 2007.
- 9. "An analysis for AlGaN/GaN Modulation Doped Field Effect Transistor using accurate velocity-field dependence for high power microwave frequency applications", Sona P.Kumar, Anju Agrawal, Sneha Kabra, Mridula Gupta and R. S. Gupta, Microelectronics Journal, Vol. 37, pp. 1339-1346, 2006.
- 10. "Analytical model for dc characteristics and small-signal parameters of AIGaN/GaN modulation-doped field-effect transistor for microwave circuit applications", Rashmi. Anju Agrawal and R.S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.27, Issue 6, pp.413-419, 2000.
- 11. "Extraction of Small signal parameters of Silicon MOSFET for RF applications", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.27, Issue 5, pp. 352-358, 2000.
- 12. "Small signal analytical MOSFET model for microwave frequency applications", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.25, Issue 5, pp. 346-352, 2000.
- 13. "Frequency optimization of pseudomorphic modulation-doped field-effect transistor (AlGaAs/InGaAs) for microwave and millimeter-wave applications", Anju Agrawal, Anisha Goswami and R. S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.25, Issue 6, pp. 377-383, 2000.
- 14. "Substrate-effect-dependent scattering parameter extraction of short-gate-length IGFET for microwave frequency applications", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta, Microwave and Optical Technology Letters, (MOTL), Vol.24, Issue 5, pp. 341-348, 2000.
- 15. "Current-voltage characteristics and field distribution of pseudomorphic (AlGaAs/InGaAs) modulationdoped field-effect transistor for microwave circuit applications", Anju Agrawal, Anisha Goswami, Sujata Sen and R. S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.24, Issue 6, pp. 407-412,

2000.

- 16. "Capacitance-voltage characteristics and cut-off frequency of pseudomorphic (AlGaAs/InGaAs) modulation-doped field-effect transistor for microwave and high-speed circuit applications", Anju Agrawal, Anisha Goswami, Sujata Sen and R. S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.23, Issue 5, pp. 312-318, 1999.
- "Transconductance extraction for pseudomorphic modulation-doped field-effect transistor (AlGaAs/InGaAs) for microwave and millimeter-wave applications", Anju Agrawal, Anisha Goswami, Sujata Sen and R. S. Gupta. Microwave and Optical Technology Letters, (MOTL), Vol.22, Issue 1, pp. 41-48, 1999.

# International Conference

- 18. "IoT Based Landslide Detection System", Sumit Vashista, Deepak Kumar Yogi, Sushil Kumar Singh, Ravneet Kaur and Anju Agrawal, International Conference On "Interdisciplinary Research in Technology & Management" (IRTM-2023). Organised by Institute of Engineering & Management (IEM) Kolkata, University of Engineering and Management (UEM) Jaipur and Kolkata, in association with Vivekananda Vijnan Mission, West Bengal Chapter of Vijnana Bharati and Indraprastha Vigyan Bharati, New Delhi unit of Vijnana Bharati, supported by SMART Society, USA, in collaboration with Taylor and Francis held at IIT Delhi campus from April 20-22, 2023.
- 19. "Bluetooth Beacons: Location based Geofence for crowd management", Sumit Vashishtha, Gauri Ghai, Ravneet Kaur, Anju Agrawal, 7<sup>th</sup> International Conference of Indian Network for Soil Contamination Research (INSCR) "Modulating the Environment with Microbes" from 08- 11 November 2022.
- 20. "A Novel Architecture of Ultra-Thin Body Silicon On Insulator (UTB SOI) MOSFET for Biomolecular Sensing Application', Gauri Ghai, Sumit Vashishtha, Anju Agrawal, Ravneet Kaur, 7 th International Conference of Indian Network for Soil Contamination Research (INSCR) "Modulating the Environment with Microbes" from 08-11 November 2022.
- 21. "Microcontroller Based Sensor Assisted Weather Monitoring System", Ritesh Raj, Sagar Bisht, Mukhtar Ali, Anju Agrawal, Ravneet Kaur, International e-conference on 'Mitigating environmental issues by sustainable approaches (ICMCESA-2022)' organized by Acharya Narendra Dev College from February 22-28, 2022 under the aegis of IQAC and DBT Star College Scheme. pp 152.
- 22. "TCAD Performance Assessment of Dual Material Gate AlGaN/GaN HEMT", R. S. Gupta, Sona P.Kumar, Rishu Chaujar, Anju Agrawal and Mridula Gupta, International Workshop on Physics of Semiconductor Devices (IWPSD 2011), IIT Kanpur, India, 19-22 December 2011 (Invited Talk).
- 23. "Reliability Issues Associated With Nanoscale Dual Material Gate AlGaN/GaN HEMT For Wireless Communication", R. S. Gupta, Sona P.Kumar, Anju Agrawal, Rishu Chaujar and Mridula Gupta, International Symposium on Microwave and Optical Technology (ISMOT 2011), Prague, Czech Republic, 20-23 June 2011 (Invited Talk).

- 24. "Effect of Gate Length Scaling on the Linearity Characteristics of AlGaN/GaN MISHFET: An Analytical Study", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of 13th International Symposium on Microwave and Optical Technology (ISMOT), June 20th 23rd, Prague, Czech Republic, EU, 2011.
- 25. "Microwave Performance Evaluation of DMG AlGaN/GaN HEMT: A Simulation Study", Sona P.Kumar, Anju Agrawal, Mridula Gupta and R. S. Gupta, International Symposium on Microwave and Optical Technology (ISMOT 2009), Ashoka Hotel, New Delhi, India, 16-19 December 2009.
- 26. "Comparative Performance Evaluation of Novel AlGaN/GaN MISHFET with Conventional HFET for Improved Linearity Characteristics", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of 12th International Symposium on Microwave and Optical Technology (ISMOT), December 17th-21st, University of Delhi, India, pp.169-172, 2009.
- 27. "Influence of Gate Insulator Engineering on the Electronic Transport of AlGaN/GaN MISHFETs: A Simulation Study for Performance Optimization and Non Linear Device Modeling", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, European Microwave Integrated Circuits Conference, September 28th-29th, Rome, Italy, 2009.
- 28. "DMG AlGaN/GaN HEMT: A Solution to RF and Wireless Applications for Reduced Distortion Performance", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, Asia Pacific Microwave Conference (APMC-2008), December 16-19, Hongkong, China, 2008.
- 29. "AlGaN/GaN MISHFET: A Novel Alternative to Power HFETs for High Temperature Microwave Digital and Switching Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of 20th Asia Pacific Microwave Conference (APMC), December 16th –20th, Hong Kong, China, 2008.
- 30. "RF Performance Investigation of DMG AlGaN/GaN High Electron Mobility Transistor", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, International Conference On Recent Advancements in Microwave Theory and Applications (Microwave-2008), November 21-24, Jaipur, India, 2008.
- 31. "Investigation of Temperature Dependent Microwave Performance of AlGaN/GaN MISHFETs for High Power Wireless Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of International Conference on Microwave – 08, November 21st-24th, University of Rajasthan, Jaipur, India, pp.66-68, 2008.
- 32. "Investigating the Linearity Performance of DMG AlGaN/GaN HEMT for Improved RF Applications", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, XXIX General Assembly of the International Union of Radio Science (Union Radio Scientifique Internationale-URSI), Illinois, USA, August 07-16, 2008.
- 33. "Linearity Performance Enhancement of DMG AlGaN/GaN High Electron Mobility Transistor", Sona.P.Kumar, Anju Agrawal, RishuChaujar, M.Gupta and R. S. Gupta, 11th International Conference on Modeling and Simulation of Microsystems (MSM-2008), pp.607-610, June 1-5, Boston, Massachusetts,

U.S.A., 2008.

- 34. "Nanoscale HEMT with GME Design for High Performance Analog Applications", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, IEEE Sponsored Mini Colloquia on Compact Modeling of Advance MOSFET Structures and Mixed Mode Applications-2008, pp. 33-34, January 5-6, South Campus, Delhi University, New Delhi, India, 2008.
- 35. "Impact of GME Design on Nanometer HEMT Capacitances and its Influence on Device RF Performance", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, IEEE Sponsored Mini Colloquia on Compact Modeling of Advance MOSFET Structures and Mixed Mode Applications-2008, pp. 31-32, January 5-6, South Campus, Delhi University, New Delhi, India, 2008,
- 36. "Analytical Modeling and Simulation of Small Geometry AlGaN/GaN HEMTs", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Sneha Kabra, Mridula Gupta and R. S. Gupta, International Symposium on Microwave and Optical Technology (ISMOT 2007), Villa Mondragone, Monte Porzio Catone, Italy, pp.279-282, 17-21 December 2007.
- 37. "Impact of Innovative Gate Insulator Geometries and Their Thickness Scaling on the Device Performance of AlGaN/GaN MISHFET for Microwave Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of 11th International Symposium on Microwave and Optical Technology (ISMOT), December 17th-21st, Monte Porzio Catone, Roma Italy, pp.169-172, 2007.
- 38. "An Analytical Drain Current Model for AlGaN/GaN Metal Insulator Semiconductor Heterostructure Field Effect Transistor (MISHFET): A Comparative Study with Conventional HFETs for High Power Microwave Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of 19th Asia Pacific Microwave Conference (APMC), December 11th –14th, Bangkok, Thailand, Vol. 2, pp.1065-1068, 2007.
- 39. "Analytical Modeling and Simulation of Potential and Electric Field Distribution in Dual Material Gate HEMT For Suppressed Short Channel Effects", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, Asia Pacific Microwave Conference (APMC-2007), pp.2503-2506, December 11-14, Bangkok, Thailand, 2007.
- 40. "Influence of Physical Parameters and Piezoelectric Polarization on Charge Control Characteristics of Si3N4/AlGaN/GaN Metal Insulator Semiconductor Heterostructure Field Effect Transistor (MISHFET)", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of 14th International Workshop on The Physics of Semiconductor Devices (IWPSD), December 16th –20th, Mumbai, India, pp.435-438, 2007.
- 41. "3-Dimensional Analytical Modeling and Simulation of Fully Depleted AlGaN/GaN Modulation Doped Field Effect transistor", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Sneha Kabra, Mridula Gupta and R. S. Gupta, Fourteenth International Workshop on the Physics of Semiconductor Devices (IWPSD), pp.373-376, December 16-20, Mumbai, India, 2007.
- 42. "Gate Dielectric Engineering of Sub Quarter Micron AlGaN/GaN Metal Insulator Semiconductor

Heterostructure Field Effect Transistor (MISHFET) for High Gain Characteristics", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of International Semiconductor Device Research Symposium, (ISDRS), December 12th-14th, College Park, MD, USA, 2007.

- 43. "Two-Dimensional Analytical Sub-Threshold Modeling and Simulation of Gate Material Engineered HEMT For Enhanced Carrier Transport Efficiency", Sona P.Kumar, Anju Agrawal, Rishu Chaujar, Mridula Gupta and R. S. Gupta, International Semiconductor Device Research Symposium (ISDRS 2007), University of Maryland, USA,pp.1892-1893, December 12-14, 2007.
- 44. "An Analysis of bias dependent performance of AlGaN/GaN high electron mobility transistor using new velocity-field dependence", Sona P.Kumar, Anju Agrawal, Sneha Kabra, Mridula Gupta and R. S. Gupta, European Workshop on III-Nitride Semiconductor Materials and Devices (EW3NS-2006), September 18-20, Crete, Greece, 2006.
- 45. "DC and Microwave Performance of Pseudomorphic Modulation Doped Field Effect Transistor (AlGaAs/InGaAs) for millimeter Wave and High Speed Digital IC Applications", Anju Agrawal, Anisha Goswami and R. S. Gupta. Proc. Asia Pacific Microwave Conference, pp 144-148, Sydney, Dec. 2000.
- 46. "Admittance Parameter extraction of short Gate Length MOSFET including Substrate Effect for Microwave Frequency Applications", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta, Proc. Progress in Electromagnetic Research Symposium (PIERS'2000), Boston
- 47. "Modelling of Pseudomorphic Modulation Doped Field Effect Transistor (AlGaAs/InGaAs) for Microwave and Millimeter Wave Applications", Anju Agrawal, Anisha Goswami and R. S. Gupta. Proc. Third International conference on Low Dimensional Structures and Devices, Turkey, 1999.
- 48. "Fringing Field dependent Small Geometry MOSFET model for Radio Frequency Applications", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta, Proc. International workshop on Physics of Semiconductor Devices IWPSD, Vol. II, pp 568-571, New Delhi, Dec. 1999.
- 49. "Analytical Model for Field distribution and Capacitance-voltage characteristics of Pseudomorphic (AlGaAs/InGaAs) modulation-doped field-effect transistor", Anju Agrawal, Anisha Goswami, and R. S. Gupta. Proc. International workshop on Physics of Semiconductor Devices IWPSD, Vol. II, pp 542-545, New Delhi, Dec. 1999.
- 50. "High Frequency Y parameters analysis of small Geometry MOSFET for Microwave Frequency Applications" Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta, Proc. International Symposium on Recent Advances in Microwave Technology (ISRMT'99), Malaga, Spain, pp. 125-129, Dec. 1998.

### National Conferences:

51. "Academic Use of ChatGPT: Pros and Cons", Gauri Ghai, Anju Agrawal, Ravneet Kaur, One Day National Conference on "One Earth One Family One Future" organised by Acharya Narendra Dev College, Govindpuri, Kalkaji, New Delhi on April 3, 2023.

- 52. "Experimental investigation of emergency siren simulator for real-time small-signal power applications", Rajat, Prince, Anju Agrawal, Rishu Chaujar and Ravneet Kaur, 2nd National Workshop on Advanced Optoelectronic materials and devices (AOMD 2008), December 22-24, Department of Electronic Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi, India, 2008.
- 53. "Impact of Dual Material Gate Design on AlGaN/GaN High Electron Mobility Transistor's RF Performance" S. P. Kumar, A. Agrawal, R.Chaujar, M.Gupta and R.S.Gupta, National Conference Mathematical Techniques Emerging Paradigm for Electronics and IT Industries (MATEIT 2008), pp.313-316, 26-28 September, New Delhi, India, 2008.
- 54. "Theory of Charge Control Characteristics of AlGaN/GaN MISHFET: A High Temperature Study", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, 2nd National Conference Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT), pp.297-301, 26th-28th September 2008.
- 55. "High Temperature Modeling of AlGaN/GaN MISHFET and its Relative Comparison with Conventional HFET for Microwave Power and Switching Applications", Ruchika Aggarwal, Anju Agrawal, Mridula Gupta and R.S. Gupta, Proceedings of Mini-Colloquia on Compact Modeling of Advance MOSFET Structures and Mixed Mode Applications, Sponsored by the IEEE Electron Devices Society under its Distinguished Lecturer Program, January 5th-6th, Department of Electronic Science, University of Delhi, India, 2008.
- 56. "Bias Dependent Analytical Model of AlGaN/GaN High Electron Mobility Transistor", Sona P.Kumar, Anju Agrawal, Sneha Kabra, Mridula Gupta and R. S. Gupta, National Conference on Recent Advancement in Microwave Technique and Applications (Microwave-2006), pp. 111-115, 6-8 October, Jaipur, India, 2006.
- 57. "An Analysis of Bias Dependent Performance of AlGaN/GaN Modulation Doped Field Effect Transistor Using Accurate Velocity-Field Dependence", Sona P. Kumar, Anju Agrawal, Sneha Kabra, Mridula Gupta and R. S. Gupta, National Conference on Mathematical Techniques Emerging Paradigm for Electronics and IT Industries (MATEIT 2006), pp 322, 24-26 March, New Delhi, India, 2006.
- 58. "Microwave Performance of Pseudomorphic Modulation Doped Field Effect Transistor (AlGaAs/InGaAs) for Millimeter and High Speed Circuit Applications", Anju Agrawal, Anisha Goswami and R. S. Gupta, Proc. Advances in Electronics-ELECTRO 2000, Jan. 2001.
- 59. "Two dimensional charge control model for Pseudomorphic Modulation Doped Field Effect Transistor (AlGaAs/InGaAs)". Anju Agrawal, Anisha Goswami and R. S. Gupta, Proc. National Symposium on Advances in Microwaves and Light waves, Allied Pub. Ltd., New Delhi, pp 76-79, March 2000.
- 60. "Admittance Parameter Extraction for MOSFET valid up to 10 GHz", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta, Proc. National Symposium on Advances in Microwaves and Light waves, Allied Pub. Ltd., New Delhi, pp 201-205, March 2000.
- 61. "A Unified MOSFET Model including Reverse short channel and Narrow width effects for Device

modelling in Circuit simulation", Anisha Goswami, Anju Agrawal, Srikanta Bose, Subhasis Haldar and R. S. Gupta, Proc. National Seminar on Applied Systems Engineering and Soft Computing (SASES' 2000) Agra, pp 554-558, March 2000.

# Others

- 62. "Satellite Communication", Divya Bisht, Kavita Tiwari, Ashok, Rishu Chaujar, Ravneet Kaur and Anju Agrawal, Aryabhatta Science Forum: Converging Vectors, Deen Dayal Upadhyaya College, 13 December 2008, New Delhi, India.
- 63. "Biometrics", Anmol Bagga, Migmar Dolma, Ravneet Kaur, Anju Agrawal and Rishu Chaujar, Aryabhatta Science Forum: Converging Vectors, Deen Dayal Upadhyaya College, 13 December 2008, New Delhi, India. (Best Student Paper Award)
- 64. "Security Systems and Today's World", Rajat, Prince, Anju Agrawal, Rishu Chaujar and Ravneet Kaur, Aryabhatta Science Forum: Converging Vectors, Deen Dayal Upadhyaya College, 13 December 2008, New Delhi, India.
- 65. "Fuzzy Logic", Ankit Dwivedi, Anju Agrawal, Ravneet Kaur and Rishu Chaujar, Aryabhatta Science Forum: Converging Vectors, Deen Dayal Upadhyaya College, 13 December 2008, New Delhi, India.
- 66. "CAD Tools and Undergraduate Laboratory Experimentation", Nazim Ali, Ravneet Kaur, Anju Agrawal and Rishu Chaujar, Aryabhatta Science Forum: Converging Vectors, Deen Dayal Upadhyaya College, 13 December 2008, New Delhi, India.

### Refresher and Orientation Course

- Participated in the four week Orientation Course organized during November 08, 2011 to December 02, 2011 at Academic Staff College, Jawaharlal Nehru University, New Delhi.
- 2. Participated in the three week Refresher Course in Physics organized from February 07-26, 2005 at Centre for Professional Development in Higher Education, University of Delhi.
- 3. Participated in the four week Refresher Course in Computer Science organized during August 12 to September 06, 2002 at Academic Staff College, Jawaharlal Nehru University, New-Delhi.
- 4. Participated in the four week Orientation Course in Natural Science organized during November 19 to December 14, 2001 at Academic Staff College, Jawaharlal Nehru University, New-Delhi.
- 5. Participated in the three week Refresher Course entitled "Computer Applications in Electronics" organized from June 09-29, 1998 at Centre for Professional Development in Higher Education, University of Delhi
- 6. Participated in the three week Refresher Course entitled "Computer Applications in Physics" organized from April 27-May 16, 1998 at Centre for Professional Development in Higher Education, University of

Delhi.

7. Participated in the short-term course jointly conducted at Jawaharlal Nehru University New Delhi organized between February 12-22, 1996 on Microprocessor Interfacing and Introduction to Microcontrollers.

### Workshops/Seminars Attended

- Attended Special Mini Colloquia (MQ) in Virtual Mode on "History, Prospect and Future of Graphene based Devices and Systems" organized by IEEE Electron Device Society - Delhi Chapter (New Delhi, India), The National Academy of Sciences India - Delhi Chapter and Deen Dayal Upadhyaya College (University of Delhi) during September 11 to October 15, 2022.
- 2. Attended Special Mini Colloquia (MQ) in Virtual Mode on "Emerging Device Architectures for Tunnel FET" as part of the "75th Anniversary of Transistor Invention" organized by IEEE Electron Device Society Delhi Chapter (New Delhi, India), The National Academy of Sciences India Delhi Chapter and Deen Dayal Upadhyaya College (University of Delhi) during September 26 to October 5, 2022.
- 3. Attended Virtual Mini Colloquia (MQ) on "75th Anniversary of Transistor Invention" organized by IEEE EDS Delhi Chapter (New Delhi, India) from August 22, 2022 to August 29, 2022.
- 4. Attended IPR awareness/training program under the special mission called "National Intellectual Property Awareness Mission (NIPAM)" organized by Acharya Narendra Dev College, University of Delhi on August 27, 2022.
- 5. Attended One Week Online Workshop on "Recent Development in the Field of Electronics (RDFE2022)" organized by Department of Electronic Science, University of Delhi, in collaboration with IEEE EDS and IEEE APS & CRFID Delhi Chapter from July 25, 2022 to July 29, 2022.
- 6. Attended International Symposium on "History and Future of Transistors" organized by IEEE EDS Delhi Chapter on December 23 27, 2021.
- 7. Participated in Robonetics: 30 days intense workshop on "Robotics and its analogy implementation" organized by Tech Analogy from September 24, 2021 to October 23, 2021.
- 8. Attended International Symposium on "History and Future of Transistors" organized by IEEE EDS Delhi Chapter on December 23, 2021.
- 9. Participated in the "National Level FDP on 'Embedded system design using AVR and Digital system design using Programmable Logic devices", organized by Keshav Mahavidyalaya, University of Delhi, 01-02 November 2017.
- 10. Participated in the One-day workshop on 'Digital Circuit Design using VHDL' organized by Zakir Husain College, University of Delhi, 27. 06.16.
- 11. Participated in the "National Workshop on VLSI Designing using Verilog Coding" organized by

Bhaskaracharya College of Applied Science, University of Delhi, 16-18 July 2013.

- 12. Participated in the "Workshop on Experiments and Research applications with National Instruments LabVIEW" organized by Bhaskaracharya College of Applied Science, University of Delhi, 2-3 February 2012.
- 13. Attended Two Days Joint Science Academies Lecture Workshop on "History, Aspects and Prospects of Electronics in India" during October 12-13, 2012 at SP Jain Centre Auditorium, University of Delhi South Campus, New Delhi, 110021.
- 14. Attended 12th International Symposium on Microwave and Optical Technology (ISMOT-2009) organized by Department of Electronic Science, University of Delhi South Campus, Hotel Ashok, New Delhi, India, 16-19 December, 2009.
- 15. Attended workshop on Open Educational Resources (L4C-44) jointly organized by Acharya Narendra Dev College, University of Delhi and Commonwealth of Learning 12-15<sup>th</sup> May 2009.
- 16. Member of organizing committee in the Workshop on "Emerging Trends in Electronics"

Workshop 1: Optical Fiber Communication

Workshop 2: Embedded Systems and Robotics

Workshop 3: Data Acquisition and Signal Processing using LabVIEW

Organized by Department of Electronics, Acharya Narendra Dev College, University of Delhi during 1-12th June 2009.

- 17. Attended Workshop on "Easy Now-1:A Workshop on Multimedia Content Development", jointly organized by Acharya Narendra Dev College, University of Delhi and Commonwealth Educational Media Centre for Asia during 20-25th April 2009.
- 18. Participated in two-day workshop "ELECTRAWORK 2006" organized by Department of Electronics, Acharya Narendra Dev College, University of Delhi during 7-8 July 2006.
- 19. Participated in Intercollege Workshop on Embedded Systems Design "Hello World of Microcontrollers at Deen Dayal Upadhyaya College held on 14-15 December 2006.
- 20. Participated in the short course on "Spice Models for Advanced VLSI Circuit Simulation (SMAVCS) from Dec. 11-12 at University of Delhi South Campus, New Delhi.

### Research Projects (Major Grants/Research Collaboration)

- Co-Project Investigator, "Multipurpose quad-copter" of one year duration for Rs.1,00,000/-, Innovation and Entrepreneurship Development Centre(IEDC), National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), 2014-2015
- Mentor for ELITE- Education in a Lively Innovative Training Environment Scholarship programme by the

college.

### Awards and Distinctions

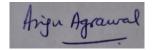
- Co-chaired a session in the 3rd International Symposium on Ciliate Biology (ISCB-2022) organized by Acharya Narendra Dev College and Maitreyi College, University of Delhi under the aegis of DBT STAR College Scheme and IQAC.
- Name listed in 2016 edition of *Who's Who in Science and Engineering*
- Name listed in 2011 edition of *Who's Who in Science and Engineering*
- Gold medallist in M.Sc. Electronics, University of Delhi South Campus and received Smt. Shanti Devi Bhargava Memorial Gold medal for being the best candidate in the M.Sc. Examination in Electronics in 1993.

Association With Professional Bodies

- Member IEEE, 2021, 2022, 2023 Membership No. 90498277
- Member IEEE, EDS Society

### Other Activities

- Reviewer of many international journals
- Member, Committee of Courses, Department of Electronic Science, University of Delhi, South Campus for a period of two years 23.02.2017- 22.02.2019
- Subject expert on the Interview Board for selection of candidates for the post of WET in the Kendriya Vidyalaya Sangathan.
- Jury Member for National Level Exhibition and Project Competition (NLEPC)- 2022, 2019, 2012- 2016 under INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) programme, Department of Science and Technology.
- Member- Organizing Committee: International Symposium on Microwave and Optical Technology (ISMOT)-2009, December 16-19,2009 in Hotel Ashok, New Delhi, India



Signature of Faculty Member