



**Prof. AMIT SEHGAL**

S/O Mr. Kailash Chand Sehgal

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URL: <http://people.du.ac.in/~asehgal/>  
**Hansraj College Webpage**

**18 years 2 months of teaching** experience at **University of Delhi**  
**23+ years of research experience** (Modeling of Semiconductor Devices)  
With **32 publications** produced in journals and conferences

**EDUCATIONAL QUALIFICATIONS:**

Course	Year	Board /Univ.	Subjects	Specialization	%age	Division
Ph. D.	Jan. 2007	University of Delhi	Electronic Science	Microelectronics		Defended Successfully
M. Sc.	2002	University of Delhi	Electronics	Electronics	69.57%	First
B. Sc. (Hons)	2000	University of Delhi	Electronics	Electronics	75.67%	First
10+2	1997	C.B.S.E.	Physics, Chemistry, Maths, English, Computer Sc.		76%	First

- **Thesis** title "**Poly-crystalline Silicon Thin Film Transistors: Modeling, Simulation and Characterization**" is submitted to Univ. of Delhi.
- Cleared **UGC NET December 2002** Examination and qualified for both Junior Research Fellowship and Lectureship.
- **Attended and completed successfully Orientation Course from CPDHE in May 06 - June 03, 2008.**
- **Attended and completed successfully Refresher Course in Research Methodology from CPDHE, University of Delhi from December 12 - 31, 2011**
- **Attended and completed successfully Refresher Course in Physics from Academic Staff College, Jawaharlal Nehru University, Delhi from September 16 - October 11, 2013.**
- **Attended and completed successfully Refresher Course in Physics from CPDHE, University of Delhi from October 13 - November 3, 2016**

**COMPUTER AND MICROPROCESSOR KNOWLEDGE:**

- Can operate computer efficiently in Windows, MS Office, Internet, MathCAD, Microsoft Origin, Adobe softwares viz. Acrobat Professional, Adobe Dreamweaver and Adobe Photoshop etc.
- Can install Windows, Linux and Mac OS efficiently on Personal Computers and Laptops.
- Can install any software on any operating system.
- Installed XAMPP Server on Personal Computer and installed dummy MOODLE environment on that server.
- Computer Languages known = FORTRAN, Pascal
- Machine and Assembly Languages known = 8085, 8086
- Have done programming on various simulators and emulators eg: ATLAS simulator, 8085 emulator, 8086 emulator, Microsoft Assembler MASM etc.
- Contributed e-learning material in Physics subject as E-LABS on <http://vle.du.ac.in> education portal designed and developed by Institute of Life Long Learning, University of Delhi
- Designed and developed personal and company websites eg: <http://people.du.ac.in/~asehgal/> , <http://drtinamangla.appspot.com> and <http://csakg.com>
- Designed and developed a National Workshop website <http://people.du.ac.in/~asehgal/fsos/>
- Designed and developed a National Workshop website <http://people.du.ac.in/~asehgal/woes/>
- Designed and developed an educational website <http://hansrajcollege.co.in>
- Designed and developed an educational website <http://hansrajcollege.ac.in>

**ACHIEVEMENTS:**

- Biography listed in **Marquis Who's Who in World 25th Anniversary Edition** issue.
- Biography listed in **Marquis Who's Who in Asia** December 2006 issue.

- Biography listed in **Marquis Who's Who in Science and Engineering** September 2006 issue.
- **Won Design Contest** in National Workshop on VLSI Chip Design on July 18, 2013 at Bhaskara College of Applied Sciences, University of Delhi conducted by JB Tech India Research and Training Centre, Greater Noida, U.P.
- Awarded title of **Champion** in **D-LITE Course** conducted by Campus of Open Learning (COL), University of Delhi and Edinburgh College, UK at COL, Keshav Puram on November 18-21, 2013.
- Project titled Designing and Optimization of Auto-Tracking Solar Energy based Energy Conversion Module for Rechargeable Appliances funded under Innovation Project Scheme, University of Delhi was awarded with **Best Display and Best Innovation Idea** in Antardhvani Festival (University of Delhi Festival) 2015.
- Awarded **Content Developer and Content Designer** for Good Practices Stall of Hansraj College, University of Delhi at Antardhvani Festival February 20-22, 2015.
- Awarded with **Teaching Excellence Award for Innovation** from University of Delhi in 2015.
- Project titled Emergency Management Solutions: Design of Solar based Eco-Friendly, Efficient, and Portable Lighting/Power, Water Conditioning and Thermo-electric Solutions funded under Innovation Project Scheme, University of Delhi was awarded with **Appreciation Award** in 94<sup>th</sup> Foundation Day of University of Delhi on May 01, 2016.
- Awarded with **Best Poster Presentation Award in Innovation Sciences** in INSCR International Conference (IIC 2017) held at University of Delhi on September 26-28, 2017.
- Awarded **Certified Microsoft Innovative Educator** by Microsoft under education.microsoft.com programme on December 8, 2017.
- Awarded **Certified Microsoft Trainer** by Microsoft under education.microsoft.com programme on December 8, 2017.
- Awarded **Appreciation Award** by D.L.D.A.V. Model School, Pitampura, Delhi as Alumnus for invaluable support in School Endeavours on January 31, 2018.
- **Designed and e-published** the **Hansraj College Admission Prospectus** for the academic year 2019-20.
- **Designed and e-published** the **Hansraj College Admission Prospectus** for the academic year 2020-21.

#### MEMBERSHIPS:

- **SID (Society for Information Display)** Member (2006 - 2007)
- **Society of VLSI and Microelectronics** Member (Life Member)
- **Material Research Society Singapore** Member (2007 - 2009)

#### EXPERIENCE:

##### Work Exposure

Name of the Post	Nature of the Job	Duties	Name of Organization	Period	
				From	To
Associate Professor (Electronics)	Permanent	To teach undergraduate students	Hansraj College, University of Delhi	17-02-17	Till date
Assistant Professor (Electronics)	Permanent	To teach undergraduate students	Hansraj College, University of Delhi	01-01-06	16-02-17
Lecturer (Electronics)	Permanent	To teach undergraduate students	Hansraj College, University of Delhi	17-02-05	31-12-05
Fellow Physics	Deputation	To generate e-learning content	Institute of Life Long Learning, University of Delhi	15-04-10	14-04-11
Visiting Faculty (Computer Science)	Temporary	To teach undergraduate students	Sri Guru Gobind Singh College of Commerce, University of Delhi	08-01-10	30-04-13
Visiting Faculty (Computer Science)	Temporary	To teach undergraduate students	Hansraj College, University of Delhi	17-07-05	12-04-10
Visiting Faculty (Computer Science)	Temporary	To teach undergraduate students	Shyama Prasad Mukherjee College, University of Delhi	12-12-08	27-03-09
Visiting Faculty (Computer Science)	Temporary	To teach undergraduate students	Shyama Prasad Mukherjee College, University of Delhi	01-09-08	05-11-08

Visiting Faculty (Computer Science)	Temporary	To teach undergraduate students	Indraprastha College of Women, University of Delhi	09-01-07	26-04-07
UGC - JRF	Temporary	Research	Dept. of Elec. Sc., Univ. of Delhi (South Campus)	01-02-04	16-02-05
Project JRF	Temporary	Research	Dept. of Elec. Sc., Univ. of Delhi (South Campus)	12-02-03	31-01-04

Worked on research topic "**Modeling, Simulation & Characterization of Semiconductor Devices (especially poly-silicon Thin Film Transistor and Nano-scale MOSFETs)**" with Prof. R. S. Gupta (supervisor) at Dept. of Elec. Sc., Univ. of Delhi (South Campus), N. Delhi -21.

### **Administrative Experience**

#### **Year 2022 – 2023**

Secretary- College Teaching Staff Council  
Convener- Departmental IQAC Criterion 3  
Committee  
Member- IQAC Criterion 3 Committee  
Convener- Departmental Society  
Member- Departmental Infrastructural  
Development Committee  
Member- Annual Day Function Committee

#### **Year 2020 – 2021**

Member- Departmental Administrative  
Committee  
Convener- Departmental IQAC Committee  
Member- Canteen Committee  
Member- Portal Maintenance and IT  
Infrastructure Committee

#### **Year 2018 – 2019**

Member- Departmental Administrative  
Committee  
Member- Finance Committee  
Convener- Publication Committee  
Member- Annual Day Function Committee  
Presiding Officer - Students Union Elections

#### **Year 2016 – 2017**

Co-ordinator- B.Tech. Electronics  
Member- Environmental Awareness Committee  
Member- Publication Committee  
Member- Portal Maintenance and IT  
Infrastructure Committee  
Member- Annual Day Function Committee  
Member- PBAS Committee  
Presiding Officer - Students Union Elections  
Convener- Departmental Society  
Member- Monitoring Committee  
Member- Departmental Administrative  
Committee  
Member- Departmental Infrastructural  
Development Committee

#### **Year 2021 – 2022**

Secretary- College Teaching Staff Council  
Convener- Departmental IQAC Criterion 3  
Committee  
Convener- Departmental Library Committee  
Member- Library Committee  
Member- Annual Day Function Committee  
Member- Departmental Infrastructural  
Development Committee  
Member- B.Sc.(H) Electronics NEP UG Syllabus  
Committee

#### **Year 2019 – 2020**

Member- Departmental Administrative  
Committee  
Member- Canteen Committee  
Convener- Library Committee  
Member- Annual Day Function Committee  
Presiding Officer - Students Union Elections  
Member- B.Sc.(H) Electronics CBCS Program  
with LOCF UG Committee

#### **Year 2017 – 2018**

Member- Departmental Administrative  
Committee  
Member- Finance Committee  
Convener- Publication Committee  
Member- Annual Day Function Committee  
Presiding Officer - Students Union Elections

#### **Year 2015 – 2016**

Member- Finance Committee  
Convener- Portal Maintenance Committee  
Member- Annual Day Function Committee  
Member- PBAS Committee  
Member- Workload Committee  
Member- Hostel Committee  
Member- Library Committee  
Member- Sports Committee  
Convener- Departmental Administrative  
Committee  
Member- Departmental Time Table Workload  
Committee  
Member- Departmental Purchase Committee  
Member- Departmental Infrastructural  
Development Committee  
Convener- Monitoring Committee  
Presiding Officer - Students Union Elections

### **Year 2014 – 2015**

Member- Finance Committee  
Member- Music Society  
Member- PBAS Committee  
Convener- Departmental Students Society  
Member- Departmental Purchase Committee  
Member- Departmental Administrative Committee  
Member- Departmental Infrastructural Development Committee  
Presiding Officer - Students Union Elections

### **Year 2012 – 2013**

Member- Finance Committee  
Member- Seminar Committee  
Convener- Departmental Students Society  
Member- Departmental Laboratory Infrastructural Development  
Presiding Officer - Students Union Elections

### **Year 2010 – 2011**

ON DEPUTATION Fellow- Physics

### **Year 2008 – 2009**

Member- Admission Committee & B.Sc. (Honors) Electronics Admission In-charge  
Member- Canteen Committee  
Member- Portal Committee  
Convener- Department Student Society  
Member- Departmental Purchase Committee  
Presiding Officer - Students Union Elections

### **Year 2006 – 2007**

Member- Student Welfare Committee  
Member- Departmental Purchase Committee

### **Year 2013 – 2014**

Member- Finance Committee  
Member- Portal Committee  
Member- Department Workload Committee  
Member- Departmental Laboratory Infrastructural Development  
Presiding Officer - Students Union Elections

### **Year 2011 – 2012**

#### **Secretary- Staff Association**

Member- Portal Committee  
Member- Seminar Committee  
Presiding Officer - Students Union Elections

### **Year 2009 – 2010**

Member- Finance Committee  
Member- Canteen Committee  
Member- Portal Committee  
Convener- Admission Committee (for 2nd cut-off list admissions)  
Member- Departmental Purchase Committee  
Member- Departmental Infrastructural Development Committee  
Presiding Officer - Students Union Elections

### **Year 2007 – 2008**

Convener- Student Welfare Committee  
Member- Finance Committee  
Member- Portal Committee  
Convener- Departmental Purchase Committee  
Member- Department Time Table Workload Committee  
Presiding Officer - Students Union Elections

### **Research Experience**

Published **28** research articles in international/national journals and conferences. (List of Publications in **Appendix A**)

Doing research work on topics

- "Modeling, Simulation & Characterization of Short Geometry Poly-silicon Thin Film Transistor"
- "Modeling, Simulation & Characterization of MOSFETs with quantum mechanical effects for ULSI applications"

**from September, 2002 onwards till date.**

### **Projects**

- Completed project titled "**Design of a Standalone Sound System with Wireless Integration**" as project investigator under Star College Scheme, Department of Biotechnology, Ministry of Science and Technology, Government of India 2017.
- Completed project titled "**White Noise Based Filter Analysis for Use in Audio System**" as project investigator under Star College Scheme, Department of Biotechnology, Ministry of Science and Technology, Government of India 2017.

- Completed project titled "**Design and Optimization of cost effective automated calibrated intensity sensor cell**" as project investigator under Star College Scheme, Department of Biotechnology, Ministry of Science and Technology, Government of India 2017.
- Completed project titled "**Design and Optimization of cost effective automated calibrated conductivity cell**" as project investigator under Star College Scheme, Department of Biotechnology, Ministry of Science and Technology, Government of India 2017.
- Completed project titled "**Emergency Management Solutions: Design of Solar based Eco-Friendly, Efficient, and Portable Lighting/Power, Water Conditioning and Thermo-electric Solutions**" as project investigator under Innovation Project Scheme, University of Delhi 2015-16.
- Completed project titled "**Designing and Optimization of Auto-Tracking Solar Energy based Energy Conversion Module for Rechargeable Appliances**" as project investigator under Innovation Project Scheme, University of Delhi 2013-2015.
- Completed project titled "**Fabrication of Porous Silicon and Study of its Resistive Behavior under different Environmental Conditions**" for the partial fulfillment of award of degree of M. Sc. in Electronics under guidance of Dr. V. K. Jain (Add. Director / Scientist G SSPL) and Prof. R. M. Mehra (Univ. of Delhi) at Solid State Physics Laboratory, Ministry of Defence, Timar Pur, New Delhi.
- Completed project titled "**Designing and Testing of Successive Approximation Digital Voltmeter by interfacing with 8085 Microprocessor Kit**" for the partial fulfillment of award of degree of B. Sc. (Hons) Electronics at Electronics Laboratory, Keshav Mahavidyalaya, University of Delhi, Keshav Puram, New Delhi.
- Designed software based project titled "**Telephone Billing in Pascal Programming**" for the award of 10+2 passing certificate.

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Rohini,  
Delhi - 110085

**(AMIT SEHGAL)**  
Professor  
Department of Electronics  
Hansraj College  
University of Delhi, Delhi - 110007

# Appendix A

## List of Publications

### Editorship

- **Co-editor** for **Journal of Integrated Science and Technology**, Vol. 4, No. 2, 2016 (ISSN 2321-4635)

### Book Chapters

1. **Amit Sehgal**, Time constant using charging and discharging of RC Circuit, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
2. **Amit Sehgal**, Determination of 'g' using Bar Pendulum, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
3. **Amit Sehgal**, Determination of 'g' using Kater's Pendulum, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
4. **Amit Sehgal**, Inverting and Non Inverting Amplifier using OP-AMP, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
5. **Amit Sehgal**, Inverting Amplifier with frequency response using OP-AMP, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
6. **Amit Sehgal**, Non-Inverting Amplifier with frequency response using OP-AMP, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
7. **Amit Sehgal**, Determination of unknown resistance using Carey Foster's bridge, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)
8. **Amit Sehgal**, Determination of Coefficient of Viscosity of a Liquid, E Labs, (Virtual Learning Environ., Inst. of Lifelong Learning, Univ. of Delhi, Delhi). (ISSN 2349-154X)

### International/Indian Journals

#### Published

1. "Optimization of gate stack MOSFETs with quantization effects", Tina Mangla, Amit Sehgal, Manoj Saxena, Subhasis Halder, Mridula Gupta and R. S. Gupta, *Journal of Semiconductor Technology and Science*, Vol.4, No.3, September 2004, pp. 228-239. (ISSN 1598-1657) (Impact Factor 0.62)
2. "Temperature dependence on electrical characteristics of short geometry poly - crystalline silicon thin film transistor", Amit Sehgal, Tina Mangla, Mridula Gupta and R. S. Gupta, *Solid State Electronics*, Vol.49, No.3, March 2005, pp. 301-309. (ISSN 0038-1101) (Impact Factor 1.504)
3. "Sub threshold analysis and drain current modeling of poly-silicon thin film transistor using green's function approach" Amit Sehgal, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *IEEE Transactions on Microwave Theory and Techniques*, Vol.53, No. 9, September 2005, pp. 2682-2687. (ISSN 0018-9480) (Impact Factor 2.243)
4. "Physics-based algorithm implementation for characterization of gate-dielectric engineered MOSFETs including Quantization effects", Tina Mangla, Amit Sehgal, Manoj Saxena, Subhasis Halder, Mridula Gupta and R. S. Gupta, *Journal of Semiconductor Technology and Science*, Vol.5, No.3, September 2005, pp. 159-167. (ISSN 1598-1657) (Impact Factor 0.62)
5. "Physics based threshold voltage extraction and simulation for poly-crystalline thin film transistors using a double-gate structure", Amit Sehgal, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *Semiconductor Science and Technology*, Vol.21, March 2006, pp.370-377. (ISSN 0268-1242) (Impact Factor 2.19)
6. "Enhancement in performance of poly-crystalline thin film transistors with gate dielectric and work-function", Amit Sehgal, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *Thin Solid Films*, Vol.54, No.1-2, 2006, pp. 55-58. (ISSN 0040-6090) (Impact Factor 1.867)
7. "Analytical modeling of the kink regime of a short channel polycrystalline silicon thin film transistor", Sonia Chopra, Amit Sehgal and R. S. Gupta, *International Journal of Electronics*, Vol.93, No.5, May 2006, pp. 279-289. (ISSN 0020-7217) (Impact Factor 0.459)
8. "Enhancement in performance of sub-100nm MOSFETs using gate stack architecture", Tina Mangla, Amit Sehgal, Mridula Gupta and R. S. Gupta, *International Journal on Microwave and Optical Technologies*, Vol.1, No.1, June 2006, pp. 106-113. (ISSN 1553-0396)
9. "Modeling and simulation of poly-crystalline silicon thin film transistor for improved gate transport efficiency", Amit Sehgal, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *International Journal on Microwave and Optical Technologies*, Vol.1, No.2, August 2006, pp. 411-416. (ISSN 1553-0396)

10. "Modeling challenges in sub-100nm gate stack MOSFETs" Tina Mangla, Amit Sehgal, Mridula Gupta and R. S. Gupta, *Semiconductor Science and Technology*, Vol.21, No.10, October 2006, pp. 1609-1619. (ISSN 0268-1242) (Impact Factor 2.19)
11. "Modeling Aspects of sub-100nm MOSFETs for ULSI device applications", Tina Mangla, Amit Sehgal, Mridula Gupta and R. S. Gupta, *IEEE Transactions on Electron Devices* Vol.54, No.1, Jan 2007, pp. 68-77. (ISSN 0018-9383) (Impact Factor 2.358)
12. "Multi-material gate poly-crystalline thin film transistors: Modeling and simulation for an improved gate transport efficiency", Amit Sehgal, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *Thin Solid Films* Vol.516, No.8, February 2008, pp. 2162-2170. (ISSN 0040-6090) (Impact Factor 1.867)
13. "Poly-crystalline silicon thin film transistor: a two-dimensional threshold voltage analysis using Green's function approach", Amit Sehgal, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *Journal of Semiconductor Technology and Science*, Vol.7, No.4, December 2007, pp. 289-300. (ISSN 1598-1657) (Impact Factor 0.62)
14. "Physics based Optimization of Device Parameters Extraction and Modeling in MOSFETs", Amit Sehgal, *International Journal of Research and Analytical Reviews*, Vol.9, No.3, 2022, pp. 909-913. (ISSN 2348-1269)
15. "Smart Systems: Development of a Sustainable EcoFriendly, Efficient, Automated Portable Lighting Source", Sukhbinder Singh Rait, Namrata Soni, P K Singh, Amit Sehgal, *International Journal of Innovative Research in Technology*, Vol.9, No.3, 2022, pp. 321-327. (ISSN 2349-6002)
16. "Components Dependence and Error Analysis on the Output Response of the Circuits", *International Journal of Innovative Research in Science, Engineering and Technology*, Vol.11, No.8, 2022, pp. 11278-11283. (ISSN 2320-6710)

### International/Indian Conferences

#### Published

1. "Temperature dependent threshold voltage modeling of short geometry poly Si TFT", **Amit Sehgal**, Tina Mangla, Mridula Gupta and R. S. Gupta, National Symposium on Advances in Microwaves and Lightwaves (**NSMAL-2003**), 13-14 October, University of Delhi, South Campus, New Delhi, India, 2003, pp. 116-119.
2. "Temperature dependent electrical characteristics of short geometry Poly Si TFT for high frequency applications", **Amit Sehgal**, Tina Mangla, Mridula Gupta and R. S. Gupta, National Conference on Radio Science in India (**INCURSI - 2003**), 27-29 November, National Physical Laboratory (NPL), New Delhi, India, 2003, p. 42.
3. "Impact and Optimization of dielectric gate stack structure for MOSFETs design reliability", Tina Mangla, **Amit Sehgal**, Mridula Gupta and R. S. Gupta, National Conference on Radio Science in India (**INCURSI-2003**), 27-29 November, National Physical Laboratory (NPL), New Delhi, India, 2003, p. 41.
4. "Two dimensional analytical model of fully depleted poly-crystalline silicon thin film transistor", **Amit Sehgal**, Tina Mangla, Mridula Gupta and R. S. Gupta, Thin Film Transistor Technologies VII Symposium, 2004 Joint International Meeting of ECS, 3-8 October, Honolulu, Hawaii, 2004.
5. "Sub-threshold analysis for poly-silicon thin film transistor using Green's function approach", **Amit Sehgal**, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, Asia Pacific Microwave Conference (**APMC-2004**), 15-18 December, New Delhi, India, 2004, pp. 126-137.
6. "Impact of gate stack architecture on MOSFETs including quantum mechanical effects", Tina Mangla, **Amit Sehgal**, Mridula Gupta and R. S. Gupta, Asia Pacific Microwave Conference (**APMC-2004**), 15-18 December, New Delhi, India, 2004, pp. 189-190.
7. "Enhancement in performance of poly-crystalline thin film transistors with gate dielectric and work-function", **Amit Sehgal**, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *3<sup>rd</sup> International Conference on Materials for Advanced Technologies*, (**ICMAT-2005**), 3-8 July, Singapore, 2005, pp. 6-7.
8. "Modeling and simulation of poly-crystalline silicon thin film transistor for improved gate transport efficiency", **Amit Sehgal**, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *10<sup>th</sup> International Symposium on Microwave and Optical Technologies* (**ISMOT-2005**), 22-25 August, Fukuoka, Japan, 2005, pp. 410-413.
9. "Poly-crystalline silicon thin film transistor: Modified Schottky gate contact for enhanced gate transport efficiency", **Amit Sehgal**, Tina Mangla, Sonia Chopra, Mridula Gupta and R. S. Gupta, *XIII International Workshop on Physics of Semiconductor Devices* (**IWPSD-2005**), 13-17 December, National Physical Laboratory (NPL), New Delhi, India, 2005, pp. 1040-1044.
10. "Threshold voltage model for short-channel MOSFETs with quantum effects", Tina Mangla, **Amit Sehgal**, Mridula Gupta and R. S. Gupta, *XIII International Workshop on Physics of Semiconductor Devices* (**IWPSD-2005**), 13-17 December, National Physical Laboratory (NPL), New Delhi, India, 2005, pp. 1030-1034.

11. "Conventional Scaled Transformation Ratio: A failure to predict accurate device characteristics for sub-100nm gate stack MOSFETs", R. S. Gupta, Tina Mangla, **Amit Sehgal** and Mridula Gupta, *National Conference on Recent Advancements in Microwave Technique and Applications (Microwave-2006)*, 6-8 October, University of Rajasthan, Jaipur, 2006.
12. "Improving the performance of poly-silicon thin film transistor for switching and driver circuitry", **Amit Sehgal**, Tina Mangla, Mridula Gupta and R. S. Gupta, *The 9<sup>th</sup> Asian Symposium on Information Display (ASID-2006)*, 8-12 October, Habitat World at Indian Habitat Centre, New Delhi, 2006, pp.400-403.
13. "Physics Based Threshold Voltage Extraction And Simulation For Double-Gate Sub-100nm MOSFETs", **Amit Sehgal**, Tina Mangla, Mridula Gupta, R. S. Gupta, *4<sup>th</sup> International Conference on Materials for Advanced Technologies, (ICMAT-2007)*, 1-6 July, Singapore, 2007, pp. 52.
14. **IEEE Sustainability Conference 2009**, Computer Society Chapter, IEEE Delhi Section, held at HMR Institute of Technology and Management, Delhi, INDIA.
15. "Sub 100nm Double Gate MOSFETs: A Study of Technological Defects and Carrier Quantization Effects", **Amit Sehgal**, Ritesh Gupta, Mridula Gupta and R. S. Gupta, *12<sup>th</sup> International Symposium on Microwave and Optical Technologies (ISMOT-2009)*, 16-19 December, Delhi, India, 2009.
16. "Green Energy Based Portable Embedded System Solutions For Remote Area Applications", **Amit Sehgal**, Sukhbinder Singh Rait, *INSCR International Conference (IIC 2017)*, 26-28 September, Delhi, India, 2017.

## Talks

1. **Convener** of the seminar organized in the college in the year 2008-2009.
2. **Resource Person** for TIER II ILLI ICT Workshop at PGDAV (EVE.) College, University Of Delhi from 10-11-2009 To 22-12-2009
3. **Resource Person** for TIER II ILLI ICT Workshop at Shyama Prasad Mukherjee College, University Of Delhi from 24-11-2009 To 09-12-2009
4. **Resource Person** for TIER II ILLI ICT Workshop at ILLI (For Administrative Staff), University Of Delhi from 30-11-2009 To 07-12-2009
5. **Resource Person** for TIER II ILLI ICT Workshop at SHIVAJI College, University Of Delhi from 08-01-2010 To 14-01-2010
6. **Resource Person** for TIER II ILLI ICT Workshop at S.G.T.B. Khalsa College, University Of Delhi from 11-01-2010 To 20-01-2010
7. **Resource Person** for TIER II ILLI ICT Workshop at Indraprastha College For Women, University Of Delhi from 22-03-2010 To 29-03-2010
8. **Resource Person** for TIER II ILLI ICT Workshop at Shyam Lal College, University Of Delhi from 23-03-2010 To 30-03-2010
9. **Resource Person** for TIER II ILLI ICT Workshop at Keshav Mahavidyalaya, University Of Delhi from 12-04-2010 To 17-04-2010
10. **Resource Person** for TIER II ILLI ICT Workshop at Shaheed Bhagat Singh (Eve.) College, University Of Delhi
11. **Resource Person** for TIER II ILLI ICT Workshop at Shri Guru Gobind Singh College Of Commerce, University Of Delhi from 12-04-2010 To 27-04-2010
12. **Resource Person** in Refresher Course in Information Technology at B. P. S. Mahila Vishwavidyalaya, Khanpur Kalan, Sonipat in May-June, 2012.
13. **Jury Member** in INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) 2<sup>nd</sup> National Level Exhibition and Project Competition (NLEPC) at Delhi by Department of Science & Technology, Ministry of Science and Technology, Government of India from October 21-23, 2012.
14. **Jury Member** in INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) 3<sup>rd</sup> National Level Exhibition and Project Competition (NLEPC) at Delhi by Department of Science & Technology, Ministry of Science and Technology, Government of India from October 8-10, 2013.
15. **Resource Person** in Challenges in Physics Teaching and Evaluation at B. P. P. S. Teachers Training Centre, Pitampura, Delhi on 27 May, 2013.
16. **Resource Person** in workshop **Applications of LASER in Biotechnology** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on December 16-17, 2013.
17. **Convener and Resource Person** in National workshop **Fluorescence Studies of Organic Structures** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on September 26-27, 2014.
18. **Jury Member** in INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) 4<sup>th</sup> National Level Exhibition and Project Competition (NLEPC) at Delhi by Department of Science & Technology, Ministry of Science and Technology, Government of India from October 6-8, 2014.



19. **Jury Member** in INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) 5<sup>th</sup> National Level Exhibition and Project Competition (NLEPC) at IIT, Delhi by Department of Science & Technology, Ministry of Science and Technology, Government of India from December 6-7, 2015.
20. **Organizer and Resource Person** in workshop **Integrating ICT in Teaching and Learning** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on December 11-18, 2015.
21. **Convener and Resource Person** in workshop **Workshop on Embedded Systems** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on January 15-16, 2016.
22. **Resource Person** for **Faculty Empowerment Programme** titled Workshop on Basic ICT Skills for Educators (e-Content Development and Assessment Tools) at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on August 30-31, 2016.
23. **Resource Person** for **Faculty Empowerment Programme** titled Workshop on Basic ICT Skills for Educators (e-Content Development and Assessment Tools) at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on September 19, 2016.
24. **Convener and Resource Person** for **Faculty Development Programme** on Advances in Optoelectronics and MATLAB at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on October 4, 2016.
25. **Resource Person** for **Faculty Empowerment Programme** titled Workshop on Basic ICT Skills for Educators (e-Content Development and Assessment Tools) at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on October 24, 2016.
26. **Resource Person** for **Faculty Empowerment Programme** titled Workshop on Basic ICT Skills for Educators (e-Content Development and Assessment Tools) at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on November 16, 2016.
27. **Jury Member** in INNOVATION IN SCIENCE PURSUIT FOR INSPIRED RESEARCH (INSPIRE) 6<sup>th</sup> National Level Exhibition and Project Competition (NLEPC) at National Physical Laboratory, Delhi by Department of Science & Technology, Ministry of Science and Technology, Government of India from December 10-11, 2016.
28. **Resource Person** for **Faculty Empowerment Programme** titled Workshop on Basic ICT Skills for Educators (e-Content Development and Assessment Tools) at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on January 20, 2017.
29. **Resource Person** for TGT Teachers Training at BBPS Training Centre, Bal Bharati Public School, Parwana Road, Pitampura, Delhi on May 22, 2017.
30. **Organizer** in workshop **Workshop on Basic Blood and Biochemical Parameters of Human Health** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on September 07, 2017.
31. **Resource Person** for **Faculty Induction Programme** of the Ministry of HRD, Government of India at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on December 16, 2017 – January 13, 2018.
32. **Resource Person** for PRT Teachers Training on ICT Applications in Teaching at BBPS Training Centre, Bal Bharati Public School, Parwana Road, Pitampura, Delhi on May 15-18, 2018.
33. **Resource Person** for TGT Teachers Training on ICT Applications in Teaching at BBPS Training Centre, Bal Bharati Public School, Parwana Road, Pitampura, Delhi on May 22-25, 2018.
34. **Resource Person** for **Two Day Workshop on e-Learning, MOOCs and Basic ICT Skills** for Educators at St. Aloysius College (Autonomous), Jabalpur, Madhya Pradesh in collaboration with Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on March 17-18, 2018.
35. **Resource Person** for **Two Day Workshop on e-Learning, MOOCs and Basic ICT Skills** for Educators at Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha in collaboration with Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on March 19-20, 2018.
36. **Resource Person** for **Two Day Workshop on e-Learning, MOOCs and Basic ICT Skills** for Educators at The S.I.A. College of Higher Education, Affiliated to University of Mumbai, Dombivili, Maharashtra in collaboration with Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on March 19-20, 2018.
37. **Resource Person** for **Faculty Induction Programme (FIP02)** of the Ministry of HRD, Government of India at Guru Angad Dev Teaching Learning Centre of MHRD at SGTB Khalsa College, University of Delhi on May 7, 2018 – June 2, 2018.
38. **Resource Person** for **workshop titled Development of Video Guide on the use of Upper primary Science Kit in Division of Educational Kits Developed by DEK, NCERT** at Division of Educational Kits, NCERT, Delhi on January 14 – 18, 2019.

39. **Resource Person** for **workshop titled Development of Video Guide on the use of Upper primary Science Kit in Division of Educational Kits Developed by DEK, NCERT** at Division of Educational Kits, NCERT, Delhi on January 11 – 15, 2019.
40. **Resource Person** for **workshop for mapping e-contents for QR Codes of class VII Science Textbook** at Department of Education in Science and Mathematics, NIE, NCERT, Delhi on March 03 – 07, 2019.
41. **Resource Person** for **workshop titled Development of Video Guide on the use of Secondary Science Kit in Division of Educational Kits Developed by DEK, NCERT** at Division of Educational Kits, NCERT, Delhi on June 24 – July 5, 2019.
42. **Coordinator** for **Faculty Induction Programme** of the Ministry of HRD, Government of India at Mahatma Hansraj Faculty Development Centre of MHRD at Hansraj College, University of Delhi on June 17 – July 16, 2019.
43. **Resource Person** for **workshop titled Revision of Specification of Kit items (Science and Mathematics) in Division of Educational Kits Developed by DEK, NCERT** at Division of Educational Kits, NCERT, Delhi on September 2 – 6, 2019.
44. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Development of Higher Education in India: An Overview"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD on April 09, 2020.
45. **Panelist/ Resource Person** in the One Day **National Webinar entitled "ICT Enabled Higher Education in India: Challenges and Opportunities"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 13, 2020.
46. **Panelist/ Resource Person** in the One Day **National Webinar entitled "ICT Enabled Higher Education in India: Challenges and Opportunities"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 15, 2020.
47. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Development of Higher Education in India: An Overview"** jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 16, 2020.
48. **Panelist/ Resource Person** in the One Day **National Webinar entitled "ICT Enabled Higher Education in India: Challenges and Opportunities"** jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 17, 2020.
49. **Panelist/ Resource Person** in the **National Workshop entitled "National Workshop on Development of Teacher's e-kit: Chemistry"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 21, 2020.
50. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Re-engineering Higher Education: A Seamless Knowledge Management System for the University"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 22, 2020.
51. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Roles of Teachers in Technology Driven Higher Education"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 25, 2020.
52. **Resource Person** in the **National Webinar entitled "Teachers and Technology: The Road Ahead" with topic "Online Content Creation: Google Classroom and Blogging"** organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 25, 2020.
53. **Panelist/ Resource Person** in the **National Workshop entitled "National Workshop on Development of Teacher's e-kit"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 27, 2020.
54. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Roles of Teachers in Technology Driven Higher Education"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 28, 2020.
55. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Towards Excellence in Higher Education in India in the 21st Century: Challenges and Opportunities"** organized

by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on April 29, 2020.

56. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Towards Excellence in Higher Education in India in the 21st Century: Challenges and Opportunities"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 01, 2020.
57. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Challenges and Opportunities before Indian Higher Education due to Covid-19"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 02, 2020.
58. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Corona Pandemic and Economic Challenges in India"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 04, 2020.
59. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Challenges and Opportunities in Higher Education in India for the 21st Century"** jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Hindu College held on May 08, 2020.
60. **Panelist/ Resource Person** in the One Day **National Webinar entitled "e- Content Development Methodology: 4 Quadrant Model, OERs and Copyright Issues"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 15, 2020.
61. **Resource Person** in **One Week Online Faculty Development Program titled "Multimedia Enriched e- Content Development"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD from May 21-26, 2020.
62. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Women in Higher Education: Issues and Challenges during Corona Pandemic"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on May 27, 2020.
63. **Resource Person** in **One Week Online Faculty Development Program titled "Development and management of MOOCs and Online Courses using LMS-Moodle"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Myeclassacademy from June 30 - July 04, 2020.
64. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Teaching during and Post Corona Times"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on June 12, 2020.
65. **Resource Person** in **One Week Online Faculty Development Program titled "Development of Careers in Higher Education in India in the 21st Century"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and St. John's College, Agra from June 23 - July 27, 2020.
66. **Panelist/ Resource Person** in the **National Workshop entitled "Online teaching and Learning using LMS-MOODLE (Batch-1)"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Myeclassacademy held on July 17, 2020- July 18, 2020.
67. **Panelist/ Resource Person** in the One Day **National Webinar entitled "How to conduct Online Teaching-Learning in COVID Times?"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on July 22, 2020.
68. **Panelist/ Resource Person** in the **National Workshop entitled "Online teaching and Learning using LMS-MOODLE (Batch-2)"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Myeclassacademy held on July 24, 2020- July 25, 2020.

69. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Unravelling the National Education Policy 2020"** jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on August 09, 2020.
70. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Designing MOOCs, Digital Skills and E-content development"** jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Annamalai University, Annamali Nagar - 608002, Tamil Nadu held on August 14, 2020.
71. **Resource Person** in One Week **Faculty Development Program** titled **Developing Multimedia Enriched Powerful Presentations** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD on August 11 - August 16, 2020.
72. **Resource Person** in One Week **Faculty Development Program** titled **Designing MOOCs, Digital Skills and E-content development** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Annamalai University, Annamali Nagar - 608002, Tamil Nadu on August 17 - August 21, 2020.
73. **Resource Person** in One Week **Faculty Development Program** titled **E-Content Development & Learning Management System** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and S.S. Khanna Girl's Degree College, Prayagraj on August 22 - August 28, 2020.
74. **Resource Person** for talk titled Tweaks of Geeks in Everyday Science conducted under **IQAC Webinar Series** by Atma Ram Sanatan Dharma College, University of Delhi on August 29, 2020.
75. **Resource Person** in One Week **Faculty Development Program** titled **Designing MOOCs, Digital Skills and E-content development** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Annamalai University, Annamali Nagar - 608002, Tamil Nadu on August 26 - August 30, 2020.
76. **Panelist/ Resource Person** in the One Day **National Webinar entitled "Promotional Avenues for Teachers in Higher Education: CAS Regulations- 2018"** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on September 05, 2020.
77. **Resource Person** in One Week **Faculty Development Program** titled **Designing Development of Teacher's e-Kit and MOOCs in Four Quadrant Format of e-Content** organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD on September 12 - September 20, 2020.

### Workshops/Seminars

1. Attended and successfully completed Electrawork 2009 **workshop** at Acharya Narendra Dev College, University of Delhi from June 01-12, 2009.
2. Attended and successfully completed ICT Tier I Champions **workshop** by Microsoft at Institute of Lifelong Learning, University of Delhi from August 31 to September 11, 2009.
3. Attended and successfully completed Integrating Multiple Technologies to Support Teaching and Learning Seminar cum **Workshop** at University of Delhi South Campus from September 24-26, 2009.
4. Attended And Successfully Completed **Workshop** on 3-D Animation and Design Visualization organized by MHRD, Govt. of India, Autodesk at Institute of Lifelong Learning, University Of Delhi from June 28 To July 02, 2010.
5. Attended and successfully completed **Mini-Colloquia** on Compact Modelling Techniques for Nanoscale Devices and Circuit Analysis at University of Delhi South Campus sponsored by IEEE Electron Device Society from March 14-15, 2012.
6. Attended and successfully completed Science Academies **Lecture Workshop** on Frontiers in Science & Engineering - Opportunities for Graduates at University of Delhi South Campus sponsored by Indian National Science Academy (INSA) from February 17-18, 2012.
7. Attended And Successfully Completed **National Workshop on VLSI Designing using Verilog** conducted by Bhaskra College of Applied Science, University of Delhi from July 16-18, 2013.

8. Attended And Successfully Completed **D-LITE Course** conducted by Campus of Open Learning (COL), University of Delhi and Edinburgh College, UK at COL, Keshav Puram on November 18-21, 2013.
9. Attended and successfully completed **Training Course on Web designing using HTML and Dreamweaver CS5** at Delhi University Computer Center, North Campus from July 28 - August 03, 2014.
10. Successfully completed the **Course on Why get involved in peer review?** By Elsevier Publishing Campus on Friday 22 May, 2015.
11. Successfully completed the **Course on Plagiarism** by Elsevier Publishing Campus on Friday 22 May, 2015.
12. Attended and successfully completed **Seminar on Technical Terminology and Science Teaching** at Hansraj College, University of Delhi conducted by Commission for Scientific and Technical Terminology, Ministry of Human Resource Development from July 23-24, 2015.
13. Attended and successfully completed **Seminar on Technical Terminology and Science Teaching** at Deen Dayal Upadhyaya College, University of Delhi conducted by Commission for Scientific and Technical Terminology, Ministry of Human Resource Development from September 18-19, 2015.
14. Attended and successfully completed **India International Science Festival** at Indian Institute of Technology, Delhi conducted by Ministry for Scientific and Technology and Earth Sciences, Government of India from December 4-8, 2015.
15. Attended and successfully completed **Professor Summit on Embedded System Design using Atmel 8-bit and 32-bit based MCU** at Maharaja Agarsen College, University of Delhi conducted by Maharaja Agarsen College and Atmel India University Program from January 07-08, 2016.
16. Attended And Successfully Completed workshop **Characterization of Materials by X-Ray Diffraction** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on February 23-24, 2016.
17. **Organizer and Participant** in seminar **Physics of Stars** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on April 1, 2016.
18. Attended And Successfully Completed faculty development programme in **Research Project Management** at University of Delhi conducted by Cluster Innovation Centre, University of Delhi on July 19, 2016.
19. Attended and successfully completed **Training Course on PHP and MySQL** at Delhi University Computer Center, North Campus from December 19 - December 23, 2016.
20. Attended And Successfully completed faculty development programme on **Embedded Systems and Synthesis of Nano-materials** at Hansraj College sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme on January 6-7, 2017.
21. Attended and successfully completed World Water Day programme at Hansraj College in collaboration with Millennium India Education Foundation on March 22, 2017.
22. Attended And Successfully completed faculty development programme on **Financial Literacy** at Hansraj College in collaboration with National Institute of Securities Market on March 23, 2017.
23. Attended and successfully completed National Seminar on **e-Learning and MOOCs in Higher Education** at SGTB Khalsa College sponsored on March 29, 2017.
24. Attended and successfully completed **Workshop on VHDL Programmiing & Digital Circuit Designing with Implementation on FPGA** at Deen Dayal Upadhyaya College, University of Delhi in collaboration with CoreEL Technologies (I) Pvt. Ltd. sponsored by Department of Biotechnology, Ministry of Science and Technology, Government of India under Star College Scheme from October 3-6, 2018.
25. Attended **One Professional Development Hour** on High-k Dielectric and Interface Engineering for High Performance Si/Ge MOS and FinFETs organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on April 30, 2020.
26. Attended **One Professional Development Hour** on Two-dimensional Layered Materials for Nanoelectronics organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 01, 2020.
27. Attended **One Professional Development Hour** on Introducing Two-dimensional Layered Dielectrics in Solid-State Microelectronic Devices organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 05, 2020.
28. Attended **One Professional Development Hour** on Junctionless Nanowire Transistors: Electrical Characteristics and Compact Modeling organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 08, 2020.

29. Attended **One Professional Development Hour** on From CMOS to Neuromorphic Computing- A peek into the future organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 11, 2020.
30. Attended **One Professional Development Hour** on Phase change electro-optical devices for space applications organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 12, 2020.
31. Attended **One Professional Development Hour** on State-of-the-Art Silicon Very Large Scale Integrated Circuits: Industrial Face of Nanotechnology organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 15, 2020.
32. Attended **One Professional Development Hour** on State Transparent and Flexible Large Area Electronics organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 16, 2020.
33. Attended **Virtual Symposium on Emerging Areas of Photonics** organized by The National Academy of Sciences India (NASI) - Delhi Chapter and The Optical Society of India on May 16, 2020.
34. Attended **Webinar on Cyber Laws** organized by Keshav Mahavidyalaya, University of Delhi and Keshav Mahavidyalaya Alumni Association on May 18, 2020.
35. Attended **One Professional Development Hour** on State Transparent and Flexible Large Area Electronics organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 16, 2020.
36. Attended **One Professional Development Hour** on Trends and challenges in Nanoelectronics for the next decade organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 20, 2020.
37. Attended **One Professional Development Hour** on Accelerating commercialization of SiC power electronics organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 22, 2020.
38. Attended **Webinar** on Quest for Quality: Ranking and Accreditation organized by IQAC, Hansraj College, University of Delhi, Delhi on May 23, 2020.
39. Attended **One Professional Development Hour** on Accelerating Advanced III-N Devices for 5G and Beyond organized by IEEE Electron Device Society (EDS) Delhi Chapter –India and Department of Electronic Science, University of Delhi South Campus, New Delhi on May 27, 2020.
40. Attended **One Professional Development Hour** on Engineering Solutions for Point-of-Care & Early Diagnostics organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on May 30, 2020.
41. Attended **One Professional Development Hour** on Compact Modeling and Parameter Extraction for Oxide and Organic Thin Film Transistors (TFTs) organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on May 31, 2020.
42. Attended **One Professional Development Hour** on Finding needles in a haystack: Liquid biopsy for nucleic acid and protein molecular biomarkers for disease diagnosis organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on June 02, 2020.
43. Attended **One Professional Development Hour** on FOSS TCAD/EDA tools for Compact/SPICE Modeling organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on June 03, 2020.
44. Attended **International Webinar Series** on Technological Trends for the next Generation by Department of Electronics, Bhaskracharya College of Applied Sciences, University of Delhi on June 01 - 05, 2020.
45. Attended **One Professional Development Hour** on Endofullerenes: Nano-scale test tubes for single molecules and atoms organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on June 08, 2020.
46. Successfully completed **Online Workshop** on MOODLE : Learning Management System conducted by Department of Electronics and English, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi on June 8 -12, 2020.
47. Attended **One Professional Development Hour** on Printed and Flexible Electronics and Devices organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter

- supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on June 24, 2020.
48. Attended **One Professional Development Hour** on New chemistry and physics in magnetic oxides organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 03, 2020.
  49. Attended **One Professional Development Hour** on Flow inside the Sun organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 09, 2020.
  50. Attended **One Professional Development Hour** on Can Future Energy Needs be met Sustainably? organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 10, 2020.
  51. Attended **One Professional Development Hour** on Are we there yet? How do cells find their way? organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 11, 2020.
  52. Attended **One Professional Development Hour** on The influence of infection on Society before Covid19 organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 14, 2020.
  53. Attended **One Professional Development Hour** on When to trust a self-driving car.. organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 23, 2020.
  54. Attended **One Professional Development Hour** on A Reinforcement Learning Framework for Mobile Relay Beamforming organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 24, 2020.
  55. Attended **One Professional Development Hour** on A Reinforcement Learning Empathetic Conversational Artificial Intelligence (AI) organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 26, 2020.
  56. Attended **One Professional Development Hour** on Physics Does Digital Optimization- for Machine Learning, Control Theory, Back Propagation organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on July 28, 2020.
  57. Attended **One Professional Development Hour** on Engineering the future of Medicine organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on August 06, 2020.
  58. Attended **One Professional Development Hour** on Solar magnetic fields and solar irradiance: implications for Earth's climate organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on August 18, 2020.
  59. Attended **One Professional Development Hour** on Machine Learning Methods in Computational Cancer Biology organized by MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College Chapter supported by The National Academy of Sciences, India (NASI) - Delhi Chapter, IEEE Electron Device Society (EDS) – Delhi Chapter and DBT Star College Scheme on August 28, 2020.
  60. Successfully attended and received **Appreciation Certificate for Science Academies Online Lecture Workshop On Frontiers in Science & Engineering** - Opportunities for Graduates organized by Science Foundation and MHRD-IIC-DDUC Chapter Deen Dayal Upadhyaya College, University of Delhi and DBT Star College Scheme on September 14 – 19, 2020.