

**HANS RAJ COLLEGE
UNIVERSITY OF DELHI**

FACULTY PROFILE



Title	Dr.	First Name	Mona	Last Name	Bhatnagar
Designation	Associate Professor				
Address	Department of Electronics, Hans Raj College, University of Delhi, Delhi, Pincode-110007				
Office Phone	011-27666338				
Residence	E-23, First Floor, Greater Kailash Enclave-1, New Delhi – 110048				
Email	Monabhatnagar65@gmail.com monabhatnagar@hrc.du.ac.in				

Educational Qualifications

Degree	Institution	Year
Ph.D.	University of Delhi	1998
M.Phil.	University of Delhi	1990
PG	South Campus, University of Delhi	1988
UG	Hansraj College, University of Delhi	1986

Areas of Interest / Specialization

Photovoltaics

Teaching experience: 33 Years

Hansraj College, University of Delhi (18.8.1989 – till date)

Date of permanent appointment:

18.8.1989

Subjects Taught

- ✓ Microprocessors and Microcontrollers
- ✓ Operational Amplifiers and Applications

Publications Profile

1. "Characterization of thin films of Ga₂Se₃ on Si fabricated using electron beam evaporation technique" by Mona Bhatnagar, Shivangi Jha, Sushil Kumar, Energy Storage, (2022)

2. "Understanding the COVID -19 pandemic using the machine learning techniques" by Mona Bhatnagar, Suyash Garg, Chetana Jain, Vigyan Prakash, Vol.19(4), (2021), p18-28.UGC Care.
3. "Uchch Shiksha mein rozgar yogyata kaushal ke antar ko paatne per ek adhhyan" by Mona Bhatnagar and Namrata Soni, Samsamyik Srijan, Jun–April (2021) issue, p424-427; UGC Care
4. "Computational fluid dynamics-based analysis for optimization of various thermal enhancement techniques used in evacuated tubes solar collectors: A review" by Sorabh Aggarwal, Raj Kumar, Sushil Kumar, Mona Bhatnagar, Pawan Kumar, Materials Today: Proceedings, Vol.46, (2021) p 8700-8707.
5. "A Study on Use of Mathematical Programs for Design of Electronic Circuits in Cybernetic-Physical Learning Environment" by Namrata Dewan Soni, Jyoti Bhola, Mona Bhatnagar, International Journal of Information and Education Technology, Vol.11(11), (2021) p504-509
6. "Compositional effect on the optical absorption and photoluminescence of CdS_xSe_{1-x} quantum dots embedded in borosilicate glasses" by Jitender Kumar, A Verma, PK Pandey, PK Bhatnagar, PC Mathur, M Bhatnagar, W Liu & SH Tang, International Journal of Nanoscience, Vol.08, Issue 04n05 (Aug & Oct 2009)
7. "Two-photon absorption in quantum dots of CdS_xSe_{1-x} using open aperture Z-scan and femtosecond laser" by Jitender Kumar, A Verma, PK Pandey, PK Bhatnagar, PC Mathur, M Bhatnagar, W Liu & SH Tang, Nano Brief Reports & Reviews (World Science Net) Vol.04, Issue01 (Feb 2009), p23-29
8. "High level Illumination effect on MS'S solar cell characteristics with new material Ga₂Se₃ as intermediate layer" by Mona Bhatnagar & PK Bhatnagar, Journal of Materials Science, 33 (1998), p2179-2180
9. "Estimation of incubation time for Sb₂Te₃ used in optical memories" by Swati Nagpal, Pankaj Pathak, Mona, Poonam and P.K. Bhatnagar, Proceedings Of SPIE- The International Society for Optical Engineering, Vol 3316, Issue 2,1998, p1218-1220
10. "Temperature considerations in Metal- Ga₂Se₃-Si (MS'S) solar cell" by Mona Bhatnagar & PK Bhatnagar – Published in Book of Proceedings of 14th European Photovoltaic Solar Energy Conference & Exhibition, Barcelona, Spain, 30th Jun – 4th July, 1997
11. "Fabrication of a new basic structure (Al-Ga₂Se₃-pSi) for photovoltaic application" by Mona Bhatnagar, Pankaj Pathak & PK Bhatnagar, Solid State Phenomena, Vol.55, 1997, p230-232
12. "MS'S – An alternative Structure for MOS type solar cells" by PK Bhatnagar & Mona Bhatnagar, Physica Status Solidi (A), Vol.158, No.1 (Nov 1996), p.K9-k12.

Conferences / Workshops / FDPs (Paper Presentation / Participation)

1. "MS'S Solar Cell " by PK Bhatnagar & Mona Bhatnagar, Regional Workshop on Low Dimensional Semiconductor Structures, LDSS'95, 18th-20th Dec 1995 at New Delhi Organized by Semiconductor Society (India).
2. "Temperature considerations in Metal- Ga₂Se₃-Si (MS'S) solar cell" by Mona Bhatnagar & PK Bhatnagar – 14th European Photovoltaic Solar Energy Conference & Exhibition, Barcelona, Spain, 30th Jun – 4th July, 1997
3. I-V characteristics of Compound Semiconductor Heterostructure (M-Ga₂Se₃-GaAs) Solar cell by Pankaj Pathak, P.K. Bhatnagar, Mona Bhatnagar, 2nd World

Conference on photovoltaic solar energy conversion, Vienna, Austria, 6th-10th July, 1998.

4. Participated in a one-week Faculty Development Programme on “Entrepreneurship, Incubation and Innovation.” 23rd-29th June, 2020 conducted by MHRD, PMMMNTT/Teaching Learning Centre, Ramanujan College, University of Delhi

Conferences / Workshops / FDPs (Organization)

1. Convener of Seminar on “Radiation Hazards and Monitoring: Techniques and Materials” at Hansraj College held, April 10th, 2017
2. Convener of 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, January 6th-7th, 2017
3. Organized Workshop on “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, Feb 23rd-24th, 2016
4. Organized 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, Sep 26th-27th, 2014
5. Organizing Committee Member for FDP on “Agriculture, Health and Society” Hansraj College 15th-16th Mar 2019 by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi
6. Organizing Committee Member for Workshop on “Prevention of Sexual Harassment at Workplace” Hansraj College 14th Jun, 2019 conducted by ICC & IQAC, Hansraj College, University of Delhi
7. Organizing Committee Member for FDP on “ICT in education and cyber security” Hansraj College 10th-16th Jul, 2019, conducted by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
8. Organizing Committee Member for “National Conference on Advanced materials: Theory and Applications” 26th-28th Sept, 2019 by Department of Physics, Hansraj College
9. Convener National leadership summit “Excellence in Higher Education: Current Challenges and the Road Ahead” 6th-7th Dec, 2019 Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi
10. Coordinator National Faculty Development Program on the theme “Fundamentals of Intellectual Property Rights” 23rd-25th Jan, 2020 Department of Botany & IQAC in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
11. Coordinator in four-day program on “Quality Assurance in Higher Education: Practices and Issues” 4th-8th May, 2020, IQAC Hansraj College and ‘Paramarsh’ UGC Scheme
12. Organised Webinar On ‘Strengthening the immune system with Naturopathy’ 6th May, 2020, Department of Botany and Internal Quality Assurance cell, Hansraj College, University of Delhi
13. Organised Webinar “लॉकडाउन के दौरान तन और मन की दखभाल “14th-15th May, 2020, Department of Botany and Internal Quality Assurance cell, Hansraj College, University of Delhi.

14. Organised Webinar on "Role of ICC and Prevention, Prohibition and Redressal of Sexual Harassment at Workplace" 22nd May, 2020, Internal Complaints Committee and Internal Quality Assurance cell, Hansraj College, University of Delhi
15. Coordinator of the webinar series "NAAC's Assessment Criteria for Accreditation" 8th-14th Jun, 2020, IQAC Hansraj College and 'Paramarsh' UGC Scheme
16. Coordinator of the Webinar on "Basic documentation for teachers" 22nd Jun, 2020 IQAC Hansraj College and 'Paramarsh' UGC Scheme
17. Organized webinar on "Student Learning Centre: Objectives & Perspectives" for the Hansraj College faculty 13th Jul, 2020 Student Learning Centre, Hansraj College
18. Program Convener for add-on certificate course on "Introduction to Computer Algebra System: Maxima An open-source Software" 27th Jun -18th Jul, 2020 Student Learning Centre, Hansraj College
19. Program Convener for add-on certificate course on "Introduction to Machine Learning for Zoology" 10th-23rd Jul, 2020 Student Learning Centre, Hansraj College
20. Program Convener for add-on certificate course on "Investing in Stock Markets" 25th Jul-4th Aug, 2020, Student Learning Centre, Hansraj College
21. Program Convener for add-on certificate course on "Introduction to Machine Learning for Physics & Electronics" 1st-15th Aug, 2020, Student Learning Centre, Hansraj College
22. Program Convener for add-on certificate course on "Cyber Security & Ethical Hacking" 10th-21st Aug, 2020 Student Learning Centre, Hansraj College
23. Coordinator for webinar series on "NAAC's assessment criteria for Accreditation" 26th Sep-2nd Oct, 2020, Paramarsh (UGC Scheme), Hansraj College
24. Program Convener for add-on certificate course on "Future Skills to Boost Employability" 3rd Oct-15th Nov, 2020, Student Learning Centre, Hansraj College
25. Organised a two-days webinar on "ICT skills for office management for non-teaching staff" 21st-22nd Jan, 2021 IQAC, Hansraj College
26. Organised a two-days webinar on "Stress management for non-teaching staff" 28th - 29th Jan, 2021, IQAC, Hansraj College
27. Organised a one-week interdisciplinary FDP on "Intellectual Property Rights" 10th-17th Feb, 2021, IQAC in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College
28. Program Convener for add-on certificate course in "Innovation, IPR, Start-up and Entrepreneurship" SLC-08, 10th Jul-12th Sept 2021, Student Learning Centre, IQAC Hansraj College
29. Convener in One-week Interdisciplinary FDP on "Roadmap for Building New India with NEP" 21st-25th Jul, 2021, IQAC, Hansraj College in Collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College
30. Program Convener for a 4-day workshop on "Data Analysis and Visualization using R" 5th-8th Oct, 2021, Student Learning Centre, IQAC Hansraj College
31. Program Convener for add-on certificate course in "Future Skills to Boost Employability" 6th Oct-19th Dec 2021, Student Learning Centre, IQAC Hansraj College
32. Organizing Committee Member in the webinar on "Environmentally benign solvents for sustainable development" 23rd Oct 2021, Department of Chemistry in association with IQAC, Hansraj College

Research / Innovation / Undergraduate / Internship Projects

Projects (As Co-Principal Investigator)

- 1) Title: Measurement of optical non-linearities in wide bandgap II-IV semiconductor quantum dots suitable for all-optical switching
Funding agencies: DST
Year: 2008
Grant Received: Rs. 16.5 lakhs
- 2) Title: Fabrication characterization and enhancement of efficiency of Conducting polymer DNA based white light emitting diodes.
Funding agencies: DST
Year: 2009
Grant Received: Rs. 36 lakhs
- 3) Title: Masses of charmonium states in isospin asymmetric strange hadronic matter and their implications in heavy ion collision experiments Innovation.
Funding agencies: DU
Year: 2015
Grant Received: Rs. 5 lakhs

Academic awards and distinctions

- ✓ Awarded University Medal for the Best Candidate in MSc Electronics by University of Delhi, April 1989 (Gold Medal)
- ✓ Awarded 32nd Dr. S. Radha Krishnan Memorial National Teacher Award for exemplary contribution in the field of education by Akhil Bhartiya Patrakar Sangh, September 2016
- ✓ Awarded Women Excellence Award in Education by Astitva & Lions Club, Delhi. 2017
- ✓ Awarded Certificate of Appreciation for contribution and vital role as Criteria Convenor and as Valuable Member, IQAC towards NAAC Accreditation by Hans Raj College Alumni Association
- ✓ Awarded Certificate of Appreciation for exemplary contribution Administrative and Academic Standards & Quality as Member IQAC & Convenor (Teaching, Learning & Evaluation) by DAV College Managing Committee
- ✓ Awarded with Silver Medal on Completion of 25 years of steadfast service with loyalty, dedication and commitment by Department of Physics and Electronics, Hansraj College.
- ✓ Awarded International Travel Grant by UGC and CSIR for presenting a paper on "Temperature considerations in Metal- Ga₂Se₃-Si (MS'S) Solar cell" in '14th European Photovoltaic Solar Energy Conference' held in Barcelona, Spain 1997.

Contribution To Societies/ Committees/ Administrative work in College

SNo	Nature of assignment	Status	Year
1.	Internal Quality Assurance Cell (IQAC)	Director	2021-22, 2020-21, 2019-20

2.	ICT Enabling Committee	Convener	2021-22
3.	NAAC Criteria 6	Convener	2021-22, 2020-21, 2019-20
4.	NIRF	Nodal Officer	2021-22, 2020-21
5.	Student Learning Centre (SLC)	Convener	2021-22, 2020-21, 2019-20
6.	Ranking Committee	Convener	2021-22, 2020-21
7.	Vidya Vistaar	Member	2021-22, 2020-21
8.	Gyan Setu	Member	2021-22, 2020-21
9.	Incubation Center Committee	Member	2021-22
10.	Research Council	Member	2021-22
11.	IIC	Member	2021-22
12.	Hans Shodh Sudha, Advisory Board Committee	Member	2021-22, 2020-21
13.	Physics & Electronics Dept Society – Lumen	Convener	2021-22
14.	Departmental Infrastructure committee	Member	2021-22, 2020-21, 2019-20, 2018-19
15.	Paramarsh-a UGC scheme	Member	2020-21, 2019-20
16.	Dr Sama Day Care Advisory Board	Member	2020-21, 2019-20, 2018-19
17.	Department Library Committee	Convenor	2020-21
18.	College Moderation Committee	Member	2020-21
19.	Apex Committee on Online Teaching	Chairperson	2020-21
20.	Screening Committee for Promotions	Convener	2020-21
21.	Officiating Principal, Hansraj College	Officiating Principal	19 th – 28 th Aug, 2019
22.	Financial Administration	Bursar	2019-20, 2018-19
23.	Finance Committee	Convenor	2019-20, 2018-19, 2007-08
24.	Departmental Timetable Committee	Member	2019-20
25.	College Purchase Committee	Convener	2017-18, 2016-17

26.	Portal Committee	Convener	2017-18
27.	Placement Cell	Convener	2017-18, 2016-17, 2015-16
28.	Entrepreneurial Cell	Convener	2017-18, 2016-17
29.	Internal Quality Assurance Cell (IQAC)	Member	2017-18, 2016-17, 2015-16
30.	Annual Function	Convener	2017-18, 2016-17, 2015-16
31.	Foundation Day	Convener	2017-18, 2016-17
32.	Central Evaluation Centre Hansraj College DU	Deputy Coordinator	2015-16
33.	Good practices stall of Hansraj College at the Annual festival "Antardhvani" organized by DU	Content Developer	2014-15
34.	Practical Exams (Physics and Electronics Dept)	Superintendent	2012-13
35.	Alumni Association of Hansraj College (HRCAA)	Secretary	2009-12 (For three continuous years)
36.	Development Fund Committee	Member	2009-10, 2006-07
37.	Staff Council	Secretary	2005-06
38.	Admissions (Science)	Convener	2004-05, 1999-2000

Certified that the information given above is true and verifiable through certificates and supporting documents.

Dr. Mona Bhatnagar
Department of Electronics
Hansraj College, University of Delhi, Delhi-110007
E-mail: Monabhatnagar65@gmail.com; monabhatnagar@hrc.du.ac.in