

# **Faculty Details Proforma For College Web-site**



Title	Dr	First Name	Shivani	Last Name	Agarwal	Photograph
Designat	tion		Assistant P	rofessor		
Address			Department of Phy	sics, DRC, U	JoD	
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# **Educational Qualification**

Degree	Institution	Year
B.A.Sc.(H) Electronics	Shaheed Rajguru College of Applied Sciences, University of Delhi	2001
M.Sc. (Physics)	Department of Physics, IIT Roorkee	2004
Ph.D.	Department of Physics and Astrophysics, University of Delhi	2014
UGC- JRF- NET in Physi	2005	

# **Career Profile**

S. No.	Designation	Institution	Time Period		Nature of Appointment
1.	Assistant Professor	Daulat Ram College, UoD	03.10.2022	Continuing	Permanent
2.	Assistant Professor	Hansraj College, UoD	24.07.2013	03.10.2022	Adhoc
3.	Assistant Professor	Kirori Mal College, UoD	09.01.2013	23.07.2013	Adhoc
4.	Lecturer	Daulat Ram College, UoD	05.09.2007	31.03.2008	Adhoc
5.	Lecturer	Miranda House/ SRCASW/ Kalindi College, UoD	02.08.2004	17.11.2006	Adhoc

# **Administrative Assignments**

<b>Academic Session</b>	Society/Cell	Position Held
2023**	Department of Physics, Daulat Ram College, UoD	Member, Department Time Table Committee
2023**	Daulat Ram College, UoD	Value Added Course (VAC) North Cluster Coordinator
2022-23	Daulat Ram College, UoD	Value Added Course (VAC) Cluster North Coordinator
2022-23*	Enabling Unit, Hansraj College UoD	Coordinator
2022-23*	Equal Opportunity Cell, Hansraj College UoD	Member

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2022-23*	Lumen, Department of Physics and Electronics, Hansraj College UoD	Coordinator
2021-22	Equal Opportunity Cell, Hansraj College UoD	Member
2021-22	Lumen, Department of Physics and Electronics, Hansraj College UoD	Coordinator
2020-21	Enabling Unit, Hansraj College UoD	Coordinator
2020-21	Equal Opportunity Cell, Hansraj College UoD	Member
2019-20	Equal Opportunity Cell, Hansraj College UoD	Member
2019-20	Enabling Unit, Hansraj College UoD	Coordinator

<sup>\*\*</sup>Ongoing

### **Areas of Interest / Specialization**

Material Sciences, Programming languages and packages like Python C++, FORTRAN, 8085 microprocessor, 8051 microcontroller, Electronic Workbench, PSpice etc.

## **Subjects Taught**

**B.Sc.** (H) Physics: Digital Systems and Applications, Analog Systems and Applications, Digital Electronics, C++ and Microprocessors, Solid State Physics, Nuclear and Particle Physics, Atomic and Molecular Physics, Numerical Analysis, Computer Programming and Numerical Analysis, Operational Amplifier, Mechanics, Thermal Physics, Waves and Oscillations, Basic Instrumentation Skills, Mathematical Physics I Lab, Mathematical Physics II Lab etc.

**B.Sc.** (H) Electronics: Electromagnetics, Semiconductors, Digital Electronics, Circuit Theory and Network Analysis, Analog Systems, Photonics, PCB Designing, Microprocessors and Microcontroller Systems, Optics and Optoelectronics, Mathematical Foundation for Electronics Lab etc.

- B. Tech. (Electronics) (erstwhile 4YUG): Semiconductor Characterization and IC Fabrication etc.
- B. Sc. (Prog.) Physical Sciences: Electricity, Magnetism and Electromagnetic Theory etc.

#### **Research Guidance**

#### **Projects Supervised:**

- 1. Supervised five students from B.Tech. (Electronics) in the project entitling "Envisioning Efficient Roads: Versatile Traffic Control System" in the academic session 2016-17 at Hansraj College, University of Delhi.
- 2. Supervised ten students from B.Sc. (H) Physics and B.Sc.(H) Botany in Innovation Project (HRC-302) entitling "Development of a Mobile Based Application for the Real Time Localization and Identification of Flora in North Campus, University of Delhi", in the academic session 2015-16 at Hansraj College, University of Delhi. The project was funded by the Research Council, University of Delhi. During the project we were able to launch a fully functional Android based App "Tree Locator" successfully. (Fund value was Rs. 4,50,000)

#### **Publications Profile**

#### 1. Research Publication in International Refereed Journal:

- Magnetoelectric effects in [BaTiO3]1-x-[CoFe2O4]x bulk composites, Shivani Agarwal, O. F. Caltun & K. Sreenivas, Solid State Communications

#### 2. International Conferences Attended:

- Structural and dielectric properties of pulse laser deposited BaTiO3 CoFe2O4 multiferroic composite thin films, Shivani Agarwal, K. Sreenivas and Vinay Gupta, International Conference on Nano and Microelectronics, ICONAME 08, Jan 03 Jan 05, 2008, Pondicherry, Pudducherry (Oral Presentation)
- Indo Australian Symposium on Multifunctional Nanomaterials Nanaostructures and Applications (MNNA 2007), Dec. 19 Dec.21, 2007, Department of Physics & Astrophysics, University of Delhi, Delhi 110007

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<sup>\*</sup>Till 3<sup>rd</sup> October 2023 only

#### 3. National Conferences Attended:

- Synthesis of (BaTiO3)x (CoFe2O4)1-x multiferroic ceramics, Shivani Agarwal, K. Sreenivas and Vinay Gupta, National Seminar on Electroceramics, NSE 07, Nov 05 Nov 06, 2007, Sonepat, Haryana (Oral Presentation)
- Preparation and studies on (BaTiO3)x (CoFe2O4)1-x (x= 0 to 1) Magnetoelectric ceramic composites, Shivani Agarwal, Vinay Gupta and K. Sreenivas, 2nd ISSS National Conference on MEMS; Microsensors, Smart Materials, Structures and Systems, Nov 16 Nov 17, 2007, CEERI, Pilani (Poster Presentation)

# **Conference Organization / Presentation (in the last three years)**

Session	Event	Organized By	Role	Who was benefitted?	Duration
2022-23	Online National Faculty Induction Programme	Daulat Ram College and Guru Angad Dev Teaching Learning Centre, SGTBKC UoD under PMMMNMTT MoE	Organizing Committee Member	Faculty Members across the nation (~250)	25-Feb-23 to 27- Mar-23
2022-23	Two Days In-house Skill Development Program (e- SDP) on Enhancing Online Learning Through ICT Tools	Daulat Ram College UoD	Resource Person	Students (~40)	26-Nov-22 to 27-Nov- 22
2021-22	Workshop on Lab Power Supply Workshop	Department of Physics and Electronics, Hansraj College, UoD	Co-Convener	Laboratory staff members of Physics and Electronics (~20)	4-Oct-21 and 7- Oct-21
2017-18	Workshop on Computer Proficiencies in Day to Day Work and Dealings in Workplace and Public Life	Department of Botany and IQAC Hansraj College, UoD	Resource Person	Laboratory staff members of College (~25)	6-Jul-17
2017-18	Lecture cum Workshop on Biologically Inspired Learning: Neural Networks and Artificial Intelligence	Department of Physics and Electronics, Hansraj College, UoD, under the aegis of DBT	Convener	Students (~40)	27-Sep-17
2015-16	Workshop on Integrating ICT in Teaching and Learning	Department of Physics and Electronics, Hansraj CollegeUoD and DBT	Resource Person	Faculty members of the college (~25)	11-Dec-15 to 16-Dec-15

#### Role as a Convener/ Coordinator:

Session	Role	Event	Title	Organised By	Who was benefitted?	Date
2021-22	Member	Competition	Extempore- World Braille Day	Enabling Unit, UoD Hansraj College	Faculty, Staff and Students	4-Jan-22
2021-22	Member	Webinar	Indian Constitution and Marginalized Society	EOC, Hansraj College UoD	Faculty, Staff and Students	28-Jan-22

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2020-21	Convener	Workshop	Lab Power Supply Workshop	Department of Physics and Electronics, Hansraj College UoD	Physics and Electronics laboratory staff members	4-Oct-21 & 07-oct-21
2020-21	Convener	Workshop	Indian Sign Language Workshop and Understanding the Deaf Community	IQAC, Hansraj College UoD in collaboration with Noida Deaf Society	Faculty, Staff and Students	8-Dec-21
2020-21	Coordinator	Online Get Together	ਸਿਲਜ" - Cultural get together for academic session 2020- 21	Enabling Unit, Hansraj College UoD	Students	17-Jul-21
2020-21	Coordinator	Webinar	LinkedIn for Beginners	Lumen Society, Department of Physics and Electronics, Hansraj College UoD	Students of Physics and Electronics Department	12-Sep-21
2020-21	Coordinator	Webinar	A Guide to Promising Career	Lumen Society, Department of Physics and Electronics, Hansraj College UoD	Students of Physics and Electronics Department	18-Sep-21
2020-21	Coordinator	Fun Activity	Skribbl_io	Lumen Society, Department of Physics and Electronics, Hansraj College UoD	Students	10-Oct-21
2020-21	Coordinator	Webinar	Unveiling the enigma of Black Holes	Lumen Society, Department of Physics and Electronics, Hansraj College UoD	Faculty and Students	31-Oct-21
2020-21	Coordinator	Orientation	Propulsion '24- Orientation program for Fresher	Lumen Society, Department of Physics and Electronics, Hansraj College UoD	Students	27-Nov-21
2020-21	Member, Equal Opportunity Cell, HRC	Workshop	Career-Skills Development workshop for students with disabilities	Enabling Unit of Hansraj College UoD in collaboration with the ARISE Impact	Differently abled students	14-Aug-21
2020-21	Member, Equal Opportunity Cell, HRC	Workshop	Thriving after Covid- Exploring Employment Opportunity and Skills	Enabling Unit of Hansraj College UoD in collaboration with Inclusive Divyangjan Entrepreneur Association (IDEA)	Differently abled students	10-Sep-21
2020-21	Member, Equal Opportunity Cell, HRC	Workshop	Career Guidance workshop for Persons with Disabilities	Enabling Unit of Hansraj College UoD in collaboration with Youth4Jobs Foundation	Differently abled students	18-Sep-21

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2020-21	Member, Equal Opportunity Cell, HRC	Orientation	Orientation Program of Equal Opportunity Cell	EOC Hansraj College UoD	Students of EOC	14-Dec-21	
2017-18	Convener	Workshop	Biologically Inspired Learning: Neural Networks and Artificial Intelligence	Department of Biotechnology (DBT) and Department of Physics and Electronics, Hansraj College UoD	Students	27-Sep-17	

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

Rs. 4,50,000 in Innovation Project (HRC-302) entitling "Development of a Mobile Based Application for the Real Time Localization and Identification of Flora in North Campus, University of Delhi", in the academic session 2015-16 at Hansraj College, University of Delhi. The project was funded by the Research Council, University of Delhi

### **Awards and Distinctions**

NA

### **Association with Professional Bodies**

NA

### **Other Activities**

# Faculty Development/Induction Programme/ Symposium/Workshop Attended as participant:

Session	FDP/ FIP/ Workshop	Title	Organised By	Duration
2022-23	One month (online) Faculty Induction Programme	UGC Sponsored Faculty Induction Programme	Centre for Professional Development in Higher Education, HRDC, UoD	18-Jan-23 to 20-Feb-23
2022-23	Symposium (online)	Road Ahead for HEI's Accreditation under NEP	IQAC, Hansraj College and Mahatma Hansraj Faculty Development Centre, HRC UoD under PMMMNMTT	07-Apr-22 to 07-Apr-22
2022-23	Two weeks (online) Faculty Development Programme	Introduction to Python Programming	Delhi Effective Education & Pedagogy Cluster and Mahatma Hansraj Faculty Development Centre, HRC UoD under PMMMNMTT and Delhi Effective Education & Pedagogy Cluster	08-Aug-22 to 19-Aug-22
2021-22	Two weeks (online) Workshop	Vedic Mathematics	Shiksha Sanskriti Utthan Nyas, New Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, HRC UoD under PMMMNMTT	02-Dec-21 to 13-Dec-21
2021-22	One Week (online) International Faculty Development Programme	Materials Characterization: Experimental and Theoretical Aspects	Mahatma Hansraj Faculty Development Centre, HRC UoD under PMMMNMTT	20-Sep-21 to 24-Sep-21
National One Week (Online) Faculty Training Program		Pedagogical Training for Effective Online Teaching and Learning	DDUC UoD and K.T.H.M. College Nashik under IQAC and DBT Star College Program	03-Aug-23 to 10-Aug-23

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2019-20	Faculty Development Programme	Fundamentals of Intellectual Property Rights (IPRs)	Mahatma Hansraj Faculty Development Centre, HRC UoD under PMMMNMTT	23-Jan-20 to 25-Jan-20
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# Workshop/ Seminar/ Conference Attended as Participant:

Session	Event	Title	Organised By	From Date	To Date
2021-22	Symposium	Road Ahead for HEI's Accreditation under NEP	Mahatma Hansraj Faculty Development Centre, Hansraj College UoD	7-Apr-22	7-Apr-22
2021-22	Workshop	Investigatory Physics Projects Using Arduino	Indian Association of Physics Teachers	5-Feb-22	5-Feb-22
2021-22	Workshop	NEP 2020: Delhi University Undergraduate Curriculum Framework 2022	Institute of Lifelong Learning, University of Delhi and Mahatma Hansraj Faculty Development Centre, Hansraj College UoD	27-Jan-22	29-Jan-22
2020-21	Workshop	Roadmap to Higher Studies	Department of Physics and Electronics and IQAC Hansraj College UoD	27-Nov-21	27-Nov-21
2020-21	Workshop	Power of Positivity in Adversity	Hansraj College, UoD in collaboration with Science of Spirituality	25-Sep-21	25-Sep-21
2017-18	Conference	National Conference on Technological Empowerment of Women	National Academy of Sciences India, Allahabad	8-Mar-18	9-Mar-18
2016-17	Seminar cum workshop	Quantum Entanglement and the EPR paradox and Computer Interfaced Science Experiments using EXPEYES	Department of Physics and Electronics Hansraj College UoD	30-Mar-17	30-Mar-17

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