


FACULTY PROFILE

Title (Ms/Mr/Dr/Prof)	Dr	First Name	Meenakshi	Last Name	Verma	Photograph
Designation	Assistant Professor					
Department	Chemistry					
Address (Official)	Official Address: Department of Chemistry, Kalindi College (University of Delhi), East Patel Nagar, New Delhi-110008 Residential Address: 15A/8 Second Floor, East Patel Nagar, New Delhi, Delhi 110008					
Phone No.	9910796869					
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Education						
Subject		Institution		Year	Details	
Polymer Science & Technology		IIT Delhi		2017	PhD	
Polymer Science & Technology		IIT Delhi		2010	M. Tech	
Chemistry (Organic)		CCS University Campus, Meerut		2007	M.Sc.	
Chemistry		CCS University, Meerut		2005	B.Sc.	
Career Profile						
Institution		Designation		Duration		Role
CSIR - National Physical Laboratory, New Delhi		National Post-Doctoral Fellow (DST-SERB-NPDF)		04-08-2017 to 23-07-2019		Research project: Rs. 19,20,000/- Development of graphene based self-healing materials
Kalindi College, University of Delhi		Assistant Professor (ad hoc)		24-07-2019 to 07-01-2024		Teaching & Administrative Duties
Kalindi College, University of Delhi		Assistant Professor		08-01-2024 to Till Date		Teaching & Administrative Duties
Research Interests / Specialization						
Graphene Carbon nanotubes Polymer Nano-composites EMI Shielding Self-Healing Materials						
Administrative Assignments / Contribution to corporate life						
Convenor/Co-convenor i) Annual Report Kalindi College 2023-24 Member: i) Criteria 6 (Leadership, Governance & Management) Self Study Report for NAAC 2021 ii) AQAR 2020-2021-Criteria 6 (Academic Session 2021-2022) iii) AQAR 2021-2022-Criteria 3 (Academic Session 2022-2023) iv) AQAR 2022-2023-Criteria 3 (Academic Session 2023-2024)						

- v) NIRF Committee (since January 2024)
- vi) Research Project Fund Allocation Committee (since April 2023)
- vii) Yearly Academic Journal Committee (since May 2023)
- viii) Value Addition Course Committee (since June 2023)
- ix) Alumni Committee (June 2021-March 2023)
- x) Garden Committee (June 2021-March 2023)
- xi) Sports Committee (June 2021-March 2023)
- xii) Committee for Collaboration, Exchange Programmes, Consultancy & Internship (June 2021-March 2023)

Staff Advisor:

- i) Biochemical Society 2021-2022
- ii) Chemical Society 2022-2023

Resource Person:

- i) Orientation Programme 2023-2024, Department of Chemistry for the students of 1st year on 16th August 2023
- ii) Orientation Programme 2022-2023, Department of Chemistry for the students of 1st year on 2nd November 2022
- iii) Orientation Programme 2020-2021, Department of Chemistry for the students of 1st year on 18th November 2020
- iv) ‘Self-Healing Polymers-An Alternative Approach towards Sustainability’ for B.Tech. Engineering Chemistry students organized by Amity Institute of Applied Sciences, held on 10/06/2021 on MS teams
- v) “Quantum Chemistry & its Applications” for B.Tech. Engineering Chemistry students organized by Amity Institute of Applied Sciences, Amity University held on 19/04/2022, MS teams

Teaching Experiences (Subject/Courses taught)

B.Sc. (H) Semester VI: Organic Spectroscopy
 B.Sc. (H) Semester V: Quantum Chemistry & Molecular Spectroscopy
 B.Sc. (H) Semester III: Phase Equilibria and Electrochemical Cells
 B.Sc. (H) Semester III: Chemical Equilibrium, Ionic Equilibrium, Conductance and Solid State
 B.Sc. (H) Semester II: Chemical Thermodynamics and its Applications
 B.Sc. (H) All Courses Semester I (GE-1): Atomic Structure Bonding General Organic Chemistry & Aliphatic Hydrocarbons (Section B - Physical Chemistry)
 B.Sc. (H) All Courses Semester IV (GE-6): Organometallics, Bioinorganic Chemistry, Polynuclear Hydrocarbons and UV, IR Spectroscopy (Section B - Organic Chemistry)
 B.Sc. (P) Life Sciences Semester III: Chemistry-III Chemical Energetics and Equilibria
 B.Sc. (P) Life Sciences Semester V: Chemistry of D-Block Elements, Quantum Chemistry and Spectroscopy
 B.Sc. (P) Life Sciences Semester IV: IV: Chemistry of s- and p-block elements, States of matter and Chemical Kinetics (Section A - Inorganic Chemistry)

Research Guidance

1. In-house research project entitled “Synthesis and characterization of free standing graphene oxide film” during the Academic Session 2021-2022 (Completed)

Publication (Peer Reviewed/Indexed Journals)

1. **Meenakshi Verma**, Sampat Singh Chauhan, S. K. Dhawan and Veena Choudhary, “Graphene nanoplatelets/Carbon nanotubes/Polyurethane Composite as Efficient Shield against Electromagnetic

- Polluting Radiation”, Composites Part B: Engineering, **2017**, 120, 118-127 (**IF: 11.3, Citations 158**)
2. **Meenakshi Verma**, Pawan Verma, S.K. Dhawan and Veena Choudhary, “Tailored graphene based polyurethane composites for efficient electrostatic dissipation and electromagnetic interference shielding applications”, RSC Advances, **2015**, 5, 97349-97358 (**IF: 4.03, Citations 79**)
 3. **Meenakshi Verma**, Avanish Pratap Singh, Pradeep Sambyal, Bhanu Pratap Singh, S.K. Dhawan and Veena Choudhary, “Barium ferrite decorated reduced graphene oxide nanocomposite for effective electromagnetic interference shielding”, Physical Chemistry Chemical Physics, **2015**, 17,1610-1618 (**IF: 3.95, Citations 167**)
 4. Pawan Verma, Anuj Kumar, Sampat Singh Chauhan, **Meenakshi Verma**, Rajendra Singh Malik, Veena Choudhary, “Industrially viable technique for the preparation of HDPE/fly ash composites at high loading: Thermal, mechanical, and rheological interpretations”, Journal of Applied Polymer Science, **2018**, 135 (11), 459951 (**IF: 3.05, Citations 14**)
 5. Sampat Singh Chauhan, **Meenakshi Verma**, Pawan Verma, Vishwa Pratap Singh, Veena Choudhary, “Multiwalled carbon nanotubes reinforced poly (ether-ketone) nanocomposites: Assessment of rheological, mechanical, and electromagnetic shielding properties”, Polymers for Advanced Technologies, **2018**, 29 (1), 347-354 (**IF: 3.66, Citations 18**)
 6. Pawan Verma, **Meenakshi Verma**, Anju Gupta, Sampat Singh Chauhan, Veena Choudhary, “Multi walled carbon nanotubes induced viscoelastic response of polypropylene copolymer nanocomposites: Effect of filler loading on rheological percolation”, Polymer Testing, **2016** 55, 1-9 (**IF: 4.93, Citations 39**)
 7. Pradeep Sambyal, Avanish Pratap Singh, Meenakshi Verma, Ankit Gupta, Bhanu Pratap Singh and S. K. Dhawan “Designing of MWCNT/ferrofluid/flyash multiphase composite as safeguard for electromagnetic radiation”, Advanced Material Letters, 2015, 6(7), 585-591
 8. Pradeep Sambyal, Avanish Pratap Singh, **Meenakshi Verma**, M. Farukh, Bhanu Pratap Singh and S. K. Dhawan “Tailored polyaniline/barium strontium titanate/expanded graphite multiphase composite for efficient radar absorption”, RSC Advances, **2014**, 4, 12614-12624 (**IF: 4.03, Citations 87**)
- PATENT:** Sundeep Kumar Dhawan; Amit Kumar; **Meenakshi Verma**; Rajendra Prasad Pant, “Electromagnetic foam having electrical and magnetic properties and process thereof”, Application No. :1273/DEL/2015, Patent filed and published.

Book Chapter: Meenakshi Verma*, Veena Choudhary and S.K. Dhawan, “Thermoplastic Polyurethane Graphene Nanocomposites for EMI Shielding” in Smart Materials Design for Electromagnetic Interference Shielding Applications, 2022, **Chapter 4**, 153-212 DOI: 10.2174/9789815036428122010007,

Faculty Development Programme/Refresher Course

1. Participated in Two Week (Online) Interdisciplinary Faculty Development Programme on ‘MOOC’s, E-Content Development, Research Methodology and Statistical Tools in Open Education World, organized by Kalindi College in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College held on 03.08.2021 to 17.08.2021 at Kalindi College, University of Delhi
2. Participated and scored “A+” in Two Week Faculty Development Programme on “Chemistry - The Catalyst for Change” organized by Teaching Learning Centre, Ramanujan College University of Delhi in collaboration with Department of Chemistry, Miranda House University of Delhi, under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching from 14 – 28 July, 2021.
3. Successfully completed and obtained “A” grade in One-Week Online National Faculty Development Program “Basic IT tools, Advanced Spreadsheet Tools and Statistical Software Package with SPSS” jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education from 27/10/2022 to 03/11/2022

4. Successfully completed One Week (Online) International Faculty Development Program on “Modern Scientific Technologies Ways to Enhance Research Skills” organized by Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi in collaboration with K.R. Mangalam University, Gurugram & Motilal Nehru College, University of Delhi from 26/12/2022 to 31/12/2022

Seminar/Workshop/Conferences Presentation/Organisation

- Presented a paper (oral presentation) entitled as Graphene-Carbon Nanotubes Hybrid Based Polymer Nanocomposites for Self-Healing Applications” in e-workshop on “Advances in Science & Technology of Graphene-2022” organized by Indian Carbon Society in collaboration with CSIR-National Physical Laboratory, New Delhi held on 01/Nov/2022 to 02/Nov/2022 at Zoom online mode
- Presented a paper (poster presentation) entitled as Synthesis and Characterization of Free-Standing Graphene Oxide Film” in e-workshop on “Advances in Science & Technology of Graphene-2022” organized by Indian Carbon Society in collaboration with CSIR-National Physical Laboratory, New Delhi held on 01/Nov/2022 to 02/Nov/2022 at Zoom online mode
- Participated in IP Awareness/Training program under National Intellectual Property Awareness Mission organized by Intellectual Property Office, India held on 09/11/2022 at Kalindi College
- Participated in “E-Content Development using Basic Tools” Organized by E-Content Development Committee, Kalindi College, University of Delhi on 27th September, 2021.
- Participated in Webinar on “Recent Advances in Chemistry” organized by the Department of Chemistry & IQAC, Govt. G.N.A PG College, Bhatapara, (C.G) on 26th July 2021.
- Participated in a workshop on “Designing and Development of e-Resources for Teaching and Learning - Part II” organized by Department of Computer Science and Department of Chemistry Rajdhani College, University of Delhi from 23-24 July, 2021.
- Participated in Webinar on “How To Avoid Predatory Publishing? What Researchers Can Do” organized by Research Committee under the aegis of IQAC, Kalinidi College, on 24th July 2021.
- Participated in Three Days National Webinar on "Capacity Building Programme for Future Physicists", Organized by Sakthi College of Arts and Science for Women, Oddanchatram, Tamil Nadu from 03-06-2021 to 05-06-2021.
- Oral presentation on the topic “Self-Healing Composites for Aerospace Applications”, Indo-Japan Workshop 2018 on Highly Conductive CFRP using Conductive Polymers and Nanomaterials for Structural Applications, 26-28th November 2018, at CSIR-National Physical Laboratory, New Delhi, India
- Participated in Three Days National Webinar on "Capacity Building Programme for Future Physicists", Organized by Sakthi College of Arts and Science for Women, Oddanchatram, Tamil

Nadu from 03-06-2021 to 05-06-2021.

- Oral presentation on the topic “Self-Healing Composites for Aerospace Applications”, Indo-Japan Workshop 2018 on Highly Conductive CFRP using Conductive Polymers and Nanomaterials for Structural Applications, 26-28th November 2018, at CSIR-National Physical Laboratory, New Delhi, India.
- Oral presentation on the topic “Graphene-multiwalled carbon nanotubes hybrid based thermoplastic polyurethane nanocomposites for electromagnetic interference shielding application”, NCCM 2015, 25-28 Nov 2015, at IIC, New Delhi, India.
- Poster presentation on the topic “Electromagnetic interference shielding characteristics of thermoplastic polyurethane/graphene nanocomposites” in European Polymer Federation Meeting-2015 from 21st-26th June 2015, Dresden, Germany.
- Attended MACRO 2010 from 15-17 December 2010, organized by IIT Delhi at India Habitat Centre, Delhi.
- Poster presentation on the topic “Electromagnetic interference shielding effectiveness of barium ferrite decorated graphene hybrid” in FAPS-MACRO 2013 from 15-18 May 2013, at IISC Bangalore, India
- Attended workshop on “Nano Probe Techniques” at IIT Delhi organized by Nanoscale Research Facility & Department of Physics, IIT Delhi in association with Materials and Research Society of India (MRSI)

Awards & Distinctions

- Oral Presentation Award
- DST-SERB-National Post-doctoral Fellowship 2017
- SRF-MHRD (IIT Delhi) 2010
- CSIR-NET-JRF CSIR June 2008
- GATE (Chemical Sciences) 2008

Public Service/ University Service/ Consulting Activity

NA

Professional Societies Memberships

Life member of Indian Carbon Society

Projects (Major Grants / Collaborations)

File no.: PDF/2017/002999

Project Cost: Rs. 19,20,000/-

Status: Completed

Title: Design and development of novel, autonomous self-healing graphene-carbon nanotubes hybrid based polymer nanocomposites

Institution: CSIR-National Physical Laboratory, Dr. K.S. Krishnan Marg, New Delhi-12

Other Details