



# Kirori Mal College

(University of Delhi)

University of Delhi, Delhi-110007

(Phone No. - 011-7121 9084 : Email - principal@kmc.du.ac.in)



Print Date : 16-04-2026

## 1. Personal Profile

Title: **Dr.** First Name: **RUCHI SHARMA** Last Name: **PANDEY**

Designation: **ASSISTANT PROFESSOR** Mobile No. -----

Phone No. (Office) **011-71219084** Phone No. (Residence): -----

Email: **s.ruchi@kmc.du.ac.in** Webpage: -----

Facebook: ----- Twitter: -----

LinkedIn: <https://www.linkedin.com/in/chemrsp/> Instagram: -----

Youtube: ----- Research Gate Link: [https://www.researchgate.net/profile/Ruchi\\_Sharma\\_Pandey](https://www.researchgate.net/profile/Ruchi_Sharma_Pandey)

Google Scholar Link: <https://scholar.google.com/citations?user=WEkgPWQAAAAJ&hl=en>

Address: -----



## 2. Educational Qualifications

Degree/ Certification	Institution	Year
B.Sc. (Hons.) Chemistry	Miranda House, University of Delhi	1998
M.Sc. (Chemistry)	Indian Institute of Technology - Kanpur	2000
JRF-NET Qualification	CSIR-UGC	2002
Ph.D.	Indian Institute of Technology - Delhi	2010

## 3. Career Profile & Administrative Assignments

Category	Role/ Designation	Department/ Committee	Date From - To	Remarks
CAREER PROFILE	ASSISTANT PROFESSOR	CHEMISTRY UNIVERSITY OF DELHI, DELHI	21.Jul.2011 - 30.Apr.2018	
CAREER PROFILE	ASSISTANT PROFESSOR	CHEMISTRY ST. STEPHENS COLLEGE, DELHI	25.Sep.2019 - 15.Nov.2019	

CAREER PROFILE	ASSISTANT PROFESSOR	CHEMISTRY KIRORI MAL COLLEGE, DELHI	28.Jan.2020 - 13.Oct.2022	LEVEL 10
CAREER PROFILE	ASSISTANT PROFESSOR	CHEMISTRY KIRORI MAL COLLEGE, UNIVERSITY OF DELHI	14.Oct.2022 - Till date	LEVEL 11
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CHEMISTRY Kirori Mal College	01.May.2024 - 30.Apr.2025	Member - Lab Management Committee, Member - Purchase Committee,
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CHEMISTRY Kirori Mal College	01.May.2023 - 30.Apr.2024	Member - Library Committee, Member - Lab Management Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PORTAL COMMITTEE KIRORI MAL COLLEGE, DELHI	01.May.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	CHEMISTRY KIRORI MAL COLLEGE, DELHI	09.May.2023 - 30.Apr.2024	Convener - Seminar Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PARIVARTAN-THE GENDER FORUM KIRORI MAL COLLEGE, DELHI	01.May.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CHEMISTRY UNIVERSITY OF DELHI, DELHI	13.Feb.2023 - 01.Apr.2023	Moderation Committee, Department of Chemistry, DU
ADMINISTRATIVE ASSIGNMENTS	MEMBER	EQUAL OPPORTUNITY CELL Kirori Mal College	01.Jul.2025 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CHEMISTRY KIRORI MAL COLLEGE, DELHI	01.Apr.2022 - 31.Mar.2023	Admission-in-charge for B.Sc (H) Chemistry and M.Sc. Chemistry, Member - Library Committee, Member - Lab Management Committee, Member - Seminar Committee, Member - Discipline Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	THE SPIC MACAY UNIT KIRORI MAL COLLEGE, DELHI	01.May.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	THE PLAYERS – THE THEATRE SOCIETY Kirori Mal College	01.May.2025 - 05.Nov.2025	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	STANDING COMMITTEE FOR MONITORING ADMISSIONS Kirori Mal College	01.May.2025 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CHEMISTRY UNIVERSITY OF DELHI, DELHI	10.Nov.2022 - 30.Dec.2022	Moderation Committee, Department of Chemistry, DU
ADMINISTRATIVE ASSIGNMENTS	CONVENER	CHEMISTRY KIRORI MAL COLLEGE, UNIVERSITY OF DELHI	01.May.2024 - 30.Apr.2025	Convener - Seminar Committee

ADMINISTRATIVE ASSIGNMENTS	MEMBER	OTHERS KIRORI MAL COLLEGE, DELHI	01.Nov.2021 - 30.Nov.2022	NAAC - Criterion VI Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CHEMISTRY KIRORI MAL COLLEGE, DELHI	01.Jul.2022 - 30.Dec.2022	Member, Department of Chemistry, NAAC Committee

## 4. Other Profiles

### Other Profile Name/ Description

#### AREAS OF INTEREST/ SPECIALIZATION

Broad Area of Specialization: Physical Chemistry

- Computational Chemistry: Molecular Dynamics and Monte Carlo Simulations
- Water-like Anomalies
- Network Forming Liquids
- Molecular Modeling
- Condensed Matter Physics

#### AWARDS AND DISTINCTIONS

- Recognition for **outstanding contribution of using ICT based teaching and learning methodology** by Spoken Tutorials, IIT Bombay (National Mission on Education through ICT, MoE, Govt. of India).
- **Ph.D. Thesis** titled, "**Computational Studies of Network Forming Liquids: Multiple time-scale behavior and water-like anomalies**", under **Professor Charusita Chakaravarty**, Department of Chemistry, IIT-Delhi
- **Highest cumulative impact factor for 6 international publications** during PhD, from the Department of Chemistry, IIT Delhi, in 2008-09, for which I received cash award and certificate of appreciation.
- Recipient of highly coveted **Junior Research Fellowship** (Nov'03-Nov'05) and **Senior Research Fellowship** (Dec'05 to Nov'08) through the **National Eligibility Test (NET) (CSIR/UGC)** for research fellowship and eligibility for lectureship held in Dec, 2002 in Chemical Sciences
- Qualified **GATE** (Graduate Aptitude Test in Engineering) for research fellowship held in Feb'02 in chemistry
- **All India Sanskrit Board scholarship & certificate of merit** for securing 98% in Sanskrit in Class X (CBSE'93)

SUBJECTS TAUGHT

Odd Sem (2023-2024)

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**CERTIFICATE COURSE/ SHORT TERM COURSE ORGANIZED**

Member, Organizing Committee, Certificate Course on " Forensic Science, Sep 30 - Oct 18 2022 sponsored by Department of Chemistry, KMC in collaboration with Department of Forensic Medicine and Toxicology, AIIMS Delhi.

**WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED**

Organized the Inaugural Seminar of the Seminar Committee of Department of Chemistry, KMC on "Role of Molecular Chirality in the Living World", on 29th August 2023, by Prof. Ravi P. Singh, Department of Chemistry, IIT - Delhi, as the Convenor, Seminar Committee.

**WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED**

Organized an International Webinar on " Dye-Sensitized Solar Cells: Materials, Mechanisms and Applications", by Prof. Neil Robertson, School of Chemistry, University of Edinburgh, UK, on 28th Oct 2023, as the Convenor, Seminar Committee, Department of Chemistry, KMC under the aegis of DBT Star Scheme.

**FACULTY DEVELOPMENT PROGRAM (FDP) ORGANIZED**

Member, Organizing Committee for FDP on Environmental Sciences and Public Health, sponsored by Department of Chemistry, Kirori Mulla College, University of Delhi in collaboration with Mizoram University under the aegis of Pandit Madan Mohan Malviya National Mission on Teachers and Training (Ministry of Education, Government of India) from 1st to 5th Feb 2022.

**OUTREACH PROGRAM ORGANIZED**

Organized Outreach program in Bal Bharti Public School, Pitampura, New Delhi, 20<sup>th</sup> April 2022 for Class 11 and 12 students. A lecture was delivered titled, "*Emerging Trends and Careers in Chemistry*".

## OTHERS

### Conferences Attended

#### Presenting Author

?	<b>R. Sharma</b> , M. Agarwal and C. Chakravarty <i>Entropy, Diffusivity and Structural Order in Liquids with Waterlike Anomalies</i> Spring College on "Water in Physics, Chemistry and Biology", 10 - 20 April, 2007 held at Abdus Salam International Centre for
?	<b>R. Sharma</b> , S. N. Chakraborty and C. Chakravarty <i>Entropy, Diffusivity and Structural Order in Liquids with Waterlike Anomalies</i> School on Understanding Molecular Simulations (SUMS-07), 22 - 27 January 2007 held at JNCASR, Bangalore, India.
?	<b>R. Sharma</b> , A. Mudi and C. Chakravarty <i>Multiple Time-Scale Behaviour and Diffusional Anomaly in Tetrahedral Liquids</i> Winter School on Computational Approaches to Materials Science (CAMS-06), 18 - 21 January 2006 held at JNCASR, Bangalore
?	<b>R. Sharma</b> and C. Chakravarty <i>Multiple Time-Scale Behaviour and Hydrogen Bond Dynamics in liquid Methanol</i> DAE-BRNS Symposium on Theoretical Chemistry, 9 - 12 December 2004 held at BARC, Mumbai, India.
?	Attended Unifying Concepts in Glass Physics-III, International Conference and School, 28 June - 1 July 2004 held at JNCASR

#### Co-Author

?	M. Agarwal, <b>R. Sharma</b> and C. Chakravarty <i>Entropy, Mobility and Structural Order in Ionic Melts with Waterlike Anomalies</i> Gordon Research Conference: Water and aqueous solutions, 27 July- 1 Aug 2008, held at Holderness, NH, USA
?	M. Agarwal, <b>R. Sharma</b> and C. Chakravarty <i>Ionic Melts: Relationship between Structure, Entropy and Transport Properties</i> and M. Agarwal, S. N. Chakraborty, T. Goel, M. Majumder, R. Sharma and C. Chakravarty <i>Chemistry in Silico</i> I2Tech "Open House", 21 April 2007 held at Indian Institute of Technology, Delhi.

## OTHERS

### Computational Skills

**Languages:** Proficient in PYTHON, FORTRAN and BASIC and familiar with C/C++

**Document Markup Language:** LaTeX

**Chemical Softwares:** HyperChem, ACD/Chemsketch, ISIS/Draw, MATLAB, DIAMOND, GAUSSIAN, NAMD, DL\_POLY, PACKMOL, AVOGADRO, Mocubed, JMol, ORCA

**Simulation Methods:** Monte Carlo, Molecular Dynamics

**Operating System:** Windows: XP/7/8/10; Mac: OSX; Linux- Redhat, Fedora, Ubuntu

**Utility:** MS Office – Excel, Word, Powerpoint, Google-Meet, Zoom, Sheets Microsoft-Teams

## WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED

Member, Organizing Committee, Student Development program on "Molecular Modeling with JMol", March 31st to April 2023, sponsored by DBT Star College Scheme, Department of Chemistry, KMC in collaboration with Spoken Tutorials, Bombay

## 5. Research Guidance

Year	Guide For	Title of the Dissertation/ Thesis	Scholar Name	Status
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## 6. Research Projects

Year	Title of Project	Sponsorship Agency	Duration	Amount Sanctioned	Date of Sanction
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## 7. Publications

Category	Publication Name	Title	Name of Author	Reference Link/ DOI Link	Publication (Month-Year)
JOURNAL PAPER (International)	Relationship between Structure, Entropy, and Diffusivity in Water and Water-Like Liquids	J. Phys. Chem. B/ACS	Manish Agarwal, Murari Singh, Ruchi Sharma, M. Parvez Alam and Charusita Chakravarty (Joint Author)	<a href="https://doi.org/10.1021/jp101956u">https://doi.org/10.1021/jp101956u</a>	May 2010
JOURNAL PAPER (International)	Estimating the entropy of liquids from atom-atom radial distribution functions: silica, beryllium fluoride and water	Molecular Physics / Taylor & Francis	Ruchi Sharma, Manish Agarwal and Charusita Chakravarty (First Author)	<a href="https://doi.org/10.1080/00268970802378662">https://doi.org/10.1080/00268970802378662</a>	October 2008
JOURNAL PAPER (International)	Multiple Time Scale behaviors and Network Dynamics in Liquid Methanol	J. Phys. Chem. B/ACS	Ruchi Sharma, Charusita Chakravarty and Edoardo Milotti (First Author)	<a href="https://doi.org/10.1021/jp802085v">https://doi.org/10.1021/jp802085v</a>	July 2008
JOURNAL PAPER (International)	Ionic melts with waterlike anomalies: Thermodynamic properties of liquid BeF <sub>2</sub>	J. Chem. Phys / AIP	Manish Agarwal, Ruchi Sharma and Charusita Chakravarty (Joint Author)	<a href="https://doi.org/10.1063/1.2794766">https://doi.org/10.1063/1.2794766</a>	October 2007
JOURNAL PAPER (International)	Entropy, diffusivity, and structural order in liquids with waterlike anomalies	J. Chem. Phys / AIP	Ruchi Sharma; Somendra Nath Chakraborty; Charusita Chakravarty (First Author)	<a href="https://doi.org/10.1063/1.2390710">https://doi.org/10.1063/1.2390710</a>	November 2006
JOURNAL PAPER (International)	Diffusional anomaly and network dynamics in liquid silica	J. Chem. Phys / AIP	Ruchi Sharma; Anirban Mudi; Charusita Chakravarty (First Author)	<a href="https://doi.org/10.1063/1.2219113">https://doi.org/10.1063/1.2219113</a>	July 2006

## 8. Books

Category	Book Name	Title	Name of Author	ISSN/ ISBN Number
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## 9. Faculty Achievements

Year	Category of Achievement	Role	National/ International etc.	Name	Date From- To
2022	REFRESHER COURSE ATTENDED	PARTICIPANT	National	Online 2-week Refresher Course in Chemistry	29.Nov.2022 - 13.Dec.2022
2022	FACULTY INDUCTION PROGRAM ATTENDED	PARTICIPANT	National	4-week Online Faculty Induction/Orientation Program for Faculty in Universities/ Colleges/ Institutes of Higher Education	20.Oct.2022 - 18.Nov.2022
2022	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	University	Workshop on Computational Methods and Molecular Modeling	02.Sep.2022 - 03.Sep.2022
2022	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	University	Workshop on Introduction to Python Programming	01.Jul.2022 - 02.Jul.2022
2022	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	RESOURCE PERSON	College	Outreach Program on Emerging Trends and Careers in Chemistry	20.Apr.2022 - 20.Apr.2022
2022	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	International	International Workshop on Drug Discovery and Development	21.May.2022 - 15.Jun.2022
2022	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	University	FDP on Environmental Sciences and Public Health	01.Feb.2022 - 05.Feb.2022
2021	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	University	FDP on Programming in Python	06.Dec.2021 - 10.Dec.2021
2021	ONLINE CERTIFICATE COURSE/ TRAINING PROGRAMS ATTENDED	PARTICIPANT	National	Short Term Course in Practical Numerical Methods in Python	19.Nov.2021 - 25.Nov.2021
2021	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	RESOURCE PERSON	College	Students Skill Development Workshop on Online Tools for Chemistry	22.Oct.2021 - 23.Oct.2021
2021	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	RESOURCE PERSON	College	Hands-on Workshop on UV Visible Spectrophotometry and its Applications	19.Jul.2021 - 19.Jul.2021
2021	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	University	Workshop on Tools for Exploring Chemistry	12.Jul.2021 - 13.Jul.2021
2021	WEBINAR ATTENDED	PARTICIPANT	International	International Webinar on Empowering Diversity in Science	12.Feb.2021 - 12.Feb.2021
2020	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	University	FDP on Innovation in Scientific Research Method	14.Oct.2020 - 18.Oct.2020
2020	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	National	FDP on ICT: Instructional Design, Development & Learning	24.Jul.2020 - 30.Jul.2020

2020	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	RESOURCE PERSON	College	Online workshop on Computational Chemistry and Molecular Modeling in Drug Design	19.May.2020 - 20.May.2020
2020	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	National	National Seminar on "ICT Enabled Higher Education in India : Challenges and Opportunities"	17.Apr.2020 - 17.Apr.2020
2024	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	National	E-learning & MOOCs in Chemistry Teaching Using Avogadro	24.Sep.2028 - 24.Oct.2011
2024	ONLINE CERTIFICATE COURSE/ TRAINING PROGRAMS ATTENDED	PARTICIPANT	National	Short Term (30 hour) Translation Certificate Course	28.Sep.2024 - 04.Dec.2024
2025	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	International	International Conference on Chemical, Biological and Environmental Sciences 2025 (IUPAC 2025)	11.Feb.2025 - 12.Feb.2025
2025	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	National	NEP 2020 Orientation and Sensitization Program	14.Feb.2025 - 22.Feb.2025
2025	ONLINE CERTIFICATE COURSE/ TRAINING PROGRAMS ATTENDED	PARTICIPANT	National	Recent Trends in Chemical Sciences and Drug Discovery	25.Jun.2025 - 25.Jun.2025

**Dr. RUCHI SHARMA PANDEY**