



# Kirori Mal College

(University of Delhi)

University of Delhi, Delhi-110007

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## 1. Personal Profile

Title: **Prof.** First Name: **REENA** Last Name: **SAXENA**

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

Phone No. (Office) ----- Phone No. (Residence): -----

Email: **rsaxena@kmc.du.ac.in** Webpage: -----



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

LinkedIn: ----- Instagram: -----

Youtube: ----- Research Gate Link: -----

Google Scholar Link: -----

Address: -----

## 2. Educational Qualifications

Degree/ Certification	Institution	Year
B.Sc. (H) Chemistry	HINDU COLLEGE, UNIVERSITY OF DELHI	1988
M.Sc. Chemistry	INDIAN INSTITUTE OF TECHNOLOGY (IIT), DELHI	1990
PhD Chemistry	INDIAN INSTITUTE OF TECHNOLOGY (IIT), DELHI	1996
BSc(H) Chemistry	Hindu college, University of Delhi	1988
M.Sc Chemistry	IIT Delhi	1990

## 3. Career Profile & Administrative Assignments

Category	Role/ Designation	Department/ Committee	Date From - To	Remarks
ADMINISTRATIVE ASSIGNMENTS	CONVENER	RESEARCH COUNCIL Kirori Mal college, University of Delhi	13.Jun.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	DEVELOPMENT & MAINTENANCE COMMITTEE Kirori mal college, University of delhi	01.May.2023 - Till date	

ADMINISTRATIVE ASSIGNMENTS	MEMBER	NEW PENSION SCHEME COMMITTEE Kirori mal college, University of delhi	01.May.2024 - Till date
ADMINISTRATIVE ASSIGNMENTS	MEMBER	ECO CLUB Kirori mal college, University of delhi	01.May.2023 - 30.Apr.2024
ADMINISTRATIVE ASSIGNMENTS	CONVENER	TIME TABLE COMMITTEE Kirori mal college, University of delhi	01.Jan.2024 - Till date
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PLACEMENT CELL Kirori mal college, University of delhi	01.May.2023 - 30.Apr.2024

## 4. Other Profiles

### Other Profile Name/ Description

#### RESEARCH COLLABORATIONS

Department of Chemistry, Delhi Technological University, New Delhi

#### RESEARCH COLLABORATIONS

Amity Institute of Biotechnology, Amity University, Noida

#### UG/ PG RESEARCH PROJECTS/ INTERNSHIPS

DBT Star College Scheme 2019-2022

#### MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES

Member, Royal Society of Chemistry, UK

#### MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES

Member, American Chemical Society, ACS

#### MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES

Society of Environment Toxicology and Chemistry Asia-Pacific (SETAC)

#### MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES

Indian Society for ElectroAnalytical Chemistry (ISEAC), Life Membership number-LM 272

#### MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES

Environment and Social Development Association, Delhi, ESDA, - Life Member

## 5. Research Guidance

Year	Guide For	Title of the Dissertation/ Thesis	Scholar Name	Status
2013	Ph. D.	On-line Preconcentration and Determination by FAAS of Cadmium and Lead using modified Amberlite XAD based Chelating resins	Suneeti Singh	Awarded
2015	Ph. D.	Applications of Amberlite XAD based chelating resins in online preconcentration and determination of copper and zinc by Flame Atomic Absorption Spectrometry	Premlata Meena	Awarded
2018	Ph. D.	ON-LINE PRECONCENTRATION AND SPECIATION OF CHROMIUM USING SOLID PHASE EXTRACTANTS AND DETERMINATION IN WATER SAMPLES BY FAAS	Shelja Tiwari	Awarded
2018	Ph. D.	Chromium Speciation and Determination in Industrial Water Samples with Modified Sorbents using Hyphenated FI-FAAS system and Ion Chromatography(IC)	Niharika Sharma	Awarded
2022	Ph. D.	Role of functionalized nanomaterials in removal of organic contaminants from water	Megha Saxena	Awarded
2023	Ph. D.	MWCNTs based Nanocomposites as Electrochemical Sensor for Environmental Applications	Amit Lochab	Awarded
2023	Ph. D.	SYNTHESIS, CHARACTERIZATION, AND AGRICULTURAL APPLICATION OF BIOPOLYMER- BASED ORGANIC HYDROGELS	Ritu Malik	Awarded
2024	Ph. D.	“Nanocomposites for Decontamination of Wastewater”	Swati Solanki	Submitted

## 6. Research Projects

Year	Title of Project	Sponsorship Agency	Duration	Amount Sanctioned	Date of Sanction
2013	On-line preconcentration using modified resins for speciation of Cr (III) and Cr (VI) and determination in water by Flame Atomic Absorption Spectrometry and Ion Chromatography	SERB	3 Years	23,48000	14.May.2013
2010	Flow injection online preconcentration with column of newly designed chelating resins for metal ions Industrial effluents	DST	3 Years	31,82000	08.Feb.2010
2007	Monitoring, characterization and remediation of metal ion contamination in Delhi soils using green approach	DST	2 Year		18.Jul.2007

## 7. Publications

Category	Publication Name	Title	Name of Author	Reference Link/ DOI Link	Publication (Month-Year)

JOURNAL PAPER (International)	Fabrication of carboxymethyl tamarind kernel gum-based hydrogel and its applicability in different types of soils for agronomy	International Journal of Biological Macromolecules, Elsevier	Ritu Malik , Khushbu Khatri , Reena Saxena , Sudhir G. Warkar (Joint Author)	<a href="https://doi.org/10.1016/j.ijbiomac.2024.135616">https://doi.org/10.1016/j.ijbiomac.2024.135616</a>	September 2024
JOURNAL PAPER (International)	Electrochemical sensors for the determination of antipyretic and antibiotic drugs in environmental and biological samples	Microchemical Journal, Elsevier	Amit Lochab , Shalini Baxi , Purnima Tiwari , Shourya Bardiya , Reena Saxena (Corresponding Author)	<a href="http://dx.doi.org/10.1016/j.microc.2024.109923">http://dx.doi.org/10.1016/j.microc.2024.109923</a>	January 2024
JOURNAL PAPER (International)	Metal oxide based carbon nanocomposite as sensing platform for electrochemical detection of cadmium- computational and experimental approach,	Microchemical Journal, Elsevier	Amit Lochab , Kajal Jindal , Arijit Chowdhuri , Monika Tomar and Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1016/j.microc.2024.110125">https://doi.org/10.1016/j.microc.2024.110125</a>	March 2024
JOURNAL PAPER (International)	Sugeno fuzzy inference system modelling and DFT calculations for the treatment of pesticide-laden water by newly developed arginine functionalized magnetic Mn-based metal organic framework	Environmental Science and Pollution Research , Springer	Swati Solanki, Kavya Bisaria, Hafiz M. N. Iqbal, Reena Saxena, Shalini Baxi, Anil Chandra Kothari & Rachana Singh (Corresponding Author)	<a href="https://doi.org/10.1007/s11356-023-30944-4">https://doi.org/10.1007/s11356-023-30944-4</a>	November 2023
JOURNAL PAPER (International)	Conductive polymer based MWCNTs nanocomposite as electrochemical sensing platform to detect chloramphenicol	Synthetic Metals, Elsevier	Amit Lochab , Kajal Jindal , Arijit Chowdhuri , Monika Tomar and Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1016/j.synthmet.2023.117397">https://doi.org/10.1016/j.synthmet.2023.117397</a>	August 2023

JOURNAL PAPER (International)	Electrochemical Sensing of Paracetamol Using Functionalized MWCNTs: Integrating Computational and Experimental Methods	Analysis & Sensing	Amit Lochab , Shefali Baweja , Kajal Jindal , Arijit Chowdhuri , Monika Tomar , Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1002/anse.202400098">https://doi.org/10.1002/anse.202400098</a>	October 2024
JOURNAL PAPER (International)	Carboxy-methyl tamarind kernel gum based bio-hydrogel for sustainable agronomy	Materials Today Communications, Elsevier	Ritu Malik, Sudhir G. Warkar, , Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1016/j.mtcomm.2023.105473">https://doi.org/10.1016/j.mtcomm.2023.105473</a>	June 2023
JOURNAL PAPER (International)	Computational investigation of thallium interactions with functionalized multi-walled carbon nanotubes for electrochemical sensing applications	Pure and Applied Chemistry	Shefali Baweja, Amit Lochab, Shalini Baxi and Reena Saxena* (Corresponding Author)	<a href="https://doi.org/10.1515/pac-2023-1139">https://doi.org/10.1515/pac-2023-1139</a>	February 2024
JOURNAL PAPER (International)	Organic Hybrid Hydrogels: A Sustenance Technique in Waste-Water Treatment	Chemistry Select, Wiley	Ritu Malik, Reena Saxena, and Sudhir G. Warkar (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202203670">https://doi.org/10.1002/slct.202203670</a>	February 2023
JOURNAL PAPER (International)	Recent Advances in Metal-Organic-Framework-Based Composites for Efficient Sequestration of Organophosphorus Pesticides (OPPs)	Chemistry Select, Wiley	Swati Solanki, Pravesh Prakash Nair, Reena Saxena, and Rachana Singh (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202203450">https://doi.org/10.1002/slct.202203450</a>	February 2023
JOURNAL PAPER (International)	Determination of Chromium in Contaminated Water Samples Using Chemically Modified Nanoadsorbent: A Computational and Experimental Study	Chemistry Select, Wiley	Tiwari, S., Lochab, A., Jindal, K., & Saxena, R (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202203316">https://doi.org/10.1002/slct.202203316</a>	February 2023

JOURNAL PAPER (International)	Accurate data prediction by fuzzy inference model for adsorption of hazardous azo dyes by novel algal doped magnetic chitosan bionanocomposite	Environmental Research, Elsevier	Swati Solanki, Surbhi Sinha, Kavya Bisaria, Rachana Singh, Reena Saxena (Joint Author)	<a href="https://doi.org/10.1016/j.envres.2022.113844">https://doi.org/10.1016/j.envres.2022.113844</a>	November 2022
JOURNAL PAPER (National)	Role of nanomaterials in catalytic reduction of organic pollutants	Indian Journal of Biochemistry & Biophysics, CSIR-NIScPR	Megha Saxena, Khyati Jain & Reena Saxena (Corresponding Author)	<a href="https://nopr.niscpr.res.in/handle/123456789/59510">https://nopr.niscpr.res.in/handle/123456789/59510</a>	April 2022
JOURNAL PAPER (International)	Biopolymer-Based Biomatrices – Organic Strategies to Combat Micronutrient Deficit for Dynamic Agronomy	Chemistry Select, Wiley	Ritu Malik, Reena Saxena and Sudhir Warker (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202200006">https://doi.org/10.1002/slct.202200006</a>	April 2022
JOURNAL PAPER (National)	Green electrochemical sensors based on ionic liquid nanocomposites for detection of environmental pollutants	Indian Journal of Biochemistry & Biophysics, CSIR-NIScPR	Amit Lochab, Sangeeta D Gadre & Reena Saxena (Corresponding Author)	<a href="http://nopr.niscpr.res.in/handle/123456789/59513">http://nopr.niscpr.res.in/handle/123456789/59513</a>	April 2022
JOURNAL PAPER (International)	Fast and Efficient Single Step Synthesis of Modified Magnetic Nanocatalyst for Catalytic Reduction of 4-Nitrophenol	Materials Chemistry and Physics, Elsevier	Megha Saxena and Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1016/j.matchemphys.2021.125437">https://doi.org/10.1016/j.matchemphys.2021.125437</a>	January 2022
JOURNAL PAPER (International)	Potential Protein and Enzyme Targets for In-silico Development and Repurposing of Drug Against Coronaviruses	ChemistrySelect	Amit Lochab, Rakhi Thareja, Sangeeta D. Gadre, and Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202103350">https://doi.org/10.1002/slct.202103350</a>	December 2021

JOURNAL PAPER (International)	Drug Adsorption and Anti-microbial Activity of Functionalized Multiwalled carbon nanotubes	Advances in nano research	Megha Saxena, Disha Mittal, Richa Boudh, Kapinder Kumar, Anita K. Verma and Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.12989/anr.2021.11.6.667">https://doi.org/10.12989/anr.2021.11.6.667</a>	December 2021
JOURNAL PAPER (International)	4-aminosalicylic acid Functionalized Multiwalled Carbon Nanotubes for rapid removal of Crystal violet dye from wastewater using minicolumn	ChemistrySelect, 2021,	Megha Saxena, Niharika Sharma and Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202102847">https://doi.org/10.1002/slct.202102847</a>	October 2021
JOURNAL PAPER (International)	Asparagine Functionalized MWCNTs for Adsorptive Removal of Hazardous Cationic Dyes: Exploring Kinetics, Isotherm and Mechanism	Surfaces and Interfaces, Elsevier	Megha Saxena, Amit Lochab and Reena Saxena, , 2021, 25 101187 (Corresponding Author)	<a href="https://doi.org/10.1016/j.surfin.2021.101187">https://doi.org/10.1016/j.surfin.2021.101187</a>	August 2021
JOURNAL PAPER (International)	Recent advances in carbon-based nanomaterials as electrochemical sensor for toxic metal ions in environmental applications.	Materials Today: Proceedings, Elsevier,	Amit Lochab, Raksha Sharma, Siddharth Kumar and Reena Saxena, 2021, 45P3, 3741-3753 (Corresponding Author)	<a href="https://doi.org/10.1016/j.matpr.2021.01.271">https://doi.org/10.1016/j.matpr.2021.01.271</a>	February 2021
JOURNAL PAPER (International)	Green Synthesized Nanomaterial?based Colorimetric Sensors for Detection of Environmental Toxicants".	ChemNanoMat, Wiley,	Megha Saxena, Khyati Jain and Reena Saxena, (Corresponding Author)	DOI: 10.1002/cnma.202100012	February 2021

JOURNAL PAPER (International)	Efficient Lead preconcentration using two chemically functionalized carbon nanotubes in Hyphenated Flow Injection- Flame Atomic Absorption Spectrometry System"	Journal of Chromatography A, Elsevier,	Sonam Bajaj, Vanshika Jain, Niharika Sharma, Shelja Tiwari, Reena Saxena, 2021, 1638, (Corresponding Author)	<a href="https://doi.org/10.1016/j.chroma.2021.461888">https://doi.org/10.1016/j.chroma.2021.461888</a>	February 2021
JOURNAL PAPER (International)	Thiol-functionalized multiwall carbon nanotubes for electrochemical sensing of thallium"	Materials Chemistry and Physics, Elsevier,	AmitLochab. Kajal Jindal, Monika Tomar, Vinay Gupta, Reena Saxena (Corresponding Author)	<a href="https://doi.org/10.1016/j.matchemphys.2020.124068">https://doi.org/10.1016/j.matchemphys.2020.124068</a>	February 2021
JOURNAL PAPER (International)	Highly Efficient and Rapid Removal of a Toxic Dye: Adsorption Kinetics, Isotherm, and Mechanism Studies on Functionalized Multiwalled Carbon Nanotubes."	Surfaces and Interfaces, Elsevier,	Megha Saxena, Niharika Sharma, and Reena Saxena, (Corresponding Author)	<a href="https://doi.org/10.1016/j.surfin.2020.100639">https://doi.org/10.1016/j.surfin.2020.100639</a>	December 2020
JOURNAL PAPER (International)	Comparative insight into the performance of two different amine functionalized CNTs for the chemical speciation of chromium",	Chemistry Select, Wiley	N. Sharma, S. Tiwari, R. Saxena, , 2020, 5, 6415 –6423 (Corresponding Author)	<a href="https://doi.org/10.1002/slct.202001338">https://doi.org/10.1002/slct.202001338</a>	June 2020
JOURNAL PAPER (International)	Recent Progress in Nanomaterials for Adsorptive Removal of Organic Contaminants from Wastewater"	Chemistry Select, Wiley,	Reena Saxena, Megha Saxena, and Amit Lochab, 2020, 5, 335 – 353 (Corresponding Author)	<a href="https://doi.org/10.1002/slct.201903542">https://doi.org/10.1002/slct.201903542</a>	January 2020

## 8. Books

Category	Book Name	Title	Name of Author	ISSN/ ISBN Number
BOOK (International)	Frontiers in Computational Chemistry	Amit Lochab, Rakhi Thareja, Sangeeta D Gadre and Reena Saxena (Corresponding Author)	Bentham Sciences	978-981-14-5777-7

## 9. Faculty Achievements

Year	Category of Achievement	Role	National/ International etc.	Name	Date From-To
2018	NATIONAL/ INTERNATIONAL FELLOWSHIPS (IOE, FRSC, etc.) ATTENDED	MEMBER	International	Award	20.Jul.2018 - 20.Jul.2018

**Prof. REENA SAXENA**