



# Kirori Mal College

(University of Delhi)

University of Delhi, Delhi-110007

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



Print Date : 15-04-2026

## 1. Personal Profile

Title: **Prof.** First Name: **RENU** Last Name: **KATHPALIA**

Designation: **PROFESSOR** Mobile No. **9971979997**

Phone No. (Office) **9971979997** Phone No. (Residence): -----

Email: **rkathpalia@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) Botany	Shivaji College	1983
M.Sc.	Department of Botany, University of Delhi	1985
M.Phil	Department of Botany, Univeristy of Delhi	1986
Ph.D	Department of Botany, University of Delhi	1990

## 3. Career Profile & Administrative Assignments

Category	Role/ Designation	Department/ Committee	Date From - To	Remarks
CAREER PROFILE	PROFESSOR	BOTANY KIRORI MAL COLLEGE, DELHI	01.Jan.2023 - 31.Aug.2027	
CAREER PROFILE	ASSOCIATE PROFESSOR	BOTANY KIRORI MAL COLLEGE, DELHI	01.Jan.2006 - 31.Dec.2023	
CAREER PROFILE	ASSISTANT PROFESSOR	BOTANY KIRORI MAL COLLEGE, DELHI	17.Dec.1990 - 31.Dec.2005	

ADMINISTRATIVE ASSIGNMENTS	TEACHER-IN-CHARGE	BOTANY KIRORI MAL COLLEGE, DELHI	01.May.2021 - 01.May.2023	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	ECO CLUB KIRORI MAL COLLEGE, DELHI	22.May.2023 - 30.May.2025	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	CANTEEN COMMITTEE KIRORI MAL COLLEGE, DELHI	01.May.2019 - 30.Apr.2020	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	FAPS – THE FINE ARTS & PHOTOGRAPHY SOCIETY KIRORI MAL COLLEGE, DELHI	01.May.2019 - 30.Apr.2020	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	ECO CLUB KIRORI MAL COLLEGE, DELHI	01.May.2019 - 30.Apr.2020	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	THE SPIC MACAY UNIT KIRORI MAL COLLEGE, DELHI	22.May.2023 - 30.Apr.2025	
ADMINISTRATIVE ASSIGNMENTS	PROFESSOR	BOTANY Department of Botany	07.Jun.2023 - 14.Jun.2023	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	STANDING COMMITTEE FOR MONITORING ADMISSIONS KIRORI MAL COLLEGE, DELHI	20.Jun.2024 - 19.Jun.2025	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	ECO CLUB KIRORI MAL COLLEGE, DELHI	21.Jun.2024 - 19.Jun.2025	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	THE SPIC MACAY UNIT KIRORI MAL COLLEGE, DELHI	20.Jun.2024 - 19.Jun.2025	

#### 4. Other Profiles

##### Other Profile Name/ Description

##### UG/ PG RESEARCH PROJECTS/ INTERNSHIPS

- Trained 20 students in two Innovation projects of University of Delhi
  - “To assess the mutagenic potential of some of commonly encountered environmental pollutants and therapeutic agents”
  - “A Comparative Study Of Phytoremediation Of Stagnant Water By Free Floating Plants And Making It Potable By Using Various Plant Sources”
- Minor projects were done by 10 students under DBT Star College Scheme 2019-22

##### CONTRIBUTION TOWARDS DEVELOPMENT OF E-CONTENTS/ MOOCS

- Developed an E-lesson for undergraduate course on “**Mitochondria**” under National Mission on Education-Information Communication Technology (NME-ICT) in Botany, MHRD project.

#### MEMBERSHIPS IN ACADEMIC/ PROFESSIONAL BODIES

- Life Member of Association of Teachers in Biological Sciences(ATBS), Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research
- Life Member of DUBS (Delhi University Botanical Society, Delhi) and The International Society of Plant Morphologists, Delhi.

#### CERTIFICATE COURSE/ SHORT TERM COURSE ORGANIZED

Co-coordinator for three times for the add on certificate course on "Nanobiotechnology"

#### WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED

Convenor for Two Day International Conference Via Virtual Platform on "Nanomedicine: Biomolecules for Human Health" (NBHH 2021) Small molecules Big Opportunities!! Followed by Post conference Workshop on "Nanomedicine" held on 27th September to 29th September, 2021 under the aegis of DBT Star College Scheme 2019-22.

#### OTHERS

- 2-week summer training on "*Microbial and Biochemical Techniques*" from 24<sup>th</sup> June-5<sup>th</sup> July, 2019 under the aegis of DBT Star College Scheme 2019-2022

#### FACULTY DEVELOPMENT PROGRAM (FDP) ORGANIZED

- 2-day Faculty workshop on "*DNA Barcoding and Metagenomics*" on 19-20<sup>th</sup> September, 2020 under the aegis of DBT Star College Scheme 2019-2022.

#### SUBJECTS TAUGHT

Plant Physiology, Plant Metabolism and Biochemistry, Genetics, Cell Biology, Hydroponics and Aeroponics

#### SYLLABUS FORMATION

- Convener for course content development of Plant metabolism under LOCF in CBCS for undergraduates.

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## OTHERS

- Convener, Botanical Society “Medini”, Department of Botany, Kirori Mal College for more than 15 years.

## 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
2012	To assess the mutagenic potential of some of commonly encountered environmental pollutants and therapeutic agents	Delhi University	one year	10 Lakhs	15.Dec.2023
2012	A Comparative Study Of Phytoremediation Of Stagnant Water By Free Floating Plants And Making It Potable By Using Various Plant Sources	Delhi University	one year	10 Lakhs	10.May.2012
2024	Anticorrosive properties of heterocyclic compounds containing phosphorou atoms on the mild steel in the yamuna river water	Kirori Mal College	1 year	20,000/-	17.Apr.2024
2025	Ecotoxicological Assessment of Wastewater from Sahibi River, New Delhi, Using Seed Germination and Early Seedling Growth Assays	Principal, Kirori Mal College	one year	40,000/-	10.Jun.2025

## 7. Publications

Category	Publication Name	Title	Name of Author	Reference Link/ DOI Link
JOURNAL PAPER (International)	Production of androgenic plants through pollen embryogenesis in anther cultures of Brassica carinata A. Braun.	Biologia Plantarum	Arora (First Author)	<a href="https://doi.org/10.1007/BF02876419">https://doi.org/10.1007/BF02876419</a>
JOURNAL PAPER (National)	A comparative study of in vitro shoot regeneration from cotyledon and root explants of four varieties of Brassica oleracea L.	Current Science	Nathalie H, Arora R and Bhojwani SS. (Joint Author)	<a href="https://www.jstor.org/stable/24094477?typeAccessWorkflow=login">https://www.jstor.org/stable/24094477?typeAccessWorkflow=login</a>

JOURNAL PAPER (National)	In vitro conservation of some endangered species of India	Indian J. Plant Genet. Res.	Bhojwani SS, Arumugam N, Arora R and Upadhaya RP. (Joint Author)	
JOURNAL PAPER (International)	In vitro propagation and low temperature storage of Saussurea lappa C.B. Clarke- An endangered, medicinal plant.	Plant Cell Report	Arora R and Bhojwani SS. (Joint Author)	<a href="https://doi.org/10.1007/BF00735776">https://doi.org/10.1007/BF00735776</a>
JOURNAL PAPER (National)	Evaluation of cytotoxic and genotoxic effects of Butyl Hydroxylated Anisole (BHA) on somatic cells of Allium cepa L.	Biospectra	Kathpalia R, Biswas L, Bhardwaj K, Kapinder and Verma AK. (Corresponding Author)	<a href="https://mset-biospectra.org/wp-content/uploads/2022/08/135-140">https://mset-biospectra.org/wp-content/uploads/2022/08/135-140</a>
JOURNAL PAPER (National)	Nanoinformatics - A newly introduced tool for research.	Indian Journal of Biochemistry & Biophysics	Checker VG, Sharma B and Kathpalia R. (Corresponding Author)	<a href="https://nopr.niscpr.res.in/bitstream/123456789/59509/1/IJBB%20439.pdf">https://nopr.niscpr.res.in/bitstream/123456789/59509/1/IJBB%20439.pdf</a>
JOURNAL PAPER (National)	Exploiting the potential of bio-synthesized silver nanoparticles to enhance the shelf life of Gladiolus.	Indian Journal of Biochemistry & Biophysics	Gupta Y, Biswas L and Kathpalia R. (Corresponding Author)	<a href="https://nopr.niscpr.res.in/bitstream/123456789/59502/1/IJBB%20490.pdf">https://nopr.niscpr.res.in/bitstream/123456789/59502/1/IJBB%20490.pdf</a>
JOURNAL PAPER (National)	Hydroponics- Changing Plantation Zones.	International Journal of Multidisciplinary Educational Research	Kathpalia R, Kaur I and Kaur P. (Corresponding Author)	<a href="http://ijmer.in.doi./2022/11.06.65">http://ijmer.in.doi./2022/11.06.65</a>
JOURNAL PAPER (National)	Cyto-Genotoxic Evaluation of Frequently added Food Preservatives on the Root Meristem Cells of Allium cepa.	International Journal of Current Science Research and Review	Kathpalia R, Bhardwaj K, Biswas L and Verma AK. (Corresponding Author)	<a href="https://doi.org/10.47191/ijcsrr/V5-i10-02">https://doi.org/10.47191/ijcsrr/V5-i10-02</a>

JOURNAL PAPER (National)	Environmental Nanotechnological Applications for Sustainable Agriculture.	Indian Journal of Biochemistry & Biophysics	Kathpalia R, Checker VG, Jha BS and Saxena T (Corresponding Author)	<a href="https://doi.org/10.56042/ijbb.v59i11.65740">https://doi.org/10.56042/ijbb.v59i11.65740</a>
JOURNAL PAPER (National)	Engineered nanoparticles (ENPs): Unexplored potential and limitations.	Indian Journal of Biochemistry & Biophysics	Thakur A and Kathpalia R (Corresponding Author)	<a href="https://doi.org/10.56042/ijbb.v59i12.67304">https://doi.org/10.56042/ijbb.v59i12.67304</a>
JOURNAL PAPER (National)	Phytomedicinal Potential of "Dimocarpus longan	International Journal of Current Science	Kathpalia R (Sole Author)	<a href="https://doi.org/10.47191/ijcsrr/V5-i11-20">https://doi.org/10.47191/ijcsrr/V5-i11-20</a>
JOURNAL PAPER (National)	Want To Assist Soils – Just Mulch.	International Journal of Creative Research Thoughts	Kaur I and Kathpalia R. (Joint Author, Corresponding Author)	<a href="https://ijcrt.org/papers/IJCRT2208487.pdf">https://ijcrt.org/papers/IJCRT2208487.pdf</a>
JOURNAL PAPER (National)	Biofabrication and optimization of silver nanoparticles using <i>Campsis</i> sp. to explore their antimicrobial properties.	Indian Journal of Biochemistry & Biophysics	Bharadwaj K, Jha BS and Kathpalia R. (Corresponding Author)	<a href="https://doi.org/10.56042/ijbb.v59i12.67299">https://doi.org/10.56042/ijbb.v59i12.67299</a>
JOURNAL PAPER (International)	The Prospects of gene introgression from crop wild relatives into cultivated lentil for climate change mitigation.	Front. Plant Sci., Sec. Technical Advances in Plant Science,	Rajpal VR, Singh A, Kathpalia R, Thakur Rk, Khan MK, Pandey A, Hamurcu A and Raina SN. (Joint Author)	<a href="https://doi.org/10.3389/fpls.2023.1127239">https://doi.org/10.3389/fpls.2023.1127239</a>
JOURNAL PAPER (National)	Phytoremediation of Sewage Water for Raising Potted Plants using <i>Lemna</i> sp.	Journal of Bioresearch	Sachin, Rohit Raj, Kathpalia R, and Kaur I. (Joint Author)	<a href="http://dx.doi.org/10.13140/RG.2.2.33823.33443">http://dx.doi.org/10.13140/RG.2.2.33823.33443</a>

JOURNAL PAPER (International)	Global Bibliometry on three decades of methyl jasmonate-induced plant defence research reveals growth of a specialty area in biology	Journal of applied biology and biotechnology	Vipul Chugh, Kamlesh Kumari, Gupta Yamal, Vibha Gulyani Checker, Gitanjali Yadav and Renu Kathpalia (Corresponding Author)	<a href="https://dx.doi.org/10.7324/JABB.2025.218785">https://dx.doi.org/10.7324/JABB.2025.218785</a>
JOURNAL PAPER (International)	Metabolic engineering for enhanced terpenoid production: Leveraging new horizons with an old technique	Plant Physiology and Biochemistry	Kumari M, Checker VG, Kathpalia R, Srivastava V, Singh IK, Singh A (Joint Author)	<a href="https://doi.org/10.1016/j.plaphy.2024.108511">https://doi.org/10.1016/j.plaphy.2024.108511</a>
JOURNAL PAPER (International)	Understanding megasporogenesis through model plants: contemporary evidence and future insights.	The International Journal of Developmental Biology	Kaur I, Kathpalia, R. and Koul M (Corresponding Author)	<a href="https://doi.org/10.1387/ijdb.230222mk">https://doi.org/10.1387/ijdb.230222mk</a>
JOURNAL PAPER (International)	Hydrophobic alkyl-chain-modified (4-bromobutyl) triphenyl phosphonium bromide as a potential corrosion inhibitor for mild steel in Yamuna River water of India	Journal of Molecular Structure	Hemlata Vashisht, M. Ramananda Singh , Renu Kathpalia, Charu , Monika Lora , Talish Ahuja , Sudershan Kumar, Gideon E. Mathias , Valentine Chikaodili Anadebe , Eno E Ebenso (Joint Author)	<a href="https://doi.org/10.1016/j.molstruc.2025.144580">https://doi.org/10.1016/j.molstruc.2025.144580</a>
CONFERENCE PAPER/ PROCEEDINGS (International)	Bio-inspired nanoparticles for artificial photosynthesis.	Materials Today: Proceedings	Kathpalia R and Verma AK. (Joint Author)	<a href="http://dx.doi.org/10.1016/j.matpr.2021.03.214">http://dx.doi.org/10.1016/j.matpr.2021.03.214</a>
CHAPTER (International)	Plant Physiology Annual Volume	Intech open	Kathpalia R and Verma AK. (Joint Author)	10.5772/intechopen.113980

CHAPTER (International)	Plant Oxidative Stress Associated with Flood Stress	Plant Flooding sensitivity and tolerance mechanism	Renu Kathpalia and Ashish Agnihotri (Joint Author)	<a href="https://doi.org/10.1007/978-3-031-83068-6">https://doi.org/10.1007/978-3-031-83068-6</a>
CHAPTER (International)	Schistosomiasis: Current and Future Strategies to Develop Novel Therapeutics.	Springer, Singapore.	Renu Kathpalia and Tanushri Saxena (First Author)	<a href="https://doi.org/10.1007/978-981-19-9605-4_26">https://doi.org/10.1007/978-981-19-9605-4_26</a>
CHAPTER (International)	Concept of Plant Water Relations	Springer Nature Singapore	Bhatla SC and Kathpalia R (Joint Author)	<a href="https://doi.org/10.1007/978-981-99-5736-1">https://doi.org/10.1007/978-981-99-5736-1</a>
CHAPTER (International)	Essential and functional mineral elements	Springer Nature Singapore	Bhatla SC and Kathpalia R (Joint Author)	<a href="https://doi.org/10.1007/978-981-99-5736-1">https://doi.org/10.1007/978-981-99-5736-1</a>
CHAPTER (International)	Seed dormancy and germination	Springer Nature Singapore	Bhatla SC and Kathpalia R (Joint Author)	<a href="https://doi.org/10.1007/978-981-99-5736-1">https://doi.org/10.1007/978-981-99-5736-1</a>
CHAPTER (International)	Biotic interactions	Springer Nature Singapore	Lal MA, Kathpalia R, Sisodia R. and Shakya R (Joint Author)	<a href="https://doi.org/10.1007/978-981-99-5736-1">https://doi.org/10.1007/978-981-99-5736-1</a>
CHAPTER (International)	Plant Water Relations	Springer Nature Singapore	Kathpalia R and Bhatla SC (Joint Author)	<a href="https://doi.org/10.1007/978-981-13-2023-1">https://doi.org/10.1007/978-981-13-2023-1</a>
CHAPTER (International)	Plant Mineral Nutrition	Springer Nature Singapore	Kathpalia R and Bhatla SC (Joint Author)	<a href="https://doi.org/10.1007/978-981-13-2023-1">https://doi.org/10.1007/978-981-13-2023-1</a>
CHAPTER (International)	Seed dormancy and germination	Springer Nature Singapore	Kathpalia R and Bhatla SC (Joint Author)	<a href="https://doi.org/10.1007/978-981-13-2023-1">https://doi.org/10.1007/978-981-13-2023-1</a>
CHAPTER (International)	Biotic stress	Springer Nature Singapore	Lal MA, Kathpalia R, Sisodia R. and Shakya R (Joint Author)	<a href="https://doi.org/10.1007/978-981-13-2023-1">https://doi.org/10.1007/978-981-13-2023-1</a>
MAGAZINES (National)	Landmark Contributions of Scientists to Unravel the Mystery of Photosynthesis.	The Botanica	Lal M and Kathpalia R. (Joint Author)	NA

## 8. Books

Category	Book Name	Title	Name of Author	ISSN/ ISBN Number
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BOOK (International)	Survival Strategies and Plant Intelligence	Lal MA, Wattal RK, Kathpalia R and Checker VG (Joint Author)	CRC press	9781040450598
BOOK (International)	Plant Tissue Culture: A Classified Bibliography 1985-1990	Bhojwani SS, Dhawan V and Arora R. (Joint Author)	Elsevier	9780444426635
BOOK (National)	General Science: For Civil Services Preliminary Examination, Paper-1	Chand T, Johry S, Saxena T and Kathpalia R (Joint Author)	Tata McGraw Hill Education (India), New Delhi	9781259001215
BOOK (National)	General Science: For Civil Services Preliminary Examination, Environment, Biodiversity and climate change, Paper-1	Chand T, Johry S, Saxena T and Kathpalia R (Joint Author)	Tata McGraw Hill Education (India), New Delhi	978-9351343530

## 9. Faculty Achievements

Year	Category of Achievement	Role	National/ International etc.	Name	Date From- To
2018	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	National	Biodiversity Conclave	31.Aug.2018 - 31.Aug.2018
2018	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSOCIATE PROFESSOR	National	Science Conclave	10.Jan.2018 - 12.Jan.2018
2020	WEBINAR ATTENDED	ASSOCIATE PROFESSOR	National	Webinar	15.Jun.2022 - 15.Jun.2022
2020	WEBINAR ATTENDED	ASSOCIATE PROFESSOR	National	Webinar cum workshop	26.Nov.2022 - 26.Nov.2020
2020	WEBINAR ATTENDED	ASSOCIATE PROFESSOR	National	Webinar cum workshop	26.Nov.2022 - 26.Nov.2020
2020	WEBINAR ATTENDED	ASSOCIATE PROFESSOR	National	Webinar cum workshop	26.Nov.2022 - 26.Nov.2020
2020	WEBINAR ATTENDED	ASSOCIATE PROFESSOR	National	Webinar	07.Oct.2020 - 07.Oct.2020
2020	WEBINAR ATTENDED	ASSOCIATE PROFESSOR	National	Webinar	03.Sep.2020 - 03.Sep.2020
2025	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	PROFESSOR	National	Master Trainee Workshop	04.Jul.2025 - 04.Jul.2025
2023	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	RESOURCE PERSON	National	Identification of Core essentials	13.Mar.2023 - 17.Mar.2023

2020	WEBINAR ATTENDED	PARTICIPANT	International	International symposium	14.Jul.2020 - 16.Jul.2020
2022	WEBINAR ATTENDED	PARTICIPANT	International	Nanobiotechnology in Natural Food Colours	20.Oct.2020 - 20.Oct.2020
2021	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	PARTICIPANT	National	Plant Science Research	16.Jan.2021 - 17.Jan.2021
2020	WEBINAR ATTENDED	PARTICIPANT	National	Diagonstic and Therapeutic approaches to covid- 19	03.Sep.2019 - 03.Sep.2019

**Prof. RENU KATHPALIA**