NAME	Dr. Riti Thapar Kapoor
DESIGNATION	Associate Professor
EMAIL ID	rkapoor@amity.edu
CONTACT NUMBER	9871248536
RESEARCH INTERESTS	Bioremediation, Environmental Biotechnology, Wastewater treatment, Waste-to-Energy, Stress Physiology

EDUCATIONAL QUALIFICATIONS:

Name of College / University	Degree	Year
University of Allahabad	B.Sc.	1998
R. D. University	M.Sc.	2001
University of Allahabad	Ph.D	2005
Banaras Hindu University	Post - doctoral work	2006-2008

Title of Ph.D. thesis : Allelopathic effects of some weeds on the growth and metabolism of *Parthenium hysterophorus* L.

EXPERIENCE (in chronological order)

Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Lecturer	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	2008-2011
Assistant Professor (I)	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	2011-2013
Assistant Professor (II)	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	2013-2018
Assistant Professor (III)	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	2018-2022
Associate Professor	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	2022- Till Date

No. of Ph.D. students supervised	Awarded: (no. only) - 03 Ongoing: (no. only) -02
No. of Post-Doc	Nil
No. of M.Tech. Students supervised:	16
No. of B.Tech. Students supervised:	30
PUBLICATIONS	**Research papers:** 1. N.B. Singh and **Riti Thapar** (2002). Allelopathic effects of *Croton bonplandianum* on *Parthenium hysterophorus.* Allelopathy Journal. 10 (2): 163-170. 2. N.B. Singh and **Riti Thapar** (2003). Allelopathic influence of *Cannabis sativa* on the growth and metabolism of *Parthenium hysterophorus*. Allelopathy Journal. 12(1): 61-70.

3. Riti Thapar and N.B. Singh (2005). Allelopathic influence of leaf residue of *Amaranthus spinosus* on growth and metabolism of *Parthenium hysterophorus* L. Ecoprint. 12: 77- 84.

4. **Riti Thapar** and N.B. Singh (2006). Effect of industrial effluent on the germination, seedling growth and metabolic parameters of pulses. New Agriculturist. 17: 51-55.
5. **Riti Thapar**, Ashish Kumar Srivastava, Poonam Bhargava, Yogesh Mishra and L.C. Rai (2008). Impact of different abiotic stresses on growth, photosynthetic electron transport activity, nutrient uptake and enzyme activities of Cu-acclimated *Anabaena doliolum*. Journal of Plant Physiology. 165: 306-316.

6. Yogesh Mishra, Poonam Bhargava, **Riti Thapar**, Ashish Kumar Srivastava, Anjum Ara and L.C. Rai (2008). A comparative study of antioxidant defense system in the copper and temperature acclimated strains of *Anabaena doliolum*. World Journal of Microbiology and Biotechnology. 24 (12): 2997-3004.

7. **Riti Thapar Kapoor** (2012). *Parthenium hysterophorus* L. - A great threat to biodiversity and environment. Journal of Ecobiotechnology. 42(2):36-38.

8. **Riti Thapar Kapoor** and Kushagra Pathak (2012). An assessment of water quality index of Hindon river and its impact on the biomass and physiological behaviour of Oryza sativa. NeBIO, An International Journal of Environment and Biodiversity. 3(5): 5-10.
9. **Riti Thapar Kapoor** and Ashwani Kumar Srivastava (2013). Bioherbicidal potential of root extracts of *Tagetus minuta* against *Parthenium hysterophorus* L. International Journal of Innovations in Biological and Chemical Sciences. 4: 1-10.
10. **Riti Thapar Kapoor** (2014). The stimulating impact of elevated temperature on the growth and productivity of *Parthenium hysterophorus* L. Egyptian Journal of Biology. 16: 51-56.
11. **Riti Thapar Kapoor** (2015). Biosynthesis and characterization of silver nanoparticles from *Croton bonplandianum* Baill. and its antioxidant activity. International Journal of Pharmaceutical Research and

Allied Sciences. 4(4): 39-44.

12. **Riti Thapar Kapoor** (2015). Evaluation of insecticidal potential of root extracts of *Rauvolfia tetraphylla* against *Musca domestica*. Romanian Journal of Plant Biology. 59-60(15-26).
13. **Riti Thapar Kapoor** (2016). Preliminary screening of phytochemical components of *Parthenium hysterophorus* leaves and study of autotoxic potential of *Parthenium* on its morphological parameters. International Journal of Health and Life Sciences. 2(1): 5-15.
14. Chanchal Malhotra, **Riti Thapar Kapoor** and Deepak Ganjewala (2016). Alleviation of abiotic and biotic stresses in plants by silicon supplementation. Scientia Agriculturae. 3(2): 59-73.
15. Chanchal Malhotra, **Riti Thapar Kapoor** and Deepak Ganjewala (2016). Protective role of sodium silicate against water stress in *Lycopersicon esculentum* Mill. International Journal of Pharma and Bio Sciences. 7(4):(B) 909- 917.
16. **Riti Thapar Kapoor** and Selvaraju Sivamani **(2021).** Exploring the potential of Eucalyptus citriodora biochar against direct red 31 dye and its phytotoxicity assessment. Biomass Conversion and Biorefinery. 24:1-12. https://doi.org/10.1007/s13399-021-01681-w
17. **Riti Thapar Kapoor (2021).** Exploring the adsorption potential of coal fly ash and zeolite for removal of acid violet 19 dye and its phytotoxicity assessment. Pollution Research. 40(3): 809-816.
18. **Riti Thapar Kapoor** and Mozhgan Farzami Sepehr (2023). Exogenous application of selenium on growth and antioxidant capacity of *Pisum sativum* L. under cadmium stress. Iranian Journal of Plant Physiology, 13(1), 4389-4399. https://doi.org/ 10.30495/ijpp.2023.701414
19. Chukwuma, O.B.; Rafatullah, M.; **Kapoor, R.T**.; Tajarudin, H.A.; Ismail, N.; Siddiqui, M.R.; Alam, M. Isolation and characterization of lignocellulolytic bacteria from municipal solid waste landfill for identification of potential hydrolytic enzyme. Fermentation 2023, 9, 298. https://doi.org/10.3390/fermentation9030298
20. Chandrapal Vishwakarma, Gopinathan Kumar Krishna, **Riti Thapar Kapoor**, Komal Mathur, Shambhu Krishan Lal, Ravi Prakash Saini, Pranjal Yadava and Viswanathan Chinnusamy **(2023).** Bioengineering of

canopy photosynthesis in rice for securing global food security: a critical review. Agronomy. 13, 489. https://doi.org/10.3390/ agronomy13020489

21. Vishwakarma C, Krishna GK, **Kapoor RT**, Mathur K, Dalal M, Singh NK, Mohapatra T, Chinnusamy V. Physiological Analysis of Source-Sink Relationship in Rice Genotypes with Contrasting Grain Yields. *Plants*. 2024; 13(1):62. https://doi.org/10.3390/plants13010062
22. Aditya Tyagi, V Shanmugam, **Riti Thapar Kapoor (2025*).*** *In silico* identification and characterization of pathogenicity genes in *Colletotrichum s*pp. causing anthracnose in cucumber. Research Journal of Biotechnology 20(1): 13-20. https://doi.org/10.25303/201rjbt013020
23. Aditya Tyagi, V Shanmugam, **Riti Thapar Kapoor (2025).** *In silico* screening of antifungal phytochemicals against *Glomerella cingulata cutinase*: identification of potential inhibitors for *Colletotrichum* spp. Pathogenicity in chilli. Research Journal of Biotechnology 20(1): 69-76. https://doi.org/10.25303/201rjbt069076
24. Shivanshi Tyagi, **Riti Thapar Kapoor,** Rachana Singh & Maulin P. Shah (2025). Insights on microbial enzymes mediated biodegradation of azo dyes: a sustainable strategy for environment clean up, Bioremediation Journal. https://doi.org/ 10.1080/10889868.2025.2498695

Book chapters:

1. **Riti Thapar Kapoor** and Nitya Rohatgi **(2018).** Screening of phytochemical components and study of antioxidant mediated protective effect of the leaves of *Murraya koenigii.* Advances in Ethnobotany (Ed. Santosh Kumar Jha) (ISBN: 978-93-8620-027-3) published by Satish Serial Publishing House, New Delhi.pp.331-340.

2. Chanchal Malhotra and **Riti Thapar Kapoor (2019)**. Silicon: A Sustainable Tool in Abiotic Stress Tolerance in Plants Reference book: Plant Abiotic Stress Tolerance – Agronomic, Molecular and Biotechnological Approaches (Editors: M. Hasanuzzaman, K. R. Hakeem, K. Nahar and H. F. Alharby), Springer Nature, ISBN: 978-3-030-06117-3. pp.333-356.

	3. **Riti Thapar Kapoor (2020).** Oleaginous microalgae – a potential tool for biorefinery-based industry. (Editors: Alok Kumar Patel and Leonidas Matsakas) In: Nutraceutical Fatty Acids from Oleaginous Microalgae: A Human Health Perspective, 2020 Scrivener Publishing LLC. pp. 299-329. 4. **Riti Thapar Kapoor (2020).** Removal of acid magenta dye by fly ash: a sustainable tool for textile effluent treatment (Editors: Manuel Jerold, Santhiagu Arockiasamy, and Velmurugan Sivasubramanian) In: Bioprocess Engineering for Bioremediation: Valorization and Management Techniques, Hand Book of Environmental Chemistry (ISBN:978-3-030-57910-4). Springer Nature, Switzerland AG 2020.pp. 1-11..https://doi.org/10.1007/698_2020_585. 5. **Riti Thapar Kapoor (2022).** Role of polyamines in plants under abiotic stresses: regulation of biochemical interactions. Plant Stress Mitigators: Types, techniques and Functions. (Eds. Mansour Ghorbanpour and Muhammad Adnan Shahid). Pp. 209-220. ISBN: 978-0-323-89871-3 6. **Riti Thapar Kapoor,** V. P. Sharma and Maulin P. Shah **(2023).** Removal of emerging contaminants by biochar an eco-friendly approach for a sustainable environment. designer biochar assisted bioremediation of industrial effluents: a low-cost sustainable green technology. CRC Book, Taylor & Francis Group, USA (In Press).pp. 49-63. ISBN 9781032066943. 7. Shivanshi Tyagi, **Riti Thapar Kapoor,** Swati Solanki, Aarushi Goyal and Rachana Singh **(2024).** Nanomaterial mediated wastewater treatment: a new frontier in environmental remediation. Microbiome-based decontamination of environmental pollutants. (Eds. Ajay Kumar, Joginder Singh Panwar, Lucas Carvalho Basilio de Azevedo). ISBN: 9780443217814. pp. 31-49. https://doi.org/10.1016/B978-0-443-21781-4.00009-8 8. Shivanshi Tyagi, Rachana Singh, **Riti Thapar Kapoor** (2025) Microbial Degradation of Textile Dyes: A Sustainable Approach for Treatment of Industrial Effluents. Green Technologies for Industrial Contaminants. 1: 151-170 Scrivener Publishing LLC,

	Beverly, MA, United States. (John Wiley & Sons, Inc). ISBN: 9781394159284 **Books:** 1. Maulin P. Shah, Susana Rodriguez-Couto and **Riti Thapar Kapoor (2021).** Development in Wastewater Treatment Research and Processes: Innovative Microbe-Based Applications for Removal of Chemicals and Metals in Wastewater Treatment Plants. Elsevier. ISBN: 9780323856577. 2. **Riti Thapar Kapoor** and Maulin P. Shah **(2022).** Biochar - Application for Bioremediation of Contaminated System. Publisher: Walter de Gruyter GmbH & Co, Berlin, Germany. ISBN: 9783110734003. 3. **Riti Thapar Kapoor** and Rachana Singh **(2025).** Green Technologies for Industrial Contaminants. Scrivener Publishing LLC, Beverly, MA, US**.** ISBN: 9781394159284
PATENTS ***(total no.)***	**Details:** 1. In process : 01
RESEARCH PROJECTS Completed: ***(total no.)*** Ongoing: ***(total no.)***	Complete : 01 Ongoing : 02
AWARDS & HONOURS/ DISTINCTIONS	➢ Merit scholarship holder from High school to M.Sc. ➢ Best paper presenter award in biochemistry section during the Silver Jubilee Conference of Indian Botanical Society along with the National Symposium on Biosciences: Advances, Impact and Relevance held at MJP Rohilkhand University, Bareilly. ➢ Microtech Junior Scientist Award (silver medal) during International Symposium on Microbial Diversity: Challenges, Opportunities and Relevance in New Millennium held at Rani Durgavati University, Jabalpur ➢ Receipient of the award of the Fellow of the Indian Botanical Society (FBS) for her outstanding research contributions in the field of plant physiology. ➢ DST (SERB) travel grant for attending International conference on Agriculture and Animal Sciences held in Colombo, Sri Lanka in 2013
MEMBERSHIP with Professional/ Academic bodies	1.Life member of Indian Science Congress Association 2.Life member of Indian Botanical Society 3.Life member of Indian Society of Agricultural Biochemists 4.Life member of Indian Society of Plant Physiology.
