



MANAV RACHNA UNIVERSITY, FARIDABAD

Sector 43, Aravalli Hills, Manav Rachna Campus Rd, Faridabad, Haryana 121004

Dr. Roopa Rani

Designation: Assistant Professor

Qualifications: B.Sc (H) Chem, M.Sc (Chem), M.Phil (Chem), Ph.D (Green Chemistry – Quality Control) from DEI, Dayalbagh, Agra

Email: rooparani@mru.edu.in

Experience: 06 Years

[Google Scholar Profile:](#)

<https://scholar.google.com/citations?hl=en&authuser=1&user=nRGStiAAAAAJ>



Research Interest: Green Chemistry, Decontamination of heavy metals from waste water, quality control, adulteration monitoring

+ Journal Publication Details:

Singh K., Rani R., Bansal P., Medhe S., Srivastava MM. (2015) “**Antioxidant activity of essential oil of Coriandrum Sativum and standardization of HPTLC method for the estimation of Major phytomarkers**”, Journal of Analytical Chemistry 70(2) pp(220-224)

Rani R., Medhe S., Raj KR., Srivastava MM. (2013) “**Standardization of HPTLC method for the estimation of oxytocin in edibles**”, Journal of food science and technology 50(6) pp(1222-1227)

Rani R., Srivastava MM. (2015) “**HPTLC-MS based method development and validation for the detection of adulterants in spices**”, Journal of Food Measurement and Characterization 9(2) pp(186-194)

Rani R., Medhe S., Srivastava MM. (2015) “**HPTLC-MS analysis of melamine in milk: Standardization and Validation**”, Dairy Science and Technology, 95 pp(257–263)

Rani R., Srivastava MM. (2016) “**Development of HPTLC method for the estimation of formaldehyde in milk**”, National Academy Science Letters 39(1) pp(21-24)

Rani R., Singh K., Srivastava MM. (2014) “**Enhanced antioxidant activity of gold nanoparticles embedded solanum tuberosum extract and HPTLC quantification**”, i-manager’s journal of Material Sciences 1(4) pp(27-31)

Rani R., Singh K., Srivastava MM. (2013) “**In Vitro Antioxidant Activity of some Edibles Bearing Nutritional Value**”, International Journal of Biotechnology and Bioengineering Research, 4(5) pp(487-494)

Rani R., Medhe S., Raj KR., Srivastava MM. (2012) “**High Performance Thin Layer Chromatography for routine monitoring of Adulterants in milk**”, National Academy Science Letters, 35(4), pp(309-313)

Rani R., Medhe S. (2020) “**Acoustic liquid handling mass spectrometry: A new milestone in laboratories**”, Journal of Biological, Pharmaceutical and chemical research, in press.

+ Conference Publications:

Singh K., Rani R., Srivastava MM. (2012) “**Simulation and Standardization of HPTLC method for the estimation of Embelin as a phytomarker in some edibles**” Proceedings of the National Conference on Green Chemistry, ISBN: 978-93-81583-58-6, pp(58-61)

Rani R., Srivastava MM. (2012) “**Development of HPTLC method for estimation of Capsaicin in**

Capsicum", Proceedings of the National Conference on Green Chemistry, ISBN: 978-93-81583-58-6, pp(35-38)

+ Book/Chapter Publications:

Medhe S., Rani R., Raj K., Srivastava M. (2012) "**High Performance Thin Layer Chromatographic Method for the Estimation of Cholesterol in Edible Oils**". In: Khemani L., Srivastava M., Srivastava S. (eds) Chemistry of Phytopotentials: Health, Energy and Environmental Perspectives. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-23394-4_27

Kapahi, M., Rani, R., Kohli, K. (2021) "**Fungal Biorefineries for Biofuel Production for Sustainable Future Energy Systems**". In: Yadav AN. (eds) Recent Trends in Mycological Research: Volume 2: Environmental and Industrial Perspective, pp(477-484). Springer Nature, Switzerland. <https://doi.org/10.1007/978-3-030-68260-6>

Pathak V.V., Kapahi M., Rani R., Tuteja J., Banga S., Pandey V. (2020) **Organic Waste for Biofuel Production: Energy Conversion Pathways and Applications**. In: Yadav A.N., Rastegari A.A., Yadav N., Gaur R. (eds) Biofuels Production – Sustainability and Advances in Microbial Bioresources. Biofuel and Biorefinery Technologies, vol 11. Springer, Cham. https://doi.org/10.1007/978-3-030-53933-7_13

Rani, R., Patnala, P.K. and Pathak, V.V. (2019) "**Prospects of Pesticide Contamination and Control Measures in Aquatic Systems: A Green Approach**". In: Wani K A., Mamta (eds) Handbook of Research on the Adverse Effects of Pesticide Pollution in Aquatic Ecosystems. pp(369-386). IGI Global. <https://doi.org/10.4018/978-1-5225-6111-8.ch020>

+ Administrative Responsibilities:

"NAAC, Coordinator" in MRU from 01-07-2019 to Till date

"Time-Table Coordinator" at Department of Chemistry, MRU from Jan, 2018 – Dec, 2019

"Outlook University Ranking form 2021" in MRU

"QS-I gauge University Ranking form 2021" in MRU

+ Professional Affiliation:

Indian Society of Analytical Scientist, Delhi. LIFE MEMBER [2011/52].

Association of Separation Scientists and Technologists, BARC, Mumbai, LIFE MEMBER [0245].

Green Chemistry Network Centre, University of Delhi LIFE MEMBER [0826/14/112]

+ Event Organized(Conference/Seminar/FDP/Workshops

Conducted One day International Conference, as a organizing committee member, on "**Sustainable Initiatives in water Management**", at Department of Chemistry, Manav Rachna University, Faridabad, on 6th March, 2018

Organized one week Educational Course, as a organizing committee member, on "**Recent Advances in Science and Technology**" at Department of Chemistry, Manav Rachna University, Faridabad from 7-11th Jan, 2019

Organized Two day International Conference, as a organizing committee member, on "**Green Initiatives in Science and Technology**" at Department of Chemistry, Manav Rachna University, Faridabad from 10-11th Jan, 2019

Organized Two day International Conference, as a organizing committee member, on "**Green and Sustainable Chemistry Conference (GSCC 2019)**" at Department of Chemistry, Manav Rachna University, Faridabad from 7 – 8th Nov, 2019

Conducted an event on "**Plastivision 2k19**" at Manav Rachna University Campus for UG and PG students where they need to prepare something useful from plastic waste on 14th Feb, 2019

Conducted an event namely **"Shoot de EnviRon"** for all UG and PG students where they need to shoot the original photographs of the environment based on any environmental theme and then present them. The event was held at Manav Rachna University Campus on 28th Feb, 2019

+ Conference Attended/Presented

"HPTLC separation: A rapid Check for fruit juice adulteration" in "DAE-BRNS Eighth Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC 2018)", May 23-26, 2018 BITS Pilani, K K Birla Goa Campus, Zuarinagar, Goa

"Detection of Salicylic acid and Sudan dyes in spices: A Green Approach" International Conference on "Advancing green chemistry: Building a Sustainable Tomorrow" October 3-4th, 2017, Delhi University, New Delhi

"Quantitation of Contaminants in bottled drinking water: A Review" presented in International Conference on "Sustainable initiatives in water management" 6th March, 2018 held at Manav Rachna University, Faridabad

"Detection of Salicylic acid in spices: Development of HPTLC-MS Methods" International Conference on "Sustainable Development through Research in Engineering and Management" December 26 -27, 2016, YMCAUST Faridabad

"A Green Method for Detection of Adulterant in Spices: HPTLC-MS Hyphenation" DAE-BRNS Biennial International "symposium on Emerging Trends in Separation Science and Technology", Bhabha Atomic Research Centre, Mumbai, India, February 25-28, 2014

"HPTLC-MS method Development and Validation for fungal infection in Dry Fruits" 3rd National Conference on "Recent Advances in Chemical and Environmental Science: Emphasis on Occupational Health", ITM University, Gwalior, 25-26th September, 2014

"Enhanced Antioxidant Activity of Gold Nanoparticle embedded Solanum Tuberosum extract and HPTLC Quantification" National Conference on "Advances in Material Sciences", Amritsar College of Engineering and Technology, Amritsar, April 4-5, 2014

+ Awards

Director's Medal, Dayalbagh Educational Institute, Agra for being topper in M.Sc. Chemistry

Thermax Asset award for Best M. Phil thesis across the country in the field of separation science, Association of Separation Scientists and Technologist, Bhabha Atomic Research Centre, 2014 with cash prize of Rs 10,000

Best paper award, National Conference on Advances in Material Sciences held at Amritsar College of Engineering and Technology, Amritsar during 4-5th April, 2014