

CURRICULUM VITAE



Name: Dr Charu Arora Chugh, FICCE, FICC

PERSONAL DETAILS

Date of Birth: January 18, 1973

Position: Associate Professor and Head, Department of Chemistry, Guru Ghasidas University (A Central University), Koni, Bilaspur, C.G., India-495009.

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ACADEMIC QUALIFICATIONS

- Ph.D. Chemistry (Bioactive natural products), Gurukul Kangri University, Haridwar 2003
- Qualified NET Conducted by UGC/ CSIR
- M.Sc. Chemistry, IIT Roorkee (formerly University of Roorkee), 1995 securing first division.
- B. Sc., KLDVA Degree College Roorkee, Meerut University, 1992 securing first division.
- Intermediate, UP Board, Allahabad, 1989 securing first division.
- Matriculation, UP Board, Allahabad, 1987 with 78.2% marks and **National Award** and Scholarship by UP Govt. on the basis of merit.

PROFESSIONAL DETAILS

- **19 years experience** in graduate/post-graduate teaching
- **Over 17 years experience** in research & development of material Science and botanical pesticides using suitable synergists, methods of extraction and isolation of bioactive natural products from plants, research experience in the field of Physical and Environmental Chemistry (Synthesis, characterization and applications of nano materials, Kinetics, adsorption, thermal techniques etc., removal of pollutants)
- Expertise in isolation, purification, characterization, analysis and technology scale up leading to development of bioactive natural products with pest control and other properties, study on synergistic effect.

Research Projects:

- UGC (Govt. of India) funded major research project entitled "Isolation and Characterization of Bioactive Components from Plants of Northern India" F. No. 34-346\2008 (SR) has been awarded for a period of three years w e f 1-2-2009, funds Rs 568000/.. Objective of Project: To explore the medicinal and agricultural applications of plants of Northern India, to isolate bioactive components

responsible for antimicrobial potential, to find some suitable synergists and develop ecofriendly formulations.

- WRIC supported project titled “Phytochemical Screening and Activity Evaluation of Some Medicinal Plants”, July 2009-June 2010.
- BARC funded project “Study of reaction between alkaline earth metal Oxalates with Uranyl Oxalate by Thermogravimetry”, Oct.2007-Aug. 2008.
- Asian Development Bank funded project entitled “Developing management option in wheat-rice cropping system” at Soil Chemistry Lab, Project Directorate for Cropping System Research, Modipuram, Meerut- 250110, May 2001-Dec 01.
- NTPC funded project entitled “Effect of Change of Chemical and Thermal Parameters on Life of Aquatic Animals” (worked as Project Officer at National Institute of Hydrology, Roorkee) July 1995.

PhD Thesis supervision: One Ph D awarded, two registered.

Post Graduate Project/Thesis Supervision: 55 M Phil and/M Sc Thesis supervised

AWARDS/ SCHOLARSHIPS/ HONOUR

Organised Refresher course (as coordinator) titled “Synthetic and Natural Products: Chemical and Medicinal Aspects” as Coordinator during 11th June to 30th June 2018 at HRDC, Guru Ghasidas University, Bilaspur, CG, India.

Got SERS Fellow Award 2017 for contribution in field of Bioactive Natural Product (Chemistry) during International Conference on Innovative Approaches in Applied Sciences and Technologies, organized jointly by Nanyang Technological University, Singapore, Scientific Educational Research Society and National University of Singapore during 19-23 June 2017 at Nanyang Technological University, Singapore.

Organised DAE-BRNS-BARC National Workshop on Radiochemistry and Applications of Radioisotopes as Convener during 7th Aug 2017-12th Aug 2017 at Department of Chemistry, Guru Ghasdas University, Bilaspur.

Got **Gold Medal Award** of Hi-Tech Horticulture Society for outstanding contribution in Chemistry, during Global Agriculture & Innovation Conference (27th-29th Nov 2016) at Noida International University, Noida.

Got **Science Initiator Award** by Scientific Educational Research Society, for contribution on applications of Chemical Science in Agriculture during International Conference on Innovative Approaches in Applied Sciences and Technologies, organized by Faculty of Science, Kasetsart University, Bangkok 10900, Thailand and Scientific Educational Research Society, India at Faculty of Science, Kasetsart University, Bangkok during 1-5 Feb 2016.

Chaired technical session in International Conference on Global Initiatives in Applied Sciences and Green Technologies, held at SRM University, Modinagar, Distt Ghaziabad during 9-11 Sept 2016.

Chairperson in technical session X-Interdisciplinary Science in International Conference on Innovative Approaches in Applied Sciences and Technologies, Scientific Educational Research Society India and Faculty of Science, Kasetsart University, Bangkok 10900, Thailand held during 1-5 Feb 2016.

Co-coordinator in **Refresher Course on Research Methodology** organized by UGC-Human Resource Development Centre of Guru Ghasidas Vishwavidyalaya during 13th June to 2nd July 2016.

Conducted a technical session as **Co-convener** during International Conference on Global IPR System and WTO Issues held on 16-17 November 2013 at CCS University, Meerut.

Acted as **Judge** in poster session during International Conference on Global IPR System and WTO Issues held on 16-17 November 2013 at CCS University, Meerut.

SARC Gold Medal Award 2011 conferred by Scientific and Applied Research Centre, CCS University, Meerut for outstanding contribution in Chemistry Research.

Best Paper Award, 2011 in 5th International Congress of Chemistry and Environment (ICCE 2011) held at Port Dickson, Malaysia on May 27-29, 2011.

FICCE Fellowship conferred by **International Congress of Chemistry and Environment**, 2009.

FICC Fellowship conferred by Indian Council of Chemists, 2008.

Award worth Rs 10000/ from Punjab State Council of Science and Technology, Chandigarh, June 2011.

Got financial assistance of Rs 7750/ from **CSIR**, New Delhi to attend the International Congress of Chemistry and Environment held at Ubonratchthani, Thailand, during 21-23 Jan. 2010.

Received financial assistance of Rs 34000/ from **AICTE**, New Delhi to attend the International Congress of Chemistry and Environment held at Ubonratchthani, Thailand, during 21-23 Jan. 2010.

Award worth Rs 5000/ from Vice Chancellor, UP Technical University, Lucknow, 2009.

Young Scientist Award, 2008 by Society for Recent Development in Agriculture, SVBP University of Agriculture and Technology, Meerut for outstanding contributions in the field of Chemistry.

Best Paper Award, 2009 in 1st Indian Agricultural Scientist and Farmer's Congress on Technological Innovations for Enhancing Agriculture Production, Chaudhary Charan Singh University, Meerut, held on Oct 3-4, 2009.

Senior Research Fellowship awarded by Department of Biotechnology, Govt. of India, New Delhi (April 98-April 01).

National award and scholarship during Intermediate on the basis of High School merit by U.P. Government.

Ekikrit Scholarship during High School education on the basis of Ekikrit Scholarship exam conducted by U.P. State Govt.

U.P. State Government Scholarship during class 6th to class 8th on the basis of exam conducted in class 5th

Membership of Professional Societies:

Life Member IANCAS, BARC, Mumbai.

Fellow Member of International Congress of Chemistry and Environment, 2009.

Life Member of Indian Society of Mass Spectrometry, Fuel Chemistry Division, Bhabha Atomic Research Centre, Mumbai (LM no 692).

Life Member of Indian Council of Chemists, Agra.

Life Member of Society for Recent Development in Agriculture, SVBP University of Agriculture and Technology, Meerut.

Life Member of Scientific and Applied Research Centre, Meerut, India.

Life Member Indian Science Congress Association Haridwar Chapter.

Life Member of Society of Biopesticide Sciences, Jalandhar.

Life Member of Indian Botanical Society.

INTERNATIONAL VISITS

Visited Nanyang Technical University, Singapore to deliver invited talk in technical session of 2nd International Conference on Innovative Approaches in Applied Sciences and Technologies jointly organized by NTU, National University of Singapore and SERS during 19-23 June 2017.

Visited Kasetsart University, Bangkok, Thailand and delivered invited talk in technical session of International Conference on Innovative Approaches in Applied Sciences and Technologies during 1st to 5th Feb 2016.

Visited Port Dickson, Malaysia, and presented research papers in V International Congress of Chemistry and Environment held at Port Dickson, Malaysia during May 2011.

Visited Singapore and attended Chemistry Workshop (Organised at the occasion of International Year of Chemistry) at Science Centre, Singapore, June 2011.

Visited Ubonratchthani University, Ubonratchthani, Thailand and Asian Institute of Technology, Bangkok, Thailand and presented research papers in IVth International Congress of Chemistry and Environment held at Thailand during Jan 2010.

LIST OF PUBLICATIONS

PATENTS

1. **Charu Arora** (2010) "A process for the preparation of herbal composition for the management of wet bubble of button mushroom" Application no. **968/DEL/2010**.
2. **Chugh C. A.** and Bharti D. (2012) "A process for the preparation for synergistic composition for the management of scurf and wilt of potato", Application no. **867/DEL/2012**.

Research Papers published: 43

Some Recent Publications:

1. C. Arora, S. Soni, S. Sahu, et al., Iron based metal organic framework for efficient removal of methylene blue dye from industrial waste, Journal of Molecular Liquids, 2019, <https://doi.org/10.1016/j.molliq.2019.04.012>, Impact factor 4.5.
2. Sanju Soni, P K Bajpai and Charu Arora, A review on metal-organic framework: synthesis, properties and application, Characterization and application of nanomaterials, 2019 (accepted).
3. Charu Arora, Dipti Bharti, Dhruv Arora and Vinita Tamrakar, A review on phytoconstituents and medicinal properties of *Embllica officinalis*, Annals of Horticulture 11 (1), 2018.
4. Vinita Tamrakar, Dhruv Arora and Charu Arora, Phytochemical screening of leafy vegetables of Chhattisgarh state, Annals of Horticulture 10 (2) : 202-206 (2017)
5. Charu Arora and Vinita Tamrakar, *Gmelina arborea*: Chemical Constituents, pharmacological activities and applications, International Journal of Phytomedicine, 2017, 9 (4), 528-542, DOI:10.5138/09750185.2149.
6. Charu Arora, Aditi Sharma, Sanju Soni, G A Ramarao and Y Naik Application of Thermogravimetric Analysis in Study of Solid State Reaction between Strontium Oxalate and Uranyl Oxalate, Journal of Thermal Analysis and Calorimetry, (2016) 124:43-49, doi: 10.1007/s10973-015-5103-1, impact factor 2.209.

7. Charu Arora, Shalu Chejara, G A Ramarao and Y Naik, Application of Thermogravimetric Analysis in Study of Solid State Reaction between Barium Oxalate and Uranyl Oxalate, Journal of Thermal Analysis and Calorimetry, (2016) 124:51–56, doi: 10.1007/s10973-015-5085-z, impact factor 2.209.

Book/ Book Chapters: 09

Invited Lectures in International/ National Conferences: 22

Papers presented in Conferences: 40

Workshops/ Training / Refresher Courses organised: 12