

PROFESSOR ALKA SHARMA

Department of Chemistry, University of Rajasthan, Jaipur (Rajasthan)

DIC-Course Coordinator (CIMSID), **MHRD-Designing and Innovation Centre (DIC),** CCT, University of Rajasthan, Jaipur (Rajasthan)

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Major research thrust areas: Corrosion Science; Eco-fabrication of nano-materials, nano-composites and their industrial & environmental remediation applications; innovation in materials science with the focus on sustainability.

Published 50 research papers; Book-Chapters-Two (International publisher); Book-Chapters-Two (National publisher); Content-writer (Module) for UGC-e-PG-Pathshala. Accomplished Two UGC-Projects; Supervised 7 PhD scholars, 16 MSc Projects, 6 MTech Dissertations; More than 45 Invited Talk/Lectures in International & National conferences/Workshops/Refresher Courses/Induction Programs/FDPs.

Her proclivity is to bring out some prototype(s) via innovation & design in material sciences as **DIC-Course** Coordinator [Certificate course in Innovation in Material Sciences for Inclusive Development], MHRD-Designing and Innovation Centre (DIC), CCT, University of Rajasthan, Jaipur, funded by MHRD, N. Delhi.

Academic Contributions & Recognitions in brief are:

- ❖ Under UGC-MHRD e-Content Project e-PG Pathshala (2014), as Content Writer prepared a Module (M-23) on "Aquatic redox Chemistry" for Paper (P-16) Environmental Sciences (Chemistry). (https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=14).
- ❖ Authored book chapter on "Formulating Policies for the Environmentally Sustainable Solution to Mitigate Corrosion" published from IGI Global, Hershey, Pennsylvania (USA) (2014).
- ❖ Authored book chapter on "Green Corrosion Inhibitors: Status in Developing Countries" published from Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany (2011).
- ❖ Visiting Faculty under 'UGC-Academic Exchange of Faculty' at Sardar Patel University, Vallabh Vidya Nagar, Gujarat (2015-16).
- ❖ Editor, *TWO volumes*, prestigious Annual Magazine "*Bhagirathi*" of multi-faculty University Maharani College, UoR, Jaipur (2015-16 & 2016-18 combined volume of two academic sessions).
- **❖** Recipient of <u>Award for ACT-BEST WOMEN CHEMISTRY TEACHER for 2022</u> from the Association of Chemistry Teachers, C/o Homi Bhabha Centre for Science Education (Tata Institute of Fundamental Research) Mumbai for dedicated teacher and commendable contribution in the field of Chemistry Teaching (2022).
- ❖ Recipient of Certificate of Appreciation as WOMEN SCIENTIST from Department of Science & Technology, Govt. of Rajasthan for commendable contribution in the field of Science & Technology (22 March 2022).
- * Recipient of <u>Award & Recognition</u> (thrice) for <u>Outstanding Contribution in Reviewing</u> from the prestigious Journal Corrosion Science, Elsevier).
- * Reviewer of prestigious journals in the field of corrosion and material science since 2007.
- ❖ National collaborative research work with Poornima College of Engineering (PCE), Poornima University (PU), Jaipur.
- ❖ Member-Vidya Parishad, Dr. Bhimrao Ambedkar University, Agra (2022-23).
- **❖ VC-nominated Member-BOS-**Faculty of Sciences (Chemistry), **Parishkar College of Global Excellence** (Autonomous), Jaipur (2022 − contd.).
- ❖ External Member, BOS-Faculty of Sciences (Chemistry & Biochemistry), Maharaja Ganga Singh University, Bikaner (2016-18).
- ❖ Various states' **Public Service Commissions**' Paper Setter and confidential tasks (since 2010).

- ❖ Member, Research Supervisor Registration Committee, MDS University, Ajmer (2013-14).
- ❖ Coordinated <u>Higher Education Faculty Training programmes</u> (20 Orientation Programmes and over 800 teachers from different Colleges and Universities of country were trained)
- ❖ Coordinated Three Refresher Courses (Chemistry/Physical Sciences) organized under the auspices of UGC-HRDC, UoR, Jaipur.
- ❖ Delivered invited talks as Resource Person on Research Methodology, Academic Ethics, Plagiarism, Tools for similarity check in academic writings, Scientific Writing, etc. during various faculty training programmes/FDPs organized by various States' HRDCs.
- ❖ Organized International/National conferences/workshops in various capacities; and paper presentation/participation in **38** International & **55** National conferences/workshops/ seminars.
- * TWO Best research paper award for her scholars' Oral presentation in the Conferences.
- ❖ Convener/Member Syllabus Committee, revised and emendated UG & PG Chemistry Syllabus (2012-2016); also emendated UG & PG Chemistry syllabus in light of CBCS (initially proposed to implement wef 2015-16 session).

Contribution in Out Reach Activities:

- **❖ Founder Mentor and** *Subject Expert* for Live Streaming Classes for AIEEE/PET aspirants from State's remote areas under DST, State Govt. project of Rajasthan − *SATCOM (DST-Satellite Communication Programme)* since 2011.
- ❖ Interactive Invited Lectures as Subject Expert & Mentor in INSPIRE Internship Camps organized by the Academic Institutions/Universities of different States (Rajasthan, J&K, Chandigarh) (since 2010 contd.) with the motive to attract young minds towards science & technology by communicating the creative excitements of pursuit of Science.
- ❖ Subject expert in Selection Committee for Selection Process, KVPY Interviews conducted by IISc, Bangalore (since 2012).
- ❖ Member, Questionnaire Committee (IAPT) for confidential tasks (since 2014).
- ❖ Organize & conduct annually "University Maharani College Chemistry Olympiad—UMCCO" an Inter-Collegiate Science Quiz Competition as Quiz Master (since 2006 − contd.)
 (Due to Pandemic COVID-19, during session 2020-21, conducted an Online Inter-Collegiate National Science Quiz Competition through virtual platform).
- ❖ Invited talks/discussions on **All India Radio (AIR)** and **Doordarshan (DD)** programmes on various issues, viz., Scientific Aptitude, Science Topics (Chemistry), Education, Women, Social issues, Students' Career Counseling & Welfare, etc. since last 11-12 years.
- ❖ Judge, evaluation of Science Projects in National Children Science Congress-2011 & 2013 (24-25 November 2011 & 8-9 October 2013) at KV No.1, Bajaj Nagar, Jaipur
- ❖ Delivered special talks/discussions on **All India Radio (AIR)** and **Doordarshan (DD)** programmes on various issues related to Scientific Aptitude, Science Topics (Chemistry), Education, Women, Social and Students' Career & Welfare etc. since last 8-9 years.

Office Bearer and Life/Fellow member of Academic Professional Bodies/Societies of her Research field:

- ❖ Vice-President (consecutively second term) and Nine times elected Governing Council Member of prestigious Electrochemical Society of India, Indian Institute of Science (ECSI), Bengaluru (2006-7 and since 2014-15 continuing);
- * Associate Editor, Journal of Electrochemical Society of India (JECSI), IISc, Bengaluru (2014-16);
- **Executive Editor Journal of International Academy of Physical Sciences (JIAPS), Prayagraj (ISSN: 0974 9373)** (2021 contd.).
- ❖ Local Secretary, CRSI-Rajasthan Chapter, CRSI, India, Bengaluru (2010-2018).
- ❖ Life Member Indian Chemical Society, Calcutta; Life Fellow Member Trans. SAEST, Karaikudi; Fellow Member Indian Science Congress Association; Life Member Electrochemical Society of India,

Bangalore; *Life Member* – Chemical Research Society of India, Bangalore; *Life Member* – Society for Materials Chemistry; *Life Member* – Materials Research Society of India; *Life Member* – International Academy of Physical Sciences, Allahabad (India); *Life Member* – RASAYAN Journal of Chemistry and *Member* – Green Chemistry Network Centre, DU, Delhi and RSC, London (North India Section).;

Along with profound academic interests, her Administrative contributions are:

- ❖ Vice Principal (Science), University Maharani College (a Multi-faculty constituent College of University) (2016 2022) (~ 5.9 years).
- ❖ Deputy Director, UGC-Academic Staff College (now UGC-HRDC Human Resource Development Centre), University of Rajasthan, Jaipur (18.08.2010 to 22.11.2014)
 In 2012, during her tenure as Deputy Director, NAAC accredited ASC as II best ASC in the country out of 66 ASCs.
- **❖** Co-coordinator-SFS (Science) (2015-16); Co-coordinator-BCA (2012-13); Chief Rector (2010-11) and Rector, (2001-03; 2005-10) (Seven academic sessions) University Maharani College, UoR, Jaipur
- ❖ Apart from above administrative responsibilities, enthusiastically and actively discharged duties and accomplished various assignments as and when assigned by University of Rajasthan, Jaipur.