

CURRICULUM-VITÆ

Dr. JUHI SRIVASTAVA

Ph.D Thesis Supervisor- Prof. Meenakshi Singh
Department of Chemistry,
Institute of Science,
BHU, Varanasi, U.P. Pin-221005



Thesis Title:

‘Molecularly imprinted polymer nanoparticles of biopolymeric origin – synthesis, characterization and analytical applications.

Permanent Address:

10/149 Yojana-3, Avas Vikas Colony,
Jhushi, Prayagraj, U.P. Pin-211019.

OBJECTIVES:

To perform to the best of my abilities, my knowledge, analytical skills and to continually acquire new skill in order to keep abreast with the dynamically changing environment.

EDUCATIONAL QUALIFICATION:

Examination	Board/University	Year	Percentage
High School	U.P. Board	2002	63.83%
Intermediate	U.P. Board	2004	63.80%
B.Sc.	University of Allahabad	2007	60.00%
M.Sc. (Inorganic Chemistry)	University of Allahabad	2011	63.00%
B.Ed.	C.S.J.M Univ. (Kanpur)	2012	67.50%
PhD (Chemistry)	Banaras Hindu University	September 2013, Registration	December 2019, Degree Awarded

OTHER QUALIFICATION:

OPERATING SYSTEMS: Window (7, 8, 8.1 & 10)

DATABASE STRENGTHS: MS-Excel

PRESENTATION: MS-Power Point

DRAFTING: MS-Word.

ACCOUNTING: Tally

PERSONAL INFORMATION:

Father's Name: Mr. Avneesh Kumar Srivastava

Mother's Name: Mrs. Archana Srivastava

Sex: Female

DOB: 21/10/1988

Nationality: Indian

Religion: Hindu

Language Known: Hindi, English

E-mail Id: juhi21srivastava@gmail.com

Mobile No.: 8005362675

Hobbies: Playing badminton, Reading, Music, Travelling, Watching Cricket, Internet surfing, Try to cook new dishes and to do new things *etc.*

PROJECT:

Coordination Compounds-Their Chemistry and Application. (M.Sc.)

SCHOLARSHIP/FELLOWSHIP/OTHERS:

- Qualified **Common Eligibility Test- PhD- 2012**, conducted by Dr. Ram Manohar Lohia Awadh University, Faizabad.
- Qualified **Research Entrance Test (RET)- PhD- September 2013**, conducted by Banaras Hindu University, Varanasi.
- University Research Fellowship (22/11/2013- 22/11/2017).
- Direct CSIR- Senior Research Fellowship (Direct CSIR-SRF) (09/013(0758)/2018-EMR-I) (01/05/2018-17/12/2019).

RESEARCH EXPERIENCE:

6 Years, 3 Month (September 2013- December 2019)

RESEARCH AREA:

Synthesis, characterization and application of molecularly imprinted polymer (MIPs) as central to my research work. The thesis work summarizes the fabrication of MIPs as well as MIP-nanoparticles, MIP-nanoparticles composite sensors of pharmaceutical drug, artificial sweetener as well as biomarkers. Further, the MIPs were characterized *via* SEM, AFM, FT-IR, UV-Vis and Fluorescence spectroscopy, X-Ray diffraction analysis, zeta potential, particle size analysis, contact angle measurements. Detection of analytes were monitored by electrochemical analyzer (such as cyclic voltammetry, differential pulse voltammetry, electrochemical impedance spectroscopy (EIS)) and piezoelectric techniques (electrochemical quartz crystal microbalance). The developed MIP-sensor's performance was also monitored by real and commercial sample analysis.

FIELD OF RESEARCH INTEREST:

Molecularly Imprinted Polymers, Nanoparticles, Imprinting on Nanoparticles, Electrochemical MIP-Sensors, Nanocomposites, Biopolymer Chemistry, Nano receptor,

graphene/carbon nanotubes/ quantum dots *etc* based nanocomposite, detection of pharmaceutical drugs, biomarkers for disease diagnosis and treatment, artificial substitutes, hazardous material for environment protection, materials used in cosmetic products *etc*. Besides this I also want to know more about the field related directly or indirectly to my interest, so that I could explore my work in a better way, which would also be definitely beneficial for mankind in coming future.

PROFESSIONAL MEMBERSHIP:

Life Member, Chemical research society of India (CRSI) (LM-1973).

AWARD:

- Best Poster Presentation, 8-9 January 2019, National conference, NCEMD-2019, Department of Physics, MMV, BHU, Varanasi.
- Virangana Ahilyabai Holkar Naari Shakti Samman, 28 January 2024, Rastriya Saikshik Maha Sangh, U.P, on occasion of Kartavyabodh Pakhvara 2024.

SUMMER TRAINING:

CSIR-SUMMER RESEARCH TRAINING PROGRAM (CSIR-SRTP) 2020, Online, CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH, Lucknow. (June-August 2020).

WORK EXPERIENCE:

Lecturer of Chemistry in Dr. Ghanshyam Singh Mahavidyalaya, Soyepur, Lalpur Varanasi, affiliated to M.G.K.V.P Varanasi, since February 2022. (more than 4 years' experience of teaching and conducting practical at the Undergraduate and Post Graduate level).

FACULTY DEVELOPMENT PROGRAM/ WORKSHOP:

- Member of Inaugural Committee, National Symposium on Interface of Industry, Biology and Chemistry Research in 21st Century, 05-07 February 2011, Dept. of Chemistry, University of Allahabad in association with Allahabad Chapters of Indian Science Congress Association and Indian Chemical Society.
- National Symposium on Organic Synthesis and Advanced Materials (NSOSAM-2014), 01-02 March 2014, Dept. of Chemistry, Faculty of Science, BHU, Varanasi.
- Science Academics' Lecture- Workshop on Spectroscopy in Chemical Biology, 21-22 March, Dept. of Chemistry, Faculty of Science, BHU, Varanasi.
- Science Academics' Lecture- Workshop on Supramolecular Chemistry-Concepts and Prospectives, 04-05 April 2014, Dept. of Chemistry, MMV, BHU, Varanasi.
- National Symposium on Nanomaterials & Sustainable Synthetic Strategies, 21-22 March 2015, Dept. of Chemistry (Centre for Advanced Studies in Chemistry), BHU, Varanasi.
- National Workshop on Technological Innovations in Agriculture and Rural Development, 13-20 December 2015, Society of Biological Sciences and Rural Development, Allahabad (U.P) in collaboration with Krishi Vigyan Kendra-II, Katia, Sitapur

- National level 5 days online faculty development program on ICT tools for online Teaching and Assessment, 23-27 June 2020, RESEARCH CULTURE SOCIETY & Sanskar B.Ed. College, Piparia, Shri Govind Guru University, Godhra, Gujrat.
- National Conference on Going Green: Environmental Conservation & Sustainability, 27-28 November 2022, Sunbeam Women's College, Varuna, Varanasi,
- National Workshop "Hands on Practical Experience in Recombinant DNA Techniques, Bioinformatics and Cheminformatics", 27-29 December 2022, Dr. G. S. P. G College, Varanasi in collaboration with Experiome Biotech Pvt. Ltd. Lucknow. (**Worked as member of organizing committee**).
- "Faculty Development Program for Teachers in Higher Education in context to NEP 2020" 13-17 February 2023, Inter University Centre for Teachers Education, BHU, Varanasi.
- Workshop on National Science Day-2023, organized under the aegis of USERC, Dept. of Information and Technology, Govt. of Uttarakhand, Global Science for Global Wellbeing, conducted by Lakshya Society, Govt. Degree College, Maldevta, Raipur, Dehradun
- Two Days Hands on Training Program, High Resolution- Nuclear Magnetic Resonance (HR-NMR-600), 09-10 May 2024, Sophisticated Analytical & Technical Help Institute (SATHI), BHU, Varanasi.
- NEP Orientation & Sensitization Program-03, 27 August-04 September 2024, Inter University Centre for Teachers Education, BHU, Varanasi.
- Two-Days National Seminar on "The Indigenous Education System of Bharat: From Gurukuls to Digital Classrooms" 27-28 September 2024, Sunbeam Women's College, Varuna, Varanasi.
- Two-Days Workshop on Artificial Intelligence in Digital Pedagogy: Shaping the Future of Learning in HEIs, 13-14 February 2025, Inter University Centre for Teachers Education, BHU, Varanasi, in collaboration with CEC, New Delhi.
- Two-Days International Conference on Innovations in Chemistry: Green Synthesis and Drug Design" 23-24 June 2025, Dept. of Chemistry, Faculty of Science, Janardan Rai Nagar Rajasthan Vidyapeeth, (deemed to be university), Udaipur, Bharat, in collaboration with Dept. of Chemistry, Faculty of Science, Bhupal's Nobles University, Udaipur, Bharat.
- One Day Workshop on Ozone Layer, Climate Change and Environmental Conservation- A Need of 21st Century, 16 December 2025, Dept. of Geography, Dr. Ghanshyam Singh Mahavidyalaya, Soyepur, Varanasi.
- NEP-2020, Orientation & Sensitization Program, 10-18 November 2025, under UGC, Malaviya Mission Teacher Training Program, organized by joint collaboration with MMTTC, Dept. of Education, MGKVP, Varanasi and Teacher Education Department & Teacher's Reskilling Cell, Tilak Dhari PG College, Jaunpur.
- International Conference on "Viksit Bharat@2047: Towards a Synergy of Education, Culture and Innovation", 28-30 November 2025, Dept. of Journalism and Mass Communications, BHU, Varanasi.
- Two-Days Workshop on "Instrumentation Enrichment: Tools for Basic Science Research", 02-03 February 2026, Faculty of Science, Dr. Ghanshyam Singh Mahavidyalaya, Soyepur, Lalpur, Varanasi in collaboration with Dept. of Chemistry, Institute of Science, BHU, Varanasi. (**worked as Co-Convenor**).
- Two-Days National Seminar on "Environment, Economy, Culture and Technology: A Way Forward to Viksit Bharat" 16-17 March 2026, Dept. of Geography, Dr. Ghanshyam Singh Mahavidyalaya, Soyepur, Lalpur, Varanasi.

CURRICULAR ACTIVITIES:

- Participated in debate competition, worked as a volunteer in conferences/seminars/workshops during my academic journey till date.
- Worked as Anchor in workshop, seminar, training program, as well as other scientific and cultural program, at Dr. Ghanshyam Singh Mahavidyalaya, Varanasi.

STRENGTH:

- Ability to work in new and challenging environments
- Honest & Hard working
- Positive attitude

DECLARATION:

I hereby declare that all the above information given is true & best of my knowledge and belief.

Place: Varanasi

Signature

Date:.....

(Juhi Srivastava)

LIST OF PUBLICATIONS:

1. **Juhi Srivastava** and Meenakshi Singh, A Biopolymeric Nano-Receptor for Sensitive and Selective Recognition of Albendazole, *Anal. Methods* 8, 5 (2016) 1026–1033, (IF=3.532), (Citation: 14), ISSN No.: 1759-9679.
2. **Juhi Srivastava**, Archana Kushwaha and Meenakshi Singh, Imprinted Graphene-Starch Nanocomposite Matrix-Anchored EQCM Platform for Highly Selective Sensing of Epinephrine, *Nano* 13, 11 (2018) 1850131-1850149, (IF=1.556), (Citation: 21). ISSN No.: 1793-7094.
3. **Juhi Srivastava**, Neha Gupta, Archana Kushwaha, Seema Umrao, Anchal Srivastava and Meenakshi Singh, Highly Sensitive and Selective Estimation of Aspartame by Chitosan Nanoparticles-Graphene Nanocomposite Tailored EQCM-MIP Sensor, *Polym. Bull.* 76, 9 (2019) 4431-4449, (IF=3.2), (Citation: 21), ISSN No.: 1436-2449.
4. **Juhi Srivastava**, Archana Kushwaha, Monika Srivastava, Anchal Srivastava and Meenakshi Singh. Glycoprotein imprinted RGO-starch nanocomposite modified EQCM sensor for sensitive and specific detection of transferrin, *J. Electroanal. Chem.* 835 (2019) 169-177, (IF=4.598), (Citation: 22), ISSN No.: 1572-6657.
5. **Juhi Srivastava**, Roopshikha Singh and Meenakshi Singh. Design of EQCM-MIP sensing matrix for highly specific and sensitive detection of thyroglobulin. *Biosensors and Bioelectronics*: X, 11 (2022) 100154-100163, (IF= 10.61), (Citation: 9) ISSN No.: 2590-1370.
6. Archana Kushwaha, **Juhi Srivastava** and Meenakshi Singh. EQCM sensor for targeting psychoactive drug *via* rationally designed molecularly imprinted polymeric nanoparticles (nanoMIPs). *Materials Today: Proceedings* 49 (2022) 3345-3356, (IF= 2.59), (Citation: 3), ISSN No.: 2214-7853.

7. Archana Kushwaha, Neha Gupta, **Juhi Srivastava**, Ambareesh kumar Singh, and Meenakshi Singh. Development of highly sensitive and selective MIP sensor for ethionamide guided by molecular modelling *via* electropolymerized molecularly imprinted films, *Microchem J* 152 (2020) 104355-104364, (IF=4.9), (Citation: 20), ISSN No.: 0026-265X.
8. Neha Gupta, **Juhi Srivastava**, Lav Kumar Singh, Ambareesh K Singh, Kavita Shah, Rajniti Prasad and Meenakshi Singh, Epitope imprinting of outer membrane protein of *Neisseria meningitidis*, *Journal of Scientific Research, BHU* 64, 1 (2020) 320-328, (Citation: 7) ISSN No.: 0447-9483.
9. Archana Kushwaha, **Juhi Srivastava**, Ambareesh kumar Singh, Richa Anand, Richa Raghuvanshi, Tulika Rai and Meenakshi Singh. Epitope imprinting of mycobacterium leprae bacteria *via* molecularly imprinted nanoparticles using multiple monomers approach, *Biosens Bioelectron* 145 (2019) 111698-111706, (IF=10.61), (Citation: 54), ISSN NO.: 0956-5663.

CHAPTER IN BOOK:

1. **Dr. Juhi Srivastava**, 4 Aminothiophenol- Graphene Composite based Electrochemical MIP Sensors for detection of Thyroglobulin Protein, *Go Green for Environmental Conservation & Sustainable Development*, By: Dr. Shalini Singh, Dr. Rajeev Singh, Dr. Rajiv Sikroria, Dr. Ragini Tripathi, 2023 Edition, ABS Books Publisher and Exporter, ISBN: 978-93-94424-79-1.
2. **Juhi Srivastava**, Biopolymers and their Nanoparticles as imprinting matrix- introspection and commercialization prospects, *Book- Molecularly Imprinted Polymers (MIPs) Commercialization Prospects- Edited by Meenakshi Singh*, (233-270) 2023 Elsevier Book, Publisher: Matthew Deans. ISBN No.: 978-0-323-91925-8.
3. **Juhi Srivastava** and Meenakshi Singh, *Molecularly Imprinted Polymer (MIP) Nanocomposites–based Sensors, Current and Future Developments, Vol. 2 (110-147) 2022* Manorama Singh, Vijai K Rai and Ankita Rai (Eds.), Google Book- *Nanocomposite Materials for Sensors*, Bentham Science Publishers.
4. Ambareesh Kumar Singh, Neha Gupta, **Juhi Srivastava**, Archana Kushwaha and Meenakshi Singh, *Molecularly Imprinted Polymers for Pharmaceutical Applications*, Book - Vijay Kumar Thakur and Manju Kumari Thakur (eds.), *Handbook of Polymers For Pharmaceutical Technologies, Volume 4 (17-64) 2015* Scrivener Publishing, LLC, 100 Cummings Centre, Suite, 541J, Beverly, MA 0915. ISBN No.: 978-1-119-04153-5.

LIST OF CONFERENCES AND SEMINARS:

International:

1. **Dr. Juhi Srivastava** and Dr. Jyoti Singh, Role of Nanoparticles: New Innovative Scientific Approach towards Day to Day life, 28-30 November 2025, International Conference on “Viksit Bharat@2047: Towards a Synergy of Education, Culture and Innovation”, Dept. of Journalism and Mass Communications, BHU, Varanasi. **(Paper presentation)**.
2. **Dr. Juhi Srivastava**, Detection of Thyroglobulin via Electrochemical MIP Sensor based on SAM of 4-ATP and RGO Composite, 23-24 June 2025, Dept. of Chemistry, Faculty of Science, Janardan Rai Nagar Rajasthan Vidyapeeth, (deemed to be university), Udaipur,

Bharat & Dept. of Chemistry, Faculty of Science, Bhupal's Nobles University, Udaipur, Bharat. (**Paper presentation**).

3. **Juhi Srivastava** and Meenakshi Singh, Molecular Imprinting based electrochemical sensor for thyroglobulin detection, 27-29 February 2020, ICBR-2020, School of Biochemical Engineering, IIT, BHU, Varanasi. (**Oral Presentation**).
4. **Juhi Srivastava** and Meenakshi Singh, Molecularly Imprinted Sensor for Detection of a Catecholamine Hormone Epinephrine based on Starch NP- Graphene Composite, 19-21 February 2018, MMISLIBS-II 2018, Department of Physics, University of Allahabad, Allahabad. (**Poster Presentation**).
5. **Juhi Srivastava** and Meenakshi Singh, Starch nanoparticle - graphene composite based Electrochemical Sensor for detection of Epinephrine using Molecular Imprinting Technique, 15-17 March 2018, Advances in Analytical Sciences (ICAAS-2018), IIP, Dehradun, Dehradun. (**Poster presentation**).
6. **Juhi Srivastava**, Neha Gupta, Archana Kushwaha and Meenakshi Singh, Synthesis of Biopolymeric Nanoparticles and Applications in Molecular Imprinting Technology, 19-23 February 2017, ABSMSNW-2017, Department of Physics, IIT, BHU, Varanasi. (**Poster Presentation**).
7. **Juhi Srivastava** and Meenakshi Singh, Voltammetric determination of antihelmintic drug Albendazole by Electrochemical- MIP Sensor based on molecular imprinting, 7-9 April 2016, RAAS-2016, Department of Chemistry, IIT, BHU, Varanasi. (**Poster Presentation**).
8. **Juhi Srivastava**, Archana Kushwaha and Meenakshi Singh, Fabrication of Aspartame imprinted Chitosan Nanoparticle - Graphene Composite by Electrodeposition Method, 25-26 February 2016, ICNB-2016, UPRTOU, Allahabad. (**Poster Presentation**).
9. **Juhi Srivastava**, Ambareesh K Singh and Meenakshi Singh, Electrochemical- MIP Sensor for Albendazole based on Chitosan Nanoparticles, 7-9 August 2015, 6th IJAA-JSPS, IC-CAST-2015, Department of Physics, BHU, Varanasi. (**Poster presentation**).

National:

10. **Dr. Juhi Srivastava** and Dr. Jyoti Singh, Nanomaterials: Synthesis, Characterization and Potential Applications, 16-17 March 2026, Two-Days National Seminar on "Environment, Economy, Culture and Technology: A Way Forward to Viksit Bharat" Dept. of Geography, Dr. Ghanshyam Singh Mahavidyalaya, Soyepur, Lalpur, Varanasi. (**Paper Presentation**).
11. **Dr. Juhi Srivastava**, Dr. Jyoti Singh, Indian Education: Ancient to Modern, 27-28 September 2024, The Indigenous Education System of Bharat: From Gurukuls to Digital Classrooms, Sunbeam Women's College, Varuna, Varanasi. (**Paper Presentation**).
12. **Dr. Juhi Srivastava**, 4 Aminothiophenol- Graphene Composite based Electrochemical MIP Sensors for detection of Thyroglobulin Protein, 27-28 November 2022, National Conference, Going Green: Environmental Conservation & Sustainability, Sunbeam Women's College, Varuna, Varanasi. (**Paper Presentation**)
13. **Juhi Srivastava**, Archana Kushwaha, Vandana Shukla and Meenakshi Singh, Fabrication of Molecularly Imprinted Polymeric Sensor using Biopolymeric Nanoparticles, 8-9 January 2019, National conference, NCEMD-2019, Department of Physics, MMV, BHU, Varanasi. (**Best Poster Presentation**).
14. **Juhi Srivastava** and Meenakshi Singh, RGO-Starch nanocomposite modified EQCM sensor for sensitive and specific recognition of transferrin, 17-18 November 2018, National

Symposium, NSETCS-2018, Department of Chemistry, BHU, Varanasi. (**Poster Presentation**).

15. **Juhi Srivastava** and Meenakshi Singh, Molecularly Imprinted Electrochemical-MIP Sensor for Albendazole, 18 March 2018, Prof. Harihar Nath Tripathi Foundation, National Conference "Changing Paradigm of Environment Protection in India", IMS, BHU, Varanasi. (**Paper Presentation, Web Conferencing**).
16. **Juhi Srivastava** and Meenakshi Singh, Starch Nanoparticle-Graphene composite based Molecularly Imprinted Sensor for Voltametric determination of Epinephrine, 10-11 November 2017, National Symposium on "Nutritional Security, Environmental Protection: Present Scenario and Future Prospects", Vigyan Parisad, Allahabad. (**Oral Presentation**).
17. **Juhi Srivastava** and Meenakshi Singh, Electrochemical- MIP Sensor for Aspartame based on Chitosan Nanoparticle- RGO composite, 3-5 February 2017, 20th CRSI, Gauhati University, Gauhati. (**Poster Presentation**).
18. **Juhi Srivastava** and Meenakshi Singh, An analytical tool for determination of Antihelmintic drug Albendazole based on molecularly imprinted polymers, 5-7 February 2016, 18th CRSI, Punjab University, Chandigarh. (**Poster Presentation**).
19. Ambareesh K Singh, **Juhi Srivastava** and Meenakshi Singh, Fabrication of Mesalamine Compatible Polymer Silver Nano Particle- A Boost to Sensitivity, 29-30 March 2015, National Seminar on Impact of Industrial Effluent on The Self Purification Capacity of River Ganga, Dept. of Chemistry, Harish Chandra Post Graduate College, Varanasi. U.P. (**Oral Presentation**).

National Webinar:

1. **Dr. Juhi Srivastava**, Electrochemical-MIP sensor for thyroglobulin detection *via* 4-ATP SAM preparation, 7 June 2020, Present and post impact of COVID-19 on Environment, Dept. of Chemistry and Environmental Studies, Harishchandra Post Graduate College, Varanasi, U.P. (**Paper Presentation**).

Note: Besides above mentioned, I have also attended 1 Debate Competition, 2 National level e-quiz program, 1 International e-workshop, 2 National webinars and 1 International webinar, in Chemistry and other interdisciplinary fields.