

CURRICULUM VITAE

Dr. J.S.Laura

Senior Professor, (Ph.D)

Department of Environmental Sciences

Maharishi Dayanand University, Rohtak-124001, Haryana (India)

Mobile: +919813167341

E-mail: jslmdu@gmail.com

Academic Qualification:

S.No.	Degree	Institution	Year
1	B.Sc	D.N College, Hisar Kurukshetra University, Kurukshetra	1985
2	M.Sc. Botany	Department of Botany Kurukshetra University, Kurukshetra	1987
3	Ph.D. Plant physiology	College of Basic Sciences, C.C.S.H.A.U, Hisar	1992

Teaching Experience:

S.No	Organisation	Position	From
1	Department of Biosciences, MDU, Rohtak.	Lecturer	1991
2	Department of Biosciences, MDU, Rohtak	Reader	2000
3	Department of Biosciences, MDU, Rohtak	Professor	2008
4	Department of Environmental Science,MDU, Rohtak	Professor HOD	2009 2011-2014; 2017- 2020

Area of Interests:

- Environmental monitoring and environmental conservation.
- Cost effective solid waste management and waste water management in rural communities.
- Presently working on ground water monitoring for uranium.

Research Projects/Grants:

S.No.	Title	Sponsoring Agency and Officer concerned	Period	Amount (Lakh)	Achievements
1	“Effect of cadmium on hydrolytic enzymes during seed germination in <i>Pisum sativum</i> ”	UGC	2002	0.5	Completed
2	“In vitro & In vivo studies on micropropagation, transformation & camptothecin in <i>Nothapodytes foetida</i> ”	UGC	2010-2013	11.7	Completed
3	In vitro propagation of <i>Simmondsia chinensis jojoba</i>	MDU	2013-2014	0.5	Completed
4	“Spatial distribution of Uranium in Groundwater and drinking water in Rohtak, Bhiwani, Jhajjar, Rewari and Mahendergarh districts of Haryana.”	BRNS	2016-2018	26.9	Completed
5	“Spatial distribution of Uranium in Groundwater and drinking water in Bikaner and Nagaur districts of Rajasthan.”	BRNS	2018-2021	27.5	Completed

6	“Spatial distribution of Uranium in Groundwater and drinking water in Jhunjhunu and Churu districts of Rajasthan.”	BRNS	2017-2019	21.76	Completed
7	Prospecting for Camptothecin in local flora of Rohtak	Dr. Radha Krishnan Foundation Fund Maharshi Dayanand University Rohtak	6 months	More than 10	Completed
8	National Carbonaceous Aerosol Program-carbonaceous aerosol emission, source apportionment & climate effects	MOEFCC	24 Months	More than 10	Completed

Research Guidance:

PhD Supervision: 28

PG Dissertation Supervision: 30 (2019-2023)

Research profile:

Total Research Article: 93

Book Chapter: 20

Publication List			
S.No.	Title	Journal	Year
1.	Assessing the potential sustainability benefit of Agricultural residues: Biomass conversion to Biochar and its use for soil and crop improvement	Egyptian Journal of Soil Science	2024
2.	Optimal Composition of Biomass Pellet for Enhancing Calorific Value Using Moga-Ann: A Mixture of Paddy Straw, Sawdust, Cow Dung, and Paper Pulp	Biomass Conversion and Biorefinery	2023

3.	Evaluating The Performance of Low-Cost PM Sensors Over Multiple Coalesce Network Sites	Aerosol and Air Quality Research	2023
4	A Comprehensive Review on the Techniques and Indexes Used for the Analysis of Fluorosis in Humans and Cattle.	Oriental Journal of Chemistry	2023
5	Outdoor γ -radiation: seasonal variation and health risk assessment associated with its exposure in northern districts of Haryana, India	Journal of Radioanalytical and Nuclear Chemistry	2023
6	Optical Properties and Refractive Index of Wintertime Aerosol at a Highly Polluted North-Indian Site	Journal of Geophysical Research: Atmospheres	2023
7	Optimal composition of biomass pellet for enhancing calorific value using MOGA-ANN: a mixture of paddy straw, sawdust, cow dung, and paper pulp	Biomass Conversion and Biorefinery	2023
8	Qualitative Phytochemical Screening of Medicinal Plants Using Different Solvent Extracts.	Oriental Journal of Chemistry	2023
9	Mapping of outdoor gamma radiation and consequential health risk assessment in north-eastern regions of Rajasthan, India	Environmental Forensics	2023
10	Uranium Sources, Uptake, Translocation in the soil- plant System and Its Toxicity in Plants and Humans: A Critical Review.	Oriental Journal of Chemistry	2023
11	Fluoride and nitrate in groundwater: a comprehensive analysis of health risk and potability of groundwater of Jhunjhunu district of Rajasthan, India	Environmental Monitoring and Assessment	2023
12	Assessment of groundwater potability and health risk due to fluoride and nitrate in groundwater of Churu District of Rajasthan, India	Environmental Geochemistry and Health	2023
13	Analysis of effective equivalent dose to the organs and cancer risk assessment due to natural outdoor gamma radiation in Eastern Thar Desert, India	International Journal of Environmental Analytical Chemistry	2022
14	Comparative Analysis of Compost Quality Produced from Fungal Consortia and Rice Straw by Varying C/N Ratio and its Effect on Germination of <i>Vigna radiata</i>	Nature Environment and Pollution Technology	2022
15	A comprehensive analysis of health risk due to natural outdoor gamma radiation in southeast Haryana, India.	Current Science	2022

16	Study on heavy metals in some Ayurvedic herbal products and risk assessment of their calculated average daily dose intake in humans	Journal of Herbal Medicine	2022
17	Optimization of nutritional and physical parameters for enhancing the keratinase activity of <i>Bacillus cereus</i> isolated from soil of poultry dump site in Gurugram, Haryana	Bioresource Technology Reports	2022
18	Review on the use of Microalgae Biomass for Bioplastics Synthesis: A Sustainable and Green approach to control Plastic Pollution	Pollution	2022
19	Understanding the Influence of Meteorology and Emission Sources on PM _{2.5} Mass Concentrations Across India: First Results From the COALESCE Network	Journal of Geophysical Research: Atmospheres	2022
20	Role of informal sector in the dynamics of municipal solid waste compositional change from household to dumpsite	International Journal of Environment and Waste Management	2022
21	Spatial distribution of uranium in groundwater and its health risk assessment in Haryana, India	Rasayan Journal of Chemistry	2022
22	Potential Use of Some traditional plants extracts against Fusarium wilt disease of chickpea (<i>Cicer arietinum</i> L.)	Journal of Food Legumes	2021
23	Potential Use Of Some Plant Extracts As Bio-Protectant Against Black Rot Of Onion (<i>Allium cepa</i> L.)	National Journal of Life Sciences	2021
24	Large scale production of female plants of <i>Simmondsia chinensis</i> (link) Schneider through synthetic seed technology	Plant Cell Biotechnology Molecular Biology	2020
25	In vitro propagation of female <i>Simmondsia chinensis</i> (Link) Schneider-a thar desert shrub	Annals of Biology	2020
26	Vegetative Propagation of <i>Simmondsia chinensis</i> (Link) Schneider through Stem Cuttings–A Dioecious Shrub	Annals of Biology	2020

27	Spectral Monitoring and Quantification of <i>Chlorella sorokiniana</i> for Biomass Production	Annals of Biology	2020
28	Effect of Adenine Sulphate on Shoot Multiplication of <i>Simmondsia chinensis</i> (Link) Schneider	Annals of Agri-Bio Research	2020
29	Geostatistical approach using kriging for assessing spatial distribution of ground water nitrate in proximity to a solid waste dump site, Rohtak city, Haryana, India	Aut Aut Research Journal	2020
30	Spatiotemporal distribution of Fluoride in groundwater of five South-West districts of Haryana, India.	Aut Aut Research Journal	2020
31	Effect of Different Light Sources and Wavelengths on Biomass and Lipid Profile of <i>Chlorella sorokiniana</i>	Annals of Agri-Bio Research	2020
32	Potential Use Of Some Traditional Plants-Extracts As Bioprotectant Against <i>Xanthomonas citri</i> Sub Sp Citri.	National Journal of Life Sciences	2020
33	Directs adventitious shoot bud regeneration and ex vitro rooting in leaf explants of female <i>Simmondsia chinensis</i> (Link) Schneider-An important industrial shrub	Asian Journal of Microbiology Biotechnology and Environmental Sciences	2019
34	<i>Agrobacterium rhizogenes</i> mediated hairy root induction in endangered <i>Nothapodytes foetida</i>	Journal of Pharmacognosy and Phytochemistry	2019
35	An assessment of Anticipated Pollution Index of Some Common Plants and Trees of Rohtak City of Haryana (India)	Rasayan Journal of Chemistry	2019
36	Risk assessment of some herbal powders and herbal formulations contaminated with heavy metals	International Journal of Pharmaceutical Sciences and Research	2019
37	Potential Use Of Some Traditional Plants Extracts As Bio-protectant Against Tundu Diseases Of Wheat	National Journal Of Life Sciences	2019

38	Potential Use Of Some Plant Extracts Against Foot Rot Of Rice (<i>Oryza Sativa</i> L.)	Oryza-An International Journal On Rice	2018
39	GIS Based Modeling Using Analytic Hierarchy Process (AHP) For Optimization Of Landfill Site Selection Of Rohtak City, Haryana (India)	Journal Of Applied And Natural Science	2018
40	Effect of ZnO Nanoparticles On Seed Germination And Seedling Growth In Wheat (<i>Triticum aestivum</i>)	Journal Of Pharmacognosy and Phytochemistry	2018
41	Effect Of Change In Trans-Membrane Pressure Differences On The Efficiency Of A Thin Film Reverse Osmosis Membrane.	IOSR Journal of Engineering	2018
42	A Case Study On Municipal Solid Waste Management System Of Rohtak City, Haryana, India.	IOSR Journal Of Engineering	2018
43	Effect Of Cadmium On Respiration And Enzyme Activity In Germinating Pea (<i>Pisum sativum</i>) Seeds	Research Journal Of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences	2018
44	Effect Of Heavy Metals Cadmium, Nickel And Lead On The Seed Germination And Early Seedling growth of <i>Pisum Sativum</i>	Research journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Science	2018
45	Biofortification Of Crops Using Nanoparticles To Alleviate Plant And Human Zn Deficiency: A Review	Research Journal Of Life Sciences, Bioinformatics, Pharmaceutical And Chemical Sciences	2018
46	Selection Of Collection Sites And Optimization Of Waste Bins Of Rohtak City, Haryana (India)	International Journal of Engineering Research and Development	2018
47	Efficient In vitro direct regeneration from nodal explants of <i>simmondsia chinensis</i> (Link) Schneider-A potential multipurpose plant	Plant Cell Biotechnology and Molecular Biology	2018
48	Assessment Of Viability And Enhancement Of Germination Potential Of Jojoba Seeds Under In Vitro Condition Using Plant Growth Regulator	Plant Cell Biotechnology and Molecular Biology	2017

49	Potential Use Of Traditional Plant Species Against <i>Xanthomonas campestris</i> Pv. <i>Campestris</i>	National Journal of Life Science	2017
50	Study On Some Heavy Metal Intake Through The Recommended Medication Dosage Of Some Ayurvedic Herbs And Formulations	International Journal of Current Research	2016
51	A Comparative In Vitro Propagation Studies On Different Explants Of <i>Salvadora Oleoides</i> Decne. An Endangered Plant	International Journal of Current Microbiology and Applied Sciences	2016
52	Phyto-Diversity On Campus Of Km Government College Narwana, India	International Journal of Current Microbiology and Applied Sciences	2016
53	Validation of MODIS Aerosol Optical Depth Retrieval with AERONET Data	Journal of basis and Applied Engineering Research	2015
54	Application of Geospatial Technology to Municipal Waste Generation Estimation: A case Study of Rohtak, India	Journal of Energy Research and Environmental Technology	2015
55	Effect of various soil medium on seed germination of <i>Simmondsia chinensis</i> (link) Schneider (<i>jojoba</i>) under in vivo conditions	International journal of Pharma and Bio Science	2015
56	An Efficient And Reproducible Indirect Shoot Regeneration From Female Leaf Explants Of <i>Simmondsia chinensis</i> , A Liquid-Wax Producing Shrub	Physiology And Molecular Biology Of Plants	2015
57	Study on seed germination and vegetative propagation of <i>Salvadora oleoides</i> Decne	International Journal Of Current Research	2014
58	Effect Of Cadmium On Growth, Yield And Dry Matter Accumulation In <i>Cajanuscajan</i> L	International Journal Of Current Research	2014
59	Effect Of Sewage Irrigation On Yield Of Pea And Pigeon Pea	Journal Of Integrated Science And Technology	2014

60	Isolation And Assessment Of Biodegradation Potential of Fungal Species Isolated from Sludge Contaminated Soil	International Journal Of Current Microbiology and Applied Sciences	2014
61	Distribution Of Camptothecin Through The Plant Kingdom	International Journal of Current Research	2014
62	Application Of GIS In MSW Management In India	International Journal Of Engineering Research And Development	2014
63	Spatial And Temporal Distribution Of Nitrate (No ₃ -) In Groundwater Of Rohtak Municipality Area	International Journal of Engineering Research and Development	2014
64	Influence Of Organic And Synthetic Fertilizers On Soil Physical Properties	International journal of Current Microbiology and Applied Sciences	2014
65	Avifauna Species Diversity And Their Abundance In Tilyar Lake, Rohtak, Haryana (India)	Bulletin Of Environment. Pharmacology Life Sciences	2013
66	Fluoride Distribution In Groundwater And Prevalence Of Dental Fluorosis Among School Children In Villages Of Jind District, Haryana (India)	International Journal Current Research	2013
67	Micropropagation Of <i>Simmondsia chinensis</i> (Link) Schneider: A Review On The Regeneration Potential Of Different Explants	International Journal Of Current Research	2013
68	Avian And Plant Species Diversity And Their Interrelationship In Tilyar Lake, Rohtak (Haryana)	Bulletin of Environment Pharmacology Life Sciences	2012
69	Effect Of Plant Species On Domestic Waste Water Decontamination Using Constructed Wetlands	Inventi Impact: Water & Environment	2012
70	Micropropagation Of <i>Salvadora oleoides</i> Decne Through Shoot Tip Explants	Researcher	2012

71	In Vitro Studies On Direct Regeneration Of Nothapodytes foetida Using Shoot Tip And Nodal Explants.	Journal Of Non-Timber Forest Products	2012
72	In vitro plant regeneration in <i>Salvadora oleoides</i> Decne from cotyledonary node	Annals of Agri Bio Research	2012
73	An Efficient Plant Regeneration Protocol From Petiole Explants Of Physic Nut (<i>Jatropha curcas</i> L.)	African Journal Of Biotechnology	2012
74	In vitro effect of sterilizing agents on contamination and regenerability of <i>Jatropha curcas</i> seed: A biofuel plant	International journal of Pharmaceutical Sciences Review and Research	2011
75	Natural Antioxidant Potential Of Some Indian Plants – A Review	Inventi Rapid: Ethnopharmacology	2011
76	Pharmaceutical Potentials And Biotechnological Interventions For Crop Improvement Of <i>Jatropha curcas</i>	Inventi Rapid: Ethnopharmacology	2011
77	Drought And Salt Tolerance Screening Of Papaya (<i>Carica papaya</i> L.) Cultivars Using In Vitro Techniques	Acta Horticulturae	2010
78	Antifungal activity of some plant extracts against <i>Chaetomium globosum</i>	Journal of Pure and Applied Microbiology	2009
79	Antifungal Properties Of Some Plant-Extracts Against <i>Chaetomium globosum</i> .	International Journal Of Agricultural Sciences	2009
80	Antibacterial Activity Of Some Plant-Extracts Against Plant Pathogenic Bacteria <i>Xanthomonas campestris</i> Pv. <i>Campestris</i>	Indian Journal Of Agricultural Research	2009
81	Antibacterial activity of some plant extracts against <i>Rhizobacter tritici</i>	Biosciences Biotechnology Research Asia	2008

82	Potential Use Of Some Plant-Extracts Against Fusarium moniliforme	Oryza-An International Journal On Rice	2008
83	Antibacterial Activity Of Some Plantextracts Against Pathogenic Bacteria Erwinia carotovora Subsp.Carotovora	Potato Journal	2008
84	Antifungal potential of some botano-extracts against Alternaria brassicae	Journal of Plant Disease Sciences	2007
85	Anti-fungal Activity of Botano-extracts against Penicillium expensum	Int. J. Trop. Agri.	2007
86	Dark treatment effects on nitrogen fixation and enzymes associated with scavenging hydrogen peroxide in clusterbean nodules	Plant physiology and biochemistry	1994
87	Photosynthetic carbon reduction cycle metabolites and enzymes of sucrose and starch biosynthesis in developing Brassica pods.	Indian Journal of Biochemistry & Biophysics	1993
88	Nitrate induced nodule senescence and changes in activities of enzymes scavenging H ₂ O ₂ in clusterbean (Cyamopsis tetragonaloba Taub.)	Journal of plant physiology	1993
89	Ontogenic changes in photosynthetic carbon reduction cycle metabolites and enzymes of sucrose metabolism in Brassica campestris pods	Photosynthetica (Czech Republic)	1993
90	Effect of Cadmium on Carbon and Nitrogen Partitioning and Dry Matter Production in Pigeonpea (Cajanuscajan L.).	Plant Physiology	1991
91	Photosynthetic carbon fixation, translocation and metabolite levels in pigeonpea (Cajanus cajan L.) leaves exposed to excess cadmium	Indian journal of experimental biology	1991
92	Effect of salinity, salinization and desalinization on flowering and various yield parameters in pea (Pisum sativum L.) and chickpea (Cicer arietinum L.).	International journal of tropical agriculture	1990

93	Effect of cadmium and nickel on germination, early seedling growth and photosynthesis of wheat and Pigeon Pea.	International journal of tropical agriculture	1990
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BOOK CHAPTERS

S. No	Title	Author	Book	Publisher	ISBN	Year
1	Water conservation for environmental sustainability	Alka Rao, Jitender Singh Laura, Geeta Dhania	Water, the Environment and the Sustainable Development Goals	Elsevier	978044 315355 6	2024
2	Uranium in groundwater is an emerging concern in Rajasthan, India: A study of distribution , potential sources, health impacts and management strategies	Naresh Tanwer, Krishan Kant, Bhupender Singh, Jitender Singh Laura and Babita Khosla	Environmental Metagenomics , Water Quality And Suggested Remediation Measures of Polluted Waters: A Combined Approach	Elsevier	978044 313659 7	2024
3	A comprehensive analysis of fluoride contamination in groundwater of rural area with special focus on India	Pradeep Khyalia , Sandeep Singh Duhan, Jitender Singh Laura, Meenakshi Nandal	Water Resources Management for Rural Development	Elsevier	978044 318778 0	2024
4	Prevalence of Uranium in	Naresh Tanwer, Vaishali	Water Resources Management	Elsevier	978044 318778 0	2024

	groundwater of rural and urban regions of India	Arora, Krishan Kant, Bhupender Singh, Jitender Singh Laura, Babita Khosla	for Rural Development			
5	Conventional methods and materials used for water treatment in rural areas	Shiksha Malik, Pradeep Khyalia, Jitender Singh Laura	Water Resources Management for Rural Development	Elsevier	9780443187780	2024
6	Nanofiltration Membrane Techniques for Heavy Metal Separation	Moni Jakhar, Jitender Singh Laura, Meenakshi Nandal	Modern Nanotechnology: Volume 1: Environmental Sustainability and Remediation	Springer International Publishing	9783031311130	2023
7	Microalgae Biofuels: Challenges and Potential	Naresh Tanwer, Vaishali Arora, Priyanka Bumbra, Kiran Grewal, Jitender Singh Laura, Babita Khosla	Biomass and Bioenergy Solutions for Climate Change Mitigation and Sustainability	IGI Global	9781668452714	2023
8	Constructed wetland: A Decentralized Wastewater Treatment System		India@75 Research and development		978935747321	2023

9	Microbial Inoculants: An Invasive Approach for the Bioremediation of Soil Contaminated with Heavy Metals	Priyanka Bumbra, Naresh Tanwar, Vaishali Arora, Babita Khosla, Jitender Singh Laura	Microbial and Biotechnological Interventions in Bioremediation and Phytoremediation	Springer International Publishing	9783031088308	2022
10	Mercury pollution and its bioremediation by microbes	Naresh Tanwer, Priyanka Bumbra, Babita Khosla, Jitender Singh Laura	Microbes and Microbial Biotechnology for Green Remediation	Elsevier	9780323904537	2022
11	Plastic Waste Management in Rural Areas Around the World	Sandeep Singh Dohan, Pradeep Khyalia, Jitender Singh Laura	Plastic Waste Management: Turning Challenges into Opportunities	Plastic Waste Management: Turning Challenges into Opportunities	9789391681067	2022
12	Effect of Cadmium on Plant Physiological and Metabolic Processes.	Meena Deswal, JS Laura And Sridevi Tallapragada	Trends in Technology for Agriculture, Food, Environment and Health	Agrobios (International)	9788194748076	2020
13	Cadmium Uptake and its Effect on Plant Growth: A Review	Meena Deswal, Jitender Singh Laura	Emerging Technologies Towards Agriculture, Food and Environment	Agrobios (International)	9789381191224	2019
14	In vitro and in vivo multiplication of Jatropha	Sarina Panghal and Jitender	Jatropha learning course	Centre for Jatropha Promotion		2008

	curcus	Singh Laura		n and Bio Diesel		
15	Assessment of water quality and phytoplankton density of Tilyar Lake, Rohtak (Haryana).	Rani Devi, Mohd. Kashif Kidwai, Pawan Kumar Rose, Alok Kumar Saran			978818 872064	2012
16	Drought and salt tolerance screening of Papaya (Carica papaya L.) cultivars using in vitro techniques	N. Kumar, K. Soorian athasundaram, P. Jeyakumar			978-90-66050-65-5	2010
17	Jajoba [Simmondsia chinensis (link) Schneider] A review on biotechnological status and challenges	Neelima Gupta and D K Gupta			978935 056749 4	2015
18	Plant Tissue Culture: A plant production technique for the improvement of agricultural crops	Vineeta Shukla, Minakshi Sharma, Sudhir Kumar Kataria, Sudesh Rani			978819 209451 9	2011
19	Workers perceptions and	Vineeta Shukla, Minaks			978819 209451 9	2011

	awareness of Noise Pollution at construction sites in Rohtak Haryana	hi Sharma, Sudhir Kumar Kataria, Sudesh Rani				
20	Abiotic stress tolerance of <i>Jatropha curcas</i> at cell level	Vineeta Shukla, Minakshi Sharma, Sudhir Kumar Kataria, Sudesh Rani			978819 209451 9	2011

Conferences/workshops Attended:

National: 25

International: 10

Other Activities/ Position Held:

- Head of Dept. of EVS for Two 3 year term presently HOD for the third time. Member of PGBOSs, Academic council, Executive member of Haryana DST, Member of State Environmental Protection Council.
- Worked as RA in PL480 project “Regulation of CO₂ assimilation in pod walls of *Brassica campestris* L., On the expert panel of Rajasthan Public Service Commission, Uttarakhand Public service commission.
- Executive Member of Haryana DST.
- Member of Haryana Paryavaran Samrakshan Committee.