



Department of Health Research

Ministry of Health and Family Welfare

Online application Preview "Support to Institutes for Training/Modules/Courses in biomedical research "

Proposal submitted on dated 20-06-2025 03:39:59 PM

Proposal Id: STI-2025-1077

Proposal Title: Environmental Health: Risks, Impact and Policy: A Comprehensive Training Module

PERSONAL/BASIC INFORMATION

Photograph



Full Name	Dr Ashutosh Kumar Choudhary (Associate Professor)
Date of Birth	05-09-1984
Gender	Male
Category	GEN
Is differently abled?	No
Nationality	Indian

CONTACT INFORMATION

Mobile Number	9045884924
Email Address	akchoudhary@sru.edu.in
Landline Number	01352471620
Fax Number	

PERSONAL ADDRESS INFORMATION

Address Line1	Sunar Gaon, Chowk No. 5
Address Line2	Athurwala
City/Town	Doiwala
District	DEHRADUN
State	UTTARAKHAND
Pincode	248140
Country	India

DETAILS OF THE INSTITUTE WHERE THE PROPOSED RESEARCH WILL BE IMPLEMENTED

Nature of Employment	Permanent
Department:	Applied Sciences & Humanities, School of Science & Technology
Institute Name	Swami Rama Himalayan University
Institute's Location (District, State)	DEHRADUN, UTTARAKHAND



#	Qualification	University/Institute Name	Institute/College Name	Passing Year
HIGHER / ESSENTIAL QUALIFICATION DETAILS				
1	Doctor of Philosophy	Indian Institute of Technology (IIT)		2014
2	Master of Science	Choudhary Charan Singh University		2008
3	Bachelor of Science	Choudhary Charan Singh University	DAV College, Muzaffarnagar	2005
BASIC QUALIFICATION DETAILS				

Research Experience Details

#	Research Institute Name	Position	From Date	To Date	Duration (Y)
1	Indian Institute of Technology Roorkee	Junior Research Fellow	26-Sep-2008	31-Mar-2011	2.51
Total year of Research Experience					2.51

Publications

#	Title	Author List	Journal Name	Page Number	Year	Volume	Issue Number	Author Type	Impact Factor	ISSN No.	Remarks
1	Demineralized Water Consumption: Unravelling Current Trends and Health Effects	Nupur Joshi; Nikku Yadav; Ashutosh Kumar Choudhary; Deep Shikha; Shweta Samant	IEEE Xplore	181-184	2024			Co-Author			Scopus
2	A review on phytoremediation potential of Canna species for wastewater treatment	Ashutosh Kumar Choudhary	Pollution Research	437-444	2023	42	4	First Author	0257-8050	SCOPUS (1997-20	
3	Constructed Wetland: A Green Technology for Wastewater Treatment	Ashutosh Kumar Choudhary & Parveen Kumar	Springer	335-363	2020	Volume 1		First Author	978-981-15-6020-7	Book chapter	
4	Car ecoleasing encouraging public service system with circular economy to help the environment	Sunil Anand, Ashutosh Kumar Choudhary & Piyush Singhal	Indian Journal of Environmental Protection	352-358	2019	39	4	Co-Author	0253-7141	Scopus	
5	Constructed Wetland Technology for Pulp and Paper Mill Wastewater Treatment	Satish Kumar & Ashutosh Kumar Choudhary	Wiley-Blackwell	309-325	2018			Co-Author	978-1-119-26832-1	Book chapter	
6	Constructed Wetlands - A Sustainable Solution for Landfill Leachate Treatment	Parveen Kumar & Ashutosh Kumar Choudhary	International Journal of Latest Technology in Engineering, Management & Applied Science	101-106	2018	7	6	Co-Author	2278-2540		
7	Environmental impact of non-vegetarian diet: An overview	Ashutosh Kumar Choudhary & Nagendra Kumar	International Journal of Engineering Sciences & Research Technology	251-257	2017	6	8	First Author	2277-9655		
8	A sustainable approach to manage household wastewater	Ashutosh Kumar Choudhary, & Parveen Kumar	Journal of Civil Engineering and Environmental Technology	112-117	2017	4	2	First Author	2349-8404		
9	Green technology for removal of chloro-organics from pulp and paper mill wastewater	Ashutosh Kumar Choudhary, Satish Kumar, Chhaya Sharma, & Vivek Kumar	Water Environment Research	660-669	2015	87	7	First Author	2.5 1554-7531	SCI	
10	Identification and advanced oxidation of chloro-organics from bleaching wastewater of pulp and paper mill	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	IPPTA	106-120	2015	27	2	First Author	0.186 0379-5462	Scopus	

11	Removal of chloro-organics and color from pulp and paper mill wastewater by polyaluminium chloride as coagulant	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	Desalination and Water Treatment	697-708	2015	53	3	First Author	1.0	1944-3986	SCI
12	Monitoring of chloro-organic compounds from Indian paper mills wastewater	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	IPPTA	104-115	2014	26	2	First Author	0.186	0379-5462	Scopus
13	Removal of chlorophenolics from pulp and paper mill wastewater through constructed wetland	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	Water Environment Research	54-62	2013	85	1	First Author	2.5	1061-4303	SCI
14	Optimization of process parameters for the photocatalytic treatment of paper mill wastewater.	Parveen Kumar, Satish Kumar, Nishi Kant Bhardwaj & Ashutosh Kumar Choudhary	Environmental Engineering and Management Journal	595-601	2011	10	5	Co-Author	1.06	595-601	SCI
15	Removal of chlorinated resin and fatty acids from paper mill wastewater through constructed wetland.	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	International Journal of Environmental and Ecological Engineering	406-410	2011	5	8	First Author		2010-3778	World Academy Science, Engineer and Technolo
16	Constructed wetlands: an option for pulp and paper mill wastewater treatment	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	Electronic Journal of Environmental, Agricultural and Food Chemistry	3023-3037	2011	10	10	First Author		1579-4377	
17	Constructed wetlands: an approach for wastewater treatment	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	Elixir Pollution	3666-3672	2011	37		First Author		2229-712X	Indexed in Copernic
18	Organic load removal from paper mill wastewater using green technology	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	Proc. of Vth World Aqua Congress-2011	103-109	2011			First Author			Conferer Proceedi
19	Advanced oxidation of pulp and paper industry effluent	Parveen Kumar, Satish Kumar, Nishi K. Bhardwaj & Ashutosh Kumar Choudhary	International Proceedings of Chemical, Biological and Environmental Engineering (IPCBEE)	170-175	2011	15		Co-Author		2010-4618	Conferer Proceedi

20	Performance of constructed wetland for the treatment of pulp and paper mill wastewater	Ashutosh Kumar Choudhary, Satish Kumar, Chhaya Sharma & Parveen Kumar	American Society of Civil Engineers, USA	4856-4865	2011	First Author	978-0-7844-1173-5	Conferer Proceedi
21	Removal of chemical oxygen demand and color from pulp and paper mill wastewater using horizontal subsurface flow constructed wetland	Ashutosh Kumar Choudhary, Satish Kumar & Chhaya Sharma	Proc. of International Conference on Emerging Technologies for Sustainable Environment, Department of Civil Engineering, Aligarh Muslim University, Aligarh	735-738	2010	First Author		Conferer Proceedi

Awards

#	Award Name	Awarded by	Agency Type	Yr
1	Outstanding contribution in reviewing for Journal of Cleaner Production (Elsevier)	Journal of Cleaner Production (Elsevier)	International	2

Project Carried out

#	Name of Project	Sanction No.	Funding Agency	Funding Amount (Rs.)	Start Date	End Date	Remark
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Proposal Technical Details

Title of training Environmental Health: Risks, Impact and Policy: A Comprehensive Training Module

Institute Type Private **Valid DSIR Certificate (Validity)** yes (31-03-2026)

Area of Training Environmental Health **Subject Area** Environmental Health

Proposal Duration (in Years) 5 **Detail Proposal** [View](#)

Any prior experience / expertise in providing training courses / programmes (both conventional and online) in above areas of research: Please state the duration and the category of participants in the given tabular format

#	Area	Duration	Type of Program	Category of Participant
1	Modern Biology: Advanced Molecular Tools for Healthcare: A comprehensive Training Module	1	Conventional	Post graduate
2	Environmental Studies course as mandated for higher education institutions	1	Conventional	Undergraduate
3	Monitoring and Removal of Chloro Compounds from Pulp and Paper Mill Wastewater (IIT Roorkee)r	24	Conventional	Doctoral Faculty

THE TRAINING MODULES FORMAT

#	Topics	Schedule	Training Provided
1	Introduction to Environmental Health	Scope, key environmental health challenges in India, urban-rural disparities, environmental justice	Icebreaker: Local pollution issues Map: India's environmental disease burden
2	Soil Contamination and Health effects	Session 1: Agricultural Chemicals and Environmental Health Session 2: Heavy Metal Contamination in Soil and Water, Session 3: Bioaccumulation and Food Safety	• Discussion on commonly used agrochemicals in Indian agriculture • Group exercise on Lead toxicity from informal waste recycling • Case Mapping: Arsenic exposure in West Bengal
3	Air Pollution and Health risks	Session 1: Types of air pollutants, Session 2: Health effects of air pollution	• Analysis: AQI trends in different cities across the nation, Health impact of indoor cooking fuels • Discussion on solutions to reduce air pollution in urban and rural areas.
4	Water Quality, Sanitation and Health	Session 1: Major Contaminants in water bodies, Waterborne diseases, Session 2: Chronic health effects from groundwater pollutants, Poor sanitation practices and hygiene-related diseases; Link to public health programs	• Practical Session: Water quality determination and monitoring (Physicochemical parameters) • Practical Session: Water quality determination and monitoring (Microbiological parameters)
5	Emerging Chemical and Toxic Exposures	Session 1: Emerging contaminants; Persistent Organic Pollutants (POPs); Endocrine-disrupting chemicals (EDCs), PFAS, Microplastic, AMR Session 2: Industrial and household chemicals: BPA, phthalates, flame retardants, Volatile Organic Compounds (VOCs)	Practical Session: Quantification of Environmental Toxins
6	Hazardous waste and Health effects	Session 1: Hazardous waste classification and characteristics, Types of hazardous waste, Municipal solid waste, biomedical waste, e-waste challenges Session 2: Health Impacts and Management Challenges	Waste audit: Plastic use & disposal in neighborhood, Discussion on sustainable solutions
7	Urban Environmental Health Challenges	Session 1: Urban Environmental Stressors and Health, Session 2: Built Environment and Public Health	Virtual walk audit of Indian urban slums Brainstorm solutions
8	Occupational Environmental Hazards	Session 1: Occupational Exposures and Health Risks, Session 2: Ergonomic and Psychological Health Risks	Activity: Role-play or case study: Health risks in mining or construction workers Activity: Group discussion: Improving workplace well-being in informal sectors
9	Radiation Exposure and Health	Session 1: Sources of Radiation and Health Effects, Session 2: Radiation and Emerging Concerns	Activity: Case study: Chernobyl or Fukushima nuclear incidents Activity: Group discussion on mobile towers as health risk.
10	Pathways of Exposure	Session 1: Major Environmental Exposure Pathways, Session 2: Vulnerable Pathways – Maternal and Fetal Exposure	Activity: Group task – Identify common exposure routes in daily life or occupational settings Activity: Case discussion on fetal exposure from environmental contaminants in rural areas
11	Environmental Toxicity and Human Health	Session 1: Fundamentals of Environmental Toxicology, Session 2: Toxicological Metrics and Environmental Impact	Practical Session: Dose-Response and LD ₅₀ Calculation
12	Environmental Risk Assessment and Communication	Session 1: Environmental Risk Assessment – Concepts and Framework, Session 2: Risk Communication in Diverse Communities	Discussion, Case study: Minamata disease Role-play: Communicating arsenic risk in a rural setup
13	Acute Health Effects of Environmental toxicity	Session 1: Acute health Impacts, Session 2: Chemical Burns and Skin/Eye Irritation	Case Studies: Acute Health Effects
14	Chronic Health Effects of Environmental toxicity	Session 1: Chronic Health Impacts: Cancer, Neurological disorders, Endocrine disruption, Session 2: Chronic Health Impacts Reproductive and developmental effects, Immunotoxicity, Renal and liver damage	Case studies based on cancer and environmental toxicity
15	Vulnerable Populations	Session 1: Biological Vulnerability to Environmental Hazards, Session 2: Social and Economic Vulnerabilities	Activity: • Case study: Bhopal gas tragedy or electronic waste recycling in urban slums • Group task: Identify ways to reduce exposure risks in low-income settings
16	Community-Based Environmental Health	Session: Participatory approaches, grassroots campaigns, citizen science, Community awareness, Safe disposal of hazardous waste, Personal protective equipment (PPE) and hygiene practices	Group: Plan a local community EH project
17	Environmental Health Surveillance & Data	Session: Monitoring networks, data interpretation, reporting	Data analysis: National Vector Borne Disease Control Program data
18	Disaster Preparedness & Response	Session 1: Floods, cyclones, earthquakes, heatwaves, disease outbreaks Session 2: Applications of remote sensing in disaster management	Case studies on Flood response
19	Environmental Policies	Session 1: Environmental Policies and Regulation in India Key acts: Air (1981), Water (1974), Environment (1986), updates Session 2: National programs: Swachh Bharat, Jal Jeevan Mission, National Action Plan on Climate Change	Policy timeline mapping; agency roles Case study: Implementation of National Air Quality Action Plan
20	Environmental Justice and Ethics	Session: Marginalized communities, tribal health, right to clean environment	Discussion: Industrial pollution and tribal populations
21	Sustainable Development Goals and Environmental Health in India	Session 1: Sustainable Development Goals, SDG 3 (Good health and Well-being), SDG 6 (Clean water and Sanitation), SDG 11 (Sustainable cities and communities) Session 2: SDG 13 (Climate action), SDG 15 (Life on land), India's progress & challenges	Case study: Sustainable interventions/solutions for mitigation
22	Regulatory limits and safety guidelines	Session 1: Regulatory limits and safety guidelines by WHO, EPA, ICMR, CPCB Session 2: Advocacy and Policy Engagement in India Building partnerships, influencing policy, media engagement	Role-play: Advocating for air quality regulations
23	Climate Adaptation & Mitigation Strategies in India	Session 1: Climate change health risk, adaptations, and mitigation, Climate resilient water system in hilly terrains, rain water harvesting, ensuring safe water Session 2: Green Technology and Clean energy, waste-to-energy, water purification technologies	Activity: Designing adaptation plans for cities Field visit to Sewage Treatment Plant

Existing faculty members, their details, positions, posts available with the institution for imparting proposal programme.

#	Faculty Name	Designation	Email Id	Contact Number	Biodata
1	Dr. Shaili Vyas	Professor	shailivyas@srhu.edu.in	9759135362	View
2	Dr. Abhay Srivastava	Associate Professor	abhaysrivastava@srhu.edu.in	8077947916	View
3	Dr. Neha Sharma	Associate Professor	nehasharma@srhu.edu.in	8126675123	View
4	Dr. Geeta Bhadari	Assistant Professor	geetabhandari@srhu.edu.in	8439020392	View
5	Dr. Ashutosh Kumar Choudhary	Associate Professor	akchoudhary@srhu.edu.in	9045884924	View
6	Dr. Rakhee Khanduri	Professor	rakhee.sodhi@gmail.com	7579281136	View
7	Dr. Sanjoy Das	Professor	visildas@gmail.com	9411113548	View
8	Dr. Jayanti Semwal	Professor	jayantisemwal@srhu.edu.in	9412008770	View
9	Dr. H P Uniyal	Professor	hpuniyal@gmail.com	8077189587	View
10	Nitesh Kaushik	Deputy Director	nkaushik@srhu.edu.in	9837021771	View

No. of Participants 30

Mode of Selection Conventional

Brief Justification

i. Critical Relevance in the Indian Context Good health depends on clean air, a stable climate, a protected natural environment, as well as access to safe & adequate water, basic sanitation and healthcare. It also requires protection from harmful radiation, unsafe chemical hand and unhealthy working conditions. A healthy environment can prevent about a quarter of the global disease burden. According to GBD 20 environmental and occupational risk factors were responsible for 18.9% (12.8 million) of global deaths.[1] i. Alignment with National and G Goals Direct Alignments: The proposal's SDG and one health integration extends beyond primary goals (SDGs 3, 6, 11, 13, 15) to catalyse benefits across the 2030 Agenda: Indirect Enablers: SDG 9 and 17 serve as "force multipliers" by scaling One Health innovations and fost governance coherence · SDG 9 (Industry, Innovation, Infrastructure): o Tools: AI-driven environmental monitoring (e.g., GIS for outbreak tracking) and mixed-methods research integrate epidemiological/toxicological data o Innovation: Circular economy solutions (e.g., waste-to-energy) reduce pollution while advancing clean infrastructure · SDG 17 (Partnerships): o Critical for mobilizing cross-sectoral data (e.g., UNEP's One Health Joint Plan) and financing ii. Bridging Knowledge Gaps in Policy and Practice Despite numerous environmental regulations in India, a disconnect often exists between policy formulation and on-the-ground implementation. This module aims to bridge this gap by equipping healthcare professionals, policymakers, and local leaders with a strong foundation in environmental toxicology, risk assessment regulatory frameworks and thus will fill a critical gap by offering a comprehensive understanding of environmental health risks along with tools to interpret, evaluate, and contribute to policy. It will enhance the capacity to interpret scientific data for effective decision-making and advocacy and will help professionals and students understand how national programs like the Swachh Bharat Mission, National Clean Air Programme (NCAP), Jal Jeevan Mission, and Smart Cities Mission intersect with public health goals and environmental sustainability. iii. Demand from Emerging Sectors and Local Governance With the rise of smart cities, industrial corridors, and environmental litigation, the growing demand for trained professionals who understand ecological health impacts.[5] Local governance bodies, urban planners, and district management units require interdisciplinary knowledge to handle issues like urban heat islands, chemical exposure, and sanitation crises.[This module will fulfil this demand by offering relevant, real-world case studies and policy insights and is particularly relevant for professionals in public administration, urban planning, healthcare, and environmental management, as well as for students preparing for careers in these fields. iv. Practical, Interdisciplinary, and Context-Specific Training This training module combines principles from public health, environmental science, toxicology, and policy. It includes hands-on components such as case studies (e.g., Bhopal Gas Tragedy, arsenic exposure), real risk assessment models, and exposure pathway analysis. The focus on vulnerable populations and occupational hazards makes the training highly applicable to India's diverse socio-economic settings.

Available Infrastructure

- a. Existing laboratory facilities to be (Please attach a brief biodata used for importing training)
- b. Back-up existing internet facilities to provide online course
- c. Hostel
- d. Other (Guest House, Minimal budget rooms in Sarai, and Combined Therapy block.)

Advertisement of the training programme 1750413501_1811104267.pdf [View](#)
Uploaded Documents

#	Proposal Id	Document Name	Uploaded Document	Remarks
1	DSIR Recognition Certificate	View	20-06-2025	SIRO Certificate
2	Certificate by Head of Institute	View	20-06-2025	Certificate by Head of the Institute
3	Mandate Form	View	20-06-2025	Mandate form
4	Undertaking by Applicant	View	20-06-2025	Undertaking - PI
5	Declaration & Attestation	View	20-06-2025	Declaration from Head of Institute

A: Grant for gap filling/up gradation of facilities (one time grant up to Rs.50.00 lakh)

#	Item	Budget (INR)	Description/Justification
1	Financial Assistance for Upgradation of Facilities for Quality Control Laboratory	2500000.00	It includes the following 1. Major Equipment: HPLC 2. Minor Equipment: BOD, COD

Total Budget details (in Rs.)							
Year	Fellowship/Staff (Manpower)	Contingencies/Miscellaneous	Consumables	Equipment	Travel	Overhead	Total Budget
Year:1	0.00	100,000.00	50,000.00	0.00	850,000.00	0.00	1,000,000
Year:2	0.00	100,000.00	50,000.00	0.00	850,000.00	0.00	1,000,000
Year:3	0.00	100,000.00	50,000.00	0.00	850,000.00	0.00	1,000,000
Year:4	0.00	100,000.00	50,000.00	0.00	850,000.00	0.00	1,000,000
Year:5	0.00	100,000.00	50,000.00	0.00	850,000.00	0.00	1,000,000

Total: 7,500,000

Total Consumables budget breakup (in Rs.)			
Year	Particular	Justification	Amount (Rs.)
1	Chemicals, Glasswares and Plasticwares	Chemicals, Glasswares and Plasticwares for practical session	50,000.00
2	Chemicals, Glasswares and Plasticwares	Chemicals, Glasswares and Plasticwares for practical session	50,000.00
3	Chemicals, Glasswares and Plasticwares	Chemicals, Glasswares and Plasticwares for practical session	50,000.00
4	Chemicals, Glasswares and Plasticwares	Chemicals, Glasswares and Plasticwares for practical session	50,000.00
5	Chemicals, Glasswares and Plasticwares	Chemicals, Glassware's and Plasticwares for practical session	50,000.00

Total: 250,000.00

Total Contingency budget breakup (in Rs.)			
Year	Particular	Justification	Amount (Rs.)
1	Contiengency	1. Printing of Training Materials 2. Venue and Logistics	100,000.00
2	Contiengency	1. printing of training materials 2. venue and logistics	100,000.00
3	Contiengency	1. Printing of Training Materials 2. Venue and Logistics	100,000.00
4	Contiengency	1. Printing of Training Materials 2. Venue and Logistics	100,000.00
5	Contiengency	1. Printing of Training Materials 2. Venue and Logistics	100,000.00

Total: 500,000.00

Total Travel budget breakup (in Rs.)			
Year	Travel	Justification	Amount (Rs.)
1	travel	Travel charges of Expert	100,000.00
1	other	1. Boarding and Lodging charges of the participants 2. Remuneration of Expert	750,000.00
2	travel	Travel charges of Expert	100,000.00
2	other	1. Boarding and Lodging charges of the participants 2. Remuneration of Expert	750,000.00
3	travel	Travel charges of Expert	100,000.00
3	other	1. Boarding and Lodging charges of the participants 2. Remuneration of Expert	750,000.00
4	travel	Travel charges of Expert	100,000.00
4	other	1. Boarding and Lodging charges of the participants 2. Remuneration of Expert	750,000.00
5	travel	Travel charges of Expert	100,000.00
5	other	1. Boarding and Lodging charges of the participants 2. Remuneration of Expert	750,000.00

Total: 4,250,000.00

#	Name of Account Holder (As per bank record)	Email Id of Designated Authority	Designation of Head of Institute	Account Number	Bank Name	IFSC	Branch Name and Address
1	SRHU-SCIENTIFIC AND INDUSTRIAL RESEARCH	finance@sru.edu.in	Vice Chancellor	37200223663	State Bank of India	SBIN0010580	HIHT, JOLLY GRANT, DEHRADUN 0135-2412947

Declaration

I hereby declare that the entries in this form and the additional particulars, if any, furnished herewith are true to the best of my knowledge and belief. I understand that in the event of my information being found false or incorrect at any stage, my project/proposal shall be liable to cancellation / termination without notice or any compensation in lieu thereof.


