

ANNUAL REPORT PROFORMA
(01.07.2022 TO 30.06.2023)

(I) Name of the Department: Environmental Science & Engineering

(II) Year of Establishment: 1994

(III) (a) State the vision of the Department: Pursuance for excellence to achieve Sustainable Development

(b) State the mission of the Department: To impart training for capacity building, to tackle various Environmental Challenges in an Eco-friendly manner.

(c) State the objective of the Department (As resolved by Staff Council):

i) To offer professional and joboriented Course curricula

ii) To strengthen R & D activities.

iii) To offer consultancy and extension activities to stakeholders

(IV) Programme (s) offered in the department

Programme	Sanctioned intake	Present students' strength
Ph.D.	As per university norms	0
P.G.		
M.Sc. (EVS)	55	47
M.Tech. (ESE)	20	05
M.Tech (GIS)	20	03
U.G	----	--
Any other	----	--

(V) Faculty details

(Attach a list of the Faculty along with their qualifications, teaching and research experiences, and any specific achievements (if any))

	<i>Sanctioned</i>	<i>Filled</i>	Under CAS
Professor	2	----	
Associate Professor	2	-----	
Assistant Professor	8	5 +6	6 are promoted as Professor

List of the Regular Faculty along with their qualification and experience

Name of Teacher	Designation	Qualification	Experience (Years)
Dr. Parveen Sharma	Professor	M.Sc., Ph.D.	26.5
Dr. (Ms.) Asha Gupta	Professor	M.Sc., Ph.D.	24
Dr. Mukul Bishnoi	Professor	M.Sc., Ph.D	24
Dr. Rajesh Kumar	Professor	M.Tech.,Ph.D	18.5
Dr. Jitender Pal	Professor	M.Tech.,Ph.D	18.5
Dr. Anu Gupta	Assistant Professor	M.Tech.,Ph.D	11
Dr. Mona Sharma(EOL)	Assistant Professor	M.Sc., Ph.D.	9
Dr. Santosh Bhukal	Assistant Professor	M.Sc., Ph.D.	8
Dr. Anita Singh Kirrolia	Assistant Professor	M.Sc., Ph.D.	9
Dr. Lakhvinder Singh	Assistant Professor	M.Sc., Ph.D.	9

(VI) Office staff details

Designation	Sanctioned	Filled
Assistant-cum-DEO	1	-
Lab.Tech. Instrumentation	1	-
Store Keeper	1	1
Technical Asstt. Gr.II	1	-
Lab.Attdt	3	3
Clerk	1	1
Steno-Typist	1	1
Peon	2	2
Technical Asstt.Gr.I	1	2
Lab. Technician	2	2

(VII) a. Students detail in respect of M.Sc., M.Tech. M.Pharm., M.Ph.Th., M.Com. MBA and MCA Programmes

Programme	Sanctioned Intake	Students admitted 1 st Year	Students Present in Final Year
Ph.D.	As per university norms	0	56
M.Sc. (EVS)	55	47	46
M.Tech. (ESE)	20	05	5
M.Tech (GIS)	20	03	8

b. Students' detail in respect of B.Tech , B.Pharm. andB.P.Th. Programmes: NA

1 st Year		2 nd Year		3 rd Year	4 th Year
Sanctioned Intake	Students admitted	Sanctioned intake through LEET	Students Present Second year	Students Present third year	Students Present fourth year

c. Detail of Foreign Students if any, admitted in the Department: NA

Sr. No.	Name of Course	No. of students Admitted	Name of Country

(VIII) Research Scholars

Intake capacity	Total no of Ph.D. students	Registered during the year	Thesis completed during the year	Specify number of different fellowships
As per University norms	56	11	02	UGC-BSR, NFOBC, JRF, NFSC, AICTE

(IX) Sponsored Research/ Consultancy Projects:**(a)**

Total No. Of projects in progress during the academic current year	Total no. Of Projects awarded during academic current year	Total No. Of projects completed during academic current year
03	01	01

(b)

Title of the Project	Name of the Investigator(S)	Status: Completed/In progress	Nature: Research/ Consultancy	Month& Year of Award
Production and Application of Biochar for Environmental Remediation	Dr. Mona Sharma	In Progress	Research	2019
Room Temperature Ionic Liquid (RTIL)/RTIL Modified Nanostructures Based Extraction of Water Contaminants: A Green Approach	Dr. Santosh Bhukal	In Progress	Research	2019
Removal of Synthetic Dye from Aqueous Solution using Biosorbent	Dr. Lakhvinder Singh	Completed	Research	2023

(X) Number of Publications of the Faculty (in Total)

Books and Book Chapters/Monographs etc		Research papers		Research papers		Other Articles	
International	National	SCI/Scopus	UGC Care	Refereed	Non refereed		
8	3	24		27			

(XI) Faculty wise detail of publication during the period**a) Books/Book Chapters/ Monograph etc.**

S. No.	Authors	Title	Year of publication	Type of books (Text/Reference /Report)	Publishers
1.	Mandeep Kaur, Praveen Sharma, Santosh Kumari	Recent Advances in Heavy Metal Removal: Using Nanocellulose Synthesized from Agricultural Waste	2022		CRC Press
2.	Anu Gupta & Ashish Bhardwaj	Role of Video Lectures in Engineering Education, <i>International Journal</i>	2023	Reference	Sage Publications

		<i>of Educational Reform</i> , Vol 32, issue 2, 208-229,			
3.	Hema Diwan and Mona Sharma	Integrated Waste Management: The Circular Economy. Publisher	2023	Reference	Cambridge Scholars Publishing, UK
4.	Santosh Bhukal, Divya Yadav and Shafila Bansal	The Role of Metallic Nanoparticles in Maximizing Crop Production	2023	Reference	Nova Science Publishers, Inc.

(a). Book Chapter

S.no	Authors	Title of Book chapter	Book Title	ISBN No	Year of publication	Publishers
1.	Dhingra, H.D., Mona, S	Integrated Waste Management: Circularizing The Economy for Sustainable Development	Integrated Waste Management: The Circular Economy. Publisher	ISBN: 978-1-5275-9461-6	2023	Cambridge Scholars Publishing, UK
2.	Mona, S., Kumar, S., Diwan, H.D., Deepak, B., Bhateria, R. 2023	Manufacturing Industry Towards Carbon Footprint Reduction and Environmental Sustainability	Integrated Waste Management: The Circular Economy. Publisher	ISBN: 978-1-5275-9461-6	2023	Cambridge Scholars Publishing, UK
3.	Kumar, S., Saini, N., Sujata, Yadav, A., Sharma, A., Deepak, B., Mona S.	Algae for Wastewater Treatment: An Integrated Approach for Circular Biorefinery.	Integrated Waste Management: The Circular Economy. Publisher	ISBN: 978-1-5275-9461-6	2023	Cambridge Scholars Publishing, UK
4.	Singh R., Bhateria, R., Mona, S.	Nanotechnology-Based Remediation Techniques to Eliminate Heavy Metal Pollutants from Wastewater.	The Handbook of Emerging Technologies in Wastewater Treatment (Ed. Maulin P. Shah).	ISBN9781003164982	2023	CRC Press, Taylor & Francis, Boca Raton
5.	Bhateria, R., Mona, S., Sharma, Y.	Green Synthesized Iron Nanoparticles for Environmental Management: Minimizing Material and Energy Inputs.	The Handbook of Environmental Chemistry.	Electronic ISBN 1616-864X Print ISBN 1867-979X	2023	Springer, Berlin, Heidelberg

6.	Saini, N., Kumar, S., Deepak, B., Mona, S.	High-Throughput Sequencing Technologies in Metagenomics: Advanced Approaches for Algal Research	Omics Insights in Environmental Bioremediation	ISBN. 9789811943195	2022	Springer Nature Singapore
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XI (b) Research Papers/ Publications

S No	Authors	Year	Title of paper	Name of journal	Publishers	Vol .& No.	Pages	SCI/ Scopus (Yes/No)	Impact factor
1	Manmohan Lal, Praveen Sharma, Chhotu Ram	2023	Optical, structural properties and photocatalytic potential of Nd-ZnO nanoparticles synthesized by hydrothermal method	Results in Optics	Elsevier		100371	Yes	
2	Manmohan Lal, Praveen Sharma, Lakhvinder Singh, Chhotu Ram	2023	Photocatalytic degradation of hazardous Rhodamine B dye using sol-gel mediated ultrasonic hydrothermal synthesized of ZnO nanoparticles	Results in Engineering	Elsevier	15	100308	Yes	5
3	Monika Barala, Jyoti Jaglan, Devendra Mohan, Sujata Sanghi, Parveen Sharma	2023	Optical and Dispersion Energy Parameters of PS/Ag Nanocomposite Foils and Their Antibacterial Activity Against MDR Bacteria	Brazilian Journal of Physics	Springer US	53	1-14	Yes	1.6
4	Jyoti Jaglan, Andrew C Singer, Praveen Sharma, Savita Jaglan	2022	Tinospora cordifolia-leaves aqueous extract biocidal activity on gram-negative bacteria	GSC Biological and Pharmaceutical Sciences	GSC Online Press	19	5-8		6.25

5	Mandeep Kaur, Santosh Kumari, Praveen Sharma	2022	Response surface methodology adhering central composite design for the optimization of Zn (II) adsorption using rice husk nanoadsorbent	Chemical Physics Letters	North-Holland		139684	Yes	2.8
6	Manmohan Lal, Praveen Sharma, Chhotu Ram	2022	Synthesis and photocatalytic potential of Nd-doped TiO ₂ under UV and solar light irradiation using a sol-gel ultrasonication method	Results in Materials	Elsevier	15	100308		
7	Neha, Nisha sethi, Sangita yadav, Subhash Chander, Sweta Kumari, Ankur and Asha Gupta	2023	Evaluation of lipase from an indigenous isolated <i>Bacillus</i> strain for biodiesel production	Nature Environment and Pollution Technology	Technoscience Publications	Vol. 22 & No.	1319-1330	YES	0.74
8	Sangita yadav, Subhash chander, Neha, Sweta kumara, Ankur and Asha Gupta	2023	Removal of indigo blue dye using iron oxide nanoparticles via Taguchi method	Oriental journal of chemistry		Vol. 39 & No. 2	364-371	Yes	0.5
9	Sangita yadav, Sunita Punia, Hardeep rai sharma, Asha Gupta	2023	Nano-remediation for the decolourisation of textile effluents: A review	Nanofabrication		Vol. 7	217-243	no	
10	Kulbir Singh, Rajesh Kumar Lohchab, Mikhlesh Kumari	2022	Impregnation of zinc oxide nanoparticles on activated carbon synthesised from corncob for appraisal of leachate chemical	International Journal of Environmental Analytical Chemistry	Taylor & Francis		1-24	Yes	2.731

			oxygen demand removal potential						
11	Kulbir Singh, Rajesh Kumar Lohchab, Paramjeet Dhull, Priti Kumari, Vishu Choudhary, Jyoti Bala	2022	Solid Wastes Generation at Various Zones of Universities Campus: Characterisation and its management Approaches	Pollution Research	EM International	41,2	557-568	Yes	0.18
12	Mikhlesh Kumari, Rajesh Kumar Lohchab, Kulbir Singh, Paramjeet Dhull, A.K. Haritash	2023	Sustainable Green Approach of Silica Nanoparticle Synthesis Using an Agro-waste Rice Husk	Nature Environment and Pollution Technology	Technoscience Publications	22,1	477-487	Yes	0.169
13	Kulbir Singh, Rajesh Kumar Lohchab, Mikhlesh Kumari, Anil Nain	2023	Evaluation of Dynamic Characteristics and Contemporary Management of Institutional Solid Wastes	International Journal of Environmental Analytical Chemistry	Taylor & Francis		1-2	Yes	2.731
14	Paramjeet Dhull, Rajesh Kumar Lohchab, Mikhlesh Kumari, Sachin Kumar, Shaloo, Anil Kumar Bhankhar	2023	Anaerobic Digestion: Advance Techniques for Enhanced Biomethane/Biogas Production as a Source of Renewable Energy	Bioenergy Research	Springer		1-22	Yes	3.852
15	Mandeep Kaur, Jitender Pal	2023	Evaluation of efficiency of Wheat straw nanocellulose as nanoadsorbent for the removal of divalent copper, lead	Carbohydrate Polymer Technologies and Applications	Elsevier	6	100350	yes	5.8

			and zinc from aqueous solution						
16	Pooja Ranwala, · Jitender Pal, · Vinod Kumar Garg, · Shakuntala Rani	2023	Synthesis of nanocellulose for the removal of naphthalene from simulated wastewater	Chemical Papers	Springer	doi.org/10.1007/s11696-023-02919-9		yes	2.2
17	Savita Sihag, Jitender Pal	2023	Synthesis and characterization of zinc oxide nanocomposite for fluoride ion removal from aqueous solution	Environmental Monitoring Assessment	Springer	195		yes	3.0
18	Savita Sihag, Jitender Pal	2023	Adsorption of fluoride ions from aqueous solution by rice husk based nanocellulose	Advances in Environmental Technology.	Iranian Association of Chemicals Engineers	9(3)	194-214	yes	0.12
19	Sharma, M., Sujata, S., Bansal, D., & Kaushik, P.	2023	Mini Review on the Potential of Algal Biosensors in Wastewater Monitoring.	Nanoscience & Nanotechnology-Asia		13(4)	24-27	YES	
20	Sharma, A. Pal, K., Saini, N., Kumar, S., Deepak, B., Mona, S.*	2023	Remediation of contaminants from wastewater using algal nanoparticles via green chemistry approach: An organized review	Nanotechnology				YES	
21	Sahil Mor · Khaiwal Ravindra · Santosh Bhukal · Veenu Mor · Narsi Ram Bishnoi	2023	Evaluation of Public Perception About Sustainable Crop Residue	Water Air Soil Pollution	Springer	233	233-277 234:184	Yes	2.9

			Management Practices and Health Effects in Haryana” India						
22	Karmjeet Nain, Divya Dhillayan, Shafla Bansal, Qudrat Hundal, Priya Saharan, Santosh Bhukal*	2023	Adsorption potential of ionic liquid-modified ZnO nanoparticles for highly efficient removal of azo dye: detailed isotherms and kinetic	Environmental Science and Pollution Research	Springer		1-17	Yes	5.8
23	Rishi Mittal, Anuj Sharma, Abhishek Kumar Bhardwaj, Rachna Bhateria, Shafila Bansal, Rajiv Kashyap, Santosh Bhukal	2023	Removal of chromium (VI) using <i>spirulina</i> assisted synthesized mesoporous iron oxide nanoparticles	Inorganic Chemistry Communications		154	110 881	Yes	3.8
24	Santosh Bhukal, Anuj Sharma, Rishi, Divya, Sumit Kumar, Bansal Deepak, Kaushik Pal, Sharma Mona	2022	Spirulina Based Iron Oxide Nanoparticles for Adsorptive Removal of Crystal Violet Dye	Topics in Catalysis				Yes	2.9
25	S Mor, Santosh Bhukal, Narsi Ram Bishnoi,	2022	Crop Residue Burning: Impacts, Management Techniques and Policies	Annals Of Biology				Yes	
26	Sahil Mor, Santosh Bhukal, Narsi Ram Bishnoi & Khaiwal Ravindra	2022	Diurnal Variations in the Air Pollutants Concentration over Haryana, India, and Understanding their Emission Sources	Water, Air, & Soil Pollution		233		Yes	

27	S Mor, T Singh, NR Bishnoi, S Bhukal, K Ravindra	2022	Understanding seasonal variation in ambient air quality and its relationship with crop residue burning activities in an agrarian state of India	Environmental Science and Pollution Research, 1-14		29	4145–4158	Yes	4.3
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(XII) Participation of faculty in Seminars/Conferences/Workshops/Webinars and Refresher Courses etc. during the period

(a) Total Number of Seminars/Conferences attended by faculty and papers presented

Positions	Attended			Papers presented		
	International	National	Total	International	National	Total
Professors, Associate Professors & Assistant Professors	08	02	10	08	02	10

(b) International Conferences/ Seminars/ Workshops/Webinars

Name of the Teacher/Faculty	Title of paper presented	Theme of conference/Seminar/Workshop	Name of Host organization	Place	Dates/Duration	Funded by UGC/DST/CSIR/AICTE/University
Prof. Asha Gupta	Microbial reduction of graphene oxide: A green chemistry approach	In international conference on Recent advances in Green and Sustainable chemistry (ICRAGSC)	Maharaja Agrasen University	Solan, HP	22 Dec. 2022	-
Dr. Anu Gupta	Synthesis and Characterization of nano adsorbent from Neem Leaf (Azadirachta Indica) adsorbent	International Conference on "Frontiers in Energy, Environment and Material Sciences for Sustainable Development (FEEMSSD)	Madan Mohan Malaviya University of Technology (MMMUT)	Gorakhpur, Uttar Pradesh (India).	16-17 March 2023	
Dr. Anu Gupta	Engineering Education During Pandemic: Psychological Challenges And Best Practices	4th APSPA International Conference	Central University of Haryana,	Mahendergarh	15-16th March, 2023,	

Dr. Mona Sharma	Advances in Algal Research	Advances in Algal Research	IIT Guwahati	IIT Guwahati	June 12-14, 2023	University
Dr. Mona Sharma	Photobiological hydrogen production and bioremediation of emerging contaminants: An Integrated Approach	Characterization and quantification of emerging contaminants	Department of Biosciences and Biomeical Engineering Indian Institute of	IIT, Indore	6-10 February, 2023	University

			Technology, Indore			
Dr Mona Sharma	Earth Observation (EO) and Future Earth”	International Geographical Union (IGU) Thematic Conference	Department of Geography, Central university of Haryana, Mahendergarh, India	Central university of Haryana, Mahendergarh, India	November 24-25, 2022	
Dr Mona Sharma	Humanities and Biodiversity Conservation”	International Geographical Union (IGU) Thematic Conference	Department of Geography, Central university of Haryana, Mahendergarh, India	Department of Geography, Central university of Haryana, Mahendergarh, India	November 24-25, 2022	
Dr Mona Sharma	Potential Role of Algae in minimizing the increased atmospheric CO ₂	International Geographical Union (IGU) Thematic Conference	Department of Geography, Central university of Haryana, Mahendergarh, India	Department of Geography, Central university of Haryana, Mahendergarh, India	November 24-25, 2022	

(c) National Conferences/ Seminars/ Workshops

Name of Teacher/ Faculty	Title of paper presented	Theme of conference/ Seminar	Name of Host organization	Place	Dates/ Duration	Funded by UGC/DST/ CSIR/ AICTE/University
Anu Gupta	Development of Rice Husk Reinforced polymer composites for infrastructural application	National Conference on Atmanirbhar Bharat: A Vibrant Growth in Indian Economy,	TITS	Bhiwani ,	March 24-25, 2023	
Santosh Bhukal	“Sustainable approach for green synthesis of Mesoporous Nanoparticle using <i>Spirulina</i> (microalgae) for adsorptive removal of Chromium”	“Sustainable approach for green synthesis of Mesoporous Nanoparticle using <i>Spirulina</i> (microalgae) for adsorptive removal of Chromium”	Indian Institute of Technology Gandhinagar (IITGN) and Gujarat Ecological Education and Research (GEER) Foundation, Gandhinagar.	Gujarat	16-20 January 2023	

(d) Regional/ State Level Conferences/ Seminars/ Workshops:

Name of Teacher/Faculty	Title of paper presented	Theme of Conference/Seminar	Name of Host organization	Place	Dates/Duration	Funded by UGC/DST/CSIR/ AICTE/ University
	TOTAL					

(e) Orientation Courses/Refresher courses

(f) National/International Webinars Attended

Name of Teacher/Faculty	Title of Webinar	Host organization	Date
Anu Gupta	FDP on Characterization of nano-materials and applications	NITTTR, Chandigarh	22.05.2023 - 26.05.2023
Dr Mona Sharma	Seminar BHARAT@75: SOCIAL, ECONOMIC, POLITICAL, AND CULTURAL DIMENSIONS	Central University of Haryana.	9-19 September 2022

(g) Total number of Oriented Courses attended:

- i) Oriented Courses/Refresher Courses :00
- ii) Webinars :02
- iii) Total :00

(XIII) Association with National and State Level Bodies (Give teacher-wise details)

I. Any other

(XIV) Detail of Consultancy Project/Work in Department: -NA

Name of Teacher	Title of the project/work	Name of Agency	Total Amount

(XV) Lectures (other than class) delivered (Give teacher wise detail)

Type	Faculty	Topic/ Subject	Institution	Dates
Invited talk delivered in refresher courses				

Extension lectures				
Any other				

XVI) Additional Duties Performed/Positions held in the University (Teacher-wise)

Sr. No.	Name of Teacher	Additional Positions	Duration From To
1	Prof. Praveen Sharma	Dean International Student	2022
2.	Prof. Asha Gupta	Dean Faculty of FBEST, Chairperson, Deptt. of Civil Engg.	2022, 2019-Till date
3.	Prof. Rajesh Kumar	Chairperson, Deptt. of ESE	2020-Till date
4.	Dr. Anu Gupta	Coordinator, GH-II, Girls Hostel	Oct, 2018- Till date
6.	Dr. Santosh Bhukal	Village Programme Officer under "Swachh Bharat Swasth Bharat" scheme.	2018 Till date

(XVII) Training/Internship& Placement activity Information of the Department: Nil

Activity (Training/Internship /Placement)	No. of Students placed	No. of Companies in which placed*

*Note:- Please attach a list of companies along with number of students placed and dates of placement.

(XVIII) Detail of Academic Activities/Professional Activities/ Programmes Organized in Department during the year:

i. Seminar /Conference/Refreshers course/Workshop/Training Programme/webinar

Name of the Event	National/ International	Number of Participants	Duration	Dates of the Event
Ozone day celebration	Webinar	70	1 day	16 Sept 2022

ii. Extension lecture: (with resource person & date): Nil

iii. Students tour Nil

Places Visited	Number of Participants	Duration	Dates of the Event

iv. Industry interaction programs: (with name of company & date): NA

Name of the Event	Name of the Industry	Number of Participants	Duration	Dates of the Event

(XIX) Awards/ Honours received by Faculty (Give teacher-wise details about title of award, awarding agency and date of conferment): -Nil

(XX) Any other important Information/ Achievement of the Department

Signature of the Chairperson