Resume

Name : **Dr. Mamta Awasthi**

Designation : Assistant Professor

Department : Centre for Energy Studies

Qualification : PhD

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Other Profile Links

Research Gate Link :

Personal Web Link :

Google Scholar Link :

Research Profile

Research Interests : Biofuels, Bioenergy, Bioremediation, Environmental Microbiology, Phycology, Ecology, Environmental Management, Water pollution studies

Brief Research Profile : Interdisciplinary Interest in Biological solution to the environmental problems and Energy generation, Multidisciplinary approach is must for complete remedy of any research problem. Bioengineering is still an unexplored area for most of the engineering background students and therefore the gap should be fulfilled for the betterment of the human society.

Qualification

Name of the Degree	Year Of Passing	Institute/University
PhD	1995	Banaras Hindu University
Post graduation	1990	Banaras Hindu University
Graduation	1988	Banaras Hindu University

Publications

Year	Journal	Publication	Indexed In
1998	Electromagnetic Biology and Medicine (earlier Electro- and Magnetobiology), USA	Physiological responses of the cyanobacterium Anacystis nidulans to a magnetic field.17,145-160 (1998)	SCI
2004	International Journal of Algae(Scopus)	Heavy metal toxicity on nitrate reductase activity of free and immobilized algal cells.6 (2) (2004)	Scopus
2004	Clean- Soil, Air and Water (Earlier Acta Hydrochim. Hydrobiol.,Germany	Effect of nickel and cadmium on ammonium uptake kinetics of free and immobilized cells of Anacystis nidulans. 32(2) (2004)	SCI
2005	Algological Studies(Archive fur hydrobiologia)	Impact of Ni, Zn and Cd on growth rate, photosynthetic activity, nitrate reductase and alkaline phosphatase activity of free and immobilized Scenedesmus quadricauda. Awasthi, M. and Das, D.N. Algological Studies(Archive fur hydrobiologia) (Scopus) 115 (2005) 53-64 115 (2005)	Scopus
2006	Research Journal of Chemistry and Environment	Seasonal Algal Analysis from the Fish-gut Tested in the Rice-fish Cropping System 10 (2006)	Scopus
2006	Clean -Soil ,Air and Water (Earlier Acta Hydrochim. Hydrobiol.)	Interactions between Zinc and Cadmium Uptake by Free and Immobilized Cells of Scenedesmus quadricauda (Turp.) Breb. 34 (2006)	SCI
2004	Annals of microbiology, Italy	Adsorption of nickel, zinc and cadmium by immobilized green algae and cyanobacteria: a comparative study.54(3) (2004)	SCI
2005	Annals of microbiology (SCI)	Heavy metal stress on growth, photosynthesis and enzymatic activities of free and immobilized Chlorella vulgaris.	SCI
2005	Ecotoxicology and Environmental Safety	Toxicity of Nickel, Zinc and Cadmium to nitrate uptake in free and immobilized cells of Scenedesmus quadricauda.62(2) (2005)	SCI
2005	International J of environmental Science and Technology	Nitrate reductase activity: a solution to nitrate problems tested in free and immobilized algal cells in presence of heavy metals.,2 (2005)	SCI
2006	International J of environmental Science and Technology	Qualitative algal analysis from the fish-gut: tested in the rice-fish cropping system Supplement 3 (1) (2006)	SCI
2012	J. Mater. Environ. Sci.	Relevance of Alkaline Phosphatase activity of immobilized green and cyanobacteria for heavy metal toxicity monitoring Awasthi, M. J. Mater. Environ. Sci. (Scopus) 3 (3) (2012)	Scopus
2013	International Journal of Applied Engineering Research	Saccharification of Banana Peels for Ethanol Production,8 (12) (2013)	Scopus
2015	International Journal of Bio-Science and Bio-Technology	Optimization and validation of microalgal growth condition by response surface methodology (RSM)Vol.7,No.1, 2015	Scopus
2019	Research Journal of Chemistry and Environment	Potential of Cordia Obliqua for turbidity removal in potable water, Vol 23(8)	Scopus
2020	Research Journal of Chemistry and Environment	Effect of heavy metals interaction with ammonium on growth behavior of C.vulgaris, 24(3)	Scopus
2020	Pollution	Study on an Existing PV/Wind Hybrid System Using Biomass Gasifier for Energy Generation, 6(2)	Scopus
2020	International Journal of Sustainable Energy Planning and Management	Study of grid integrated biomass-based hybrid renewable energy systems for Himalayan terrain.	Scopus

Year	Journal	Publication	Indexed In
2021	International Journal of Energy Research, Wiley	Biomass-based gaseous fuel for hybrid renewable energy systems: an overview and future research opportunities. Int J Energy Res. 2020;1–31. https://doi.org/10.1002/er.6061 (SCI Indexed), Impact factor:3.741	SCI
2021	International Journal of Energy and Environmental Engineering, Springer	Techno-economic analysis of decentralized biomass energy system and CO2 reduction in the Himalayan region https://link.springer.com/article/10.1007/s40095-020-00370-0, IF:1.87	SCI
2021	Sustainable Energy Technologies and Assessments, Elsevier	Techno-economic and Environmental analysis of biomass-based hybrid energy systems: A Case study of a Western Himalayan State in India ,Sustainable Energy Technologies and Assessments, Elsevier, SCI indexed, Impact Factor: 3.427 (Accepted)	SCI
2021	International Journal of Algae	Distribution of phytoplankton and periphyton in the shallow Rice-fish fields of Arunachal Pradesh, India	Scopus
2019	In 2019 8th International Conference on Power Systems (ICPS)	Analysis of sensitive parameters influencing a SPV/WT/Biomass/Battery based hybrid system.	scopus

Edited Book/Book Chapter

Type	Title	Publisher	Authors	ISBN/ISSN No.	Year
Book chapter	The Potential of Biogas Production Through Anaerobic Digestion of Algae (Chapter 7) Awasthi, M. and Vivek Prakash Pankaj Thomas G. Fraser (ed.), Publisher: DK Printworld (P) Ltd. (2013) ISBN 10: 8192570207 - ISBN 13: 9788192570204 - 2013 5	Thomas G. Fraser (ed.), Publisher: DK Printworld (P) Ltd. (2013)	Awasthi, M. and Vivek Prakash Pankaj	ISBN 10: 8192570207 - ISBN 13: 9788192570204 - 2013	2013
Book chapter	The potential of algal species for integrated biofuel production and its applications Pgs 294 Vivek Prakash Pankaj and Mamta Awasthi Edited by SACHIN KUMAR, S.K. TYAGI, © Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala-2013 E-version published by SSS-NIRE. (2013) ISBN 978-81-92709--1-0, 2013 5	Edited by SACHIN KUMAR, S.K. TYAGI, © Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala-2013 E-version published by SSS-NIRE. (2013)	Vivek Prakash Pankaj and Mamta Awasthi	ISBN 978-81-927097-1-0, 2013	2013
Book chapter	Factors influencing algal growth Energy, Kapurthala-2013 Electronic version published by SSS-NIRE	Edited by SACHIN KUMAR, S.K. TYAGI, © Sardar Swaran Singh National Institute of 5Renewable Energy, K5apurthala-2013 E version published by SSS-NIRE. (2013)	Jeewan Jyoti and Mamta Awasthi	ISBN 978-81-927097-1-0	2013
Book chapter	Biogas Plants in Hamirpur District of Himachal Pradesh: Successes And Setbacks Pg 183	Publishers: Agrobios International Editors R.KBehl, R.N.Chhibar, S.Jain,V.P.Bahl,N.El Bassam (2013)	Mamta Awasthi and Kavinder patial	ISBN No.: 978-93-811-1-01-9	2013
Book chapter	Nickel-induced inhibition of phosphate-uptake in Anacystis nidulans: A comparative study between the kinetics of free and immobilized cells, pgs109- 116	Dwivedi, Brijesh Kant, ed , Publisher: Allahabad Bioved Research Society 1999	Awasthi, M.	ISBN 8185722161, 9788185722160	1999
Book chapter	Techno-Economic and Environmental Evaluation of Producer Gas-Based IC Engine in a Hybrid Energy System IN:Alternative Fuels and Advanced Combustion Techniques as Sustainable Solutions for Internal Combustion Engines	Akhilendra Pratap Singh, Dhananjay Kumar, Avinash Kumar Agarwal Publisher: Springer Nature	Prashant Mallick and Mamta Awasthi	print ISBN: 978-981--6-1512-2, Electronic ISBN: 978-981-16-1513-9	2021

Research Projects

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Investigator	Post-doctoral research project	Feeding behavior of common carp (Cyprinus Carpio.L) and algal feed availability in high altitude Rice-fish culture system	CSIR	01/02/2002	30/07/2006	7 lakh	completed	Prof DN Das

Research Supervision

Programme Name	Scholar Name	Research Topic	Status	Year	Co-Superivisor
Ph.D	Dr Vivek Prakash Pankaj	Isolation and Identification of Indigenous Microalgae for Biofuel production in Hamirpur (H.P)	completed	2016	-
Ph.D	Dr Amit Yadav	Solar radiation prediction using artificial neural network	completed	2015	Prof SS Chandel
Ph.D	Dr Sunanda Ganguli	Study of photovoltaic wind based hybrid power generation systems in western himalayan terrain	completed	2016	Prof SS chandel
Ph.D	Prashant Malik	Techno-economic analysis of solar-biomass hybrid system	Ongoing	2018	-
Ph.D	Kumar vaibhav	Analysis of Existing E-waste Disposal in Indian Scenario & System Dynamics modelling for sustainable disposal	Ongoing	2019	-
M.Tech	Kavinder Patial	Constructional and Operational Study of Biogas Plant in Hamirpur District.	completed	2012	-
M.Tech	Vineeta Bharti	Pine needle briquetting in Hamirpur	completed	2012	-
M.Tech	Shiwali Rana	Pretreatment for Ethanol production through banana peel	completed	2013	-
M.Tech	Jot sindhu	Ethanol production through water hyacinth	completed	2013	-
M.Tech	Karishma Rani	Biogasification of rice husk	completed	2013	-
M.Tech	Ankush Gaur	Green IT Policy	completed	2015	Dr Rajiv, CSE
M.Tech	Gopesh Tiwari	Power production through biogas: A case study	completed	2015	-
M.Tech	Manish	Economical Algal bioreactor fabrication in laboratory	completed	2016	-
M.Tech	Satyaprakash	Design of algal photobioreactor for inoculum development	completed	2016	-
M.Tech	Esther	Decentrallized Composting for hamirpur	completed	2016	-
M.Tech	Harshit Tyagi	Life cycle assessment of water treatment plant	completed	2017	-
M.Tech	Amit	Electrochemical Treatment of Wastewater from in and around Hospital Area	completed	2017	-
M.Tech	Sarabjeet chawla	Effect on groundwater by landfill in ludhiana	completed	2017	-

Programme Name	Scholar Name	Research Topic	Status	Year	Co-Superivisor
M.Tech	Manu Sharma	A study on preparation and dissemination of compost through urban solid waste	completed	2017	-
M.Tech	Monika Dubey	Photo Fenton process for treatment of landfill leachate	completed	2017	-
M.Tech	G Yagneshwar Rao	Microbial Fuel cell for wastewater treatment and power generation	completed	2017	-
M.Tech	Arunjyoti	Performance analysis of Solar power plant	completed	2017	-
M.Tech	Gaurav Joshi	Performance Analysis Of Evacuated Solar Water Heater	completed	2017	-
M.Tech	Hans	Biodiesel production and engine efficiency	completed	2017	-
M.Tech	Deepak Arya	Decolorization of Synthetic Dyes using mono and mixed culture technique	completed	2018	-
M.Tech	Vivek Agrawal	Potential of Cordia obliqua and Tradescantia pallida in Turbidity removal of Surface Water	completed	2018	-
M.Tech	Sachin Kumar Singh	Analysis of Food Waste Utilization in NIT Hamirpur	completed	2018	-
M.Tech	Sandeep Kumar	Analysis of Phosphate removal using Ca(OH)2 Modified Zeolite based Adsorbents	completed	2018	-
M.Tech	Neha Mishra	Performance of Algal Assisted Microbial Fuel Cell Generating Electricity from Wastewater	completed	2018	-
M.Tech	Pradeep Kumar	Developing a Low Cost water Purifier for Non-Industrial region and Industrial region, India	completed	2018	-
M.Tech	CH Vikram	Power Quality Improvement for Single-Phase Grid Connected Small-Scale WECS	completed	2018	-
M.Tech	Aditya Ushara	Energy and Cost Analysis for Efficient Mushroom Cultivation: A Case Study	completed	2018	-
M.Tech	Jitendra Yadav	Economically Feasible Processing of Algae for Biofuel Production	completed	2018	-
M.Tech	Faisal Ali	Evaluation of Aloe vera gel as flocculant for harvesting microalgae Chlorella vulgaris	completed	2018	-
M.Tech	Anoop Panwar	Phosphorus recovery in the form of struvite from urine	completed	2019	-
M.Tech	Kumar Vaibhav	Vermicompost as a Waste Management Technique for Organic Fraction of Municipal Solid Waste	completed	2019	-
M.Tech	Aftab Hussain	Plastic Waste Generation, Composition And Potential For Recycling In South Dehli, India	completed	2019	-
M.Tech	Prakhar Prakash	Cost Effective Ettringite Precipitation & Removal Efficiency of Sulphate from Municipal Wastewater	completed	2019	-
M.Tech	Bindu	Efficiency of Waste Tea Leaves and Grounded Pine Cone as Bio-adsorbent for Iron Removal	completed	2019	-
M.Tech	Vishakha	Photocatalytic Degradation of Congo Red Dye by Iron Doped Titanium Dioxide Nanoparticles	completed	2019	-
M.Tech	Deepa	Analysis of ammonia removal using Zeolite as Adsorbent	completed	2019	-
M.Tech	Rahul	Impact of Fins on Solar Distillation	completed	2019	-
M.Tech	Ashwini	Analysis of Indirect Solar Dryer with Phase Change Material	completed	2019	-
M.Tech	Priyashree	Performance Evaluation of Electrocoagulation Treatment for Dairy Wastewater	completed	2019	-
M.Tech	Shashank Shrinit	Recovery of phosphorus through vivianite crystallization formation from wastewater treatment processes.	completed	2020	-
M.Tech	Ankita Soni	Fluoride removal using Pine cone biochar and Banana Peel Dust	completed	2020	-
M.Tech	Rahul Singh	CHARACTERIZATION OF PINE BIOCHAR	completed	2020	-
M.Tech	Ashok Kumar	Potential of Natural Coagulants used for Turbidity	completed	2020	-
M.Tech	Aditya Harsh	Removal of Colour from Water using Natural Coagulants	completed	2020	-
M.Tech	Tushar Moten	Comparative analysis between Moving Bed Biofilm Reactor and Activated Sludge system for the treatment of Pulp and Paper mill effluent	completed	2021	
M.Tech	Shubham ketan sharma	Hydrometallurgical Leaching of Copper from Waste Printed Circuit Boards	completed	2021	
M.Tech	Musavir rafiq	Estimation of waste mobile phones and personal computers: A case study of NIT Hamirpur	completed	2021	
M.Tech	Zahid Ibrahim baige	Analysis of e-waste generation and flow pattern study in Kashmir	completed	2021	

Patents

Name	Reg./Ref.No.	Date Of Award/Filling	Organization	Status

Teaching

Programme Name	Subjects Taught	From	To	Credits
Assistant Professor	CEEE	24/06/2009		12yrs
Lecturer	BIET, Lucknow	01/05/2008	31/07/2009	1yr
Lecturer	IET, Lucknow	01/07/2007	30/06/2008	1yr
Post-doctoral Fellow	CSIR (Direct), RGU, Itanagar	01/01/2002	31/07/2006	5yrs
SRF	GATE, BHU, Varanasi	01/01/1996	30/11/1997	2 yrs

Administrative Responsibilities

Position Held	Organization	From	To	Remarks
Warden	Ambika Girls Hostel ,NITH	01/07/2011	30/06/2013	30
Warden	Aravali Girls Hostel, NITH	01/07/2017	01/01/2019	06
Warden	PGH Girls Hostel, NITH	01/01/2019	30/11/2020	2013,01
Convener (DUGC)-Faculty in charge	CEEE NITH	01/01/2014	31/03/2020	01
Library-in-charge	CEEE NITH	01/07/2010	31/05/2020	2019,30
FI, Green and Clean campur	NITH	21/06/2021		11
FI, Newsletter Magzine	NITH	01/07/2020		2020,31
Nodal Officer, Swachh Bharat Abhiyan	NITH	01/05/2019		03

Expert Talks

Title	Place	Year	Description

Professional Activities

Name of Activity	Role	Duration	Organization

Courses Organized

Category	Type	Title	Venue	From	To	Designation

Date :

Place :

Signature