



- 1) Name (in Block Letters) : **Prof. DR.NIRMAL KUMAR,J.I. Ph.D** ; FNEA,AFGSA
- 2) Father's Name/Mother's Name : Late Kruparao J
- 3) Date of Birth : 15-07-1964
- 4) Sex (Gender) : Male
- 5) Marital Status : Married
- 6) Nationality : Indian
- 7) Name of the employer :Institute of Science and Technology for Advanced Studies and Research (ISTAR), Vallabh Vidyanagar-388 120
- 8) a) Designation : Former Principal and Professor
b) Last Basic pay and scale (including grade pay): 37600-10000 -67000 +AGP Scale Rs. 60,500/- (Basic), Rs. 1,73,530/- (Gross)
- 9) Address for correspondence (with Pin code): Ashirwad, 5B, Vaibhav Society, Nr. Muslim Hostel, Vallabh Vidya Nagar-388 120, Anand
Mobile No. : 9825968242
Website : <http://nirmalkumarji.in/>
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: nirmalkumar@istar.edu.in

A. Educational Qualifications:

Class	Board/ University	Year of Passing	Division /Class	Percent	Subject-Science
HSC	Interme. Board, Hyd	1981	First	83%	B,Z,C,P
B.Sc.	Andhra University	1984	First	72%	B,Z,C
M.Sc.	Bhopal University	1986	First	62.5%	Botany- Plant Physiology
Ph.D.	Sardar Patel University, Gujarat	1990	Awarded		Botany- Ecology & Environ.
Researcher	Center for Ecological Sciences, Indian Institute of Sciences, Bangalore	1994-96	-	-	Western Ghats Biodiversity Network & PBR

Ph.D Thesis Entitled :Ecological Studies of Certain ponds with reference to Eutrophication and Weed growth in and around Anand, Gujarat, From Sardar Patel University, Gujarat.

Teaching Experience : Total 31 Years

(ii) Posts Held:

Designation	Organization / Institution / Department	Date of Joining		Salary with Grade Pay
		From	To	
Lecturer	P.G. Department of Botany, Jai Hind College, Deopur, Dhule, M.S., India	July, 1991	May 1996	Rs. 2200-75- 2800-100-4000 Pay Scale Gross 6000/-
Head and Selection grade (Reader)	Department of Biosciences, NVPAS College, Vallabh Vidyanagar, 388120, Gujarat, India	June, 1996	May, 2005	Rs. 10000/- Basic in 8000-12000 Pay Scale Gross 40000/-
Reader and Head, EST ----- --- Professor and Head, EST	P.G. Department of Environmental Science and Technology, ISTAR, Vallabh Vidyanagar, 388120, Gujarat, India	June, 2005 ----- June, 2009		37400-10000-67000+AGP Gross 75000/- Approved Professor by Sardar Patel University letter 01/12/ 2009, NO. D/G/5488
Principal	ISTAR, Vallabh Vidyanagar, 388120	July, 2017	October, 2021	37600-10000 -67000 +AGP Scale Rs. 58,440/- Basic Rs. 1,73,530/- Gross
Professor and Head EST	ISTAR, Vallabh Vidyanagar, 388120	October, 2021 Onwards		37600-10000 -67000 +AGP Scale Rs. 60,500/- Basic Rs. 1,73,530/- Gross/

- 1) Recognized as a Student Inspirer in Science by Department of Science and Technology (DST), New Delhi. (www.inspire-dst.gov.in).

Worked under Prof. Madhav Gadgil, Head, Center for Ecological Sciences (CES), Indian Institute of Science (IISc), Bangalore, for 2 years (1994 to 1996) on “Biodiversity Inventory Network Program of Western Ghats of India” as Research Coordinator

During My Tenure As a Principal, ISTAR institute achieved many remarkable milestones and proved one of the brightest stars in the Galaxy of the Science and Technology, Education and uplifted to State and National level by acquired top rank in GSIRF and NIRF rankings <http://nirmalkumarji.in/> , <https://www.youtube.com/watch?v=vZBQVj96Xt0> , INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH (ISTAR) - Bing video

1. ISTAR ranked 1st Position in GSIRF ranking among all colleges in Gujarat, adjudged by KCG, Govt. of Gujarat, Ahmedabad for the year 2021.

2. ISTAR ranked 1st position in GSIRF ranking among all Engineering & Technology institutes of Gujarat, adjudged by KCG, Govt. of Gujarat, Ahmedabad for the year 2020.
3. ISTAR ranked 3rd position in GSIRF ranking among all colleges in Gujarat, adjudged by KCG, Govt. of Gujarat, Ahmedabad for the year 2019.
4. ISTAR ranked between 101-150 among all colleges in India, adjudged by NIRF, MHRD, New Delhi, for the year 2020.
5. ISTAR ranked between 151-200 among all colleges in India, adjudged by NIRF MHRD, New Delhi, for the year 2021.
6. ISTAR has also made many MoUs in various departments and conducted many Science and Technology oriented Webinars and Seminars.
7. Absolute University results with Distinctions followed by First classes in All M.Sc programs
8. Conducting Regular campus placements to all students of all courses every year for upliftment of students careers.
9. Impart quality education by conducting curricular, co-curricular and extracurricular activities.

B. Abroad Visits:

- a. I have presented a paper, entitled “Biomonitoring of selected freshwater macrophytes to assess lake trace element contamination: A case study of Nalsarovar Bird Sanctuary, Gujarat, India” in International conference on Environmental Science and Technology, at Houston, Texas, USA, 19-22 August, 2006.
- b. Laboratory visit and work shop on Phyto-remediation in Department of Earth and Environmental Sciences, University of Texas at San Antonio, Texas, USA, 23-25 August, 2006.
- c. Presented a paper entitled “Anthropogenic interventions of Nal Sarovar Bird Sanctuary, Gujarat, India” in International symposium on Wetlands 2006 at University of Michigan, Acme, Michigan, USA from 28-31 August, 2006 USA,
- d. Visited university of Cincinnati, Cincinnati, Ohio State, USA from 3rd to 5th October, 2007 and attended meeting on ‘Nano-Pollution and Toxicology’ and joint venture dealing with the Department of Environmental Science and Engineering for students and teacher exchange program.
- e. Visited North Carolina A&T State University, at Greensboro and Raleigh, USA for departmental collaborations as well as constructed wetland field from 8-10th October, 2007.
- f. Visited and delivered a lecture in Environmental Research Center, Missouri University of Science and Technology, Rolla, MO, USA from 23rd October to 06th November, 2011.
- g. Visited and interacted with Dr. Prasada Rao, Sr. Scientist, observed state-of-art facilities on toxicology US Environmental Protection Agency USEPA, Raleigh-Durham, NC, USA from 7th and 8th Nov. 2011.
- h. Visited and interacted with Prof. Susan Jannigs, Director, Department of Sustainable Development, Massachusetts University, Dartmouth, Boston, USA on 9th Nov. 2011.
- i. Visited and developed international joint venture research collaboration with National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan with Dr. Nobuyoshi Yamashita from 8th to 15th May, 2016.

C. International Collaborations -MoUs:

1. Visited and developed international joint venture research collaborations with Dr. Nobuyoshi Yamashita, Chief senior Research Scientist, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan, May, 2016 . Two of my Ph.D students pursued cutting edge of research work on Emerging Pollutants like Persistent Organic Pollutants, first of its kind in Gujarat and second effort in India, for three years in Japan on free of Cost.
2. Visited and Developed joint venture program between EST department, ISTAR and Department of Architectural and Environmental Engineering, Missouri University of Science and Technology, Missouri, USA, for students and faculty exchange (MoU) program from 11th January, 2013.
3. Visited and Developed joint venture program between EST department, ISTAR and Department of Civil and Environmental Engineering, University of Cincinnati, Cincinnati, Ohio, USA, for students and faculty exchange (MoU) program on 24th December, 2008

D. National Collaborations -MoU: For students training, project work and placements.

- Developed MoU with GUIDE, Bhuj, Kachchh, Gujarat
- Nandesari Industrial Association (NIA), Baroda
- Green Group of Industries, Baroda
- GUJCOST, Gandhinagar
- Voluntary Nature Club, Vallabh Vidyanagar.

E.Details of any Innovations / Unique Activity involved during Professional Career:

- ❖ Developed two new courses and departmental labs for B.Sc Environmental Science and Bio -Sciences (As A Head) in NVPAS College in the year 1996 and M.Sc Environmental Science and Technology(As a Head) in ISTAR (1999), Vallabh Vidya Nagar, Gujarat, first of its kind in the state of Gujarat.
- ❖ Pioneering in initiating the **GREEN AUDIT CELL, CVM (As a Coordinator)**,evaluating the educational institutions for Green Practices, Environmental and Sustainable ambience of institutions(as per the NAAC, MoEFCC, NCART) along with Gujarat Cleaner Production Cell (GCPC), Department of Industries and Mines, Govt. Of Gujarat, Gandhinagar from 2018 onwards, which is the first of its kind in the state of Gujarat. <http://greenaudit.ecvm.net/TEAM.html>

F.Memberships in Academic Organizations:

1. Member,American Chemical Society, 1155 Sixteenth Street, NW,Washington, DC,20036, USA, 2012 onwards.

2. Life member, The Indian Science Congress Association, 14, Dr.Biresw Guha Street, Kolkata 700 017 2005 onwards
3. Life member, National Environmental Science Academy (NESA), New Delhi 2016 onwards
4. Life member,Fellow, Gujarat Science Academy, Ahmedabad, Gujarat 2009 onwards
5. Life member , Fellow, National Environmental Association NEA, Ranchi, Jarkhand, 2011 onwards
6. Member, Western Ghats Ecology Experts Panel , Indian Institute of Sciences, Bangalore 1994-1999
7. Member, National institute of Ecology , Newdelhii, 2001-2005
8. Life member , Indian Association for Air Pollution Control , Baroda, India 2016 onwards
9. Life member , National Institute of Ecology (NIE), New Delhi. 2005 onwards
10. Chairman, Board of Biosciences, Sardar Patel University, Vallabh Vidyanagar, Gujarat 2001-2002
11. Member , Board of Bioscience, Sardar Patel University, Vallabh Vidyanagar, Gujarat 2000 till 2019.
12. Member, Faculty of Sciences, Sardar Patel University, Vallabh Vidyanagar, Gujarat 2000 till 2019.
13. Chairman , Board of Interdisciplinary The Charutar Vidya Mandal University , Vallabh Vidyanagar, Gujarat 2020-2022
14. Member , Faculty of Sciences, The Charutar Vidya Mandal University , Vallabh Vidyanagar, Gujarat 2020-2022

G.Editorial Board member:

- ✓ Associate editor Asian J of Environmental Science, Muzaffarnagar, 251 001, India. Executive council member, 2007-2010
- ✓ Associate editor International Journal of Pollution Research, EM international, Pune India Member in Editorial Board from Jan. 2008 -2012 onwards.
- ✓ Associate editor Editorial Board of the' International Journal of Nature, Environment and Pollution Technology Pune, M.S ,India from Jan. 2008 -2012onwards
- ✓ Associate editor International Biannual J of Environmental Sciences,THE ECOSCAN (ISSN: 0974-0376), NEA,Ranchi
- ✓ Associate editor Editorial Board of the' International Journal of Ecology, Environment and Conservation, EM International ,Pune India . for the year 2000 – 2002
- ✓ International Journal of Ecology and Environmental Sciences, NIE,New Delhi
- ✓ International Journal of Nature Conservation,
- ✓ International J Nature, Environment and Pollution Technology

H. Guide-ship:

- Recognized as P.G. teacher and Ph.D. Guide in the subject of Botany by S.P. University, Syndicate letter dated.15.5.1999.
- Recognized as Ph.D. Guide in the subject of Environmental Science by S.P. University in the State of Gujarat from 2002.

- Recognized as Ph.D. Guide in the subject of Biotechnology by S.P. University in the State of Gujarat –March, 2008.
- Recognized as Ph.D. Guide in the subject of Biotechnology and Environmental Science by CVM University in the State of Gujarat –March, 2020.

I.Areas of Research:

Air pollution, Green House Gas emissions and Global warming ,Climate change and mitigation measures, Biodiversity monitoring, Conservation, Restoration and Sustainable Development of Forest ecosystems,Wetlands ecosystems of Gujarat, Maharashtra and Rajasthan, Environmental pollution monitoring & Control technologies by Biodegradation process, Nanomaterials

Research Experience : 37 years

Research Paper Publications : 236

Books :22

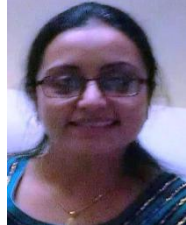
Ph.Ds. awarded : 19 (Nineteen) from Sardar Patel University

List of students with their topic and subject, received Ph.D under Prof. Dr. Nirmal Kumar, J.I.

Sr. No.	Name of Student	Title of the Thesis	Passing /Awarding Year	University
1	Dipaben Premchandbhai Lalwani, Environmental Science 	Occurrence And Distribution Of Emerging Pollutants In Different Environments And Biological Matrice	March, 2022	Sardar Patel University,Vallabh Vidyanagar, Anand.
2.	Dhruti Atulkumar Chokshi, Environmental Science 	Studies On Soil And Atmospheric Exchange Of Greenhouse Gas Emission, Ambient Air Quality Monitoring And Air Pollution Tolerance Index In Relation To Climatic Factors Of Different Habitats Of Central Gujarat, India	April, 2018	Sardar Patel University, Vallabh Vidyanagar, Anand .
3.	Hiralben Yashvantkumar Soni, Biotechnology 	Comparative Investigation On Synthesis, Characterization Of Metallic Nanoparticles And Their Applications In Dye Decolouration, Biocidal Activity And Abatement Of Pollutants From Industrial Effluents And Agriculture	August, 2017	Sardar Patel University, Vallabh Vidyanagar, Anand.

4.	Megha Hareshkumar Baraot, Environmental Science 	Studied On Biodiversity, Nutraceutical And Biofertilizer Properties Of Certain Seaweeds Of Eco-Sensitive Zone, Western India	September, 2017	Sardar Patel University, Vallabh Vidyanagar, Anand.
5.	Nidhi Rajeshkumar Parmar, Biotechnology 	Exploration Of Diet Dependent Shifts In Ruminal Microbes Of Indian Buffalo And Cattle Through Met Agenomic	August, 2016	Sardar Patel University, Vallabh Vidyanagar, Anand.
6.	Rohitkumar Bhoi, Botany 	Ecological Investigations Of Dry Tropical Forests Of Aravalli Hills At Udaipur And Bhilwara, Western India With Spatial Reference To Tree Diversity, Biomass And Nutrient Dynamic	September, 2016	Sardar Patel University, Vallabh Vidyanagar, Anand.
7.	Shamiyan Rahat Khan, Environmental Science 	An Evaluation Of Bioremediation Of Petrol, Kerosene And Diesel By Indigenous Fungal Bacteria Consortium And Their Deleterious Responses – <i>In Vitro</i> And <i>Ex Situ</i>	September. 2015	Sardar Patel University, Vallabh Vidyanagar, Anand.
8.	Jignasababen Girishchandra Patel, Biotechnology 	An Investigation Of Toxicological Effects And Bioremediation Of Model Polycyclic Aromatic Hydrocarbons – Anthracene And Pyrene On Cyanobacterial And Bacterial Consortium – <i>In Vitro</i> And <i>Ex Situ</i>	September. 2015	Sardar Patel University, Vallabh Vidyanagar, Anand.
9.	Kantilal Patel, Botany 	Structural And Functional Studies Of Dry Tropical Forest Of Western India With Reference To Plant Biodiversity, Biomass, Nutrient Dynamics And Carbon Sequestration	October, 2015	Sardar Patel University, Vallabh Vidyanagar, Anand.
10.	Yamini Varma, Environmental Science	Environmental Studies Of Two Tropical Wetlands	June, 2013	Sardar Patel University,

		Ecosystem In Relation To Abiotic And Biotic Components Of Central Gujarat, India		Vallabh Vidyanagar, Anand.
11.	Basil George, Botany 	Environmental Studies On Biotic Components In Relation To Nutrients Status Of Selected Sites Of Narmada And Tapi Estuaries, Gulf Of Khambhat, Gujarat, India	January, 2012	Sardar Patel University.
12.	Manmeet Kaur Amb, Botany 	An Investigation Of Differential Effects Of 2,4-D And Pencycuron On Three Species Of Cyanobacteria In-Vitro – A Biochemical And Molecular Approach	January, 2012	Sardar Patel University, Vallabh Vidyanagar, Anand.
13.	Anubhuti Anand Bora, Biotechnology 	Biochemical And Molecular Approaches To Investigation The Impact Of Endosulfan And Tebuconazole On The Three Species Of Cyanobacteria - <i>Anabaena Fertilissima</i> Rao, <i>Aulosira Fertilissima</i> Ghose And <i>Westiellopsis Prolifica</i> Janet.	February, 2012	Sardar Patel University, Vallabh Vidyanagar, Anand.
14.	Sajish P.R. Botany 	Am Assessment Of The Nutrient Profile And Biotic Components Of Mahi Estuary And Vamleshwar Mangrove Of Gulf Of Khambhat, Gujarat, India	June, 2012	Sardar Patel University, Vallabh Vidyanagar, Anand.
15.	Manishita Malay Das, Environmental Science 	Ecological Studies On Spatial And Temporal Pattern Of Hydro Geochemical Characteristics In Relation To Biotic Components Of Two Tropical Wetlands Of Central Gujarat, India	April, 2011	Sardar Patel University, Vallabh Vidyanagar, Anand.
16.	Cini Oommen, Botany	Pollution Studies Of Two Distinct Tropical Lentic Wetlands Of Central Gujarat With Reference To Spatial And Temporal Heterogeneity	May, 2011	Sardar Patel University Vallabh Vidyanagar, Anand.

		Of Biotic And Abiotic Components		
17.	Shailendrasinh Vijaysinh Viyol, Environmental Science 	Spatial And Temporal Variations Of Hydrogeochemical Properties In Relation To Biotic Components Of Two Permanent Tropical Estuaries Narmada And Tapi Of Gujarat, India	May, 2011	Sardar Patel University, Vallabh Vidyanagar, Anand.
18.	Hiren B. Soni, Environmental Science 	Environmental Studies Of Two Significant Wetlands Of Gujarat With Particular Reference To Eutrophication And Avifauna	November, 2007	Sardar Patel University Vallabh Vidyanagar, Anand.
19.	Bhatt Ira R. Environmental Science 	An Assessment Of Biochemical Response Of Cynobacteria To Toxic Pollutants From Industrial Wastewaters	April, 2006	Sardar Patel University Vallabh Vidyanagar, Anand.

ii. Ph.D. and M.Sc. students have received various prizes and awards under my guidance.

Sr. No.	Name of the Ph.D. Students	Name of the Guide	Prize	Events (Seminar/Symposium/Workshop)	Date
1	Ms. Jignasha Patel	Prof. Dr.Nirmal Kumar	First	Science Excellence- 2014 Gujarat University, Ahmedabad	4th January, 2014
2	Ms. Shamiyan Khan	Prof. Dr.Nirmal Kumar	First	National seminar on Climate Change in Indian context MS. University Baroda.	14th December, 2013
		Prof. Dr.Nirmal Kumar	Best Paper Award	International Conference, Phuket, Thailand	June, 2015
3	Ms. Megha Barot	Prof. Dr.Nirmal Kumar	First	National seminar on Climate Change in Indian context MS. University Baroda.	14th December, 2013

		Prof. Dr.Nirmal Kumar	First	GUJCOST Sponsored National Level Symposium on “Clean Water for a Healthy World” MS. University Baroda.	10th March, 2014.
		Prof. Dr.Nirmal Kumar	First	Best Ph.D. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2020
4	Ms. Hiral Soni	Prof. Dr.Nirmal Kumar	First	Science Excellence- 2014 Gujarat University, Ahmedabad	4th January, 2014
		Prof. Dr.Nirmal Kumar	Third	GUJCOST Sponsored National Level Symposium on “Clean Water for a Healthy World” NV Patel Science college, SPU	10th March, 2014
		Prof. Dr.Nirmal Kumar	First	Poster Competition in International Conference “Waste to Wealth” at Vadodara	8 & 9 October, 2015
		Prof. Dr.Nirmal Kumar	First	Best Ph.D. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2018
5	Ms. Dhruti S. Patel	Prof. Dr.Nirmal Kumar	First	Best Ph.D. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2019
6	Ms. Mayuriaka Rohit	Prof. Dr.Nirmal Kumar	First	Best M.Sc. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2019
7	Ms. Shivani Patel	Prof. Dr.Nirmal Kumar	First	Best M.Sc. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2020
8	Ms. Deepa Lalwani	Prof. Dr.Nirmal Kumar	First	Poster Competition in “National Seminar on Climate Change”, Vadodara	August, 2018
9.	Mahisa Patel	Prof. Dr.Nirmal Kumar	II	Best M.Sc. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2021

iii. List M.Sc Dissertations / Thesis

1.	Rameshwari Maharaul	Impact of Simulated Placer Mining on the sub-tidal Macrofauna.	2006
2.	Preeti Suthar	Impact of simulated mining on Intertidal Meiobenthos at Kalbadevi Beach, Ratnagiri: An Experimental Approach	2006
3.	Namrata Shah	Impact of Human Interference on Intertidal microbenthos at Miramar beach, Goa.	2006
4.	Dipti Panchal	Utilization of ETP sludge from Gujarat state fertilizers and chemicals limited as suitable and efficient manure	2007

5.	Shailendra Viyol	Evaluation of Methane Emission from the rice fields and wetland ecosystems of Anand District, Gujarat, India.	2007
6.	Hinali Patel	Effect of pH on Detoxification of Heavy metals & nutrients by immobilized Cyanobacteria using Industrial water.	2007
7.	Hiral Patel	Influence of artificial diets on fecundity of <i>Chrysoperla carnea</i> (STEPHENS) (Neuroptera: Chrysopidae)	2007
8.	Shweta Patel	Biochemical assessment of Nitrogen fixing cyanobacteria <i>Aulosira fertilissima</i> Ghose to acute toxicity of Lead Nitrate	2008
9.	Gazala Qazi	Studies on Nutrient composition and tree diversity during low temperature condition of two contrast forests of Rajasthan, India.	2008
10.	Ragini Mishra	Efficiency of evaluation of Agricultural waste for the removal of nutrients from aqueous solution.	2010
11.	Hetal Patel	Biosorption of Cadmium using living <i>Aspergillus niger</i> with special reference to change in pH, enzyme activity and FT-IR analysis.	2011
12.	Khyati Shah	Biosorption of Cadmium using growing <i>Penicillium chrysogenum</i> with special reference to pH, enzyme activity and FT-IR analysis.	2011
13.	Priyakanchini Gupta	To study the fluxes and controlling Edaphic factors of CO ₂ , CH ₄ and N ₂ O from Eucalyptus plantations and dry tropical deciduous forest of Gujarat, India.	2011
14.	Dhara Patel	Investigations on Carbon sequestration in three distinct tropical plantations of Anand district, Gujarat, India.	2012
15.	Shamiya R Khan	An assessment of pollution status of Narmada River at J' point	2012
16.	Hiren Goswami	The comparative study of Physico- chemical characteristics of effluents of Omkar textile and Betex textile. (Co.)	2013
17.	Sandip Patel	An Industrial dissertation report on ETP plant in G.N.F.C. at Gujarat Narmada Valley Fertilizer Co. (Co.)	2013
18.	Makwana Dipak	An Industrial dissertation report on primary treatment of Industrial waste water at Common Effluent Treatment Plant (CEPT) Nandesari. (Co.)	2013
19.	Hiral Patel	The comparative study of Physico- chemical characteristics of effluents of Omkar textile and Betex textile (Co.)	2013

20.	Bhavisha Desai	Checking the Inhibitory effect of Organophosphat & Organochlorine pesticides and Biosurfactant producing property of selected microbial strains	2013
21.	Megha Barot	Some intermediate bio- transformants during biodegradation of high molecular weight Phenanthrene and Fluoranthene by cyanobacterial species- <i>Aulosira fertilissima</i> Ghose.	2013
22.	Annie Kizhakkodan	Effect of different pesticides on selected gram positive bacterial strains and checking of their Biosurfactant property	2013
23.	Bijal Gajjar	Determination of Short- term Green House gas Emissions by static chamber methods from two distinct microcosmos of central Gujarat, India	2013
24.	Savan Patel	A Study on the determination of Inhibitory effect of pesticides on common soil microorganisms and checking of their Biosurfactant property	2013
25.	Mansi Banker	Ex-situ studies on petrol, kerosene & diesel degradation by indigenous fungal isolates from various aged petroleum effected soils for environmental cleanup.	2014
26.	Sneha Raj	Environmental Investigation Of Seaweed Distribution, Biochemical Constituent And Their Antifungal Activity From The Okha Coast Gujarat	2014
27.	Ankita Prajapati	An Assessment Of Potential GHG Emissions Between Soil- Atmospheric Interaction, Ambient Air Quality Monitoring And Air Pollution Tolerance Index Of Certain Ecosystems Of Central Gujarat	2014
28. s	Sachi Shule	Studies on distribution and phytochemical composition of Marine algae- Phaeophyceae in relation to the environmental gradients of Okha coast, Gujarat, India	2015
29.	Azzarudin Shaikh	An Assessment Of Pesticides V/S Organic Fertilizer And Its Environmental Effects On Soil Properties In Two Distinct Agricultural Areas Of Central Gujarat	2015
30.	Reema Mandal	An evaluation of two distinct ,contrast and significant wetlands of central Gujarat with special reference to trophodynamics and anthropogenic interventions	2015
31.	Chirag Charel	Studies On Distribution And Phytochemical Constituents Of Marine Algae With Special Reference To Rhodophyceae In Relation To	2015

		The Environmental Gradients Of Okha Coast, Gujarat, India	
32.	Priyanka Joshi	Qualitative and quantitative assessment of tree biodiversity in two distinct urban areas, Vidyanagar and New Vallabhvidyanagar Central Gujarat, India.	2015
33.	Pratik Senghani	Evaluation of heavy metal contamination in selected water bodies of Kachchh: Utilization of natural absorbent for removal of Cr ⁺⁶ : Isotherms and kinetics study	2015
34.	PARTH DIPAKBHAI PANSURIYA	To Estimate the water and heavy metal(copper) analysis on marine Fish (Rastrelliger Kangurta) at Veraval Sea coast	2021
35.	POOJA KISHANBHAI GOHEL	Waste water treatment plant	2021
36.	PRIYANSHI PRAKASH DELVADIYA	Synthesis, Characterization of Plant Activated Charcoal (PAC) And Remediation of Pollutants from Industrial Effluents.	2021
37.	RAINABAHEN PRAVINBHAI GUNDANIYA	Screening of Biochemical Profile of Selected Tree elements (Neem and Peepal) across state and national highway crossroads of central Gujarat.	2021
38.	RASHMIBEN CHANDRAKANTBHAI CHAUHAN	TDS Reduction in Effluent.	2021
39.	RIDDHI RAMESHBHAI BHANDERI	Monitoring the Floating Vegetation Through Remote Sensing Techniques	2021
40.	RINKU PASWAN	Study of Wastewater management of Dairy Industry.	2021
41.	RIYA PIYUSHBHAI PATEL	Surface Water quality Assessment of Swarup Sagar Lake Using Discriminate Analysis and WQI	2021
42.	SAGAR VINODBHAI MISTRY	An Assessment of Impacts of Climate change on Ambient air quality and Human Health of Surat City, Gujarat, India	2021
43.	SHASHANK CHANDRAKANT PATEL	Assessment of water quality of Sewage Treatment Plant in Beepee Coating Berger Paints.	2021
44.	SHASHIRAJ PRAVINSINH SOLANKI	Environmental and Ecological Interrelationships between sediments quality, vegetation structure and mangrove crab at BEYT Dwarka (OKHA MANDAL), Western Coast of Gujarat,	2021
45.	SHESHABEN KALPESHBHAI PATEL	Overview of Water- quality Parameters on Effluent Treatment Plant of Panchamrut Dairy	2021

46.	SHIVANGI RAJENDRAKUMAR SHETH	Environmental profile of Hydro-chemical properties at suburban water tank (Vaododra), Central Gujarat.	2021
47.	SHUCHI DEEPAK KUMAR SHARMA	Comparative investigation on synthesis, characterization, dye decoloration and remediation of nutrients from industrial effluents by TiO ₂ and ZnO metallic Nanoparticles.	2021
48.	SHWETABEN BIPINCHANDRA PATEL	COD Reduction in wastewater by Using Biological Treatment	2021
49.	VISHWAS PARSHURAM GAWAS	A Evaluation of Online real time effluent water monitoring system with laboratory analysis in relation to guidance of GPCB and SPCB	2021
50.	VIVEK PRAVINBHAI PATEL	Study of various wastewater parameters at sewage treatment plant of Petlad Nagarpalika	2021
51.	YAMINI RAMESHBHAI RAVAL	Treatability study for effective reduction of COD, BOD, TDS and TSS From effluent of Plant industry by using different chemical methods	2021
52.	RAMESHBHAI PURABHAI CHAUDHARY	Comparative Analysis of Physiochemical Parameter of waste water in Banas Dairy.	2021
53	DARSHIT DHARMESHKUMAR SHAH	An Assessment of Impacts of Climate change on Ambient air quality and Human Health of Ahmadabad City, Gujarat, India.	2021

Every year atleast 6 to 10 M.Sc. EST students undergo project work and dissertation.

I Attended on-hand Training:

- * Attended workshop on Molecular biology and Bioinformatics on Marine Cyanobacteria from 2nd to 7th March, 2008, National Facilities for Marine Cyanobacteria, Bharatidasan University, Tituchirapali, T.N. India.
- * Attended 9-days “Multi-Institutional Teachers’ Training Programme in Molecular Biology and Bioinformatics” organized by Gujarat State Biotechnology Mission (GSBTM), Gandhinagar, from 21st February to 1st March 2006.
- * Attended program on Advances in Environmental and Biological Technologies, Department of Civil and Environmental Engineering , Department of Civil and Environmental Engineering, Missouri University of Science and Technology, Rolla, Missouri, USA from 21st October to 05th Nov.2011.

J. Fellowships:

- Recipient of P.D.F from CSIR, New Delhi for one year –1990-91 (consolidate pay of Rs. 2450/- p.m).

- Recipient of SRF from CSIR, New Delhi for one year-1989-90 (Consolidate pay of Rs. 2100/- p.m).
- Recipient of JRF from CSIR, New Delhi for two years-1987-89 (consolidate pay of Rs. 1800/- p.m).

K. Nature Club: As ex-officio , Actively conducted Nature Club with the goals of following activities:

- ✓ To make students aware of the nature, environment and conservation.
- ✓ To bring out the talent of the students, nature club conducts various competition events
- ✓ To provide platform to students on various burning issues
- ✓ To explore various forests, protected areas – wildlife sanctuaries, national parks and eco-tourism places and other ecosystems, nature club organizes nature trips
- ✓ To enrich the knowledge, nature club conducts guest lectures.
- ✓ To aware latest developments in the subject Seminar presentations will be conducted regularly among students.

ISTAR: Conducted various competitive events for National Science Day Celebrations

L. Designing of Curriculum:

- Participated in workshop for the formulation of S.Y. B. Sc and T.Y. B. Sc Botany syllabus in the year 1992-93, North Maharashtra University, Jalgaon.
- Participated in the formulation of M.Sc. Botany including Biotechnology and Environmental sciences in the year 1993-94, North Maharashtra University.Jalgaon.
- I have been Participating in the formulation of B.Sc Botany syllabus and Environmental Sciences since 1996, S.P. University, Vallabh Vidyanagar- 388 120.
- Involved in the formation of curricula of M.Sc Environmental Science of S.P. University in the year 2000 and 2006 and 2008 for M.Sc Environmental Science and Technology.

M. Designing of New Courses:

- Formulated new courses of B.Sc Environmental Sciences and Biotechnology in the year 1996-97 and 97-98, S.P. University, Vallabh Vidyanagar- 388 120.
- Formulated new course of M.Sc. Environmental Science and Technology in the year 1999-2000, ISTAR, S. P. University.

N. University Assignments:

1. Worked as Examiner for practical as well as theory at B. Sc level for the year 1993 to 1996 of North Maharashtra University, Jalgaon. Maharashtra, India.
2. I have been working as Examiner (Assessment) and paper setter for practical as well as theory at B. Sc level since 1996 in the subject of Botany and Environmental Sciences, S.P. University, Vallabh Vidyanagar- 388 120. Gujarat
3. I have been working as Examiner (assessment) and paper setter for practical as well as theory at M. Sc level since 2000 in the subject of Environmental Sciences, S.P. University, Vallabh Vidyanagar- 388 120.
4. As an external paper setter and examiner in M.Sc Environmental Science ,North Gujarat University, Patan, Gujarat , since 2006.

5. As an external examiner , since April, 2008 in B.Sc Environmental Science ,M.S University, Baroda, Gujarat.

O. Conferences, Seminars, Symposium and Workshops (Organized)

1. Gujarat: Its Environment & Challenges on 19/10/99 , Organized by NVPAS, Vallabh Vidyanagar
2. Bio-resource Wealth of Gujarat – Its Conservation and Sustainable Utilization, on 19th November 2000. Organized by NVPAS, Vallabh Vidyanagar
3. Emerging Environmental Impacts of Narmada Waters in Gujarat, on 2nd February 2003. Organized by NVPAS, Vallabh Vidyanagar
4. One day Seminar on Environmental Science conducted on 24th December,2008 Organized by EST, ISTAR
5. Conducting 2 or 3 local /Regional seminars / workshops every year Organized by EST, ISTAR since 2011
6. National seminar on “Advances in Environmental Science and Technology –A way forward to clean and Green Environment” on 28th Feb.2015 Organized by EST, ISTAR
7. National seminar on Environment, Pollution and Climate Change on 15th February,2018 sponsored by Gujarat Ecology Commission, Rs. 1,00,000/

P. Delivered Lectures:

- 1) Delivered an expert talk on “Climate Change and Consequences” at V.P. Science College, V.V. Nagar, on 5th February, 2014.
- 2) Invited as a Jury in “Green Business Competition”, at SEMCOM at V.V. Nagar on 9th February, 2014. Vallabh Vidya nagar .
- 3) Attended Indo-German Convention at Science City, Ahmedabad, on 15th November, 2013, along with Ph.D. students of ISTAR (EST).
- 4) Delivered a lecture on “Trends in Biological Science” at Applied Chemistry Department , SVNIT, Surat on 22nd December,2010 DST sponsored National Program on INSPIRE INTERNSHIP-2010.
- 5) Attended 9-days “Multi-Institutional Teachers’ Training Programme in Molecular Biology and Bioinformatics” organized by Gujarat State Biotechnology Mission (GSBTM), Gandhinagar, from 21st February to 1st March 2006.
- 6) Attended orientation course on ‘Strategies to develop the Forestry of Gujarat’, organized by Gujarat Forest Department, Gandhinagar on 21st March 2000.
- 7) Presented guest lecture on ‘Inventory and Monitor the Biodiversity’ in training workshop on Plant Taxonomy for Biodiversity conservation held from 27th January to 2nd February, 1999 conducted by S.P. University sponsored by Gujarat Ecological Society (GES) Baroda.
- 8) Presented contributory lectures on M.Sc Environmental Sciences students in ISTAR on 11th to 13th September, 2000 on the topics of Global Climate Changes, Paradigms of Biodiversity, Monitoring of Diversity, Processes of Eutrophication, Impact of air pollution on plants.
- 9) Attended number of project review meetings conducted by Gujarat Forest Department, August, 1999, Gandhinagar and Rajpipla.
- 10) Presented contributory lectures on Ecology and Biotechnology for M. Sc part-III students from January to March 1994 in G.R.P Science College, Jalgaon.

- 11) Presented contributory lectures on Ecology (Hydrobiology) for M. Sc –Botany part-III students in S.S.G.M. Science College, Kopargaon on 29th and 30th March, 1993.

Q. Conferences, Seminars, Symposium and Workshops (Attended / Presented)

a. International Level:

- 1) Attended 6th International Conference on Industrial Hygiene & Safety, CIHA, Ahmedabad from 7-9th January, 2019.
- 2) Attended 5th International Industrial Hygiene and Safety Conference, CIHA at Pune - INDIA from 22-24th January, 2018
- 3) As Jury for the poster presentation in International Seminar on “Science & Technology”, M.B. Patel Science College, Anand from 10-12 March, 2015
- 4) Attended International conference on “Waste to Wealth- Resource Recovery for Sustainable Development” from 8th and 9th October, 2015 conducted by Green Circle and M.S. University, Baroda
- 5) Delivered lecture on ‘Evaluation of Eutrophication in relation to Biotic environment of certain tropical habitats of Gujarat, India’ on 4th November 2011 at McNutt Hall, MST, Rolla, MO, USA. International
- 6) Presented paper in International conference on Biodiversity and Aquatic toxicology from 12-14th February, 2011, conducted by Nagarjuna University, Guntur, Andhra Pradesh and worked as co-chairperson for one of the sessions.
- 7) Attended Delhi International Renewable Energy Conference–DIREC 2010 from 27th to 29th October, 2010 at Greater Noida, Delhi.
- 8) Presented paper on International Symposium on Environmental pollution, Ecology and Human Health at Department of Zoology, S. V. University, Tirupati, India during 25-27 July, 2009. International
- 9) Presented a paper in International Symposium on Applied Phycology – Algae in Biotechnology and Environment (ICAP 2006), on 14th and 15th February 2006, at New Delhi.
- 10) Presented A paper in International conference on Environmental Science and Technology at Houston, Texas, USA on Biomonitoring of selected freshwater macrophytes to assess lake trace element contamination: A Case Study of Nal Sarovar Bird Sanctuary, Gujarat, India during August, 2006. International
- 11) Presented A paper in International conference on Wetlands-2006 held at Acme, Michigan, USA on Assessment of Anthropogenic pressures of Nal Bird Sanctuary of Gujarat, India, during August, 2006. International
- 12) Presented a paper and Participated in the International Seminar on Eco-restoration, held at Indian Council for Forest, Research and Education, Dehra Dun, on 14th to 19th October 2003. International
- 13) Presented a paper and Participated in the Global conference on Environmental Education from November 6 – 10, 2001, New Delhi. International
- 14) Presented a paper and Participated in the “International Conference on Tropical Aquatic Ecology” held on 25th to 30th October, 1999 in Nainital.

b. National Level:

1. Participated in discussion meeting on ‘Net working to conserve the Biodiversity of Western Ghats’ from 4th to 7th April, 1994 held at Center for Ecological Sciences (C.E.S.), Indian Institute of Sciences (IISc.), Bangalore- 560 012. National level

2. Participated in the workshop conducted on 'Western Ghats Review Meeting' held at C.E.Sc, IISc. on 13 to 14 January 1996. National level
3. Participated in the workshop conducted on ' Western Ghats Biodiversity Network' at C.E.Sc, IISc from 23rd to 25th May 1995. National level
4. Delivered a talk on ' Impact of Pollution on Aquatic Biodiversity 'in the meeting held on Documenting Biodiversity at C.E.Sc ,IISc on 26-29, October, 1995. National level
5. Presented a paper and Participated in the National Symposium on Plant Morphogenesis held on 29-30 Dec. 1997 conducted by S.P. University
6. Participated in the National workshop organized by Gujarat Agriculture University, Anand on Medicinal and Aromatic Plants in June 1998.
7. Participated in the National workshop on "Wetland conservation strategies" held on 30th April to 1st May, 1999 organized by WWF-India, Baroda.
8. Attended National Academy Meeting in Goa on 24th to 26th November, 2000, organized by Indian Academy of Sciences, Bangalore.
9. Participated in one-day National workshop on " Green House Technology" at Gujarat Agriculture University, Anand on 7.6.2001.
10. Presented a paper and Participated in the National Seminar on Aquatic Biodiversity – and sustainable use of Bio-resources from October 10 – 12, 2002, Bhopal, M.P.
11. Participated in One day National seminar on "DNA Structure and Genome Analysis", organized by M. S. university, Baroda, Society of Biochemists, India, on 28th September 2003.
12. Presented a paper on "Study of Eutrophication in relation to plant diversity in Wetland – Ratheshwar, Central Gujarat", in National Academy of Sciences, India (NASI), 73rd annual meeting and symposium on Astronomy in the New Millennium, held at Physical Research laboratory, Ahmedabad, from 10th to 12th October 2003.
13. Presented a paper entitled "An Assessment of Anthropogenic interventions of Shoolpaneshwar Wildlife Sanctuary", and Participated in National Conference on Plant Sciences-2004, held at Shri Sarvodaya Kelavani Mandal, Gandhinagar, on 25th to 27th November 2004.
14. Attended one-day National seminar on "Emerging Technologies" on 12th January 2005, conducted by Department of Science and Technology, Science City, Gandhinagar.
15. Attended 2 day National workshop on Hydrology & Management of Lakes, sponsored by National Institute of Hydrology, Roorkee, at University of Udaipur, Udaipur, on 19th & 20th January 2005.
16. Attended 3-days National Seminar on 'Enviro Technology 2005' at Taj Presidency, Baroda, on 23rd to 25th September 2005.
17. As a Chairperson in Conference on Advances in Environmental Sciences at Natubhai V. Patel college of Pure and Applied Sciences, Accredited- A, Vallabh Vidya nagar, Gujarat on 9th September, 2008.
18. As a Co-Chairperson in "National Conference on Taxonomy Teaching and Research: The Relevance in the National Context" at Shri R. K. Parikh Arts and Science College, Petlad, Gujarat on 27th September, 2008.
19. Attended "3rd National Conference of National Environmentalists Association (NEA) on Environmental Science and Technology for Sustainable development", organized by "IQAC, Govt. College for Women", Srikakulam, Andhra Pradesh, from 18th to 20th January, 2009.

20. Attended one day National Seminar on Air Pollution Management in changing Global Environmental Scenario” on 7th Feb.2010 as a Judge conducted By M.S. University, Baroda.
21. Attended National summit on “Chemical Industry 2020- Vision and Action , conducted by Ankleshwar Industrial Association on 3 and 4 th June,2010, at Ankleshwar.
22. Attended 21st Mid meeting of Indian Academy of Science, Bangalore from 1-3rd July,2010 as a Invited Teacher.National level
23. Attended 79th Annual meeting of Indian Academy of Sciences, at Goa from 12th to 14th November,2010.National level
24. Attended the National symposium on status , challenges and opportunities in Life Sciences held on 10th September,2011 and adjudged the poster competition events organized by ARIBAS, New Vallabh Vidya nagar-388121, Gujarat.
25. Attended and adjudged post lunch session of National Seminar on ‘New perspectives of Natural sciences’, 7th January, 2012 conducted by NVPAS college, Vallabh Vidya nagar.
26. Invited as a Chair Person in National Seminar on Climate Change in Indian Context, organized by M.S. University of Baroda, on 14th December, 2013.
27. Delivered a talk on “Paradigms of Biodiversity” in refresher course in Life-science on 17th January 2014,conducted by Academic Staff College, S.P. University
28. Invited as a Chair Person in National Seminar on “Indian Water Congress”, at GCET, V.V. Nagar on 8th February, 2014.
29. Invited as a Jury in National Seminar on Clean Water for a healthy World on 10th March,2014 conducted by NV Patel College of Pure and Applied Sciences, Vallabh Vidya nagar .
30. As a Coordinator of the one day National Seminar organized on ‘Advances in environmental Science and Technology – A way forward to Clean and Green Environment’ on 28th Feb.2015.
31. As a Jury for poster competition during National Seminar on Waste management organized by S.M. Patel college of Home Science, Vallabh Vidyanagar July,2015.
32. Delivered invited lecture on Wetland macrophytes as indicators of pollution , Gujarat, during National workshop on “Wetlands” by GEER foundation Gandhinagar February,2017.
33. Organized National Seminar On Environment, Pollution and Climate Change on 30th Januray,2018 in BVM Engineering College. Conductedby EST,ISTAR.
34. As a Jury in National seminar on “Green Chemistry and Technology for sustainable Development” organized by GCET, Vallabh Vidyanagar on 19th January,2019.

c. State Level

1. Participated in XII Gujarat Science Congress held at S.P. University on 15-16, February 1997.
2. Presented a paper and Participated in the” Regional workshop on WETLANDS- Conservation and Strategies held on 9 th to 11 th February, 2003, organized by GEER foundation, Gandhinagar.
3. Attended a one-day state level seminar on “College Science Education: Challenges and Opportunities”, at Hemchandracharya North Gujarat University, Patan, North Gujarat, on 4th September 2004.
4. Delivered a talk on ‘Wetland Monitoring’ at Gujarat Pollution Control Board(GPCB), Gandhinagar, on 7th April 2006.

5. As a Chairperson during post lunch session of state level seminar on ‘ Physiological and molecular interventions on sustainable crop productivity under changing climatic conditions’, on 17th January,2012 organized by Indian Society for Plant Physiology and Medicinal and Aromatic Plants Association of India, Anand.
6. Delivered a talk on trends in ‘water quality of lake Nalsarovar’, conducted by Gujarat Forest Department , Nalsarovar 12th Feb,2013.State level
7. Invited as a Chief Guest in valedictory function of Refresher Course in Agricultural Science, at Academic Staff College, SPU, Vallabh Vidyanagar, 7th December, 2013.
8. Attended –State Level Workshop on Quantifying the Impact & Relevance of Scientific Research, Organized by V.P. & R.P.T.P. Science College, Vallabh Vidyanagar, Gujarat, India, 13 August 2014.
9. Attended– State Level Seminar on Opportunities and Current Status of Medicinal Plant Research, Organized by V.P. & R.P.T.P. Science College, Vallabh Vidyanagar, Gujarat, India,11 November 2014.
10. Delivered TWO expert talks on Climate change and its consequences and another Bioremediation and Biodegradation of contaminated soils on 28th and 29th April , a one week workshop on “Environmental Degradation and conservation” organized by BVM Engineering college from 25th to 30th April,2016
11. Attended One Day Seminar on “MET-Aware - 2016” at GCET Auditorium, jointly organized by NVPAS & IMSA, Ahmedabad on 16th July,2016.
12. Delivered invited talk on Bioremediation and Degradation of xenobiotic compounds 27th March,2017 in VP and RPTP science college, Vallabh Vidyanagar.
13. Delivered invited talk on Wetlands eutrophication with reference to Nutrient status on account of World Water day celebrated by GECT college, on March 22nd 2017
14. Delivered expert Talk on “Surface Water Pollution with special reference to Eutrophication – A Man-made Threat”, at GCET Engineering College, V.V. Nagar on 23th March,2017
15. Delivered invited talk on account of World Earth Day,on 22nd April,2017 entitled : Climate change and its effects on Mother Earth, at ADIT,New Vallabh Vallabh Vidyanagar.
16. Attended Workshop on Municipal Waste Management on account of World Habitat Day at ADIT, New Vallabh Vidyanagar on 5th October,2017.
17. Attended KIA Workshop: Domain Knowledge at ARIBAS, New V.V. Nagar from 13-14 March,2019.

R. Orientation / Refresher Course / Quality Improvement Programme (QIP) attended: (Three weeks or more).

Sr. No.	Name of the Course	Place	Dates		Duration in Weeks	Sponsoring Agency
			From	To		
1.	Orientation Course	Aurangabad	6 th April	2 nd May,1992	4 weeks	ASC, Dr. Babasabh Ambedkar University
2.	Refresher Course in Botany	Varanasi	11 th July	31 st July,2000	3 weeks	ASC, Banaras Hindu University

3.	<i>Refresher Course in Life Sciences</i>	<i>Chennai</i>	<i>9th Feb</i>	<i>1st March,2005</i>	<i>3 weeks</i>	<i>ASC, University of Madras</i>
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S.Details of completed Research Projects as PI:

Name of the Funding agency	Year		Total Budget (Rs.)	Title of the Projects
	Started	Completed		
1. Indian Institute of Sciences, Bangalore	1994	1996	70,000/-	Conservation of Biodiversity of Western Ghats – Navapur Forest, Maharashtra
2. Gujarat Forest Department, Gandhinagar	1997	1999	3,51,000 /-	Environmental Studies of Certain Forests of Gujarat with special reference to Biodiversity & Ethnobotany
3. Gujarat Forest Department, Gandhinagar	1998	2000	3,50,000 /-	Ecological Studies of Protected Areas of Gujarat with special reference to Anthropogenic Pressures
4. Ministry of Environment and Forest (MoEF), New Delhi	2003	2006	7, 25, 625/-	Environmental Studies of Wetland – Nal Sarovar of Gujarat with Particular Reference to Biodiversity, Eutrophication and Anthropogenic Pressures
5. sponsored by University Grants Commission, New Delhi.(C0.I)	2005	2008 (March)	Rs. 5,06,600 /-	Study of Biodiversity, Ethnobotany and Anthropogenic interventions of Saputara and Purna Forests of North Extreme Part of Western Ghats, India,
6. Foundation for Ecological Security,NDDDB Campus, Anand, 388 001 Gujarat.	2007	2009	Rs. 6,00,000 /	An evaluation of nutrient dynamics and plant community studies in dry tropical forests of Rajasthan:
7. Foundation for Ecological Security,NDDDB Campus, Anand, 388 001 Gujarat.	2007	2009	Rs. 4,00,000 /	Environmental study of some important wetland habitats of Anand district, Gujarat with special reference to biodiversity, eutrophication, anthropogenic pressures and their site specific management strategies

8. Ministry of Earth Science, New Delhi, India	2007	2010	Rs. 07,93,000/-	An Evaluation of Pollution status in relation to Biodiversity of Narmada and Tapi Rivers of Gujarat, India.
9. University Grants Commission, New Delhi, India.	2008	March, 2011	Rs. 11,00,000/-	Morphological, Biochemical, Phylogenetic and Molecular characterization of xenobiotic Cyanobacteria
10. Ministry of Environment and Forest (MoEF), New Delhi	2008	March, 2011	Rs.14,89,000	Environmental studies of pollution inrelation to Biodiversity of Gulp of Kambat, Gujarat, India.
11.Gujarat Ecological Commission, Gandhinagar	February, 2014	July, 2016	Rs.5,22,000	Ecology of rivers of Gujarat.
12. University Grants Commission, New Delhi, India.	April, 2013	March,2017	12,30,000	An assessment of biochemical compounds in relation with environmental constituents and phylogenetic relationships by barcoding of different Seaweeds from Okha coast of Gujarat, India.
13.GUJCOST, Gandhinagar, Gujarat, India	April, 2013	March,2016	2,30,000	Evaluation and assessment of GHGs emissions from different ecosystems of Gujarat, India.
14.Department of Civil and Environmental Engineering , University of Cincinnati, USA as Co-PI	Feb 2009	Decemb er 2011	25,00,000	Environmental sustainability of Local villages in and around Anand , Gujarat Dr. Daniel Oerther, Chair (PI) Missouri university of Science and Technology, MO USA
15.National Institute of Advanced Industrial Science and Technology (AIST), Japan	May 2016	June,2019	75,00,000/-	Global transportation distribution and degradation of Persistent Organic Pollutants(POPs) - India Perspective
16. Climate Change Department, Gandhinagar, Gujarat	April,2020	March,2022	10,00,000/-	Assessment impact of Climate change on Air quality, Human health and Vulnerability of important cities of Gujarat.

T. List of Certificate of Contribution, Appreciations ,Gaurav Puraskar, Honors and Award,

S.No	Name of Award, Year	International /National/	Purpose /Field	Agency/ Organization
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		State level		
1.	Hari Ohm Ashram Award,1997 with cash prize	State level	Best Research Paper in Botany	Hari Ohm Ashram Prerit Shri Bhaikaka Inter university trust, Gujarat
2.	Performance of Exemplary award, 2007 with cash prize	State level	Excellent performance as a Teacher, Researcher, Student mentor with cash prize	Charutar Vidya Mandal ,Gujarat
3.	International Collaboration, 2008	International level	Environmental Science and Technology	Dr.Daniel Oerther , Prof.Susan Chair, University of Cincinnati, Cincinnati, USA
4.	Appreciation Award,2008	State level	Contribution in Environmental Field Research	State level Seminar NVPAS College, Gujarat
5.	Fellow ,NEA 2009	National Level	Environmental Science	National Environmental Association (NEA) Ranchi , India
6.	Biography Published in Who's Who of the World,2009	International Level	Biography	Marques's Who's Who in the World, New Jersey, USA
7.	Appreciation Award,2009	National level	Environmental Researcher of the year	National Seminar NVPAS,Gujarat
8.	Dr.C.K.Shah Award,2009 with cash prize	State Level	Best Research Paper in Botany, Agri.Botany, Biotechnology	Sardar Patel university, Gujarat
9.	Appreciation Award,2010	State Level	Best Researcher of the year	State Level Seminar, I V Patel College, Nadiad, Gujarat.
10.	Dr.C.K.Shah Award,2011 with cash prize	State Level	Best Research Paper in Botany, Agri.Botany, Biotechnology	Sardar Patel university, Gujarat
11.	Appreciation Award,2011	State level	Outstanding contribution in Environmental Sustainable Research	National Symposium, NVPAS College, Gujarat
12.	Associate Fellow,GSA,2011	State Level	Education and Research	Gujarat Science Academy, Ahmedabad, Gujarat
13.	International Collaboration,2012	International Level	Environmental Science and Technology	Missouri University of Science and Technology, Rolla, Missouri, USA
14.	Bharat Shiksha Ratna Award,2012	National level	In the Field of Education	Global Society for Educational and Health, Delhi, India
15.	Member, American Chemical Society, 2012 onwards	International level	In the field of Environmental Chemistry	American Chemical Society, 1155 16th St NW, Washington, DC 20036
16.	Appreciation Award,2014	National level	Outstanding Achievements in Environmental Education	DST, Gujcost Sponsored National Seminar, NVPAS, Gujarat

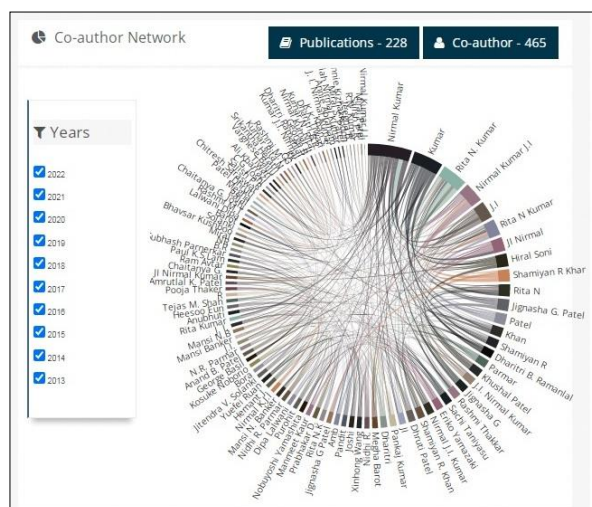
17.	Appreciation Award,2014	State level	Excellence in Science Education	North Gujarat University, Patan , Gujarat
18.	Appreciation award, 2014	National level	Outstanding Achievements in Science Education	GSBTM sponsored National Seminar , NVPAS, Gujarat
19.	Life Member, 2016	National level	Environmental Science	National Environmental Science Academy, New Delhi
20.	Bharat Ratna Dr.Radhakrishnan Gold Medal Award ,2018	National level	Individual Achievements and National Development	Global Economic Progress and Research Association, Chennai.
21.	Appreciation award, 2018	National level	Contribution towards Environmental Education and Research	National Seminar on Environmental Pollution and Climate Change , Gujarat
22.	International Collaboration, AIST, 2018	International Level	Environmental Science and Technology	National Institute of Advance industrial Science and Technology, Japan
23.	Gaurav Puraskar,2018	State level	Contribution in Environment and Education	Charutar Vidya Mandal ,Gujarat
24.	Gaurav Puraskar,2019	State level	Contribution in Sustainable Development and conservation of Forests and Wetlands	Charutar Vidya Mandal ,Gujarat
25.	Top III rank , 2019	State Level	College Ranking, Among All College in Gujarat.	GSIRF, Knowledge Consortium of Gujarat, Govt of Gujarat, Gandhinagar, Gujarat
26.	Bharat Vidya Shiromani Award,2019	National level	Outstanding Achievements and Remarkable role in the field of Education	Indian Solidarity Council, New Delhi
27.	Certificate of Contribution,2019	State Level	Contribution in Environmental Science	Gujarat Cleaner Production Centre & jointly with Environment and Forests Department , Gandhinagar Gujarat , MoEFCC
28.	Top I rank , 2020	State Level	Among All Engineering College, Gujarat	GSIRF, Knowledge Consortium of Gujarat, Govt of Gujarat Gandhinagar, Gujarat,
29.	Top 101-150 ranking, 2020	National level	Among All Engineering colleges in India	NIRF Ranking , New Delhi, Only 3 colleges in Gujarat from 1 to 200 list during my tenure as Principal

30.	Gaurav Puraskar,2021	State level	Excellence in the field of Education and Scientific Research	Charutar Vidya Mandal ,Gujarat
31.	Top I rank , 2021	State Level	Among All College, Gujarat	GSIRF, Knowledge Consortium of Gujarat, Govt of Gujarat Gandhinagar, Gujarat
32.	Top 151-200 ranking, 2020	National level	Among All colleges in India	NIRF Ranking , New Delhi, Only 3 colleges from 1 to 200 list Gujarat during my tenure as Principal
33.	Certificate of Contribution,2021 with cash prize	State Level	Contribution in Environmental Science	Gujarat Cleaner Production Centre & jointly with Environment and Forests Department , Gandhinagar Gujarat
34.	Certificate of Appreciation,2021	State Level	Contribution in Education and Teaching	Department of Education, Govt of Gujarat , Gandhinagar
35.	Global Eminent Scientist Award-2022	National level	Outstanding Services in Research	Vij Trust, Punjab
36.	International Education Award-2022	National level	Innovative Professor of the Year	Kiteskrafts Production, Ludhiana, Punjab
37.	Certificate of Appreciation 2022 with cash prize	State Level	Coordinator, Green Audit of Institutions	Gujarat Cleaner Production Centre & jointly with Environment and Forests Department , Gandhinagar Gujarat
38.	Education Excellence Award-2022	National level	Lifetime achievement award in Applied Sciences-Teaching and Charity work	Our Productions, Ludhiana, Punjab
39.	Pride of India,2023	National level	Best Educationist	Socially Point Foundation, Supported by NITI Aayog Govt.of India & Ministry of MSEM Govt India
40.	Shri Mahatma Gandhi Rashtriya Abhiman Puraskar-2023	National level	Field of Environmental Studies and Social services	Supported by Education and Research Foundation, NITI Aayog Darpan, New Delhi
41.	Swami Vivekanand Award-2023	National level	Outstanding contribution in Social work	The WAC Global Book Records, New Delhi
42.	Indian Pride ICON Award-2023	National level	Outstanding efforts in Education, Social services, helping poor and needy	IPIA Foundation, supported by NITI Aayog Govt.of India & Ministry of MSEM Govt India

43.	Certification of Contribution,2023 with cash prize	State level	Field of Environmental Science	Gujarat Cleaner Production Centre & jointly with Environment and Forests Department , Gandhinagar Gujarat
44.	International ICON Award-2023	National level	Life time Achievement award in Education and Scientific Research - Environmental Science and Technology	IIA Awards, New Delhi.
45.	MCI Award 2023	Stat Level	Outstanding contribution in Societal , Social Services and Helping poor and Needy	Methodist Church of India,Anand Gujarat
46.	Best Teacher Award- 2023	State Level	P.G Senior Best Teacher in Biological Sciences	Gujarat Science Academy, Ahmadabad, Gujarat
47.	Best Researcher award	Global Level	Global Survey	The Times Global Academic Reputation Survey
48.	Brand ICON of the Year-2023	National Level	Best Teacher, Researcher and Social Worker	PPR Marketing Production, New Delhi
49.	STAR Education Award Award 2023	National Level	In Education	Government of Maharashtra & Education Department, Government of Maharashtra
50.	Invited Speaker 2024	International Conference	Chemistry for Security and Environment	National Forensic Sciences University, Gandhinagar
51.	Invited Speaker 2024	National Seminar	Industrial Pollution and Air Quality Index	M.S University, Baroda
52.	Best Teacher Award Gujarat State 2023	National Level	In the field of Education	Sustainable Development Goals, Veyil foundation, Recognized by Govt of India
53.	Certificate of Appreciation	Local	In the field of Education	Horeb Methodist Church, Anand, Methodist Church India .
55	Invited Speaker	International Conference s	Advances in Basic sciences , Environmental StudiesDevelopments 21-23 November,2024	Banarus Hindu University, Banaras, UP, India
56	Eminent Scientist Award of the Year 2024	International Conference	Advances in Basic sciences , Environmental StudiesDevelopments 21-23 November,2024	National Environmental Science Academy, New Delhi & Banaras Hindu University, Banaras, UP, India
57	Invited speaker	National level	Conference on Topics in compexes systems -8-9 December, 2024	Dhirubhai Ambani Institute of Information and Computer Technology, Gandhinagar, Gujarat

58	Invited speaker	State level	Redefining Air, Past Lessons, Present actions, Future Possibilities-10 th January ,2025	IAQN, Indian Institute of Management, Ahmedabad, Gujarat
59	Invited Speaker	National Conference	Sustainable practices for Environmental Remediation 19-20, February,2025	Department of Energy and Environment, Thapar Institute of Engineering and Technology, Patiala, Punjab
60	Chief Guest	Local level	Educational Exhibition , 25 th February,2025	St.Xavioers English medium School, Anand, Gujarat
61	Invited Speaker	National conference	Sustainable Microbial , Agricultural Environmental Remediation on 10 th April,2025	St.Xaviers college , Ahmedabad, Gujarat
62	Invited Speaker	One day Seminar	Sustainable Lifestyle Practices on 27 March,2026	Parul Institute of Architecture and Research ,PARUL University.Vadodara by ECO SERVE, Gandhinagar

A. Research Contribution (Total 37 years of Research Experience):
Vidwan profile : <https://vidwan.inflibnet.ac.in/profile/270934>



Citation Index: **i10-Index-86; H-index-28, Total Citation: 4158** :
<https://scholar.google.co.in/citations?user=upm4FnsAAAAJ&hl=en>

<https://collegedunia.com/news/c-24099-interview-prof-dr-nirmal-kumar-j-i-principal-at-institute-of-science-and-technology-for-advanced-studies-and-research-vallabh-vidyanagar>

INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH (ISTAR) - Bing video , <https://www.youtube.com/watch?v=vZBQVj96Xt0>

U.RESEARCH PUBLICATIONS:

Air pollution, Green House Gas emissions and Global warming ,Climate change and mitigation measures, Biodiversity monitoring, Conservation, Restoration and Sustainable Development of Forest ecosystems & Wetlands ecosystems of Gujarat, Maharashtra and Rajasthan, Environmental pollution monitoring & Control technologies by Biodegradation process, Nanomaterials

2025-2026

1. Nobuyoshi Yamashita,Eriko Yamazaki; Dipa Lalwani; Pooja Thaker; sachi Taniyasu; nobuyasu hanari; Nirmal Kumar.2024.Historical reconstruction of PFAS discharge into the Cooum Risubstance before and after great Channai flood basin 2015. Chemosphere.
2. Nirmal Kumar J I 2026 Various Methods for recycling of E waste management . issue 11, June- July ,2026 www.environmentnews.com, p-39-45.
3. Dipa Lalwani, Sachi sachi Taniyasu , Eriko Yamazaki and Nirmal Kumar J I 2024. Chapter 15. Bisphenol A and its analogues in Indian rivers and other waters with reference to the global picture .DOI:[10.1016/B978-0-323-91545-8.00019-X](https://doi.org/10.1016/B978-0-323-91545-8.00019-X), In book: River Basin Ecohydrology in the Indian Sub-Continent (pp.435-458)
4. Nirmal Kumar J I 2024 Conservation of Biodiversity -Concepts, threats and a way forward to Sustainable development in India. www.environmentnews.com Nov.38-47
5. Megha Barot, Nirmal Kumar J I , Sarkar R, Syad 2024, HPTLC Analysis of Alkaloids in Methanolic Extract of Seaweeds of Okha Coast, Western India" Phytochemical Analysis
6. Nirmal Kumar,J I 2024. Paradigms of Greenhouse gases and Global warming.News.issue 7, June-July pp 48-54,www.environmentnews.com
7. Nirmal Kumar,J I 2024. Fabrication,Characterization and various applications of Nanoparticle-An Overview.Environment News.issue 6 November -December pp 60-67,www.environmentnews.com

2022-23

8. Neel Talati, Rita Kumar, Dhara Tuteja, Nirmal Kumar 2023. Present status and diversity of avifauna in some selected sites of central Gujarat India (ACCEPTED) Sustainability Agri, Food and Environmental Research
9. Jagruti Patel, Rita N Kumar , J I Nirmal Kumar 2023. A Comprehensive Review -On Waste Water Treatment -Technologies With Special emphasize On Biological Treatments. *International journal of Life Science and Pharma Research*, 13(2) 113-124.E-ISSN 2250-0480 Chris Jayam Educational and Research
10. Bhakhar Himalay, Kumar Rita N., Kumar Nirmal J. I.2023. An assessment of ambient air quality and air quality index for Ahmedabad, Gujarat, India. Sustainability Agri, Food and Environmental Research, Vol.12. ISSN: 0719-3726 **The Universidad Catolica de Temuco.**
11. Riya Shah, Nirmal Kumar, Rita N Kumar and Nirali Goswami .2022. The Occurrence And Distribution Of Organic Compounds With Atmospheric PMs In Nine Cities Of Gujarat, India. *Journal Of Environment Treatment And Techniques*, 10(1),55-66, ISSN 2309- 1185 Dorma Publishers [https://doi.org/10.47277/JETT/10\(1\)66](https://doi.org/10.47277/JETT/10(1)66)
12. Bhakhar Himalay, Kumar Rita N. , Shah Shwetel, Kumar Nirmal J. I 2023. Spatial and Temporal variations of Organic Chemical compounds in Ambient Air from Ahmedabad City, Gujarat, India *Research Journal of Chemistry and Environment (WRA Publication)* 27(9): ISSN 0972-0626.IF.0.25 doi:10.25303/2709irjce/28038
13. Himalay Bhakhar, Rita N. Kumar, Nirmal Kumar 2022. Ambient air quality and the air pollution tolerance index of some common plant species of Anand city, Gujarat India . *Mendeley Data.* (Elsevier) DOI.10.17632/tbjrb2smcz.1 Elsevier

14. Riya Shah, Nirmal Kumar J.I., Rita N. Kumar, Nirali Goswami (2023), "A GREEN APPROACH FOR SYNTHESIS OF TITANIUM DIOXIDE NANOPARTICLE BY ALOE BARBADENSIS AND ITS APPLICATION IN PHOTOCATALYTIC DECOLOURATION OF COMMERCIAL DYES" (ACCEPTED, Environment and Ecology (Web of science/UGC care list) 40(4B) MKK Publishers ISSN 0970-0420
15. Shah, R., Kumar, J. N., Kumar, R. N., & Goswami, N. (2023). A sustainable approach for synthesis of zinc oxide nanoparticle by Aloe barbadensis and its application in photocatalytic decolouration of commercial dyes. Sustainability, Agri, Food and Environmental Research, 11.ISSN: 0719-3726 **The Universidad Catolica de Temuco.**
16. Nirali Goswami, Nirmal Kumar J.I., Rita N. Kumar, Riya Shah 2023. Distribution and Biochemical Composition of Seaweeds with Relation to Hydro-chemical Characters of Marine Water (ACCEPTED) Research journal of Chemistry and Environment. 2. (3) 09-12 IF.0.24DOI: 10.25303/2703rjce009019 **ISSN0972-0626**
17. Nirali Goswami, Nirmal Kumar J.I., Rita N. Kumar, Riya Shah.2022. Emerging Pollutants in the Marine Coastal Environment of the World's largest ship breaking yard- Alang, India" (ACCEPTED) Environment and Ecology Journal , (Web of science/UGC care list) 40(4C)MKK Publishers ISSN 0970-0420
18. Nirali Goswami, Nirmal Kumar J.I., Rita N. Kumar, Riya Shah 2022. A Review On Emerging Pollutant Status And Nutraceutical Properties Of Seaweeds From Marine Ecosystems. Life Science Leaflets.150 pp.1-29 IF. 1. 09 PAAVAN EDUCATION TRUST
19. Shah, R., JI, N. K., & Goswami, N. (2022). A REVIEW ON SYNTHESIS OF NANOPARTICLES AND THEIR APPLICATION IN DYE DEGRADATION". LIFE SCIENCES LEAFLETS, 149, 11-34. IF. 1.09 PAAVAN EDUCATION TRUST
20. Neel Talati, Rita N Kumar, Dhara Tuteji and Nirmal Kumar (2022). Ongoing assessment of the Marsh Crocodile (*Crocodylus palustris*) population in the wetlands of Anand and Kheda Districts , Gujarat , India. Reptiles and Amphibians (ISSN 2332-4961),29. 103-106. **DOI: <https://doi.org/10.17161/randa.v29i1.16264>** 2022-02-13
21. Neel Talati, Rita N Kumar, Dhara Tuteja and Nirmal Kumar, J.I. (2022). Phytoplankton and Zooplankton diversity in rural wetlands of Anand and Kheda Districts , Gujarat , India. Journal of Holistic Approach in Environment (Accepted) ISSN: 1848-0071.
22. Bhakhar , Himalaya,Kumar Rita N, Talati Neel, Desai Dhara, Kumar JI Nirmal 2022. Characterization of waste in the vicinity of Anand District, Gujarat , India. *Mendeley Data.* (Elsevier),VI , DOI.10.17632/k872m7mfrj.1 Elsevier
23. Talati Neel , Kumar Rita N, Desai Dhara, Kumar JI Nirmal 2022. Ecological impacts and status of marsh Crocodile on selected wetlands of Anand and Kheda District, Gujarat , India. Environment and Ecology Journal (accepted UGC care list) 40(3)MKK Publishers ISSN 0970-0420
24. Desai Dhara Talati Neel ,Kumar Rita N, Kumar J I Nirmal 2022. Checklist of Phytoplankton availability at selected sites of Gulf of Khambhat, Gujarat ,India. J. Environment and Ecology Journal (Accepted ,UGC care list) 40(3)
25. Shah, Riya; J.I., Nirmal Kumar; N. Kumar, Rita ; Goswami, Nirali (2022), "Comparative Investigation on Synthesis, Characterization, Photocatalytic decolouration of Crystal Violet dye by TiO₂ and ZnO Metallic Nanoparticles under Ultraviolet, Solar and Infrared radiation *Mendeley Data.* (Elsevier), V1, DOI: 10.17632/bhv9srhswm.1 Elsevier 19 January 2022
26. Goswami, Nirali; J.I., Nimal Kumar; Kumar, Rita N.; Shah, Riya (2022), "A Comparative study on hydrochemical profile of Alang- World's largest shipbreaking yard and Gopnath", *Mendeley Data.* (Elsevier), V1, DOI: 10.17632/hgkcshcbrw.1 Elsevier 19 January 2022

27. Hiren B ChoudharyF, Hiren B Soni, Nirml Kumar, J I and Rita N Kumar 2022. Hydrochemical profile of Pariyej community reservoir (PCR) , Gujarat India: A Multivariate statistical approach using Multidimensional scaling. *Mendeley Data*. (Elsevier) Published: 19 January 2022|Version 1|DOI:10.17632/ghz3t6g5kw.1
28. Chaudhari, H.J., H.B. Soni, J.I., Nirmal Kumar and Rita N. Kumar (2022) Multivariate Statistical Analysis of Geochemical Characters of Pariyej Community Reservoir (PCR), Gujarat, India: A Multidimensional Software Approach. *Mendeley Data*. (Elsevier) <https://data.mendeley.com/datasets/5ngywjzrjg2/1> 19 January 2022

2020-21

29. Shah, S., J.I., Nirmal Kumar, H.B. Soni, R.N. Kumar, D.S. Patel and D. Shah (2021) Assessment of Climate Change Impact on Ambient Air Quality of Industrial, Urban and Rural Belts in and around Ahmedabad Metro City, Gujarat, India. *Mendeley Data*. (Elsevier) <http://dx.doi.org/10.17632/vvn5bnngxm.5>
30. Nirmal Kumar, J.I., Hiren B. Soni, Rita N. Kumar, Priyanshi Delvadiya (2021) Synthesis and Characterization of Plant Activated Charcoal (PAC) for Remediation of Pollutants from Industrial Effluents - An Efficient Tool for Pollution Abatement at Industrial Scale. *Mendeley Data*. (Elsevier) DOI:10.17632/6gcnh4rnzz.1 Elsevier.
31. Dharitri B. Ramanlal, Rita N. Kumar, Nirmal Kumar J. I., Rashmi Thakkar. 2021. An Introduction To Heavy Metal Pollution And Different Technologies Available For Remediation . The Holistic Approach To Environment, 12(1)
32. Lalwani Dipa*1, Patel Dhruti1, Varghese Baiju1, Kumar J.I. Nirmal1and Kumar N. Rita. Occurrence of aliphatic and aromatic compounds associated with atmospheric particulate matter in three cities of Gujarat, India 2021, Research Journal of Chemistry and Environment .25: 20-27 IF 0.3 DOI:10.25303/2511rjce2027
33. J.I., Nirmal Kumar; Soni, Hiren B.; Kumar, Rita N.; Sharma, Shuchi (2021), “Comparative Investigation on Synthesis, Characterization, Dye Decoloration and Remediation of Nutrients from Industrial Effluents by TiO₂ and ZnO Metallic Nanoparticles”, *Mendeley Data*. (Elsevier), V1, DOI: 10.17632/pn4n9v655d.1. (Elsevier)
34. Soni, H.B. and J.I. Nirmal_Kumar (2021) Population Dynamics and Behavioral Pattern of Marsh Crocodile (*Crocodylus palustris* Lesson, 1831) – A Dimensional Analogy between Hydro-Chemical Physiognomies and Species Richness. *Mendeley Data*. (Elsevier) <https://data.mendeley.com/datasets/b6dr7wmfm8/1>

2019-2020

35. Dharitri B. Ramanlal, Rita N. Kumar, J. I. Nirmal Kumar and Rashmi Thakkar Assessment of phytoremedial potential of invasive weeds *Acalypha indica* and *Amaranthus viridis* . Environmental Sustainability.3, 415–425(2020)
36. DipaLalwani^{ab}YuefeiRuan^cSachiTaniyasu^bErikoYamazaki^{bde}NirmalJ.I.Kumar^aPaul K.S.Lam^cXinhongWang^dNobuyoshiYamashita 2020. Nationwide distribution and potential risk of bisphenol analogues in Indian waters. Ecotoxicology and Environmental Safety. Elsevier <https://doi.org/10.1016/j.ecoenv.2020.110718> IF.6.68
37. Nirmal Kumar J.I.,Hiren B Soni 2019 Environmental Modelling of Surface Water Quality of Banas River using AQUATOX Simulation Model: A Case Study of Polluted Rivers Stretches (PRS), North Gujarat, India DOI:10.17632/7437c65mjx.2
38. Dharitri B. Ramanlal, Rita N. Kumar, Nirmal Kumar & Rashmi Thakkar 2020 Assessing potential of weeds (*Acalypha indica* and *Amaranthus viridis*) in phytoremediating soil contaminated with heavy metals-rich effluent *SN Applied Sciences* volume 2, Article number: 1063 <https://doi.org/10.1007/s42452-020-2859-0> Springer

39. Eriko Yamazaki^{ab} Sachi Taniyasu^b Kosuke Noborio^c Heesoo Eun^d Pooja Thaker^{be} Nirmal J.I. Kumar^e Xinhong Wang^a Nobuyoshi Yamashita^{b*} 2019 . Accumulation of perfluoroalkyl substances in lysimeter-grown rice in Japan using tap water and simulated contaminated water" *Chemosphere* Sep;231:502-509., ISSN 0045-6535, <https://doi.org/10.1016/j.chemosphere.2019.05.022> IF-8.94
40. Yuefei Ruan^a, Dipa Lalwani^{b,c}, Karen Y. Kwok^a, Eriko Yamazaki^{b,d}, Sachi Taniyasu^b, Nirmal Kumar J.I^c, Paul K. S. Lam^{a,e}, Nobuyoshi Yamashita^{b*} 2019 . Assessing Indian exposure to legacy and emerging per- and polyfluoroalkyl substances *via* hair — the first nationwide survey 2019 *Chemosphere*. Vol. 229: Pages 366-373 ,ISSN 0045-6535.<https://doi.org/10.1016/j.Chemosphere.2019.04.195>. IF-8.94
41. Nirmal Kumar, J.I and Hiren B Soni 2019 Environmental modeling of surface water quality of Banas river using AQUATOX simulation model: A case study of polluted rivers stretches (PRS) North Gujarat India. Mendeley Data(Elsevier) <http://dx.dio.org/10.17632/7437c65mjx.2>
42. Megha Barot, J. I. Nirmal Kumar & Rita N. Kumar 2019 An Evaluation of the Nutritional Composition of Seaweeds as Potential Source of Food and Feed. *Natl. Acad. Sci. Lett.* 42, pages459–464(2019) IF.0.73
43. Dharitri B. R., Rita N. K., Nirmal K, J. I., Mansi N. B. & Rashmi M. T. An Assessment of Phytoremedial Potential of *Acalypha indica* in Cleaning Lead and Zinc Contaminated Soil. *International Journal of Research And Analytical Reviews*, 5(3), 193-198. UGC Journal IF-5.7
44. Dharitri B. Ramanlal, Rita N. Kumar and Nirmal Kumar, J.I. Plants and Their Magnificent Indoor Air Purifying Attributes. *Everyman's Science Magazine*, L3(5), 311-315. ISSN: 0531-495X
45. Rashmi M. T., Rita N. K., Nirmal K, J. I., Mansi N. B. & Dharitri B. R. An Assessment of Groundwater Quality in the Selected Sites of Anand City, Gujarat, India. *International Journal of Research in Advent Technology*, 6(6),1026-1032 ISSN 2321-9637

2018

46. Jignasha G. Patel, Nirmal J. I. Kumar, Rita N. Kumar & Shamiyan R. Khan.2018. Evaluation of nitrogen fixing enzyme activities in response to Pyrene bioremediation efficacy by defined artificial microalgal-bacterial consortium of Gujarat, India. *Polycyclic Aromatic Compounds*.38 (3), 282-293 DOI: 10.1080/10406638.2016.1207684. ISSN: 1040-6638. IF .2.2
47. Dhruti Patel*, J. I. Nirmal Kumar,2018. An Evaluation of Air Pollution Tolerance Index and Anticipated Performance Index of Some Tree Species Considered for Green Belt Development: A Case Study of Nandesari Industrial Area, Vadodara, Gujarat, India. *Open Journal of Air Pollution* 7: 1-13.
48. Dhruti Patel, Nirmal Kumar, J.I and Rita N Kumar.2018. Suggested plant species for Green Belt Development in Nandesari Industrial Area by Air Pollution Tolerance Index and Anticipated Performance index. *Cleaner Production and Technology* .16(2) : 3-10.ISSN No: 2454-4493.

2017

49. Hiral Soni, Nirmal Kumar, J.I, Kushal Patel and Rita N Kumar,2017. Investigation on the Heterogeneous Photocatalytic remediation of Pyrene and Phenanthrene in Solutions Using Nanometer TiO₂ under UV Irradiation" *Polycyclic Aromatic Hydrocarbons*" 40;1-11 DOI: 10.1080/10406638.2017.1411956 IF .2.2 .
50. Hiral Soni, Nirmal Kumar, J.I, Kushal Patel and Rita N Kumar,2017. "Metallic nanoparticles as alternative antimicrobials" in *Journal of Nanomedicine Research*.

DOI:10.15406/jnmr.2017.06.00165 ISSN: 2377-4282, J Nanomed Res. 2017;6(4):1–12. IF Med Carve

51. Ramanlal, Rita N. Kumar, Nirmal Kumar, J. I, Mansi N. Banker & Rashmi Thakkar (2017). A Review: Phytoremediation A Green Tool to Embrace Suitability & Sustainability.IJSRD - International Journal for Scientific Research & Development| Vol. 5, Issue 05,166-170 | ISSN (online): 2321-0613.
52. Nidhi R. Parmar,• Prabhakar D. Pandit,• Hemant J. Purohit,• J. I. Nirmal Kumar and Chaitanya G. Joshi.2017. Influence of Diet Composition on Cattle Rumen Methanogenesis: A Comparative Metagenomic Analysis in Indian and Exotic Cattle. Indian J Microbiol. 57(2):226-234. DOI: 10.1007/s12088-016-0635-z IF-1.6
53. Dharitri B. Ramanlal, Rita N. Kumar, Nirmal Kumar, J. I, Mansi N. Banker & Rashmi Thakkar.(2017). Screening & Assessment of Heavy Metal Accumulation Potential of *Amaranthus Spinous* & *Cassia Tora* In & Around the Vicinity of Anand, Gujarat.2017.International Journal for Research in Applied Science & Engineering Technology (IJRASET) 1-5 ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor:6.887 Volume 5 Issue IX, September 2017-
54. Rashmi Thakkar, Rita N. Kumar, Nirmal Kumar, Dharitri Ramanlal, Mansi Banker. 2017.Assessment of Physico-Chemical Parameters of Selected Agricultural Fields, Anand, Gujarat, India .International Journal of Advances in Agricultural Science and Technology, Vol.4 Issue.8, , pg. 18-24 ISSN: 2348-1358.Impact Factor: 6.057, 25=9
55. Kumar J. I.*, Megha Barot & Rita N Kumar.2017, Distribution and biochemical constituents of different seaweeds collected from Okha coast, Gujarat, India. Indian Journal of Geo-Marine Sciences. Vol. 46(02). 349-357 IF-0.7 <http://nopr.niscpr.res.in/handle/123456789/40774> **National Institute of Science Communication and Policy Research**

2016

56. Dhruti Patel, Chitresh Saraswat, Pankaj Kumar, Nirmal Kumar JI.2016. Assessments of Atmospheric Interchanges of Green House Gas Emissions from the Cultivated Land: Study Based on Edaphic Gradients of Plantations in Semi Arid Region of Gujarat, India. Environmental Pollution and Protection. 1 :97-110. IF-0.4
57. Jignasha G Patel, Nirmal Kumar J.I, Rita N Kumar and Shamiyan R Khan, (2016). Biodegradation of capabilities and enzymatic variations of potentially hazardous Polycyclic Aromatic Hydrocarbons - Anthracene and Pyrene by *Anabaena fertilissima* Rao. Polycyclic Aromatic Compound 36: 72-87.DOI:10.1080/10406638.2015.1039656. ISSN: 1040-6638.IF.2.2.
58. Hiral Soni, Nirmal Kumar J.I., Khushal Patel & Rita N. Kumar (2016). Photo catalytic efficiency and kinetic studies of ZnO nanoparticles for the removal of basic dye Rhodamine B. Desalination and Water Treatment. 57: 19857–19864. IF.1.39.
59. Rita N. Kumar, Nirmal Kumar and Annie Kizhakkodon. (2016) A short term study of methane emission from wheat agriculture field. International J of advanced research Vol 4: 568-573, ISSN 2320-5407.
60. Annie Abraham, Rita Kumar and Nirmal Kumar 2016. Organic vs conventional farming: a comparative study on methane emission. Int J of Sci, Env & Tech Vol 5 issue 4 pp-2308-2314, ISSN 2278-3687 (O) 2277-663X (P).
61. Rashmi Takkar, Rita N Kumar, Nirmal Kumar,J.I. , Dharitri Ramanlal and Mansi Bankar, 2018. An Assessment of Groundwater quality in the selected sites Anand city, Gujarat, India . International J of Research in Advent Technology. 6(6) : ISSN:2321 -9637
62. Mansi Banker, Rita N Kumar and Nirmal Kumar J I, 2016. A study on phytoremediation of pigment industry waste: *Eicchornia crassipes* as potential hyperaccumulator species.

International J of Plant, Animal and environmental Sciences Vol 6: :72-83 , ISSN-2231-4490,

63. Megha Barot, Nirmal Kumar J.I., Rita N. Kumar.2016. Bioactive compounds and antifungal activity of three different seaweed species *Ulva lactuca*, *Sargassum tenerrimum* and *Laurencia obtusa* collected from Okha coast, Western India.*Journal of Coastal Life Medicine*2016; 4(4): 284-289.,Open Academic Journals Index IF 0.350,
64. Annie Abraham, Rita Kumar and Nirmal Kumar.J.I. 2016.A short term study of methane emission from wheat agriculture field. *International Journal of Advanced Research* (2016), Volume 4:568-573.ISSN 2320-5407.

2015

65. Dhruti Patel; Pankaj Kumar; Srikantha Herath; Nirmal Kumar JI; Ram Avtar (2015). Assessment Of Factors For Soil-Atmosphere Exchange Of Greenhouse Gases In *Manilkara zapota* Plantation And *Mangifera indica* Plantation In Western India. *International J of Research and Innovations in Earth Sciences*. 2: 61-69,ISSN. 2394-1375
66. Hiral Soni, J I Nirmal Kumar, Khushal Patel and Rita n Kumar. 2015. Photo-catalytic decolouration of Rhodamine B dye using ZVInanopowder synthesized by chemical reduction method. *Indian Journal of Nanoscience* 3 (2):ISSN: 2320-9682. Global Impact and Quality Factor IF.0.566,
67. Hiral Soni, J I Nirmal Kumar, Khushaal Patel and Rita n Kumar 2015. Highly active TiO₂ nanophotocatalysts for degradation of methyl orange under UV irradiation 2015.*International journal of earth & environmental sciences*. ISSN: 2456-351X, 1: 1-8.
68. Jignasha G. Patel,, J.I. Nirmal Kumar,, Rita N. Kumarand Shamiyan R. Khan 2015. Isolation And Characterization Of Three And Four Ring PAHs Degrading Bacteria From Contaminated Sites, Ankleshwar, Gujarat, India. *International J of Environment* .4:130-140. ISSN 2091-2854
69. Nirmal Kumar, Bhavsar Kushboo, Rita Kumar, (2015).Effect of mercury on growth and pigment content of Cyanobacteria: *Westiellopsis prolifica* Jane. *International J Research in Chemistry and Environment*. 5: 70-75. ISSN 2248-9649. =9+5=14,Global Impact and Quality Factor IF.0.657
70. Nirmal Kumar, Bhavsar Kushboo ,Rita Kumar, Jeegna B. (2015). Biochemical and Enzymatic investigation of *Westiellopsis prolifica* Janet in response to mercury stress. *International J of Advanced Research* .3: 1018-1029. ISSN 2320-5407.
71. N.R.Parmar, J.I.Nirmal Kumar and C . G Joshi.2015 Exploring diet-dependent shift in metanogen and methanotroph diversity in the remen of Mehsani buffalo by metagenomic approach. *Frontiers in Life Science*.10:58. ISSN : 2155-3769, IF.0.867.
72. N.R.Parmar, J.I.Nirmal Kumar and C . G Joshi.2015. Advancements in Bovine Rumen Microbial Ecology: A Review. *Int. J. Curr. Microbiol. App.Sci*. 4: 105-121. ISSN:2319-7692. =15Global Impact and Quality Factor: 0.654.
73. Shamiyan R Khan, Nirmal Kumar J.I., Rita N Kumar and Mansi Banker, (2015). Ex- Situ Studies on Biodegradation of Artificially Enriched Kerosene and Diesel Soils by Fungal isolates. *Soil and Sediment Contamination an International Journal* 24:796–810, ISSN: 1532-0383 .(IF: 3.1) 25+ 10= , H index;36
74. Shamiyan R Khan, Nirmal Kumar J.I., Rita N Kumar and Jignasha G Patel, (2015). Biodegradation of kerosene: A study of growth optimization and metabolic fate of *Penicillium decumbens* PDX7 during degradation. *Brazilian Journal Of Microbiology*.46:396-407, IF:1.12ISSN 1678-4405,IF:2.89 H index.38.
75. Shamiyan R Khan, Nirmal Kumar J.I., Rita N Kumar and Jignasha G Patel (2015). Enzymatic evaluation during degradation of kerosene and diesel, by locally isolated fungi

from petroleum contaminated soils of western India. *Soil and Sediment Contamination – An International Journal*. 24 (5):514–525,ISSN: 1532-0383 ,(IF: 3.1). 25= 9+10= 19,H index;36.

76. Jignasha G. Patel, Nirmal Kumar, J. I and Shamiyan R. Khan.2015. Consequences of environmentally hazardous polycyclic aromatic hydrocarbon- anthracene treatment on cyanobacteria. *International J of Applied Sciences and Biotechnology* . Vol 3(3): 381-386 =15 Universal Impact Factor: 1.422, Scientific Journal Impact factor: 4.342
77. Jignasha G. Patel, J.I. Nirmal Kumar, Rita N. Kumar and Shamiyan R. Khan 2015 Enhancement of pyrene degradation efficacy of *Synechocystis* sp., by construction of an artificial microalgal-bacterial consortium. *Cogent Chemistry* .1:1-13 <http://dx.doi.org/10.1080/23312009.2015.1064193> ISSN: 2331-2009 .
78. N.R.Parmar, J.I.Nirmal Kumar and C . G Joshi.2015 Deep insights into carbohydrate metabolism in the rumen of Mehsani buffalo at different diet treatments. *Genomic Data*. 6: 59-62. ISSN: 2213-5960.IF.0.53, SC Imago Journal Rank (SJR): 0.228.
79. Megha Barot ,Nirmal Kumar J. I. , Rita N. Kumar .2015 Seaweed Species Diversity in Relation to Hydro Chemical Characters of Okha Coast, Western India. *International Journal of Recent Research and Review*, Vol. VIII . 16-28.ISSN 2277 – 8322, International Scientific Indexing I.F : 1.336
80. Nirmal Kumar • Pankaj Kumar • George Basil •Rita N. Kumar • Ali Kharrazi • Ram Avtar (2015).Characterization and evaluation of hydrological processes responsible for spatiotemporal variation of surface water quality at Narmada estuarine region in Gujarat, India. *Applied Water Science*. 5: 261-270,ISSN: 2190-5495 .
81. Megha Barota*, Nirmal Kumar J.I.a, Rita N. Kumar, 2015. Nutraceutical properties of green, red and brown seaweeds from the Eco-sensitive Zone, India as potential dietary and pharmaceutical applications. *Proceedings of the India International Science Festival- Young Scientists’ Meet Department of Science and Technology, Government of India – Dec 4-8, 2015 Paper Code:Ocean 13: 1-7.*
82. Nirmal Kumar, J.I., Megha Barot & R.N. Kumar (2015) Distribution and biochemical constituents of different seaweeds from Okha coast, Gujarat. *Indian Journal of Marine Science*. Accepted (IF:0.5).46 [2]

2014

83. Hiral Soni,Nirmal Kumar J.I, Khushal Patel and Rita N Kumar (2014). Photo catalytic degradation of three commercial dyes in aqueous Phase and Industrial effluents using TiO₂ nanoparticles. *Desalination and Water Treatment*, 54:1-10, ISSN: 1944-3994, (I.F. : 1.39). 25= 9+10= 19, H index:26
84. Nirmal Kumar J.I., Megha Barot, Priyakanchini Gupta and Kanti Patel (2014).An Evaluation Of Short Term Greenhouse Gas Emissions From Soil And Atmosphere Exchange In Response To Controlling Edaphic Factors Of Eucalyptus Plantation, Gujarat, India. *International J of Environment*. 3(3):59-77, ISSN 2091-2854 .
85. Hiral Soni and Nirmal Kumar J.I. 2014. UV induced Photocatalytic degradation of Malachite Green on TiO₂ Nanoparticles. *International Journal of Recent Research and Reviews*. 7(3): 10-15. ISSN: 2277-8322.
86. Nidhi R. Parmar,Jitendra V. Solanki,Anand B. Patel,Tejas M. Shah,Amrutlal K. Patel, Subhash Parnerkar,Nirmal Kumar J.I.,Chaitanya G. Joshi.2014.Metagenome of Mehsani Buffalo Rumen Microbiota: An Assessment of Variation in Feed-Dependent Phylogenetic and Functional Classification. *J of Molecular Microbiology and Biotechnology*.24:249–261., ISSN: 1464-1801.IF.2.684.

87. Nirmal Kumar J.I., Miral Patel, K.K.Tiwari (2014). Fluorathene induced changes in two microalgal species: *Chlorella vulgaris* Chodat and *Desmodesmus subspicatus* Beijerinck. *International Journal of Environment*.3:41-55.ISSN, 2091-2854
88. Miral Patel, Nirmal Kumar J.I. and K.K.Tiwari. 2014.An investigation on principle biochemical components, photosynthetic pigments, nucleic acid and enzymatic activities of axenic culture of *Scytonema* sp. treated with two PAHs: *Acenaphthene*, *Fluoranthene*. *International J of Applied Science and Biotechnology*.2:34-40. ISSN, 2091-2609
89. Isaiiah Nirmal Kumar, Megha Barot, Rita Kumar.2014. Phytochemical analysis and antifungal activity of selected seaweeds from Okha coast, Gujarat, India. *Journal of Coastal life Medicine*.. 2:535-540.ISSN.2309- 5288
90. Nirmal Kumar, J.I., Jignasha G Patel, Rita N Kumar, Shamiyan R Khan. (2014). Chronic Response of Three Different Cyanobacterial Species on Growth, Pigment, and Metabolic Variations to the High Molecular Weight Polycyclic Aromatic Hydrocarbon – Pyrene. *Polycyclic Aromatic Compounds* .34: 143-160. ISSN: 1563-5333, (IF:2.2).
91. Basil George, Nirmal Kumar, J.I and Rita n. Kumar 1(2014). An evaluation of phytoplankton assemblage in relation to environmental variables of Narmada estuarine region of gulf of Khambhat, Gujarat, India, *Applied Ecology And Environmental Research* 13(1): 115-131 IF.0567, ISSN 1589 -1623. IF : 0.9 H index 19.
92. Miral S. Patel*¹, J.I. Nirmal Kumar² and K.K.Tiwari¹ 2014 Chronic toxic effect of Acenaphthene on diverse microalgae and cyanobacteria: *Chlorella vulgaris* Beijerinck, *Desmodesmus subspicatus* Chodat and *Scytonema* sp .*International Journal of Agriculture, Environment & Biotechnology* .Citation: IJAEB: 7 Special Issue : 467-478.Global Impact Factor: 1.7
93. Shamiyan R Khan, Nirmal Kumar J.I., Rita N Kumar and Jignasha G Patel. (2014). Baseline study for bioremediation of diesel contaminated soil site of Anand, Gujarat, India. *International Research Journal of Chemistry*. 4: 37-53. ISSN: 2321-2845 IF-0.7

2013

94. Jignasha G. Patel, Shamiyan R. Khan, Nirmal Kumar, J. I., Rita N Kumar, (2013),–Chronic toxicity of High molecular weight polycyclic aromatic hydrocarbon-Pyrene on *Anabaena fertilissima* Rao. *International Journal of Environment*.Vol.-2:1, 175-184,ISSN, 2091-2854. 25=9
95. Nirmal Kumar J.I., Shamiyan R Khan, Rita N Kumar, Sajish P.R. (2013). Assessment of Hydrochemical Characters Variations in Relation to Phytoplankton during Pre-monsoon at J-point of Mahi Estuary, Gujarat, India. *Our nature*.11(2): 85-95. ISSN:1991-2951
96. Nirmal Kumar J. I., Sajish P.R, Kumar Rita N, George B, Khan S (2013). Statistical evaluation of water quality parameters of two different seasons in Mahi Estuary, West coast of India. *Ekologia*. 32(1) :126-137.ISSN:1337-947X. SCImago Journal Rank (SJR) 2015: 0.244,
97. Shamiyan R Khan, Nirmal Kumar J.I, Rita N Kumar and Jignasha G Patel, (2013).An Assessment of Physicochemical Properties, Heavy Metal Enrichment and Fungal Characterization of Refined Kerosene Impacted Soil in Anand, Gujarat, India. *International Journal of Environment*. 2(1): 164-174.ISSN: 2091-2854
98. Shamiyan R Khan, Nirmal Kumar J.I, Rita N Kumar and Jignasha G Patel. (2013).Physico-chemical properties, Heavy Metal enrichment and Fungal characterization of aged Gasoline contaminated soil site in Anand, Gujarat, India. *Environmental and Experimental Biology*. 11:137-143.ISSN: 1691 80881
99. Nirmal Kumar J.I., Anubhuti Bora, Rita N Kumar, Manmeet Kaur Amb, Shamiyan R Khan. (2013) Toxicity analysis of pesticides on cyanobacterial species by 16S rDNA molecular

characterization. . Proceedings of the International Academy of Ecology and Environmental Sciences 3(2): 101-132.IF. 58.ISSN: 2220-8860.

100. J.I. Nirmal Kumar, Manmeet Kaur Amb, Rita N Kumar, Anubhuti Bora, Shamiyan R Khan. (2013). Studies on biodegradation and molecular characterization of 2,4-D Ethyl Ester and Pencycuron induced Cyanobacteria by using GC-MS and 16S rDNA sequencing. Proceedings of the International Academy of Ecology and Environmental Sciences 3(1): 1-24. ISSN Number: 2220-8860.IF.0.58
101. Rita N. Kumar, Rajal Solanki & Nirmal Kumar J.I. (2013) "Seasonal variation in heavy metal contamination in water and sediments of river Sabarmati and Kharicut canal Ahmedabad, Gujarat. Environmental Monitoring and Assessment.185(1):359-68,DOI: 10.1007/s10661-012-2558-4) ISSN: 0167-6369,(IF= 3.6). H index. 66
102. Nirmal Kumar J.I., Megha Barot, Shamiyan Khan (2013) Some intermediate bio-Transformants during Biodegradation of High Molecular weight Phenanthrene and Fluoranthene by Cyanobacterial Species- *Aulosira fertilissima* Ghose. International Journal of Applied sciences and Biotechnology, Vol-1(3): 97-102.ISSN2091-2609

2012

103. Nirmal Kumar, Anubhuti Bora, Rita N. Kumar, and Manmeet Kaur Amb. (2012) Differential Effects of Agricultural Pesticides Endosulfan and Tebuconazole on Photosynthetic pigments, Metabolism and Assimilating Enzymes of Three Heterotrophic, filamentous Cyanobacteria Journal of Biological and Environmental Sciences 6(16): 67-75. ISSN Numbers: Printed: 1307-9530 Online: 1308-2019.
104. Nirmal Kumar, J.I.*, Basil George, Rita N. Kumar and Sajish P. R (2012) Studies on Biosorption potentiality of living *Aspergillus niger*. Tiegh in removing the heavy metals from aqueous solutions. Bioremediation J. 16:195-203,ISSN1088-9868,IF: 2.3. H index.14,
105. Nirmal Kumar, J.I. and Cini Oommen. (2012) Removal of Heavy Metals by Biosorption using Freshwater Alga *Spirogyra hyaline*. Journal of Environmental Biology 33:27-31. ISSN: 0254-8704.IF.1.289.
106. Rita N. kumar, Sudeshana Chakraborty and Nirmal Kumar J.I.(2012).Influence of Light and Developmental Stages on Active Principles of *Andrographis paniculata* (Burm.f.) Wall. Ex Nees. Indian Journal of Scientific Research. 3(1): 91-95. ISSN- 0976-2876
107. Nirmal Kumar J.I., Patel Kanti, Rita N Kumar, Priyakanchini Gupta (2012).Assessment of soil-atmosphere exchange of greenhouse gases and their environmental factors in tropical dry deciduous forest and eucalyptus plantation at central Gujarat, Western India. International J of Environmental Sciences. 2: 1885-1899. ISSN No. : 0976-4402
108. G.Quazi, J.I.N.kumar, and Rohit K.Bhoi.2012. Nutrient dynamics of *Miliusa tomentosa* in a dry tropical teak forest of Rajasthan. Asian J of environmental Science: 7:73-77. . ISSN. 0973-4759,
109. Isaiah J. NIRMAL KUMAR, George BASIL, Rita NIRMAL KUMAR, Poliyaparambil Ravi SAJISH, and Viyol SHAIENDRA. (2012).Assessment of water physico-chemical characteristics and statistical evaluation of Narmada Estuarine Region, Gujarat, India .Journal Of Water And Land Development . 16 (I–VI): 43–48, ISSN 1429–0742, (SNIP) IF 0.767. SCImago Journal Rank (SJR) 2015: 0.152, (ICV) 2014: 8,72, IF.0.3, H index.6
110. Basil George, J.I. Nirmal Kumar, Rita N Kumar (2012). Study on the influence of hydro-chemical parameters on phytoplankton distribution along Tapi estuarine area of Gulf of Khambath, India. Egyptian Journal of Aquatic Research. Elsevier. 38:157-170, ISSN: 1687-4285.(SNIP): 0.538 .,SCImago Journal Rank (SJR): 0.412 , IF-3.6

111. Nirmal Kumar J.I., Basil George., Rita N Kumar., Sajish P.R., Shailendra Viyol (2012). An Assessment of Physico-chemical characteristics and statistical evaluation of its seasonal changes of the coastal water of narmada estuary, Gujarat. *Ekologia* 31 (1):65-74. ISSN:1337-947X, SCImago Journal Rank (SJR) 2015: 0.244, IF-1.3
112. Nirmal Kumar . J.I., Sajish. P.R., Rita N Kumar and Basil George (2012). Bio-Monitoring of Phytoplankton to Assess The Water Quality of Mahi Estuary, Western Gujarat, India. *International Journal of Advanced Research in Biotechnology*, 1: 001-004. ISSN(online)- 2319-9350. ISSN: 2319-9350. IF-1.7
113. Kumar Rita.N1, Solanki Rajal1, Nirmal Kumar J.I. (2012). Geochemistry of Sabarmati River and Kharicut Canal, Ahmedabad, Gujarat. *International J of Environmental Sciences*: 2, No 4:1909-1919 ISSN-. ISSN 0976-4402.
114. Nirmal Kumar J.I, Manishita Das , Rana Mukherji. and Rita. N Kumar (2012). Heavy Metal Contamination of Selected Aquatic Macrophytes in Two Distinct Seasons: A Case Study of Varasda Wetland, Gujarat, India. *Turkish Journal of Science and Technology*, 7 (1): 7-17, ISSN : 1308-9080
115. G.Qazi, J.IN. Kumar and Rohi K Bhoi (2012). Nutrient dynamics of *Acacia nilotica* in an open dry scrub land forest of Rajasthan. *International Journal Forestry and crop improvement*. 3: 66-71. ISSN : 0976-562X, NAAS Rating : 3.27 IF-1.9
2011
116. Nirmal Kumar, J.I., Anubhuti Bora, Rita N. Kumar and Manmeet Kaur Amb. (2011). An Evaluation of pesticide stress induced proteins in three Cyanobacterial species-*Anabaena fertilissima*, *Aulosira fertilissima* and *Westiellopsis prolifica* using SDS-PAGE *Advances in Environmental Biology* 5(4): 739-745. ISSN: 1995-0756., H index.15, IF-2.8
117. J.I. Nirmal Kumar1,*, P.R. Sajish1, Rita N Kumar2, Basil George1, Shailendra Viyoll (2011) An Assessment of the Accumulation Potential of Pb, Zn and Cd by *Avicennia marina*(Forssk.) Vierh. in Vamleshwar Mangroves, Gujarat, India. *Notulae Scientia Biologicae* , 3(1):36-40, ISSN 2067-3205
118. Nirmal Kumar, J.I., Rita N. Kumar, Manmeet Kaur Amb, and Anubhuti Bora. (2011). Study pesticide-induced changes in *Anabaena fertilissima*, *Aulosira fertilissima* and *Westiellopsis prolifica* *Journal of International Environmental Application and Science* 6(2): 201-208. ISSN: 1307-0428., IF: 0.857
119. Nirmal Kumar, J.I., Manmeet Kaur Amb, Rita N. Kumar and Anubhuti Bora. (2011). Evidences showing 2, 4-D ethyl ester and pencycuron-induced DNA damage in cyanobacteria and detection by PCR. *Toxicological and Environmental Chemistry* 93(5): 974-984. ISSN Numbers: Printed: 0277-2248. IF.1.6 , H index: 25,
120. Rita N. Kumar, Sudeshna Chakraborty and Nirmal Kumar J.I. (2011). Methods to break seed dormancy of *Andrographis paniculata* (Burm.f.Nees): An important medicinal Herb of tropical Asia. *Asian J.Exp. Biol. Sciences*. 2(1): 143-146. ISSN: 0975-5845.
121. Nirmal Kumar J.I., Verma Yamini and , Rita N. Kumar., (2011) Spatial Analysis of composition and species interactions with Temporal Variation of Zooplankton community of shallow Tropical lake: Thol Bird sanctuary, India. *Universal Journal of Environmental Research and technology*. 1 :151-159, ISSN 2249 0265. COSMOS IF: 4.56,
122. Rita. N. Kumar 1, Rajal Solanki 1 and Nirmal Kumar J.I.(2011). An Assessment Of Seasonal Variation And Water Quality Index Of Sabarmati River And Kharicut Canal At Ahmedabad, Gujarat. *Electronic J of Environmental , Agriculture and Food chemistry*. 10(5): 2248-2261 , ISSN: 1579-4377.
123. Rita N. Kumar, Rajal Solanki and Nirmal Kumar J. I. (2011): Assessment of spatial and temporal variation in Physico-chemical properties of water in river Sabarmati and Kharicut canal at Ahmedabad, Gujarat. *Nature Environment and Pollution Technology*. 10 (1): 147-154 ISSN: 0972- 6268, (ISI Journal *Impact Factor*: 1.621). , Impact Factor: 1.621 , NAAS

(India) Rating of the Journal (2014) = 4.94 ,Scopus SJR Index = 0.138,Index Copernicus: 5.96,

124. Nirmal Kumar J.I, Verma Y., R. N. Kumar and Das M. (2011). Influence of water quality on composition and seasonal abundance of phytoplankton community in Thol wetland, Gujarat, India, accepted for publication in, International Journal of Nature, Environment and Pollution Technology. 10 (3):399-404,ISSN: 0972-6268.(ISI Journal Impact Factor: 1.621) 15+10=25,Impact Factor: 1.621) NAAS (India) Rating of the Journal (2014) = 4.94 Scopus SJR Index = 0.138Index Copernicus: 5.96, 25=9+5=14
125. Nirmal Kumar, J.I, Manishita Das, Rita N Kumar, and Rana Mukherji (2011). Assessment of hydrochemical characteristics of Tropical wetland systems using principal component analysis :A case study. IUPJ of Environmental Sciences. 5 (1): 1-14. ISSN: 0973-9912.
126. Nirmal Kumar, J.I, Manishita Das, Rita N Kumar, and Rana Mukherji (2011).Assessment of heavy metal pollution in macrophytes, water and sediments of tropical wetland system using hierarchical cluster analysis technique. J International Environmental Application and Science. 6(1): 149-156,ISSN: 1307-0428.IF.0.85
127. J.I Nirmal Kumar, Manishita Das, Rita N Kumar, and Yamini Verma(2011). Spatial and Temporal patterns of water bird abundance and species richness in sewage-fed wetland Khodiyar , Gujarat, India. Berkut'The Ukranian J of Ornithology . 19:49 – 59. ISSN: 1727-0200.
128. Nirmal Kumar J.I. and Cini Oommen (2011). Phytoplankton Composition in Relation to Hydrochemical Properties of Tropical Community Wetland, Kanewal, Gujarat, India, Applied Ecology and Environmental Research, 9(3): 279-292, ISSN Number: Printed:1589 1623, Online: 1785 0037.IF: 0.9 .
129. Isaiah Nirmal Kumar., Poliyaparambil Ravi Sajish^{h1}, Rita Nirmal Kuma^{r2}, George Basil¹& Viyol Shailendr^a(2011). Bioaccumulation of Lead, Zinc and Cadmium I *Avicennia marina* Mangrove Ecosystem near Narmada Estuary in Vamlishwar, West Coast of Gujarat, India. Journal Int. Environmental Applications & Science. 6(1):008-013.ISSN : 1307-0428, IF.0.85.
130. Isaiah J. Nirmal Kumar, Poliyaparambil Ravi Sajish, Rita Nirmal Kumar, George Basil&Viyol Shailendra. (2011). Nutrient dynamics in an *Avicennia marina* (Forsk) Vierh, Mangrove forest in Vamleshwar, Gujarat, India. Notulae Scientia Biologicae.3: 51-56. ISSN Numbers: Printed: 2067-3205, Online: 2067-3264.
131. Nirmal Kumar J.I., P.R. Sajish¹, Rita N Kumar², Kanti Patel.(2011). Biomass and Net primary productivity in three aged *Butea* forest ecosystems in western India, Rajasthan. Iranica J. Energy and Environment. 2: 01-07. ISSN: 2079-2115, (IF: 1.4597) ,UIF 1.0597),
132. Nirmal Kumar J.I., Kanti Patel, Rita N Kumar and Rohit Kumar Bhoi. (2011) Forest structure, diversity and soil properties in a dry tropical forest in Rajasthan, Western India. Annals of Forest Research. .54:89-98.ISSN: 1844-8135. IF-0.4

2010

133. J.I. Nirmal Kumar, Kanti Patel, Rita N Kumar and Rohit Kumar Bhoi (2010). An evaluation of fuelwood properties of some Aravally mountain tree and shrub species of Western India. Biomass and Bioenergy 35: 411-414
[doi:10.1016/j.biombioe.2010.08.051](https://doi.org/10.1016/j.biombioe.2010.08.051)(Published online) Elsevier, ISSN: 0961-9534 , IF - 5.8, H index 124,
134. J.I. Nirmal Kumar, Kanti Patel, Rita N Kumar and RohitKumar Bhoi (2010). An assessment of carbon stock for various land use system in Aravally mountains, Western India. Mitigation and Adaptation Strategies for Global Change DOI: 10.1007/s11027-010-9240-3,15:811–824 (Springer) ISSN: 1381-2386. (IF: 3.6). H index 45,

135. Nirmal Kumar J.I., Kanti Patel, Rita N Kumar and Rohit Kumar Bhoi (2010). Seasonal and Temporal Variation in Soil Microbial Biomass C, N and P in Different Types Land Uses of Dry Deciduous Forest Ecosystem of Udaipur, Rajasthan, Western India. *Applied Ecology and Environmental Research*.8(4): 377-390, ISSN Numbers: 1589-1623, Online: 1785-0037.IF: 0.586.
136. Rita N. Kumar, Rajal Solanki and Nirmal Kumar J. I. (2010) An assessment of Water Quality Index and Hydrobiological parameters of Sabarmati river and Kharicut canal at Ahmedabad, Gujarat. *Global Journal of Environmental Research*. 4 (3): 183-191, ISSN : 1990-925X
137. Nirmal Kumar, J.I, Rita N Kumar, Yamini Patel and Shailendra Viyol (2010): Assessment of hydro-geochemical properties in relation to phytoplankton occurrence in tropical estuary – Narmada of Gujarat, India. *Indian Journal of Environmental Sciences*.14: 19-28. ISSN: 0971-8958 IF-1.1
138. Nirmal Kumar, J.I, Rita N Kumar and Shailendra Viyol (2010):Characterization of Hydro-Chemical Parameters in Relation to Freshwater Fraction Ingress in Tropical Narmada Estuary, Gujarat, India. *The Eco Scan- An International Biannual Journal of Environmental Science*. 4 (1): 49-52.ISSN: 0974-0376.
139. Nirmal Kumar, J.I, Rita N Kumar and Shailendra Viyol (2010): Dissolved Methane Fluctuations in Relation To Hydro-chemical Parameters in Tapi Estuary, Gulf of Cambay, India. *International Journal of Environmental Research*. 4(4):893-900 ISSN: 1735-6865,
140. J.I Nirmal Kumar, P.R Sajish, Rita N. Kumar and Rohit Kumar Bhoi. (2010).Wood and Leaf Litter Decomposition and Nutrient Release from *Tectona grandis* Linn. f. in a Tropical Dry Deciduous Forest of Rajasthan, Western India. *Journal of Forest Science*.26 (1): 17-23. (Korea). ISSN: 2070-2620, Online: 2070-2639.,SJR (SCImago Journal Rank – SCOPUS): 2015 – 0.356 – Q2 (Forestry) IF-1.3
141. J.I Nirmal Kumar, P.R. Sajish Rita N. Kumar, and Rohit Kumar Bhoi. (2010). Bioprospecting in a Tropical Dry Deciduous Forest of Western Rajasthan, India. *Journal of Forest Science*26 (1): 25-30.(Korea). ISSN: 2070-2620.=15,SJR (SCImago Journal Rank – SCOPUS): 2015 – 0.356 – Q2 (Forestry), IF-1.3
142. J.I. Nirmal Kumar, Rita N Kumar, Rohit Kumar Bhoi and Kanti Patel. (2010). Seasonal changes of bioelements in litter and their potential return to green leaves in five species of tropical dry deciduous forest, western India. *Journal of Forestry Research*. 21(1):33-38. (Springer) ISSN: 1007-662X.(IF.2.7). H index 14,
143. J.I. Nirmal Kumar, Rita N. Kumar, Kanti Patel and Rohit kumar Bhoi (2010). Consequence of *Butea monosperma* plantation on the nutrient cycling in a semiarid grazingland, Rajasthan, India. *International Journal of Plant Sciences* 5(1):16-23. ISSN: 0973-1547.. IF 1.89, H index 69,
144. J.I Nirmal Kumar, Rita N. Kumar, Rohit Kumar Bhoi and P.R. Sajish (2010).Tree species diversity and soil nutrient status in three sites of tropical dry deciduous forest of western India *Tropical Ecology*. 51(2): 273-279. ISSN: 0564-3295. (IF.1.33). H index 21,Springers
145. Nirmal Kumar, Basil George, Rita N Kumar, P.R Sajish. And Shailendra Viyol (2010): Biosorption of Mercury and Lead by dried *Aspergillus niger*. Tiegh isolated from estuarine sediments. *International Journal of Environmental Studies* 67(5):735-746. ISSN:0020-7233; Online: 1029-0400 IF-1.26
146. Nirmal J.I. Kumar, Anubhuti A. Bora, and Manmeet K. Amb (2010). Differential sensitivity of Nitrogen-fixing, Filamentous Cyanobacterial species to an Organochlorine Insecticide - 6, 7, 8, 9, 10, 10-Hexachloro-1, 5, 5a, 6, 9, 9a-Hexahydro-6, 9-Methano-2, 4, 3-Benzodioxathiepine-3-Oxide. *International Journal of Agricultural and Biological Sciences* 1(2): 49-59.ISSN: 2010-3808, Online: 2010-3816 IF-0.23

147. Nirmal Kumar, J.I., Manmeet Kaur Amb, and Anubhuti Bora (2010) Chronic response of *Anabaena fertilissima* Rao, C. B. on Growth, Metabolites and Enzymatic Activities by Chlorophenol Herbicide. *Pesticide Biochemistry and Physiology Elsevier* 98:168-174 (Recipient of Dr.C.K.Shah Award)ISSN: 0048-3575.IF: 3.9,
148. Nirmal Kumar, J.I., Anubhuti Bora and Manmeet Kaur Amb (2010) Chronic Toxicity of the Triazole Fungicide Tebuconazole on a Heterocystous, Nitrogen-Fixing Rice Paddy Field Cyanobacterium, *Westiellopsis prolifica* Janet J. *Microbiol. Biotechnol* 20 (7): 1134-1139.. ISSN: 1017-7825.(IF: 3.45)., H index. 42,
149. Nirmal Kumar, J.I., Rita N. Kumar, Anubhuti Bora and Manmeet Kaur Amb (2010). Protein profiling of nitrogen fixing cyanobacteria under pesticide stress by SDS-PAGE. *Asian Journal of Environmental Science*. 5(1): 23-28.ISSN: 0973-4759
150. Nirmal Kumar, J.I., Manmeet Kaur Amb, Rita N Kumar, Anubhuti Bora. (2010) Consequences of 2,4-D and Pencycuron treatment on three different cyanobacterial species-*Anabaena fertilissima* Rao, *Aulosira fertilissima* Ghose and *Westiellopsis prolifica* Janet *Electronic Journal of Environmental, Agricultural and Food Chemistry*, 9(5): 847-859. ISSN: 1579-4377.=15, IF 0.72, H index:
151. Nirmal Kumar, J.I., Manmeet Kaur Amb, and Anubhuti Bora. (2010) Chlorobenzyl Cyclopentyl-3-phenylurea effects on Heterocystous Filamentous Cyanobacteria *Westiellopsis prolifica* Janet. *Journal of Crop Improvement*, 24(3):261–270. ISSN Numbers: Printed: 1542-7528, Online: 1542-7535. =15, IF.1.6, H index:
152. Nirmal Kumar J.I., N. Rita N Kumar, Manmeet k Amb, Anubhuti Bora and Sudeshna Chakraborty (2010) Variation of biochemical Composition of eighteen marine macroalgae collected from okha coast, Gulf of Kutch, India. *Electronic Journal of Environmental, Agricultural and Food Chemistry* 9(2):403-410. ISSN: 1579-4377.
153. Nirmal kumar J.I., Sudeshna Chakraborty, Rita N. Kumar, Manmeet kaur and Anubhuti Bora. (2010). “Enzymatic variations among different species of marine macroalgae from Okha Port, Gulf of Kutch, India” in *International Journal of Biotechnology and Biochemistry*. 6 (6): 889-899. (ISSN 0973-2691)IF: 0.88.15+5=20,IF 0.72, H index: 16,
154. Nirmal Kumar J. I. Hiren Soni, Rita N. Kumar and Narendra Patil (2010) Growth and reproduction of *Eisenia foetida* in various industry waste sludge during vermicomposting: A laboratory investigation. *International J. Environ. Waste Management (UK)*. 5(3/4): 21-32.ISSN: 1478-9876. H index: 11 IF-0.3

2009

155. Nirmal Kumar,J.I and Shailendra Viyol (2009) Short term diurnal and Temporal measurement of Methane emission in relation to organic carbon , sulphate, phosphate contents of two rice fields of central Gujarat, India . *Paddy and Water Environment (Springer)* 7:11-16,ISSN: 1611-2490, Online: 1611-2504. (IF: 1.52). H index 19,
156. Nirmal Kumar J.I., Rita N Kumar, Kanti Patel, Shailendra Viyol and Rohit kumar Bhoi (2009): Nutrient composition and Calorific value of some Seaweeds from Bet Dwarka, West coast of Gujarat, India. *Our Nature*, 7: 18-25. ISSN: 1991-2951
157. Nirmal Kumar, J. I, Basil George, Rita N Kumar, Sajish P.R. and Shailendra Viyol (2009): Assessment of spatial and temporal fluctuations in water quality of a tropical permanent Estuarine ecosystem - Tapi, west coast India. *Applied Ecology and Environmental Research* 7(3):267-276.(Hungary). ISSN:1589- 1623, Online: 1785 0037. IF: 0.8. 25=9+5=14
158. Nirmal Kumar J.I. and Cini Oommen (2009) Influence of Limiting Factors on Phytoplankton and Coliform Population in an Inundated, Isolated Wetland. *Journal of Wetlands Ecology*, 3: 43-56. ISSN: 2091-0363 25=9 IF-1.3

159. J.I.Nirmal Kumar, Cini Oommen and Rita N Kumar (2009). Biosorption of Heavy Metals from Aqueous Solution by Green Marine Macroalgae from Okha Port, Gulf of Kutch, India. *American-Eurasian Journal of Agricultural & Environmental Science*. 6(3): 317-323. ISSN: 1818-6769.IF-1.7
160. Nirmal Kumar, J. I, Rita N Kumar, Basil George, Sajish P.R. and Shailendra Viyol (2009): An assesment of Heavy metals distribution at lower reaches of three permentant tropical estuaries of Gulf of Khambhat, India.*International Journal of Pollution Research*. 28 (4): 597-601. ISSN: 0257-8050., SCOPUS - H Index – 18,NAAS Rating - 4.75,
161. Nirmal Kumar, J.I and Cini Oommen (2009): Variations in Hydro-chemical Characters of Two Distinct Wetlands of Central Gujarat, India. *International Journal of Nature and Environment Pollution Technology*. 8(2): 269-277.,ISSN: 0972-6268.(ISI Journal *Impact Factor*: 1.621Impact Factor: 1.621) ,NAAS (India) Rating of the Journal (2014) = 4.94 Scopus SJR Index = 0.138,Index Copernicus: 5.96,
162. Kanti Patel, Cini Oommen and Nirmal Kumar J. I. (2009): Heavy Metal and Coliform Contamination in the Ground Waters of Nandesari Industrial Area, Gujarat, India. *International Journal of Bioscience Reporter*. 7 (1): 75-78. ISSN 2277 – 9493.
163. J.I. Nirmal Kumar, R. N. Kumar, R Kumar Bhoi and P.R. Sajish (2009). Quantification of nutrient content in the above-ground biomass of teak plantation in tropical dry deciduous forest of Udaipur, Rajasthan, India. *Journal of Forest Science* Vol. 55 (6): 251-256 (Cezrepublic). ISSN: 2070-2620.SJR (SCImago Journal Rank – SCOPUS): 2015 – 0.356 – Q2 (Forestry), IS-1.2
164. Nirmal Kumar J.I., Kanti Patel, Rita N Kumar and Rohit Kumar Bhoi. (2009). An assessment of Indian fuel wood with regards to properties and environmental impact. *Asian Journal on Energy and Environment*. 10 (2): 99-107 , ISSN: 1513-4121.
165. Nirmal Kumar, J.I., Rita N. Kumar, Hiren Soni and Ira Bhatt (2009) Hyper accumulation and mobility of heavy Metals in Vegetable crops in India. *The Journal of Agriculture and Environment*10:29-38. ISSN 2091-1009
166. Nirmal Kumar, J.I, Rita N. Kumar and Cini Oommen (2009). Removal of cadmium, mercury and lead from aqueous solution using marine macro-algae as low cost adsorbents. *Journal of Pure and Applied Sciences*. 17: 28-32, ISSN: 0975-2595.
167. Nirmal Kumar, J.I, Rita N. Kumar, Anubhuti Bora, Manmeet Kaur Amb and Sudeshna Chakraborty (2009). An evaluation of Pigment Composition in eighteen marine Macroalgae from Okha Coast, Gulf of Kutch, India. *Our Nature*, 7: 48-55. ISSN: 1991-2951.
168. Rita N. Kumar, Sudeshna Chakraborty, Nirmal kumar J.I.(2009) “The physiological action of 2, 4 DichloropheNOxyacetic acid on the growth of *Eichhornia crassipes*” in *Journal of Pure and Applied Sciences*. 17: 51-54. ISSN: 0975-2595.
169. Nirmal Kumar, J.I., Manmeet Kaur Amb, and Anubhuti Bora. (2009) Chronic Toxicity of ChloropheNOxy Herbicide on growth, Metabolites and enzymatic activities of *Anabaena fertilissima* Rao. *Asian Journal of Environmental Science*, 4(2): 197-202.ISSN: 0973-4759
170. Rita N Kumar, Sudeshna Chakraborty and J. I. Nirmal Kumar (2009). Effect of light stress on peroxidase, succinate dehydrogenease and total chlorophyll content in *Andrographis paniculata*. *Asian Journal of Environmental Science*. 4(1):34-38.ISSN: 0973-4759.
171. J.I Nirmal Kumar, Rita N Kumar and Payal Patel (2009). Biochemical assessment of nitrogen fixing Cyanobacteria- *Stigonema ocellatum* dillw. to acute toxicity of CdNO₃.*Indian Journal of Environmental Sciences*. 13: 157-160. ISBN:0971-8958 IF-1.01
172. Nirmal Kumar, J.I, Rita N Kumar and Shweta Patel (2009). Toxicity of lead on biochemical changes of nitrogen fixing Cyanobacteria –*Alusira fertilissima* Ghose.

- International Journal of Nature, Environment and Pollution Technology. 8(1): 179-186. ISSN: 0972-6268. (ISI Journal Impact Factor: 0.421).
173. Nirmal Kumar, J.I., Manmeet Kaur Amb, and Anubhuti Bora (2009). Differential effect of PheNOxy Substituted Herbicide 2, 4-D on Pigments, Metabolites, and Enzyme Activities of Three Species of Cyanobacteria. International Journal of Biosciences & Technology.2 (7): 87-95. ISSN: 0974-3987.
 174. Kumar, Nirmal J.I, Kumar Rita N., Bora Anubhuti and Manmeet Kaur (2009). Photosynthetic, biochemical and enzymatic investigation of *Anabaena fertilissima* in response to an insecticide-hexachloro-hexahydro-methano-benzodioxathiepine-oxide Journal of Stress Physiology and Biochemistry 5(3): 4-12. ISSN: 1997-0838.
2008
 175. Nirmal Kumar J.I, Das M. and Kumar R. N.. 2008. Temporal and spatial variations in hydro- chemical properties of a sewage-fed wetland, Khodiyar, Gujarat, India. The Ecoscan :An International Biannual Journal of Environmental Science. 2(2): 195-201. ISSN: 0974-0376.
 176. Nirmal Kumar,J.I and Shailendra Viyol (2008). Short term assessment of influence of hydro-geo chemistry on methane emission from two contrasting tropical wetlands of central Gujarat, India. J. Nature Environment and Pollution Technology.7: 15-20, ISSN: 0972 6268.(ISI Journal *Impact Factor*: 1.621, Impact Factor: 0.421) ,NAAS (India) Rating of the Journal (2014) = 4.94 ,Scopus SJR Index = 0.138,Index Copernicus: 5.96,
 177. Nirmal Kumar,J.I. Kimani Sohil and Kadam,A.N . 2008. An Assessment of impact of Anthropogenic discharges in Mahim Creek and adjoining coastal waters, Maharashtra, India. International J. Bioscience Reporter. 6: 33-42. ISSN 2277 – 9493.
 178. J.I Nirmal Kumar, Hiren Soni and Rita N. Kumar (2008). Macrophytes in Phytoremediation of Heavy Metal contaminated Water and sediments in Pariyej Community Reserve, Gujarat, India. Turkish Journal of Fisheries and Aquatic Sciences 8(2): 193-200(Received Dr.C.K Shah award) .ISSN: 1303-2712. IF: 1.264
 179. J.I Nirmal Kumar, Hiren Soni and Rita N. Kumar (2008). Biomonitoring of Trace elements in some selected aquatic Macrophytes with reference to lake contamination: A case study of Pariyej community reserve, Gujarat, India. Asian Jr. of Microbiol. Biotech. Env. Sc. Vol.10(4): 803-810 ISSN: 0972 3005. ,SCOPUS - H Index – 11,NAAS Rating - 3.07
 180. J.I. Nirmal Kumar, Rita N. Kumar, Hiren Soni and Ira Bhatt (2008) Assessing Heavy metal hyperaccumulation and mobility selected vegetable crops: A case study of Organic Farm. J. Nature Environment and Pollution Technology 7: 203-210. ISSN: 0972-6268.(ISI Journal *Impact Factor*: 1.621). , H index 5, Impact Factor: 1.621) ,NAAS (India) Rating of the Journal (2014) = 4.94 Scopus SJR Index = 0.138,Index Copernicus: 5.96,
 181. J.I. Nirmal Kumar, R N. Kumar, H Soni and Ira Bhatt (2008). Evaluation of Biomonitoring approach to Study lake Contamination by Accumulation of Trace Elements in Selected Aquatic Macrophytes: A case Study Of Kanewal Community Reserve, Gujarat, India.. Applied Ecology and Environmental Research. (Hungary), 6(1): 65-76. ISSN:1589-1623, Online: 1785-0037.IF:0.86. H index 19,
 182. Rita N.Kumar, Sudeshna Chakraborty and Nirmal kumar J.I. (2008). Biochemical Constitutes under different light intensities in *Andrographis paniculata*. Ind. J. Plant Physiology. 13(2): 208-210. ISSN Numbers: Printed: 0019-5502. =9 Springer
 183. Nirmal Kumar, J.I., Rita N. Kumar and Ira Bhatt (2008). Metabolic response and nutrient removal by *Tolypothrix tenuis* from fertilizer industrial effluent. International Journal of Industrial Pollution and Control. 24: 1-6. ISSN: 0970-2083. H index: 11, IF-1.3

184. Nirmal Kumar, J.I., Rita N. Kumar and Ira Bhatt (2007) Biochemical and enzymatic variations during bioremediation of nutrients and toxic heavy metals from atlas industrial effluents by *Westilopsis prolifica* jenat. Intern. J. Biological Reporter. 5 (1):113-126.
185. Nirmal Kumar, J.I., R.N. Kumar, N. Patil and H. Soni (2007) Studies on plant species used by tribal communities of Saputara and Purna Forests, Dangs district, Gujarat. Indian Journal of Traditional Knowledge. 6 (2): 368-374. ISSN: 0972-5938. *IJTK IF 1.1*
186. Nirmal Kumar, J.I., Hiren Soni and Rita N. Kumar. (March 2007).An Assessment of Anthropogenic inventions of Nal Lake bird Sanctuary,Gujarat,India. International Journal of Nature and Conservation. 13 (1): 149-166. ISSN: 0970-5945.
187. Nirmal Kumar, J.I., Hiren Soni and R.N. Kumar (2007) Patterns of seasonal abundance and diversity in the waterbird community of Nal Lake bird sanctuary, Gujarat, India. Bird Populations- A journal of Global Avian Biogeography 8: 1-20.ISSN: 1074-1755.
188. J.I Nirmal Kumar, Hiren Soni and Rita N. Kumar, (2007). Characterization of heavy metals from market vegetables using Inductive Coupled Plasma Analyzer (ICPA). J Appl.Sci.Enviro.Management.11:75-79. ISSN: 1119-8362.

2006

189. J.I Nirmal Kumar, Hiren Soni and Rita N. Kumar (2006). Biomonitoring of selected freshwater macrophytes to assess lake trace element contamination: A Case Study of Nal Sarovar Bird Sanctuary, Gujarat, India. Journal of Limnology. (Italy) 65 (1): 9-16,ISSN: 1723-8633.(IF: 1.4).
190. Nirmal Kumar, J.I., Hiren Soni and Rita N. Kumar. (2006). Assessment of anthropogenic interventions in Jambughoda Wildlife Sanctuary, Gujarat, India. International Journal of Nature and Conservation. 13:233-246. ISSN: 0970-5945.
191. Nirmal Kumar, J.I., Hiren Soni and Rita N. Kumar. (March 2006). Phenological studies of some floral elements of Waghai forest, north extreme part of Western Ghats, Gujarat, India. Journal of Current Bioscience. 4 (1): 171-178
192. Nirmal Kumar, J.I., Rita N. Kumar and Hiren Soni. (2005). Resource use pattern of some tree species by local inhabitants of Waghai forest, northern extreme part of Western Ghats, Dangs, South Gujarat. International Journal of Nature and Conservation.17 (1): 1-8. ISSN: 0970-5945
193. Nirmal Kumar, J.I., Hiren Soni and Rita N. Kumar. (2005). Assessment of anthropogenic interventions in Shoolpaneshwar Wildlife Sanctuary, Gujarat, India. International Journal of Nature and Conservation. 17 (1): 1-25. ISSN: 0970-5945
194. Nirmal Kumar, J.I., Rita N. Kumar, Narendra Patil and Hiren Soni. (July 2005). Aesthetic values of selected floral elements of khatana and waghai forests of Dangs, western Ghats. Indian Journal of Traditional Knowledge. 4 (3): 275-286. ISSN Numbers: Printed: 0972-5938, online: 0975-1068. . *IJTK IF 0.438*.
195. Hiren Soni, Nirmal Kumar, J.I. and Rita N. Kumar (July 2005). A preliminary investigation of Butterfly diversity of Sardar Patel University (S.P.U.) Campus, Vallabh Vidyanagar, Gujarat. Bugs 'R' All (Journal of International Association of Invertebrate Taxonomists). ISSN 0971-6378.
196. Nirmal Kumar, J.I., Hiren Soni and Rita N. Kumar (2004). Ethnobotanical values of certain plant species of Dangs forest, extreme northern part of Western Ghats, South Gujarat, India. Journal of Current Bioscience. 2 (1): 63-74.
197. J.I Nirmal Kumar, Ira Bhatt, Rita N. Kumar and Minal Patel. (2003). Physicochemical properties of Ground water quality in and around Anand city, Anand district, Gujarat. Indian Journal of Environmental Protection. 23(11):1248-1253. ISSN: 0253-7141, IF.0.32, H index.13,

198. Nirmal Kumar, J.I., Rita N. Kumar and Shintu Joseph (2002). Tree species diversity of Waghai forest of North part of Western Ghats. *International Journal of Ecology, Environment and Conservation*. 8: 235-248. ISSN: 0971-765. = SCOPUS - H Index NAAS Rating - 5.02, IF-0.32
199. J.I. Nirmal Kumar, and Rita N. Kumar (2002). Some metabolic observations of *Nostoc muscorum* to a herbicide- Fluchloralin. *Plant Archives*. Vol. 2 (2): 289-293. ISSN: 0972-5210.
200. J.I Nirmal Kumar, Rita N. Kumar, Mayokh Ghosh and Shintu Joseph (2001). Tree species diversity of Khatana forest, South Gujarat. *International Journal of Nature and Conservation*. 13 (1): 149-166. ISSN: 0970-5945.
201. Nirmal Kumar, J.I., Geetika Sharma and Rita N. Kumar Shintu Joseph S (2001). Study of avifaunal diversity of Waghai forest, Northern part of Western Ghats. *International Journal of Nature and Conservation*. 13 (2): 35-42. ISSN: 0970-5945.
202. Nirmal Kumar, J.I., Rita N. Kumar, Amit N. Gohil and Hiren Soni. (2000). Preliminary investigations of plant diversity of Khatana and Waghai forests of north western ghats, South Gujarat, India. *International Journal of Ecology, Environment and Conservation*. 6: 87-92 ISSN 0971-765. = 15 SCOPUS-H-Index-9, NAAS Rating - 5.02. IF-0.32
203. Nirmal Kumar, J.I. (2000) et al. Tree communities and Human influence in the Western Ghats. *Journal of Indian Institute of Science, Bangalore*. Special Volume. June 2000. pp. 1-20. ISSN.0019 4964=15, IF: 2.5,
204. Nirmal Kumar, J.I., Geetika Sharma and Rita N. Kumar and Shintu Joseph (2000). Avifaunal studies of Khatana forest, South Gujarat, India. *Pavo*. 38: 19-24. ISBN: 8188733644, ISBN-13: 9788188733644.
205. Nirmal Kumar, J.I., Rita N. Kumar, Hiren Soni and Amit N. Gohil. (1999). Biodiversity and Socio-culture status of Khatana and Waghai Forests, South Gujarat, India. *International Journal of Ecology, Environment and Conservation*. 5: 335-340. ISSN: 0971-765. SCOPUS - H Index - 9 NAAS Rating - 5.02, IF-0.3
206. Amit N. Gohil, Nirmal Kumar, J.I. and Rita N. Kumar. (1999). An effective ethnobotanical medicine against Hemiplegia. *Journal of Bombay Natural History Society*. 98 :321-322. ISSN: 0006-6982.
207. Nirmal Kumar, J.I., Rita N. Kumar and B.S.H. Kumar (1998). A survey of Avifauna of Khatana and Waghai forests of Gujarat. *Pavo*. 36: 69-75.
208. Nirmal Kumar, J.I. (1997). A view on fresh water environment. *International Journal of Ecology, Environment and Conservation*. 3: 203-207. ISSN: 0971-765X, SCOPUS - H Index - 9
NAAS Rating - 5.02, IF-0.3
209. Nirmal Kumar, J.I. (1997). Impact of Pollution on aquatic biodiversity. *International Journal of Ecology, Environment and Conservation*. 3: 209-217. ISSN: 0971-765X. SCOPUS - H Index - NAAS Rating - 5.02, IF-0.3
210. Nirmal Kumar, J.I. and Rita N. Kumar. (1997). Elemental composition of certain economic important plants by EDAX. *Proceedings of National Symposium on Plant Morphogenesis*. pp.177-181. Organized by Department of Biosciences, S.P. University, Vallabh Vidyanagar.
211. Nirmal Kumar, J.I., Yadav, S.S, Mathew Verghese, Neelima Patil and Valvi, R.J. (1996). Plant diversity of Ukalapani forest, Navapur Range, North Western Ghats. *Journal of Swamy Botanical Culture*. 13: 41-45. ISSN: 0256-9493.
212. Nirmal Kumar, J.I., Neelima Patil and Khalane, K.S. (1996). Aquatic plant biodiversity of spring forming ditch and rangawali dam of Ukalapani forest Navapur range forest area. *Journal of Swamy Botanical Culture*. 13: 23-25. ISSN: 0256-9493.

213. J.I. Nirmal Kumar, Rita Nirmal and B.C. Rana (1996). Effect of pesticide on Nucleic Acids of *Anabaena* sp.310. *International Journal of Pollution Research*. 15(2): 147-150. ISSN: 0257-8050., SCOPUS - H Index – 18, NAAS Rating - 4.75, H index: 20 ,
214. B.C Rana and J.I N Kumar. (1995). Observations on the effect of Isoproturon on Aquatic targets and their associated organisms. *Bulletin of Environmental Toxicology and Contaminants*. USA. 55: 104- 110 (Hari Ohm Ashram Award recipient). ISSN: 0007-4861.(IF: 2.65), H index: 54,
215. Nirmal Kumar, J.I. (1995). A report on “Frontiers in Biological Research”. *BRI’S Journal of Advances in Sciences and Technology*. 1: 43-45. ISSN: 1662-8969.
216. Nirmal Kumar, J.I. and Rana B.C (1994). Seasonal distribution of nutrients in sediments of two ponds around Anand, Gujarat, Indian. *Journal of Ecobiology*.6: 47-51. ISSN: 0970-9037
217. Nirmal Kumar, J.I. and Rana, B.C. (1994). Chlorophyll- A content of certain Aquatic plants. *International Journal of Pollution Research*.13: 75-78. ISSN: 0257-8050 SCOPUS - H Index – 18, NAAS Rating - 4.75,
218. J.I Nirmal Kumar and B.C. Rana (1994). Response of *Eichhornia crassipes* to Isoproturon. *Journal of Ecobiology*. 6: 225-227. ISSN: 0970-9037.
219. Rana, B.C and Nirmal Kumar, J.I.(1993). A composite rating of trophic status of certain ponds of Gujarat India. *Journal of Environmental Biology*.14: 113-120, ISSN 0254-8704.(IF.1.27), NAAS rating : 6.5, H index.31,
220. Nirmal Kumar, J.I. (1992). The relation between ash and energy values of certain macrophytes. *Geobios*. 19: 36-37. ISSN: 0016-6995.
221. Rana, B.C and *Nirmal Kumar, J.I. (1992). Macrophytes and Nutrient study of two wetlands of Guajrat, India. *International Journal Ecology and Environmental Science*.18: 195-202. ISSN: 0377-015X,
222. Nirmal Kumar, J.I. (1991). Seasonal primary productivity of phytoplankton of temple tank Vadtal, Gujarat. *Journal of Indian Botanical Society*. 70: 427-428. ISSN: 0019-4468.=15, Global Impact and Quality Factor IF.0.879SJIF 2016:4.868, cosmos IF-5.9
223. Nirmal Kumar, J.I, Rita N. Kumar and Rana, B.C. (1991). Seasonal variation in the macrophytes of two ponds Rathreshwar and Tarapur in central Gujarat. *Journal of Bombay Natural History Society*. 88: 210-214. ISSN: 0006-6982
224. Nirmal Kumar, J.I., Rita N. Kumar and Rana, B.C. (1991). Physico-chemical properties of certain industrial effluents of Central Gujarat, India. *International Journal of Industrial Pollution Control*.7: 17-24. ISSN: 0970-2083. IF.0.15, H index: 11,
225. J.I Nirmal Kumar and B.C Rana (1991). Metabolic response of *Nostoc muscorum* to herbicide Isoproturon. *Indian Botanical Contractor*. 8: 63-65.
226. Nirmal Kumar, J.I. (1991). Response of *Anabaena* sp. 310 to Isoproturon. *Journal of Indian Botanical Society*. 70: 277-280. ISSN: 0019-4468.=9, Global Impact and Quality Factor 0877,
227. Nirmal Kumar, J.I and Rana, B.C. (1989). Variation in primary productivity of phytoplankton of Tarapur pond, Gujarat. *Indian Botanical Contractor*. 6: 95-97.
228. Nirmal Kumar, J.I., Sreenivas, S.S and Rana, B.C. (1989). EDAX- analysis of mud of four ponds from Central Gujarat. *Indian Botanical Contractor*. 6: 75-76.
229. Rana, B.C and Nirmal Kumar, J.I. (1988). Energy Dispersal Analysis of X-rays of certain aquatic macrophytes. *Indian Journal of Weed Science*. 20: 46-49., ISSN: 0253-8040, IF;0.579.

(i) Articles/Chapters published in Books:

230. Megha Barot and Nirmal Kumar. 2020. Remediation action on persistent organic pollutants by wonder weeds and associated microbiomes, in Book entitled "Microbe Mediated Remediation of Environmental Contaminants" Edited by Ajay Kumar, Vipin Kumar Singh, Pardeep Singh, Virendra Kumar Mishra
231. Rita N. Kumar, Sudeshna Chakraborty, Nirmal Kumar J.I. "Andrographis paniculata- An important Medicinal herb" in Drugs from Plants in 2010 by Aavishkar Publishers, Distributors, Jaipur (ISBN-978-81-7910-319-7), pp.129-149
232. Nirmal Kumar, J.I.* and Rita N. Kumar (2008) Biomonitoring: Ed. Prof. Ahindra Nag. Indian Institute of Technology, Kharagpur, A Text book of Agriculture Biotechnology Prentice -Hall of India., Private Limited, New Delhi. Pp. 154-181. (ISBN-978-81-2033592-9)
233. Nirmal Kumar, J.I., Geetika Sharma, Rita N Kumar and Shintu Joseph (2005). An assessment of Eutrophication and weed growth of certain wetlands of Gujarat. In: Recent Advances in Water Pollution Research. (Eds). R.K.Trivedy. Book Enclave, Jain Bhavan, Jaipur. 129 –150 pp. (ISBN- 978-81-8152083-8)
234. Nirmal Kumar, J.I., Rita N. Kumar and Ira Bhatt (2005). Study of Cultural Eutrophication in relation to the plant diversity of Wetland Rathreshwar in central Gujarat. In: Aquatic Biodiversity Scenario. Daya Publication House, New Delhi. Pp. 152-170. (ISBN- 81-7035-367-X)
235. Rana, B.C, *Nirmal Kumar, J.I. and Sreenivas, S.S. (1995). Phytoplankton ecology of certain water bodies of Gujarat, India. In: Algal Ecology(Eds). Kargupta, A.N and Siddique, E.N. International Book distributors, Deharadun, India. Pp. 101-129. (ISBN – 978-81-7089206-9).
236. Nirmal Kumar, J.I. (1992). Trophic status of certain lentic waters in Kheda district Gujarat, India. In: Ecology and Pollution of lakes and reservoirs. (Eds). R.K. Trivedy. Ashish Publishers, New Delhi. 203-222. (ISBN- 978-81-7024539-1)

Book Published:

237. Nirmal Kumar, J.I. and Rita N. Kumar (2006). A Book of Botany, Second Edition. published by Atul Prakashan, Ahmedabad.
238. Nirmal Kumar, J.I and Shamiya R Khan(2016) . Bioremediation and Biodegradation of Petroleum Products .Lamberts Academic Publishers , Germany. ISBN: 978-36-59632-93-8 0.
239. Nirmal Kumar, J.I., Kantilal Patel and Rita N. Kumar (2017) Biodiversity and Nutrient Dynamics of Forests. Archers Elevators Publishers, Bangalore, India.
240. Nirmal Kumar, J.I. (2018). Toxicity and Bioremediation of Selected Xenobiotic Compounds" Archers Elevators Publishers, Bangalore, India ISBN: 978-1-177188-607-9. Cat#: N11945.
241. Dhruvi Patel and Nirmal Kumar, J.I. (2018). Studies on Soil and Atmospheric Exchange of Greenhouse Gas Emissions: Lamberts Academic Publishers , Germany. ISBN.978-613-9-91580-4.
242. Nirmal Kumar, J.I., Anubhuti Anand Bora, Rita N. Kumar and Hiren B. Soni (2022) Response of Cyanobacteria to Pesticides: A Biochemical and Molecular Approach (Google Play Books Edition). Google Book Publishers, USA. 269 pp. (GGKEY: BLK0X2AD9AR) https://play.google.com/store/books/details?id=HZJ0EAA_AQBAJ1234-5678

243. Nirmal Kumar, J.I., Basil George, Rita N. Kumar and Hiren B. Soni (2022) Eutrophication of Narmada and Tapi Tropical Estuaries, Gulf of Khambhat, India (Google Play Books Edition). Google Book Publishers, USA. 349 pp. (GGKEY: AH6EBD92E4Y) <https://play.google.com/store/books/details?id=tXl0EAAAQBAJ>
244. Nirmal Kumar, J.I., Chaitanya G. Joshi, Nidhi Parmar, Rita N. Kumar and Hiren B. Soni (2022) Microbes in Indian Buffalo Rumen: A Metagenomics Approach (Google Play Books Edition). Google Book Publishers, USA. 206 pp. (GGKEY: NANLQCEF7R5) <https://play.google.com/store/books/details?id=fJVyEAAAQBAJ>
245. Nirmal Kumar, J.I., Hiral Y. Soni, Rita N. Kumar and Hiren B. Soni (2022) *Applications of Nanomaterials: A Novel Approach for Pollution Abatement in Industries* (Google Play Books Edition). Google Book Publishers, USA. 166 pp. (GGKEY: 503Y9YAQFLD) <https://play.google.com/store/books/details?id=BslxEAAAQBAJ>
246. Nirmal Kumar, J.I., Hiren B. Soni and Rita N. Kumar (2022) Conserving Sanctity of Nal Sarovar Bird Sanctuary 'Ramsar Site' by Community Participatory Approach (Google Play Books Edition). Google Book Publishers, USA. 238 pp. (GGKEY: H134HTLBKHH) <https://play.google.com/store/books/details?id=TA5zEAAAQBAJ>
247. Nirmal Kumar, J.I., Hiren B. Soni and Rita N. Kumar (2022) Ecosystem Analysis of Two Tropical Community Reservoirs of India (Google Play Books Edition). Google Book Publishers, USA. 339 pp. (GGKEY: A4F9CTXPPYW) <https://play.google.com/store/books/details?id=K5J0EAAAQBAJ>
248. Nirmal Kumar, J.I., Hiren B. Soni and Rita N. Kumar (2022) Trophodynamics, Biodiversity and Conservation of Rivers of Gujarat (Google Play Books Edition). Google Book Publishers, USA. 236 pp. (GGKEY: 089NJGBT408) <https://play.google.com/store/books/details?id=59NxEAAAQBAJ>
249. Nirmal Kumar, J.I., Manmeet Kaur Amb, Rita N. Kumar and Hiren B. Soni (2022) Response of Cyanobacteria to Herbicides: A Biochemical and Molecular Approach (Google Play Books Edition). Google Book Publishers, USA. 270 pp. (GGKEY: D4DG986NUY6) <https://play.google.com/store/books/details?id=IZJ0EAAAQBAJ>
250. Nirmal Kumar, J.I., Megha H. Bartot, Rita N. Kumar and Hiren B. Soni (2022) Biodiversity, Nutraceutical and Biofertilizer Characters of Seaweeds of Gulf of Kachchh, India (Google Play Books Edition). Google Book Publishers, USA. 201pp. (GGKEY: XWB2UJ8BUE8) <https://play.google.com/store/books/details?id=3wJ0EAAAQBAJ>
251. Nirmal Kumar, J.I., Sajish P.R., Rita N. Kumar and Hiren B. Soni (2022) Pollution Status of Coastal Environment of Gulf of Khambhat, India (Google Play Books Edition). Google Book Publishers, USA. 309 pp. (GGKEY: BWJDWX9T5TG) <https://play.google.com/store/books/details?id=o3l0EAAAQBAJ>
252. Nirmal Kumar, J.I., Shailendrasinh V. Viyol, Rita N. Kumar and Hiren B. Soni (2022) Eutrophic Status of Narmada and Tapi Tropical Estuaries of Gujarat, India (Google Play Books Edition). Google Book Publishers, USA. 279 pp. (GGKEY: 6LTLDHP1EPR) <https://play.google.com/store/books/details?id=xSF0EAAAQBAJ>

253. Nirmal Kumar, J.I., Yamini Srivastava, Rita N. Kumar and Hiren B. Soni (2022) Conservation of Thol Lake Bird Sanctuary (Ramsar Site) and Bhaskarpura Wetland (Google Play Books Edition). Google Book Publishers, USA. 294pp.(GGKEY: 0RQFGEDGR8Y) <https://play.google.com/store/books/details?id=mTFyEAAQBAJ>
254. Rita N. Kumar, Narendra Y. Patil, Nirmal Kumar, J.I., and Hiren B. Soni (2022) Plant Biodiversity, Ethnobotany and Anthropogenic Interventions of Western Ghats Forests – Saputara and Purna (Google Play Books Edition). Google Book Publishers, USA. 294pp.(GGKEY: TGFUKPY6EQR) <https://play.google.com/store/books/details?id=74FzEAAQBAJ>
255. Rita N. Kumar, Rajal Solanki, Nirmal Kumar, J.I. and Hiren B. Soni (2022) Pollution Studies of Sabarmati River and Kharicut Canal, Ahmedabad, Gujarat (Google Play Books Edition). Google Book Publishers, USA. 238 pp. (GGKEY: 8WWL9ZJS824) <https://play.google.com/store/books/details?id=TtVzEAAQBAJ>
256. Rita N. Kumar, Rohit Bhoi, Nirmal Kumar, J.I. and Hiren B. Soni (2022) Biodiversity, Neutraceutical and Biofertilizer Characters of Seaweeds of Gulf of Kachchh, India (Google Play Books Edition). Google Book Publishers, USA. 254 pp. (GGKEY: UWUTTP19SF6) <https://play.google.com/store/books/details?id=RZFzEAAQBAJ>
257. Rita N. Kumar, Dharitri, B.R., Nirmal Kumar, J.I. and Hiren B. Soni (2022) Phytoremediation of Heavy Metals from Industrial Effluent by *Amaranthus viridis* L. and *Acalypha indica* L. (Google Play Books Edition). Google Book Publishers, USA. 204 pp. (GGKEY: 686DJ28TXLC) <https://play.google.com/store/books/details?id=6t90EAAQBAJ>
258. Rita N. Kumar, Mansi N. Banker, Nirmal Kumar, J.I. and Hiren B. Soni (2022) *Phytoremediation of Heavy Metals from Industrial Effluent by Aquatic Plants* (Google Play Books Edition). Google Book Publishers, USA. 159 pp. (GGKEY: NWJYN6HUG4Y) <https://play.google.com/store/books/details?id=9N90EAAQBAJ>
259. Rita N. Kumar, Rashmi M. Thakkar, Nirmal Kumar, J.I. and Hiren B. Soni (2022) *Chemical Nature of Groundwater and its Bioremediation* (Google Play Books Edition). Google Book Publishers, USA. 244 pp. (GGKEY: SW36ZTLF7PL) <https://play.google.com/store/books/details?id=-N90EAAQBAJ>

V. Achievements in Brief:

Refer Website: <http://www.nirmalkumarji.in> _ <http://nirmalkumarji.in/>

A. **Academic Contribution:** (Total 31 years of Teaching experience)

I am pioneer in starting and establishing B.Sc Environmental Science program (June, 1998), first time in NV Patel College, M.Sc Environmental Science (June 2000) in ISTAR, first of its kind in Gujarat state from Sardar Patel University. Thereafter, many colleges and university departments have started these B.Sc & M.Sc programs in Gujarat. First Ph.D Guide in the Subject of Environmental Science in Gujarat from 2002.

Pioneering in initiating and conducting unique GREEN AUDIT CELL, CVM (My Campus and Green Campus) as a Coordinator evaluating the educational institutions for Green Practices, Environmental and Sustainable ambience of institutions (as per the NAAC, MoEFCC, NCART) along with Gujarat Cleaner Production Cell (GCPC), Department of Industries and Mines, Govt. Of Gujarat, Gandhinagar from 2018 onwards , audited 35 institutions in every phase per year for three consequent years, which is the first of its kind in the state of Gujarat. <http://greenaudit.ecvm.net/TEAM.html>, www.greenaudit.ecvm.net .

B. International Collaborations- MoUs : Visited Dr. Nobuyoshi Yamashita, Chair, and developed international joint venture research collaboration with National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan with Dr. Nobuyoshi Yamashita from 8th to 15th May, 2016.

I have visited Prof. Dr. Dibyendu Sarkar, University of Texas, San Antonio, Prof. Carol Rice, North Carolina A&T State University at Greensboro, Dr. Prasada Rao USEPA Raleigh-Durham, NC, Dr. Susan Genning, Department of Sustainable Development, Massachusetts University, Dartmouth, Boston, Prof. Smith David Acme, University of Michigan, Michigan, USA, Dr. Nobuyoshi Yamashita, Chief Chair, National Institute of Advanced Industrial Science Technology, Dr. Xinhong Wang Ibaraki, Agriculture University, Tokyo, Japan to discuss on advances, crosscutting facets, MoUs for the scientific collaborations for the academic and research benefits of M.Sc and Ph.D students

www.nirmalkumarji.in/International.html, www.nirmalkumarji.in/MoU.html.

C. National Collaborations - MoUs- I have made with Nandesari Industrial Association, Green Group of Industries , Baroda, GUIDE, GEC, Climate Change Department, Gandhinagar, Vidyanagar Nature club (VNC) for academic, placement, research and training for P.G and Ph.D students.

D. Subjects Taught at PG level : Climate Change and its consequences, Ecosystems analysis and Water Pollution, Environmental Biology & Restoration Ecology, Forestry, Biodiversity monitoring and conservation, Environmental Biotechnology, Bioremediation & Biodegradation, Occupational and Environmental Toxicology, Nano-science

INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH (ISTAR) - Bing video

<https://www.youtube.com/watch?v=vZBQVj96Xt0>

E. During my tenure as a Principal of ISTAR (2017 to 2021), institution has achieved many milestones, landmarks at National and State level. ISTAR achieved Top 1st Rank College among all colleges (2021) and Top 1st Rank college among Engineering and Technology institutes (2020) and Top 3rd rank college among all colleges (2019) in Gujarat, GSIRF ranking, Govt. of Gujarat. Besides, ISTAR ranked between 101 to 150 and 151 to 200 rank among all colleges in India during 2020 and 2021, respectively, in NIRF ranking at National level, New Delhi (<http://www.istar.edu.in>), only three colleges from the Gujarat out of the 200 rank list.

Press release: <http://www.nirmalkumarji.in/Press.html>

F. Impart Quality Education: I have time to time changed the curriculum as per the need of industry, introduced applied and industrial oriented topics, bridge classes, conducted students seminars, quizzes, presentations, unit tests, industrial, field and study trips ,project work, competitions, co-curricular and extra-curricular activities etc

G. Students Campus placements: Regularly every year conducted campus placements by on-campus and off-campus process for Industries/ consultancies of Gujarat and other parts of India during the third and fourth semester of the Course every year. Now my students are placed all over Gujarat in MNCs, Large Scale and Medium scale Industries, Consultancies, Academic Colleges, Research organizations, and Some students go for higher studies in India or abroad. www.istar.edu.in/estplacement.php, <http://nirmalkumarji.in/Campus.html> .

Students Field / industrial visits: Every semester as a part of curriculum, I used to conduct field ,industrial and study trips to various industries, ecosystems, forests, etc. so that students can abreast with practical knowledge and latest theoretical updates studied by them .<https://www.istar.edu.in/estalumni.php>, <http://nirmalkumarji.in/Field.html>

Students Career guidance: I used to conduct career guidance to students of B.Sc and M.Sc for their better career progress every year in batch wise. <http://nirmalkumarji.in/Career.html>

Community /Charity services (Personal): I am willingness to always focus on how we can serve the local communities that make up our global world. I also passionate for social services and working voluntarily by helping poor , needy, (P J. Stephen Paul Ministries, Secundrabad, Telangana), orphanage students (Popatbhai Foundation , Anand) , blind students (National Association for Blind, Vallabh Vidyanagar), old- age people(Anand Dham, Lambvel, Anand) by providing financial assistance, cloths, medicine and food regularly (also <http://nirmalkumarji.in/helping.html>) providing the scholarships (Methodist Church , Anand , Gujarat).

Details of CV: <https://www.nirmalkumarji.in/doc/NKj22.pdf>

W.Information of Referees

	Referee 1	Referee 2	Referee 3	Referee 4
Name	Prof. Dr. Daniel Oerther, PhD, PE, BCEE, BCES, CEHS, DAAS, CEng, CEnv F.AEESP, F.AAN, ANEF, F.SOE, F.CIEH, F.RSPH	Prof. Dr. B.G.Patel M.Pharm, Ph.D	Dr. Nobuyoshi Yamashita	Dr. Bhailalbhai Patel, M.Phil, Ph.D
Designation	Professor, President ,American Academy of Environmental Engineers and Scientists USA & Deputy Chair Board of Trustees Chartered Institute of Environmental Health London, England	Ex-Principal , ISTAR, Ex-VC, S P Uni. Ex-PROVOST , CHARUSAT University	Chief Senior Research Scientist	Registrar ,
Organization/ Institute	Civil and Environmental Engineering department ,University of Missouri University of Science and Technology,		Research Institute for Environmental Managemen t, National Institute of Advanced Industrial Science and Technology (AIST)	Sardar Patel University

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Above given information is correct to the best of my knowledge.

Prof. Dr. Nirmal Kumar, J.I.,

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<http://nirmalkumarji.in/>

<http://nirmalkumarji.in/Helping.html>

(<https://vidwan.inflibnet.ac.in/profile/270934>),

<http://greenaudit.ecvm.net/TEAM.html>

<http://nirmalkumarji.in/>