

## DETAILED C.V.



Full Name : **Prof. Dr. Nirmal Kumar, J.I. Ph.D ; FNEA, AFGSA**  
Nationality : Indian  
Designation : **Principal, ISTAR**  
Department : P.G Department of Environmental Science and Technology, Institute of Science and Technology for Advanced Studies and Research (ISTAR), Affiliated to Sardar Patel University, recognized under 12 (b) and 2 (f) acts of UGC , Accredited “A” grade by NAAC and “A” grade by KCG for AAA. Vallabh Vidya Nagar-388 120, Gujarat, India. E.mail: nirmalkumar@istar.edu.in, [istares2005@yahoo.com](mailto:istares2005@yahoo.com)

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Contact Ph.No: : 919825968242, 917990961709 (m), 912692234955 (O)  
Date of Birth : 15<sup>th</sup> July, 1964  
Father's Name : Late J. Kruparao  
Passport No : F 6641289  
Expired date of Passport : 21/02/2026  
Citation Index :  
<https://scholar.google.co.in/citations?user=upm4FnsAAAAJ&hl=en>  
Citation- 2007., i10 index-51., H index-23

### 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	1990	Awarded		Botany- Environ.Physiology
Research	Center for Ecological	1994-96	-	-	Western Ghats

er	Sciences, Indian Institute of Sciences, Bangalore				Biodiversity Network& PBR
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**Thesis Entitled** : **Ecological Studies of Certain ponds with reference to Eutrophication and Weed growth in and around Anand, Gujarat.**

**Computer Knowledge** : Certificate course on Micro soft word, Power point, Internet.

**Awards and Honours :**

- 1) Recipient of one of the **Best M.Sc dissertation award** in Environmental Science along with Mahisa Patel & cash prize by GCPC, Department of Environment and Forest, Gandhinagar, on 24<sup>th</sup> March, 2021.
- 2) Recipient of **Best M.Sc and Ph.D thesis awards** in Environmental Science along with Ms. Shivani Patel and Dr. Megha Bharot, respectively, Rs. 10000/ cash prize by GCPC, Department of Environment and Forest, Gandhinagar, year 2020
- 3) Recipient of “**Bharat Vidya Shiromani award**” on 4<sup>th</sup> December, 2019 for Outstanding Achievements and Remarkable role in the field Education by Indian Solidarity Council , New Delhi.
- 4) Recipient of **Best M.Sc and Ph.D thesis awards** in Environmental Science along with Mayurika Rohit Rs. 10000/ cash prize and Dr. Dhruvi Patel, respectively , by GCPC, Department of Environment and Forest, Gandhinagar, on 28<sup>th</sup> February, 2019.
- 5) Appreciation award for international collaboration with Dr. Nobuyoshi Yamashita , AICT, Japan for student exchange program from 2017-2020, by Charutar Vidya Mandal on 3<sup>rd</sup> March, 2019 .
- 6) Recipient of Gold medal Award of “**Bharat Ratna Dr Sarvepalli Radhakrishnan**” on 22<sup>nd</sup> September, 2018 in the field of Education and Research by Global Education Progress and Research Association , New Delhi.
- 7) Member, Division of Environmental Chemistry, in American Chemical Society, USA. 2012
- 8) Confirmed Bharat Shikshak Ratan Award for the year -2011 by Global Society for Health & Education Growth, G.D. Chambers, Delhi.
- 9) Gujarat Science Academy, Ahmadabad honored me as a Associate Fellow in the year 2011.
- 10) Conferred Dr. C.K. Shah award for my one of the research papers selected as the best paper in the field of Plant sciences , Plant biotechnology and Agriculture Botany for the year 2010-11.
- 11) My Biography has been published in **WHO’s WHO of the World**, New Jersey, USA for the year 2009 in 26<sup>th</sup> edition.
- 12) National Environmentalists Association at Ranchi honored me as a FELLOW of National Environmentalists Association (FNEA) during National Conference on Environmental Science and Technology at Srikakolam , A.P on 18<sup>th</sup> January, 2009.
- 13) Conferred Dr. C.K. Shah award for my one of the research papers selected as the best paper in the field of Plant sciences , Plant biotechnology and Agriculture Botany for the year 2007-8.

14) “Award of Exemplary performance” as a teacher, researcher, student activities accelerator and all round praiseworthy work with cash prize of Rs. 20,000/ and a Certificate for the year 2007 by Charutar Vidya Mandal, Vallabh Vidya Nagar, Gujarat.

15) ‘Hari Ohm Ashram’ Award for my one of the research papers selected as the best paper in the field of Botany in the year 1995.

16) Recognized as a Student Inspirer in Science by Department of Science and Technology, New Delhi. ([www.inspire-dst.gov.in](http://www.inspire-dst.gov.in))

❖ Worked under Prof. Madhav Gadgil, Head, **Center for Ecological Sciences, Indian Institute of Science**, Bangalore, for 2 years (1994 to 1996) in the Biodiversity Network Program on Western Ghats of India.

❖ Involved in **developing** two new departments like Bio -Sciences in NVPAS College and Environmental Science and Technology in ISTAR, Vallabh Vidya Nagar, Gujarat, India.

❖ Recognized as **M.Phil and Ph.D Guide** in the subject of Botany- **Environmental Physiology and Biochemistry**, by North Maharashtra University, Jalgaon.

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.

Recognized as **Ph.D. Guide** in the subject of **Biotechnology** by S.P. University in the State of Gujarat –March, 2008.

#### **Abroad Visits:**

a. 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 Acme, **Michigan, USA** from 28-31 August, 2006 USA,

d. Visited university of Cincinnati, **Cincinnati, Ohio State, USA** from 3<sup>rd</sup> to 5<sup>th</sup> 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 8-10<sup>th</sup> October,2007.

f. Visited and **delivered a lecture** in **Environmental Research Center**, Missouri University of Science and Technology, Rolla, MO, USA from 23<sup>rd</sup> October to 06<sup>th</sup> 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 7<sup>th</sup> and 8<sup>th</sup> Nov.2011.

h. Visited and interacted with Prof. Susan Jannigs, Director, Department of Sustainable Development, Massachusetts University, Dartmouth, Boston, USA on 9<sup>th</sup> 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 8<sup>th</sup> to 15<sup>th</sup> May,2016.

**International Collaborations:**

1. Visited and developed international joint venture research collaboration with National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan with Dr. Nobuyoshi Yamashita May,2016. Two of my Ph.D students pursuing Ph.D in Japan in Dr. Nobu lab.
2. Developed joint venture program between EST department and Department of Environmental Science and Engineering, Missouri University of Science and Technology, Missouri, USA, for students and faculty **exchange (MoU)**.
3. Developed MoU with GUIDE, Nandesari Industrial Association, Green Group of Industries, GUJCOST, for students training, project work and placements.
4. Regular campus placements to all students of all courses.

**Teaching Experience : 28 years and Professor :12<sup>th</sup> Year**

TEACHING EXPERIENCE –28 years						
Designation	Subjects/courses/ skills taught	Institution/Country	From	to	Reason for leaving	
Principal		ISTAR	07-07-2017 onwards	---	Continuing	
1	Professor and Head ----- Reader and Head	Ecology, Environmental Biology, Water Pollution, Occupational and Environmental Toxicology, Microbial technology	P.G. Department of Environmental Science and Technology, ISTAR, Vallabh Vidya nagar, 388 120, Gujarat, India	June, 2009 onwards ----- June, 2005	----- ---	Continuing
				June,		

					2009	
2	<b>Head and Selection grade (Reader)</b>	Ecology, Pollution, Pesticide toxicology, Environmental Biology	Department of Biosciences, NVPAS College, Vallabh Vidya nagar, 388 120, Gujarat, India	June, 1996	May, 2005	Promotion into P.G. Department /College
3	Lecturer	Biochemistry, Physiology, Ecology,	P.G. Department of Botany, Jai Hind College, Deopur, Dhule.M.S.India	July, 1991	May 1996	Promotion into new college.

Areas of Research : **Air Pollution & Climate change, Nanoscience, Bioremediation, Pollution Monitoring and abatement ( Lentic, Lotic & Coastal Environments- Estuaries and Mangroves, and Biodiversity) Biodiversity Conservation, Ecology and Environmental Biology, Ecotoxicology.**

**Research Experience : 32 years**

**Research Paper Publications : 201**

**Ph.Ds. awarded : 18 (Eighteen)**

**Students pursuing under Dr.Nirmal Kumar, J.I. for Ph.D: 4.**

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

	Name of the student and Ph.D subject	Title of the PhD Thesis	Month and Year of Ph.D received
1	Bhatt Ira R. (Environmental Science)	An assessment of biochemical response of cyanobacteria to toxic pollutants from industrial wastewaters.	April, 2006
2	Hiren B. Soni (Environmental Science)	Environmental studies of the two significant wetlands of Gujarat with particular preference to eutrophication and avifauna.	November, 2007
3	Manishta Malay Das (Environmental Science)	Ecological studies on spatial and temporal patterns of the hydro geochemical characteristics in relation to the biotic components of the two tropical wetlands of central Gujarat, India.	April, 2011
4	Cini Oomen (Botany)	Pollution studies of two distinct tropical lentic wetlands of central Gujarat with reference to spatial and temporal heterogeneity of biotic and abiotic components.	May, 2011

5	Shailendra Vijaysinh Viyol (Environmental Science)	Spatial and temporal variations of hydro geochemical properties in relation to biotic components of two permanent tropical estuaries Narmada and Tapi of Gujarat, India.	May, 2011
6	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
7	Basil George (Botany)	Environmental studies on biotic components in relation to nutrient status of selected sites of Narmada and Tapi estuaries, Gulf of Khambhat, Gujarat, India.	January, 2012
8	Anubhuti Bora(Biotechnology)	Biochemical and Molecular Approaches to investigate the impact of Endosulfan and Tebuconazole on the three species of cyanobacteria- Anabena fertilissima Rao, Aulosira fertilissima Ghose and westiellopsis prolific Janet.	February, 2012
9.	Sajish, P.R (Botany)	An assessment of the nutrient profile and biotic components of Mahi estuary and Vamleshwar mangroves of Gulf of Khambhat , Gujarat, India	October,2012
10	Yamini Verma(Environmental Science)	Environmental studies of Two tropical wetland ecosystems in relation to abiotic and biotic components for central Gujarat, India.	October,2013
11	Ms.Shamiyan Rahat Khan (Environmental Science)	An investigation of Biodegradation and Bioremediation of Petroleum Products using certain species of fungal isolates and bacterial consortia from the petroleum contaminated soils - <i>in vitro</i> and <i>ex situ</i> .	Feb.2016
12	Ms.Jignasha Girishchandra Patel (Biotechnology)	An evaluation of Biodegradation and Bioremediation of Polycyclic Aromatic Hydrocarbons by certain species of Cyanobacteria and bacterial consortia – <i>in vitro</i> and <i>ex situ</i> approach.	Feb.2016
13	Kanti Patel (Synopsis submitted) (Botany)	Studies on Biodiversity, biomass, nutrient dynamics and carbon stock of dry tropical forests of Western India	June 2016
14	Ms. Nidhi R Parmar(Biotechnology )	Exploring micro-biota and their molecular characterization from rumen meta-genomics of different breeds of buffalo.	August,2017

15	Mr. Rohit Bhoi, Botany	Biodiversity, biomass, nutrient dynamics and carbon stock of tropical dry deciduous forests of Rajasthan, Western India.	September,2017
16	Ms. Dhruvi S Patel, Environmental Science	An assessment of Greenhouse gas emissions from soil and atmosphere inter change and ambient air quality of different habitats of Gujarat.	May,2018
17	MS. Hiral Soni, Biotechnology	Potentiality study of design and characterization of nanoparticles and their applications as biocides and pollutant abatements.	January,2018
18	Ms. Megha Barot, Environmental Science	An assessment of biochemical compounds in relation with environmental constituents and phylogenetic relationships by barcoding of different Seaweeds from Okha coast of Gujarat, India.	February,2018
19	Ms. Dipa Lalwani Environmental Science	Occurrence and distribution of emerging pollutants in different environments and biological Matrices	Submitted synopsis, March.2020
20	Mr. Baiju Verghese Environmental Science	An evaluation of new emerging pollutants from two significant rivers of Gujarat	Registered June,2018
21	Ms. Riya Shah Environmental Science	<b>Studies On Synthesis, Characterization And Doping Of Silver (Ag) Nanoparticles On Titanium Dioxide (TiO<sub>2</sub>) And Zinc Oxide (Zno) - Their Applications In Dye Decolouration, Biocidal Activity And Abatement Of Pollutants From The Industrial Effluents"</b>	Registered February,2021
22	Ms. Nirali Goswami Environmental Science	Assessment Of Emerging Pollutant And Study Of Nutraceutical And Biofertilizer Properties Of Certain Seaweed Of World's Largest Shipbreaking Yard - Alang And Gopnath	Registered February,2021

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. Kavita Thakur	Prof. Dr.Nirmal Kumar	Second	Science Excellence- 2014 Gujarat University, Ahmadabad	4th January, 2014
		Prof. Dr.Nirmal Kumar	Second	GUJCOST Sponsored National Level Symposium on “Clean Water for a Healthy World” NV Patel Science College, SPU	10th March, 2014



		Prof. Dr.Nirmal Kumar	Second	Oral Competition in “Science Excellence– 2015” at Ahmadabad	26 <sup>th</sup> September, 2015
		Prof. Dr.Nirmal Kumar	Second	Oral Competition in “India International Science Festival”, New Delhi	4-8 December, 2015
6	Ms. Dhruti S. Patel	Prof. Dr.Nirmal Kumar	First	Best Ph.D. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2019
7	Ms. Mayuriaka Rohit	Prof. Dr.Nirmal Kumar	First	Best M.Sc. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2019
8	Ms. Shivani Patel	Prof. Dr.Nirmal Kumar	First	Best M.Sc. Thesis Award, Gujarat Cleaner Production Centre (GCPC), Gandhinagar	March, 2020
9	Ms. Deepa Lalwani	Prof. Dr.Nirmal Kumar	First	Poster Competition in “National Seminar on Climate Change”, Vadodara	August, 2018

#### 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 <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> 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	2014

		indigenous fungal isolates from various aged petroleum effected soils for environmental cleanup.	
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.	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 The Environmental Gradients Of Okha Coast, Gujarat, India	2015
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 <sup>+6</sup> : Isotherms and kinetics study	2015

### Attended Training:

- \* Attended workshop on **Molecular biology and Bioinformatics on Marine Cyanobacteria** from 2<sup>nd</sup> to 7<sup>th</sup> 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 21<sup>st</sup> February to 1<sup>st</sup> March 2006.
- \* Attended program on **Advances in Environmental and Biological Technologies**, Department of Civil and Environmental Engineering , Missouri University of Science and Technology, Rolla, Missouri, USA from 21<sup>st</sup> October to 05<sup>th</sup> Nov.2011.

## **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).

## **Details of any other innovations / Activity involved during professional career:**

### **A. Memberships and Distinctions:**

**Life member in National Environmental Science Academy, Delhi**

**Executive council member** in Asian J of Environmental Science, Muzaffarnagar, 251 001, India.

✚ **Member** in Editorial Board of the 'International Journal of Pollution Research' from Jan. 2008 onwards.

✚ **Life-member in National Environmental Science Academy, New Delhi**

✚ **Member** in Editorial Board of the 'International Journal of Nature, Environment and Pollution Technology' from Jan. 2008 onwards and International Biannual J of Environmental Sciences.

✚ **Life member** of National Institute of Ecology (NIE), New Delhi.

✚ **Life member**, Indian Association for Air Pollution Control, Baroda

✚ **Life member** of Indian Science Congress Association (ISCA), Kolkata.

✚ Chairman, Board of Studies (B.O.S) of Biosciences, SP University, for the year 1999-2000.

✚ **Member**, Board of Studies (B.O.S) of Biosciences, from since 1998 S.P University, Gujarat, India.

✚ **Member** of Editorial Board of the 'International Journal of Ecology, Environment and Conservation' for the year 2000 – 2002

✚ **Life member** of International Journal of Pollution Research, International Journal of Ecology and Environmental Sciences, International Journal of Nature Conservation, International J Nature, environment and Pollution Technology

✚ Worked as Vice President of Central Committee, N. V. Patel College in the year 1996-97.

✚ Worked as Ex-officio of 'Nature Club', N. V. Patel College, Vallabh Vidyanagar.

✚ **Member**, Research Committee of Sophisticated Instrumentation Center for Applied Research & Testing (SICART), DST funded, Vallabh Vidyanagar, Gujarat.

**B. Nature Club:** Actively conducted Nature Club (since 1997 till 2005) with the goals of: 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 – wild life 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.**

### **C. 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.

### **D. Designing of New Courses:**

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

### **E. 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.

### **F. Conferences, Seminars, Symposia and Workshops (Organized)**

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

#### **Delivered Lectures**

- 1) Delivered an expert talk on “Climate Change and Consequences” at V.P. Science College, V.V. Nagar, on 5<sup>th</sup> February, 2014.
- 2) Invited as a **Jury** in “Green Business Competition”, at SEMCOM at V.V. Nagar on 9<sup>th</sup> February, 2014. Vallabh Vidya nagar .
- 3) Attended **Indo-German Convention** at Science City, Ahmedabad, on 15<sup>th</sup> 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 22<sup>nd</sup> 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 21<sup>st</sup> February to 1<sup>st</sup> March 2006.
- 6) Attended orientation course on’ Strategies to develop the Forestry of Gujarat’, organized by Gujarat Forest Department, Gandhinagar on 21 st March 2000.
- 7) Presented guest lecture on ‘Inventory and Monitor the Biodiversity’ in training workshop on Plant Taxonomy for Biodiversity conservation held from 27 th January to 2 nd 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 11 th to 13 th 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 29<sup>th</sup> and 30<sup>th</sup> March, 1993.

## G. Conferences, Seminars, Symposia and Workshops(Attended / Presented)

### I. International Level:

- 1) Attended 6<sup>th</sup> International Conference on Industrial Hygiene & Safety, CIHA, Ahmedabad from 7-9<sup>th</sup> January,2019.
- 2) **Attended 5th International Industrial Hygiene and Safety Conference, CIHA at Pune - INDIA** from 22-24<sup>th</sup> 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 8<sup>th</sup> and 9<sup>th</sup> 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 4<sup>th</sup> November 2011 at McNutt Hall, MST, Rolla, MO,USA. **International**
- 6) Presented paper in **International conference on Biodiversity and Aquatic toxicology** from 12-14<sup>th</sup> 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 27<sup>th</sup> to 29<sup>th</sup> 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 14<sup>th</sup> and 15<sup>th</sup> 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 14<sup>th</sup> to 19<sup>th</sup> 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 25 th to 30 th October, 1999 in Nainital.

## **II. National Level:**

1. Participated in discussion meeting on ‘Net working to conserve the Biodiversity of eastern Ghats’ from 4 th to 7 th 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 23 rd to 25<sup>th</sup> 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 30 th April to 1<sup>st</sup> May, 1999 organized by WWF-India, Baroda.
8. Attended **National Academy** Meeting in Goa on 24 th to 26 th 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 28<sup>th</sup> 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), 73<sup>rd</sup> annual meeting and symposium on Astronomy in the New Millennium, held at Physical Research laboratory, Ahmedabad, from 10<sup>th</sup> to 12<sup>th</sup> 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 25<sup>th</sup> to 27<sup>th</sup> November 2004.
14. Attended one-day **National seminar** on “Emerging Technologies” on 12<sup>th</sup> 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 19<sup>th</sup>& 20<sup>th</sup> January 2005.
16. Attended 3-days **National Seminar** on ‘Enviro Technology 2005’ at Taj Presidency, Baroda, on 23<sup>rd</sup> to 25<sup>th</sup> 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 9<sup>th</sup> 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 27<sup>th</sup> September, 2008.
19. Attended “3<sup>rd</sup>**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 18<sup>th</sup> to 20<sup>th</sup> January, 2009.
20. Attended one day **National Seminar** on Air Pollution Management in changing Global Environmental Scenario” on 7<sup>th</sup> 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 21<sup>st</sup> Mid meeting of Indian Academy of Science, Bangalore from 1-3<sup>rd</sup> July,2010 as a Invited Teacher.**National level**
23. Attended 79<sup>th</sup> Annual meeting of Indian Academy of Sciences, at Goa from 12<sup>th</sup> to 14<sup>th</sup> November,2010.**National level**
24. Attended the **National symposium** on status , challenges and opportunities in Life Sciences held on 10<sup>th</sup> 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’, 7<sup>th</sup> 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 14<sup>th</sup> December, 2013.
27. Delivered a talk on “Paradigms of Biodiversity” in refresher course in Life-science on 17<sup>th</sup> 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 8<sup>th</sup> February, 2014.
29. Invited as a Jury in **National Seminar** on Clean Water for a healthy World on 10<sup>th</sup> 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 28<sup>th</sup> 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 30<sup>th</sup> 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 19<sup>th</sup> January,2019.

### III. 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<sup>th</sup> to 11<sup>th</sup> 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 4<sup>th</sup> September 2004.
4. Delivered a talk on ‘Wetland Monitoring’ at **Gujarat Pollution Control Board(GPCB)**, Gandhinagar, on 7<sup>th</sup> 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 17<sup>th</sup> 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 12<sup>th</sup> 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, 7<sup>th</sup> 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 28<sup>th</sup> and 29<sup>th</sup> April , a one week workshop on “Environmental Degradation and conservation” organized by BVM Engineering college from 25<sup>th</sup> to 30<sup>th</sup> April,2016
11. Attended One Day Seminar on “MET-Aware - 2016” at GCET Auditorium, jointly organized by NVPAS & IMSA, Ahmedabad on 16<sup>th</sup> July,2016.
12. Delivered invited talk on Bioremediation and Degradation of xenobiotic compounds 27<sup>th</sup> 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 22<sup>nd</sup> 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 23<sup>th</sup> March,2017
15. Delivered invited talk on account of World Earth Day,on 22<sup>nd</sup> 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 5<sup>th</sup> October,2017.
17. Attended KIA Workshop: Domain Knowledge at ARIBAS, New V.V. Nagar from 13-14 March,2019.

**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 <sup>th</sup> April	2 <sup>nd</sup> May,1992	4 weeks	ASC, Dr.Babasabh Ambedkar University
2.	Refresher Course	Varanasi	11 <sup>th</sup> July	31 <sup>st</sup> July,2000	3 weeks	ASC, Banaras Hindu University
3.	Refresher Course	Chennai	9 <sup>th</sup> Feb	1 <sup>st</sup> March,2005	. 3 weeks	ASC, University of Madras

**B. Details of completed Research Projects as PI:**

Name of the 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	2003	2006	7, 25, 625/-	Environmental Studies of

Environment and Forest (MoEF), New Delhi				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. 05,06,600/-	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,NDDB Campus, Anand, 388 001 Gujarat.	2007	2009	Rs. 06,00,000/	An evaluation of nutrient dynamics and plant community studies in dry tropical forests of Rajasthan:
7. Foundation for Ecological Security,NDDB Campus, Anand, 388 001 Gujarat.	2007	2009	Rs. 04,00,000/	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	February, 2014	July, 2014	Rs.5,22,000	Ecology of rivers of Gujarat.

Commission, Gandhinagar				
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. 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.

**RESEARCH PUBLICATIONS- Air Pollution and Climate change, Pollution Abatement, Nano Science, Environmental Biotechnology,**

**2020-21**

- 1 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) (Accepted)
- 2 Lalwani Dipa\*1, Patel Dhruvi1, Varghese Baiju1, Kumar J.I. Nirmal and 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* (Accepted) IF 0.3
- 3 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 TiO<sub>2</sub> and ZnO Metallic Nanoparticles", *Mendeley Data*, V1, doi: 10.17632/pn4n9v655d.1.(Elsevier)
- 4 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**

- 5 Dharitri B. Ramanlal, Rita N. Kumar, J. I. Nirmal Kumar and Rashmi Thakkar  
Assessment of phytoremedial potential of invasive weeds *Acalyphaindica* and  
*Amaranthus viridis* *Environmental Sustainability*, 3, 415–425(2020)
- 6 Dipa Lalwani<sup>ab</sup> Yuefei Ruan<sup>c</sup> Sachi Taniyasu<sup>b</sup> Eriko Yamazaki<sup>bde</sup> Nirmal J. I. Kumar<sup>a</sup> Paul  
K. S. Lam<sup>c</sup> Xinhong Wang<sup>d</sup> Nobuyoshi Yamashita 2020. Nationwide distribution and  
potential risk of bisphenol analogues in Indian waters. *Ecotoxicology and Environmental  
Safety*. Elsevier (Accepted ) IF.4.54 <https://doi.org/10.1016/j.ecoenv.2020.110718>
- 7 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
- 8 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>
- 9 Eriko Yamazaki<sup>ab</sup> Sachi Taniyasu<sup>b</sup> Kosuke Noborio<sup>c</sup> Heesoo Eun<sup>d</sup> Pooja Thaker<sup>be</sup> Nirmal  
J. I. Kumar<sup>c</sup> Xinhong Wang<sup>a</sup> Nobuyoshi Yamashita<sup>b\*</sup> 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>
- 10 Yuefei Ruan<sup>a</sup>, Dipa Lalwani<sup>b,c</sup>, Karen Y. Kwok<sup>a</sup>, Eriko Yamazaki<sup>b,d</sup>, Sachi Taniyasu<sup>b</sup>,  
**Nirmal Kumar J. I.**<sup>c</sup>, Paul K. S. Lam<sup>a,e</sup>, Nobuyoshi Yamashita<sup>b\*</sup> 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>.
- 11 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.doi.org/10.17632/7437c65mjx.2> IF .1.6.
- 12 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, pages 459–464 (2019) IF.0.61
- 13 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
- 14 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.
- 15 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

## 2018.

- 16 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 .1.6

- 17 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.
- 18 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 Performanc index. *Cleaner Production and Technology* .16(2) .3-10.ISSN No: 2454-4493.

## 2017

- 19 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 TiO<sub>2</sub> under UV Irradiation" Polycyclic Aromatic Hydrocarbons" DOI: 10.1080/10406638.2017.1411956 1-12 Accepted IF .1.6 .
- 20 Hiral Soni, Nirmal Kumar, J.I, Kushal Patel and Rita N Kumar,2017. "Metallic nanoparticles as alternative antimicrobials" in **Journal of Nanomedicine & Research**. **Accepted**. ISSN: 2377-4282,
- 21 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.
- 22 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
- 23 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 Spinosus &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-
- 24 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
- 25 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

## 2016

- 26 Dhruvi 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.
- 27 **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.1.6.



- 28 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.
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