

CURRICULUM - VITAE

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Education

Degree	Course	University	Year
Post-Doctoral Fellow	Environmental Biology	Kyoto University, Japan	2001-03
Ph.D.	Zoology	University of Delhi	2000
M.Sc.	Zoology	Meerut University	1993

Job Profile

- Professor, Department of Biotechnology, Delhi Technological University since June 2015.
- Associate Professor, Department of Biotechnology, Delhi Technological University, Delhi, June 2012 – June 2015.
- Scientist “C” (Class one Gazetted Officer) Ministry of Science & Technology, Government of India, October 2006 - June 2012.
- Senior Research Associate Council of scientific and Industrial Research (CSIR), Human Resources Development Group, Govt. of India, Department of Zoology, University of Delhi, June 2003- June 2006.

Area of Interest

Aquaculture, Fish Nutrition, Industrial and Environmental Biotechnology, Water Quality Management, Radiation Biology, UV-B Radiation, Aquatic Ecology, Biosensor, Bioremediation, Bioenergy, Microbiology, Water Pollution, Nanobiotechnology, Gene Expression, Water Chemistry, Environmental Impact Assessment, Chromatography, Amino Acid and Bio fuel.

Post-Doctoral Fellowships

1. Senior Research Associate, Council of Scientific & Industrial Research (CSIR) Human Resources Development Group, Govt. of India, June 2003 - June 2006.
2. Post-Doctoral Fellowship, Kyoto University, Japan, April 2001 - March 2003.

Experience

Research Experience: 24 years

Research Projects

1. “Development of Pelleted Diet for *Labeo rohita* and *Clarias batrachus* Using *Achyranthes aspera* and Evaluation of Its Immunostimulatory Properties in Pond Culture System” - Sponsored by Department of Biotechnology (DBT), Ministry of Science & Technology, Govt. of India, Value: Rs. 73.62 lakh.
2. “Development of Alternative Sustainable Fish Feeds to Promote Human Health using Novel Non-Conventional Indigenous Ingredients” - Newton Fund Global Research Partnership (GRP) in Aquaculture: Case for Support (Multi-Country Project) - Sponsored by BBSRC (United Kingdom) and DBT (India), Rs. around 26.0 lakh.
3. “Nano-enabled Biosensor for Detection of *Neisseria gonorrhoeae*” – Sponsored by DBT, India, Rs. 50.00 lakh.
4. “Simultaneous Degradation of Organochlorine Pesticides by Microbes”- Sponsored by University Grants Commission (UGC), India, Rs. 31.7 lakh
5. “Toxicity Assessment and Treatment of Pharmaceutical Waste Water by Novel Nano Catalyst Based Advanced Oxidation Method”- Sponsored by Department of Science & Technology (DST), Ministry of Science & Technology, India, Rs. 19.20 lakh
6. “Dissemination and demonstration of fish culture technology among Women Self Help Groups in NCR region of Delhi as a self-employment activity” Sponsored by DBT, India, Rs. 70.00 lakh.

Completed Research Projects

Funding Agency	Duration	Title of Project
Council of Scientific and Industrial Research (CSIR) Human Resources Development Group, Govt. of India	2003-06	The Role of vitamin C, vitamin E and DHA on the defense mechanism of carp larvae facing UV-B radiation
Government of Japan	2001-03	Impact of UV-B radiation on aquatic ecosystem
Department of Science & Technology, (DST), Ministry of Science & Technology, Govt. of India	2013-2016	Engineering of actin filament for the development of next generation diagnostic nano-devices

Awards

1. Session's Best Presentation Award (Nutrition Session) in the International Conference on Fisheries and Aquaculture 2015, Colombo, Sri Lanka, August 25-26, 2015.
2. Young Scientist Award, U.P. Council of Science & Technology 2003-2004 (U.P. Government) National Science Day, Cash award of Rs. 25,000/- and Citation February 28, 2004.
3. Young Scientist Award, Asian Fisheries Society (AFSIB), December 17, 2002.
4. U.P. Government Scholarship for the Academic Excellence in the Examination, 1983-1984.

Students Awards

1. B. Tech. student Poorva Srivastava awarded Young Water Fellow award 2017, one student selected from India, with seed funding of € 5000 (around 4.0 lakh Indian Rs.) to implement the project to be held during Nov 2017 at Belgium.
2. B. Tech Students Shreya and Avni Mehta selected for New Zealand- India Sustainability Challenge Regional Round held at TERI, India Habitat Centre, New Delhi. (Aug 31- Sep 1, 2017).
3. Best Poster Award to Ph.D. student Mr. Abhishek Saini in the "National Symposium on Recent Trends in Biotechnology and Drug Discovery" held at Shri Mata Vaishno Devi University, Katra, India (March 30-31, 2017).
4. Best Oral Presentation Award to B. Tech Student Ms. Poorva Shrivastava for the Session "Green Technology & Sustainability" in the International Conference and Outreach Program on "Environment & Ecology: Sustainability and Challenges" (ENCON- 2017) organized by Sri Venkateswara College, University of Delhi, New Delhi, India (January 04- 06, 2017).
5. Best Poster Award to Ph.D. Student Mr. Saurabh Kumar for the recognition of research paper quality, novelty and significance in the "6th World Congress on Biotechnology" held at New Delhi, India (October 05-07, 2015).
6. Second position in poster competition of Mr. Saurabh Kumar Ph.D. Student in the "14th International Oncology Conference" organized by Rajiv Gandhi Cancer Institute & Research Centre, New Delhi, India (February 27- March 1, 2015).

Supervision of Research Fellows/ Scholars/ Students

- a. Post-Docs : 2 ongoing (Dr. Rajkumar Bidlan, UGC PDF and Dr. Shikha Gupta SERB- DST)
1 completed (Dr. Saroj Kumar, DST Young Scientist)
- b. Ph.D. : 08 (completed 3; registered 10)
- c. M.Tech. : 17 (awarded 17; ongoing 4)
- d. B.Tech. : 20 (awarded 16; ongoing 4)

S. No.	Name of Ph.D. Candidate	Title of Ph.D. Thesis	Status	Year of Registration
1	Saurabh Kumar	Nanomaterials modified paper based biosensors for cancer detection	Awarded	2012
2	Suveen Kumar	Development of nanomaterial based biosensors for oral cancer detection	Awarded	2012
3	Vineet Kumar Goswami	Bioprocess optimization for production, downstream processing, purification and characterization of an alkaline lipase from <i>Pseudomonas aeruginosa</i> and its novel industrial applications for future green enzyme technology	Awarded	2013
4	Satish Kumar	Development of microbial consortium for bioremediation of synthetic pesticides contaminated soil and water	SRC completed	2013
5	Shilpi Ahluwalia,	Detoxification of residual toxins in <i>Jatropha</i> press cake for its application in animal feed development	SRC completed	2013
6	Abhishek Saini	Studying the effect of growth factors on expansion and erythropoietic differentiation of Hematopoietic stem cells	Ongoing	2013
7	Vivek Chopra	Limnological studies of River Yamuna	Ongoing	2014
8	Anchita	Bioremediation of explosive contaminated sites using bioformulations.	Ongoing	2016

S. No.	Name of M. Tech Candidate	Title of M. Tech. Dissertation	Year of Award
1	Anu Khera	Analysis single nucleotide variation in drug resistant strains of Mycobacterium tuberculosis using bowtie and samtools.	2013
2	Ankita Nagpal	Augmentation of hematopoietic stem cell proliferation to increase the efficiency of stem cell transplantation.	2013
3	Samridhi	Molecular dynamics simulation studies of matrix metalloproteinases MMP2 and MMP9 computer aided drug designing using phytochemicals as their potential inhibitors.	2013
4	Saumya Bharti	<i>In-silico</i> approach to design a noval inhibitor of SHP1/2: Enhancement of HSCs proliferation.	2014
5	Jyoti Parmar	<i>In silico</i> identification of novel ligand enhances myelopoiesis to prevent infection caused after chemotherapy.	2014
6	Amit Kumar	Wastage analysis and control on potato chips line and texture improvement of extruded food products.	2015
7	Brijesh Kumar	Formulation of diets for <i>Labeo rohita</i> and <i>Oreochromis niloticus</i> using plant ingredients and their <i>in vitro</i> digestibility study using pH-stat method.	2015
8	Matil Haq Ansari	Analysis of fatigue failure of bone using stress-strain curve for improved prosthesis designing.	2015
9	Prakhar Rathore	Performance evaluation and strategic analysis of water quality for wastewater treatment plant: A sustainable study of Cadbury Gwalior.	2015
10	Preeti Kushwaha	Synthesis of ZnO and its photocatalytic activity.	2015
11	Ritu Saxena	Screening of environmental microflora for identification of potential phorbol ester biodegradator and analysis of the degradation product.	2015
12	Neeti Varshney	Biocatalytic mineralization of the insecticide 1 α ,2 α ,3 β ,4 α ,5 α ,6 β -hexachlorocyclohexane (γ -HCH) in presence of auxiliary carbon sources by bacteria enriched on non-chlorinated pesticides.	2015

13	Shubra Sharma	Synthesis and characterization of porous materials to perform PL and UV studies of their interaction with organic dyes.	2015
14	Kriti Shivhare	Synthesis and characterization of S- PEG for delivery of Arthritis drug.	2017
15	Preetam Mallick	Comparative analysis of cellulase enzyme production using <i>Penicillium funiculosam</i> cre-1 strain in bioreactor.	2017
16	Saloni Mishra	Xanthine oxidase: A potential oxidative stress inducer in cardiovascular syndromes.	2017
17	Srishti Munjhal	Fabrication of substrate in the development of a DNA microarray for diagnostic applications.	2017

S. No.	Name of B. Tech Candidate	Title of B. Tech. Major Project	Year of Award
1	Anand Kumar Kataria	A study of lakes of Delhi: Analysis and suggestion.	2013
2	Pavneet Singh	A study of lakes of Delhi: Analysis and suggestion.	2013
3	Ashok Kumar	Evaluation of <i>in vitro</i> digestibility of commonly available plants and agricultural by-product as protein sources for aquafeed for carps <i>Labeo rohita</i> and <i>Cyprinus carpio</i> .	2014
4	Deepak Saini	Evaluation of <i>in vitro</i> digestibility of commonly available plants and agricultural by-product as protein sources for aquafeed for carps <i>Labeo rohita</i> and <i>Cyprinus carpio</i>	2014
5	Nawang Targay	Evaluation of <i>in vitro</i> digestibility of commonly available plants and agricultural by-product as protein sources for aquafeed for carps <i>Labeo rohita</i> and <i>Cyprinus carpio</i> .	2014
6	Saad Khan	Dying Lakes of Delhi: A comparative study of their current status and future prospects.	2014
7	Sahil Rohilla	Isolation and screening of lipolytic microorganism from oil contaminated soil.	2014
8	Basir Raza	Biodiesel production from microalgae.	2015
9	Priya Munjal	Enzymatic fat-splitting of algal oils for their application in biodiesel production.	2015
10	Lakshya Kumar	Green technology for biodiesel production.	2015
11	Ritika Kumari	Enzymatic fat-splitting of algal oils for their application in biodiesel production.	2015
12	Annu Aparajita	Selection of high confidence miRNAs and in silico production of their targets in female reproductive tissue of <i>Pennisetum glaucum</i> (L.)	2017
13	Arushee Tiwari	Formulation and preparation of herbal hair dye.	2017

14	Nidhi Solanki	Studies on screening, isolation and identification of ammonia oxidizing bacteria from recirculating aqua systems.	2017
15	Mohd Younus Khan	Isolation and identification of ammonia oxidizing bacteria and comparative study of their effect on the supplied ammonium to the naturally established consortium.	2017
16	Palash Sonowal	Lipase mediated trans-esterification of olive oil as a prototype for biodiesel production.	2017
17	Vani Gupta	To study the effect of <i>Achyranthes aspera</i> on the gene expression of immunologically important gene, Lysozyme C, in the fish <i>Labeo rohita</i> with RT-PCR.	Ongoing
18	Poorva Srivastava	Assessment of drinking water quality in Delhi public spaces and accessibility to the urban poor.	Ongoing
19	Chetanya Jain	Epidemiological study of incidence and mortality in tuberculosis.	Ongoing
20.	Trisha Gulati	Production of biofuels, new biotechnological approach.	Ongoing
21.	Annu	To study the effect of interaction of Mycorrhiza, Jasmonic acid and Salicylic acid on the wheat growing under saline condition.	Ongoing

Research Publications

(i)	Research Papers	
	(a) Published/accepted	: 58
	(b) Communicated	: 6
(ii)	Book	: 2
(iii)	Book chapter	: 1

Important Journals in which Papers Published

1. Aquaculture (Elsevier B.V.)
2. Asian Fisheries Science (Asian Fisheries Society, Philippines)
3. Aquaculture International (Springer, U.K.)
4. Aquatic Ecology (Springer, The Netherlands)
5. Aquaculture Nutrition (Blackwell Science, Norway)
6. Current Science (Current Science Association & Indian Academy of Science, India)
7. Fish and Shellfish Immunology (Elsevier B.V., U.K.)
8. Fish Physiology & Biochemistry (Springer)
9. Indian Journal of Animal Sciences (Indian Council of Agricultural Research, India)
10. Indian Journal of Experimental Biology (CSIR, India)
11. International Journal of Radiation Biology (Informa Healthcare, U.K.)
12. Journal of Applied Aquaculture (The Haworth Press, Inc., U.S.A.)
13. Journal of Fish Biology (Blackwell Publishing Ltd., U.K.)
14. Journal of World Aquaculture Society (Wiley Online, U.S.A.)
15. Toxicological and Environmental Chemistry (Taylor & Francis, U.K.)
16. Photochemistry & Photobiology (Elsevier B.V., U.K.)
17. The Royal Society of Chemistry
18. Biosensors and Bioelectronics
19. Advanced Science

Editorial Board member

Journal of Biotech Research & Biochemistry, USA
SF Journal of Nanochemistry and Nanotechnology, USA
International Journal of Experimental and Clinical Research, USA
Journal of Drug Resistant Pathogen Research, USA
BAOJ Aquaculture, USA
Annals of Biotechnology, USA
Advances in Industrial Biotechnology, USA
International Journal of Amino Acids', USA
Scientific Journal of Stem Cell Research, USA
Journal of Advanced Biotechnology and Genetic Engineering (JBGE)

Referee of Scientific Journals

1. Aquaculture
2. International Aquatic Research, Springer
3. Journal of Ecology and the Natural Environment
4. Physical Sciences Research International
5. Aquaculture Research
6. Annals of Marine Biology and Research
7. Oncotarget
8. Journal of Advances in Industrial Biotechnology

International Jury Member

1. Served as Jury member in the “World Aquaculture Jeju 2015” held at **Jeju, South Korea** (May 26-30, 2015) for the best student’s Presentation award.
2. Served as Jury member in the “World Aquaculture Adelaide 2014” held at **Adelaide, Australia** (June 7 -11, 2014) for the best student’s Presentation award.

Organized Seminars/Conferences

1. Served as member, Advisory Committee in the International Conference and Outreach Program on “Environment & Ecology: Sustainability and Challenges” (ENCON-2017) organized by Sri Venkateswara College (University of Delhi), New Delhi, India (January 04- 06, 2017).
2. Served as Coordinator in the Workshop on "India's 5G Vision: 2020" jointly with Twentieth GISFI Standardization Series Meeting (GSSM) held at Barkatullah University, Bhopal during March 13-15, 2015.
3. Served as Convener in the “International Conference on Translational Medicine in 21st Century’ Stem Cell Transplantation: Current Status” held at Barkatullah University, Bhopal during April 11-14, 2015.
4. Served as Committee Member in the “International Conference on “Frontiers in Radiobiology: Immunomodulation Countermeasures & Therapeutics” held at New Delhi, during November 11-13, 2014.

International Conferences/Workshops/Training Programmes/Scientific Delegation

1. Attended and presented paper in Fish and Shellfish Larviculture Symposium “Larvi 2017” organized by Artemia Reference Centre, Ghent University held at Ghent, **Belgium** (September 4-7, 2017).
2. Attended and presented paper in “Asian Pacific – Aquaculture 2017” organized by World Aquaculture Society (WAS, USA) held at Kuala Lumpur, **Malaysia** (July 24-27, 2017).
3. Attended workshop "Best Practice in Percid Fish Aquaculture" organized by European Aquaculture Society (EAS) held at Edinburgh, **United Kingdom** (September 20, 2016).
4. Attended and presented paper in the conference “Aquaculture Europe 2016” held at Edinburgh, **Scotland, United Kingdom** (September 21-23, 2016).
5. Attended and presented paper in the conference “World Aquaculture 2015” held at Jeju, **South Korea** (May 26-30, 2015).
6. Attended and participated as Project Investigator in the startup Meeting of Newton Fund Global Research in Aquaculture funded by Biotechnology and Biological Sciences Research Council (BBSRC), UK and Department of Biotechnology (DBT), India held at University of Stirling, Stirling, **Scotland, United Kingdom** (June 27-28, 2016).
7. Attended and presented paper in the conference “2nd International Conference on Fisheries and Aquaculture 2015” held at Colombo, **Sri Lanka** (August 25-26, 2015).
8. Attended and presented paper in the conference “World Aquaculture Adelaide 2014” held at Adelaide, **Australia** (June 7 -11, 2014).
9. Visited Marie Curie Museum (Musée Curie) at Paris, France (June 30, 2013).
10. Attended and presented paper in the conference “International Conference of Fish and Shellfish Immunology” held at Vigo, **Spain** (June 25-28, 2013).
11. Attended and presented paper in the workshop on “Fish Farming Development in Nepal” held at Kathmandu, **Nepal** (January 25-26, 2013).
12. Member of Ministry of Earth Sciences (MoES) delegation to Cape town to appraise and inspect the logistics network and the vessels Ivan Papanin (Russia) for the 30th Indian Scientific Expedition to Antarctica, Cape town, **South Africa** (October 24-28, 2010).
13. Attended and presented paper in the workshop on Sustainable Poverty Reduction in Nepal "SPRN" organized by Norwegian University of Science and Technology (NTNU) held at Oslo, **Norway** (June 2-3, 2010).

14. Attended South West Asia, Middle East, Central Asia and Mongolia Scholars Alumni Meeting held at Tokyo, **Japan** (November 16-22, 2008).
15. Attended a training programme on "Image Analysis to Count and Identify Plankton" (November 1-4, 2005), sponsored by UNESCO, Donostia-San Sebastain, **Spain**.
16. Attended a training programme on "Intensive Aquaculture: Production, Management and Food Safety" (March 10-31, 2004), organized by MASHAV, **Israel**.
17. Attended and presented paper in the conference "Aquaculture 2002" held at Beijing, **China** (April 2002).
18. Attended a training programme on "Aquaculture Water Reuse System (July 10-14, 2000) organized by Cornell University, **USA**.
19. Attended and presented paper in the International conference on "Recirculating Aquaculture" held at Roanoke, Virginia, **USA** (July 2000).
20. Attended a training course on "Ecotoxicology of Lakes and Reservoirs" (May 1999) organized by International Lake Environment Committee Foundation (ILEC, Japan) in conjunction with the 8th International conference on the conservation and management of Lake '99, Copenhagen, **Denmark**.
21. Attended and presented paper in the 8th International Conference on "Conservation and Management of Lakes, Lake '99", held at Copenhagen, **Denmark** (May, 1999).
22. Attended and presented paper in the conference "Aquaculture '98" held at Las Vegas, **U.S.A.** (February 1998).
23. Attended and presented paper in "5th Indo-Pacific Fish Conference" held at Noumea, New Caledonia, **France** (November 1997).

National Conferences

1. Poster presentation on “Partial replacement of fish meal using aquatic macrophytes and agricultural by-products: Impact of the digestive physiology of carp *Labeo rohita*” in “IndoUS Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century”, held at University of Delhi from February 21 – 24, 2017.
2. Poster presentation on “Impact of *Achyranthes aspera* (family: Amaranthaceae) enriched pelleted diets on the performance of *Labeo rohita* in pond culture system” in “IndoUS Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century”, held at University of Delhi from February 21 – 24, 2017.
3. Poster presentation on “Effect of various light Intensities on the physiology response of *Labeo rohita* larvae” in “IndoUS Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century”, held at University of Delhi from February 21 – 24, 2017.
4. Poster presentation on “Impact of temperature on the physiology of Indian major carp *Catla catla*” in “Indo-US Workshop & International Symposium on Biological Timing and Health Issues in the 21st Century”, held at University of Delhi from February 21 – 24, 2017.
5. Attended and presented paper in “The International Conference on Radiation Biology, ICRB 2014” held at Delhi, India (November 11-13, 2014).
6. The study of efficacy of removal of nitrogenous wastes from recirculating system using indigenous filter bed materials. Khangembam C., Sharma J.G. and Chakrabarti R. National Conference on Challenges for Sustainability of Natural Resources and Environment with Emphasis on Aquatic Ecosystem for Livelihood Security, Pantnagar, Uttarakhand, October 10-12, 2014.
7. Attended and presented paper in the National Seminar on “Mountain Fisheries: Challenges and Opportunity for Livelihood Security” held at Directorate of Coldwater Fisheries Research, ICAR, Bhimtal, Nainital, Uttarakhand (November 5-6, 2012).
8. Attended and presented paper in the “Ninth Indian Fisheries Forum” held at Chennai (December 19-23, 2011).
9. Attended and presented paper in “The Sixth Indian Fisheries Forum” held at CIFE, Mumbai (December 17-20, 2002).
10. Attended and presented paper in “89th Session of Indian Science Congress” held at Lucknow University, Lucknow (January 3-8, 2002).
11. Attended and presented paper in “88th Session of Indian Science Congress” held at PUSA, IARI, Delhi (January 3-8, 2001).

- 12.** Attended and presented paper in “International Conference on Ecological Engineering” held at Science City, Calcutta, West Bengal (November 23-27, 1998).
- 13.** Attended a symposium on “Pollution Abatement through Biological Treatment of Industrial Effluents” held at Central Pollution Control Board, CPCB (Ministry of Environment & Forest, Govt. of India), Delhi (March 24, 1998).
- 14.** Attended and presented a paper in the workshop on “Development of Intensive Aquaculture in Fresh and Saline Water in Haryana” held at CCS Haryana Agriculture University, Hisar (September 25-27, 1997).
- 15.** Attended “84th Session of Indian Science Congress” held at Delhi University, Delhi (January 3-7, 1997).
- 16.** Attended and presented paper in “82nd Session of Indian Science Congress” held at Jadavpur University, Calcutta (January 3-8, 1995).

National Training Programmes/ Workshops

1. Attended a workshop on "Electron Microscopy & Allied Techniques" (December 21-23, 2015) held University of Delhi, Delhi.
2. Attended a training course on "Mentoring Skills" (April 26-28, 2010) supported by Department of Personnel & Training (DOPT) under Trainer Development Programme (TDP) at Forest Research Institute (FRI), Dehradun.
3. Attended a training course on "Remote Sensing and GIS - Technology and Applications" (December 14, 2009-March 5, 2010) organized by National Remote Sensing Centre (NRSC), Indian Space Research Organization (ISRO), Govt. of India, Balanagar, Hyderabad.
4. Attended a training course on "Capacity Building training programme on Technology Diplomacy" (November 2-6, 2009) organized by Consumer Unity and Trust Society (CUTS) Jaipur, sponsored by Department of Science and Technology, DST, Govt. of India, New Delhi.
5. Attended training on "Design and Evaluation of Innovation Policy for Developing Countries, DEIP (February 2-7, 2009) organized by United Nations University - Maastricht Economic and Social Research and Training center on Innovation and Technology (UNU-MERIT), Maastricht, Netherlands, National Institute of Science, Technology and Development Studies (NISTADS), New Delhi, and Centre for Development Studies (CDS), Trivandrum at NISTADS, New Delhi.
6. Attended a training course on "Leadership Development Programme for Young and Middle Level Scientist" (August 4-8, 2008) organized by Lal Bahadur Shastri National Academy of Administration, Mussoorie, sponsored by Department of Science and Technology, DST, Govt. of India, New Delhi.
7. Attended a Hands-on Training course on "Molecular Markers: Tools for Genetic Variability Analysis" (December 8-20, 2003), organized by National Bureau of Fish Genetic Resources, NBFGR, Lucknow.
8. Attended a training programme on "Grow-out of Giant Freshwater Prawn" (May 3-8, 2003), organized by Central Institute of Fisheries Education, CIFE, Mumbai.
9. Attended a training programme on "Rain Water Harvesting including Roof Top Rain Water Harvesting" (December, 2000), organized by Central Ground Water Authority, Ministry of Water Resources, Government of India, New Delhi.
10. Attended a training course on "Environmental Impact Assessment of Inland Waters for Sustainable Fisheries Management and Conservation of Biodiversity" (July 25-August

14, 2000), organized by Central Inland Capture Fisheries Research Institute, CIFRI, Barrackpore.

- 11.** Attended a training course on “Fish and Shellfish Nutrition” (May 2-9, 2000), organized by Central Institute of Freshwater Aquaculture, CIFA, Bhubaneswar.

Invited Talks

1. Served as resource person and delivered invited lecture on “How Safe is Our Drinking Water?” in Orientation Programme on the theme “Orienting Teachers towards new Horizons of Education: Nation Building through Higher Education” for the University and College teachers of all streams (Humanities, Commerce & Science) organized by The Centre for Professional Development in Higher Education (CPDHE, UGC-HRDC) on November 17 - December 15, 2015.
2. Served as resource person and delivered invited lecture on “How to Keep Healthy and Stay Fit?” in Orientation Programme on the theme “Orienting Teachers towards new Horizons of Education: Nation Building through Higher Education” for the University and College teachers of all streams (Humanities, Commerce & Science) organized by The Centre for Professional Development in Higher Education (CPDHE, UGC-HRDC) on November 17 - December 15, 2015.
3. Served as resource person and delivered invited lecture on “Impact of UV-B Radiations Aquatic Ecosystem” in Refresher Course in Environmental Studies/Earth Sciences (Interdisciplinary) organized by The Centre for Professional Development in Higher Education (CPDHE, UGC-HRDC) on October 20, 2015.
4. Served as resource person and delivered invited lecture on “Water Pollution and Its Mitigation” in Refresher Course in Environmental Studies/Earth Sciences (Interdisciplinary) organized by The Centre for Professional Development in Higher Education (CPDHE, UGC-HRDC) on October 20, 2015.
5. Served as resource person and delivered invited lecture on “The Science behind Yoga” national seminar on Yoga for improvement of Health, General Efficiency and Performance organized by Department of Yoga, Barkatullah University, Bhopal on June 19, 2015.
6. Served as resource person and delivered invited lecture on “Disaster Mitigation: A lesson from Gujrat earthquake” in Refresher Course in Climate change and disaster management organized by The Centre for Professional Development in Higher Education (CPDHE, UGC-HRDC) on June 13, 2017.
7. Served as resource person and delivered invited lecture on “Nurturing and grooming Educators” in Refresher Course in Grooming of Indian talent in modern perspective organized by The Centre for Professional Development in Higher Education (CPDHE, UGC-HRDC) on October 20, 2015.

Member of Scientific Societies

1. The Society of Aquaculture Professionals (SAP), (Life Member).
2. Biotechnology Society of India (Life Member).
3. Asian Fisheries Society, Philippines.
4. Indian Science Congress Association, India (Life Member).
5. World Aquaculture Society, U.S.A.
6. Association of Aquaculturists, CIFA, India (Life Member).
7. Indian Fisheries Association, CIFE, India (Life Member).
8. Marine Biological Association of India, CMFRI (Life Member).
9. Electron Microscope Society of India (Life Member).
10. Nutrition Society of India (Life Member).
11. Indian Society of Remote Sensing (ISRS) (Life Member).
12. Indian Society for Radiation Biology (Life Member).
13. Indian Red Cross Society (Life Member).
14. Coldwater Fisheries Society of India (Life member).
15. Biogas Forum India (A registered Society for the promotion of Biogas technology in India) Centre for Rural Development and Technology, Indian Institute of Technology (I.I.T.), Delhi (Life Member).

Extra- Curricular Activities

1. N.C.C. “C” Certificate holder
2. Best turn out award of N.C.C
3. Participated in N.S.S.
4. Cultural Council Chairman in Delhi Technological University 2012-2014
5. NSS Faculty Coordinator in Delhi Technological University (D.T.U.)
6. Hostel warden of Ramanujan & Homi Jahangir Bhabha Hostel
7. Member of several committees of D.T.U.
8. Time to time served as Hostel office in charge (14 hostels in charge)
9. Officiating Head (Time to time) Department of Biotechnology

Extension Services

1. Serving as Fisheries expert in the live telecast in the “Krishi Darshan” Programme of Doordarshan Kendra, New Delhi.
2. Serving as Fisheries expert in the Radio Programme of Indraprastha Channel, Delhi.

List of Scientific Publications

1. Ahluwalia, S., Sharma, J. G. and Singh, P. 2017. Modelling and analysis of critical factors for phorbol ester degradation in *Jatropha* seed cake using ISM and MICMAC. International Journal of Environment and Waste Management (*Inder Science Publishers*, accepted).
2. Chopra, V., Sahoo, D. B. and Sharma, J. G. 2017. Unrevealing seasonal diversity of algal flora of river Yamuna in Delhi region. Nature Environment and Pollution Technology (*Technoscience Publications*) 16: 929-933
3. Sharma, J. G., Khan, N. A. and Chakrabarti, R. 2017. Effect of light intensity on the physiology of *Catla catla* larvae. In: Larvi'17, Fish and Shellfish Larviculture Symposium (Hendry, C. I. ed.), Book of Abstract and Short Communication pp.396-398.
4. Chakrabarti, R., Ngasainao, M. R. and Sharma, J. G. 2017. Embryonic and larval development of snow trout *Schizothorax richardsonii*. In: Larvi'17, Fish and Shellfish Larviculture Symposium (Hendry, C. I. ed.), Book of Abstract and Short Communication pp. 87-90.
5. Kumar, S. and Sharma, J. G. 2017. Effect of Malathion on Seed Germination and Photosynthetic Pigments in Wheat (*Triticum aestivum* L.) Asian Journal of Applied Science and Technology (*AJAST Publications*) 1: 158-167.
6. Goswami, V. K. and Sharma, J. G. 2017. An intermediate temperature stable, extracellular and alkaline lipase from *Pseudomonas aeruginosa* and its application in biodiesel production. Asian Journal of Applied Science and Technology (*AJAST Publications*) 1:104-115.
7. Goswami, V. K. and Sharma, J. G. 2017. Time kinetics studies of enzyme catalyzed hydrolysis of triolein and transesterifications of olive oil for the synthesis major olive oil methyl esters using *Pseudomonas aeruginosa* lipase. Asian Journal of Applied Science and Technology (*AJAST Publications*) 1: 38-46.
8. Kumar, S. and Sharma, J. G. 2017. Isolation and characterization of lindane degrading bacteria from enrichment on multiple pesticides. International Journal of Applied Research in Engineering Science (*A. R. Publishers*) 6: 699-706. ISSN: 2319-8354 Impact Factor: 2.83
9. Raju, S. M., Bashambu, D., Bidlan, R., Sharma, J. G. and Kumar, S. 2017. Enhancement in seed germination through simultaneous degradation of organochlorine pesticides (lindane and DDT) by a novel microbial consortium.

International Journal of Advance Research in Engineering Science (A.R. Publishers)
6: 707-713. ISSN: 2319-8354 Impact Factor: 2.83

10. Ahirwar, R., Sharma, J. G., Nahar, P. and Kumar, S. 2017. Immobilization studies of cellulase on three engineered polymer surfaces. *Biocatalysis and Agricultural Biotechnology (Elsevier)* 11: 248- 251. <http://dx.doi.org/10.1016/j.bcab.2017.07.014>
11. Sharma, J. G., Singh, S.P. and Chakrabarti, R. 2017. Effect of temperature on digestive physiology, immune-modulatory parameters, and expression level of Hsp and LDH genes in *Catla catla* (Hamilton, 1822). *Aquaculture (Elsevier B.V.)* 479: 134-139. [doi.org/10.1016/j.aquaculture.2017.05.031](http://dx.doi.org/10.1016/j.aquaculture.2017.05.031)
12. Ahirwar, R., Sharma J. G., Singh, B., Kumar, K., Nahar, P. and Kumar, S. 2017. A simple efficient method for removal of phenolic contaminants in wastewater using covalent immobilized horseradish peroxidase. *Journal of Materials Science and Engineering (David Publishing)* B 7:27-38. **ISSN: 2161- 6213 & 6221**, doi: 10.17265/2161-6221/2017.1-2.004.
13. Ahluwalia, S., Sharma, J. G. and Singh, P. 2017. Degradation of phorbol ester in *Jatropha* seed cake by *Pseudomonas aeruginosa* DS-1. *International Journal of Pharma and Bio Sciences* 8: (B) 542-546 (online). **Impact factor 0.35, ISSN: 0975-6299**
14. Ahluwalia, S., Bidlan, R., Sharma, J. G. and Singh, P. 2017. Review on phorbol ester degradation of *Jatropha* seed cake for its use as animal feed. *International Journal of Pharmacy and Pharmaceutical Sciences* 9: 7-13 (*Innovare Academic Sciences*). DOI: <http://dx.doi.org/1022159/ijpps.2017v9i1.15380>. **Impact Factor 0.5, ISSN: 0975-1491**
15. Kumar, S., Sharma, J. G., Maji, S. and Malhotra, B. D. 2016. A biocompatible serine functionalized nanostructured zirconia based biosensing platform for non-invasive oral cancer detection. *RSC Advances*. 6, 77037-77046 (*The Royal Society of Chemistry*) DOI: 10.1039/c6ra07392a. **ISSN:2046-2069, Impact factor 3.289**
16. Kumar, S., Rai, P., Sharma, J. G., Sharma, A. and Malhotra, B. D. 2016. PEDOT: PSS/PVA-Nanofibers-decorated conducting paper for cancer diagnostics. *Advanced Materials Technologies (Willey-VCH Verlag GmbH & Co. KGaA)* DOI: 10.1002/admt.201600056.
17. Kumar, S., Bidlan, R. and Sharma, J. G. 2016. Degradation of lindane by sludge enriched on mixed commercial formulations of organophosphate and pyrethroid pesticides. *International Journal of Current Microbiology and Applied Sciences (Excellent Publishers)* 5: 138-152.

DOI: <http://dx.doi.org/10.20546/ijcmas.2016.505.015>. **Impact factor 2.937**, ISSN: 2319-7692(Print), ISSN: 2319-7706 (Online).

18. Singh, S. P., Sharma, J. G., Ahmad, T. and Chakrabarti, R. 2016. Oxygen stress: Impact on innate immune system, antioxidant defence system and expression of HIF-1 α and ATPase 6 genes in *Catla catla*. *Fish Physiology and Biochemistry (Springer)* 42: 673-688. DOI 10.1007/s10695-015-0168-0. **Impact factor 1.622**
19. Sharma, J. G., Kumar, A., Saini, D., Targay, N. L., Khangembam, B. K. and Chakrabarti, R. 2016. *In vitro* digestibility study of some plant protein sources as aquafeed for carps *Labeo rohita* and *Cyprinus carpio* using pH-Stat method. *Indian Journal of Experimental Biology (NISCAR, CSIR)* 54: 606 - 611. **Impact factor 1.165**
20. Sharma, J. G., Singh, S., Mittal, P. and Chakrabarti, R. 2016. Impact of temperature gradient on the Indian major carp *Catla catla* larvae. *Proceedings of National Academy of Sciences, India Section B*. DOI 10.1007/s40011-014-0419-3 **Impact factor 0.396**
21. Kumar G., Srivastava R., Sharma J. G., Singh R. and Singh V. 2016. Molasses based growth and lipid production by *Chlorella pyrenoidosa*: potential feedstock for biodiesel. *International Journal of Green Energy (Taylor & Francis)* 13: 320-327. **Impact factor 1.215**
22. Kumar, S., Sharma, J. G., Maji, S. and Malhotra, B. D. 2016. Nanostructured zirconia decorated reduced grapheneoxide based efficient biosensing platform for non-invasive oral cancer detection. *Biosensors and Bioelectronics (Elsevier B.V.)* 78: 497-504. **Impact factor 6.409**
23. Kaushik, N. K., Kaushik, N., Pardeshi, S., Sharma, J. G., Lee, S. H., and Choi, E. H. 2015. Biomedical and clinical importance of mussel-inspired polymers and materials. *Marine Drugs (Molecular Diversity Preservation International)* 13: 6792-6817. **Impact factor 3.90**
24. Kumar, S. Willander, M., Sharma, J. G. and Malhotra, B.D. 2015. A solution processed carbon nanotube modified conducting paper sensor for cancer detection. *Journal of Materials Chemistry B* 3: 9305-9314. **Impact factor: 4.726**
25. Kumar, S., Kumar, S., Srivastava, S, Yadav, B. K., Lee, S. H., Sharma, J. G., Doval, D. C. and Malhotra, B. D. 2015. Reduced graphene oxide modified smart conducting paper for cancer biosensor. *Biosensors and Bioelectronics (Elsevier B.V. accepted)* 73: 114-122. **Impact factor 6.409**

26. Kumar, R., Muhid, P., Dahms, H-U, Sharma, J. G. and Hwang, J-S., 2015. Biological mosquito control is affected by alternative prey. *Zoological Studies (Springer)* 54:55 DOI 10.1186/s40555-015-0132-9. **Impact factor 0.78**
27. Nilssen, K. J., Ngasainao, M. R., Sharma, J. G., Srivastava, S. K., Chandra, S., Moiranthem, K. S., Khangembam, B. K., Kumar, S. and Chakrabarti. 2015. Activities of digestive enzymes in relation to ingested natural food in three carp species of the Himalayan River Ladhiya, northern India. *Aquaculture Nutrition (Blackwell Science Ltd.)*. doi: 10.1111/anu.12351 **Impact factor 1.395**
28. Singh, K. M., Sharma, J. G. and Chakrabarti, R. 2015. Simulation study of natural UV-B radiation on *Catla catla* and its impact on physiology, oxidative stress, Hsp70 and DNA fragmentation. *Photochemistry and Photobiology (Elsevier B.V.)* 149: 156-163. **Impact factor 2.266**
29. Sharma, J. G., Singh, M. K. and Chakrabarti, R. 2015. Physiological responses of *Catla catla* larvae fed with *Achyranthes aspera* seed enriched diet and exposed to UV-B radiation. *Indian Journal of Biochemistry & Biophysics (NISCAR, CSIR)* 52: 155-160. **Impact factor 0.871**
30. Kumar, S., Kumar, S., Tiwari, S., Srivastava, S, Srivastava, M., Yadav, B. K., Tran, T. T., Dewan, A. K., Mulchandani, A., Sharma, J. G., Maji, S. and Malhotra, B. D. 2015. Biofunctionalized nanostructured zirconia for biomedical application: A smart approach for oral cancer detection. *Advanced Science (Willey online)*. **10.1002/advs.201500048. Impact factor**
31. Kumar, G., Srivastava, R., Sharma, J. G. and Kundu, S. 2015. Statistical medium optimization for the production of cephalosporin-c acylase by *Pseudomonas diminuta*. *Journal of Biochemical Technology* 6: 977-981.
32. Chakrabarti, R., Srivastava, P., Verma, N. and Sharma, J. G. 2014. Effect of seeds of *Achyranthes aspera* on the immune responses and expression of some immune-related genes in carp *Catla catla*. *Fish & Shellfish Immunology (Elsevier B.V., UK)* 41: 64-69. <http://dx.doi.org/10.1016/j.fsi.2014.03.007> **Impact factor 3.381**
33. Ahmad, T., Singh, S. P., Khangembam, B. K., Sharma, J. G. and Chakrabarti, R. 2014. Food consumption and digestive enzyme activity of *Clarias batrachus* exposed to various temperatures. *Aquaculture Nutrition (Blackwell Science Ltd., Norway)*, doi: 10.1111/anu.12072) 20: 265-272. **Impact factor 1.395**
34. Singh, K. M., Sharma, J. G. and Chakrabarti, R. 2013. Effect of UV-B radiation on the defense system of *Labeo rohita* (Cyprinidae) larvae and its modulation by seed of

Achyranthes aspera. Acta Ichthyologica et Piscatoria (*Scientific Society of Szczecin*) 43: 119-126. DOI: 10.3750/AIP2013.43.2.04. **Impact factor 0.846**

35. Singh, K. M., Sharma, J. G. and Chakrabarti, R. 2013. Impact of UV-B radiation on the physiology of freshwater carp *Labeo rohita* larvae and evaluation of UV-B protective properties of seeds of *Achyranthes aspera* and vitamin C. Agricultural Research (*Springer, India*) 2: 166-171.
36. Singh, S. P., Sharma, J. G., Ahmad, T. and Chakrabarti, R. 2013. Effect of water temperature on the physiological responses of Asian catfish *Clarias batrachus*. Asian Fisheries Science (*Asian Fisheries Society, Philippines*) 26: 26-38.
37. Sharma, J. G., Rao, Y. V., Kumar, S. and Chakrabarti, R. 2010. Impact of UV-B radiation on the digestive enzymes and immune system of larvae of Indian major carp *Catla catla*. International Journal of Radiation Biology (*Informa Healthcare, UK*) 86: 181-186. **Impact factor 1.949**
38. Sharma, J. G. and Chakrabarti, R. 2009. Comparative growth performance and proteolytic enzyme activity of Indian major carp *Catla catla* larvae, fed with live food and refrigerated plankton food. Indian Journal of Animal Sciences (*Indian Council of Agricultural Research, I.C.A.R.*) 79: 1185-1188. **Impact factor 0.13**
39. Sharma, J. G. and Chakrabarti, R. 2009. Machlika praktik bhujon: jontu plabak (Hindi). Kheti (*Indian Council of Agricultural Research, I.C.A.R.*): 61: 5-7.
40. Sharma, J. G. and Chakrabarti, R. 2008. Development of survivorship model for UV-B irradiated *Catla catla* larvae. Aquatic Ecology (*Springer, The Netherlands*) 42: 17-23. **Impact factor 1.456**
41. Chakrabarti, R., Sharma, J. G. and Kumar, S. 2007. Acute toxicity of ammonia to a freshwater teleost *Labeo bata* larvae. Toxicological and Environmental Chemistry (*Taylor & Francis, UK*) 89: 327-336. **Impact factor 0.825**
42. Sharma, J. G., Masuda, R. and Tanaka, M. 2007. Orientation behavior of red sea bream *Pagrus major* larvae exposed to UV-B radiation in laboratory conditions. International Journal of Radiation Biology (*Taylor & Francis, UK*) 83: 49-52. **Impact factor 1.949**
43. Sharma, J. G., Gwak, W-S, Masuda, R., Tanaka, M. and Chakrabarti, R. 2007. Survival, growth and RNA/DNA ratio of *Pagrus major* cultured under three different feeding regimes during early development. Asian Fisheries Science (*Asian Fisheries Society, Philippines*) 19: 389-400.

44. Sharma, J. G. and Chakrabarti, R. 2006. Effects of UV-B radiation on the gills of *Catla catla* during early developmental stage. *Toxicological and Environmental Chemistry (Taylor & Francis, UK)* 88: 367- 371. **Impact factor 0.825**
45. Sharma, J. G., Masuda, R. and Tanaka, M. 2005. Ultrastructural study of skin and eye of UV-B irradiated ayu, *Plecoglossus altivelis*. *Journal of Fish Biology (Blackwell Publishing Ltd., UK)* 67: 1646-1652. **Impact factor 1.658**
46. Chakrabarti, R., Sharma, J. G. 2005. Digestive physiology of fish larvae during ontogenic development: A brief overview. *The Indian Journal of Animal Sciences (Indian Council of Agricultural Research, ICAR, India)* 75: 1337-1347. **Impact factor 0.13**
47. Sharma, J. G., Kumar, S. and Chakrabarti, R. 2004. Optimization of stocking density of *Labeo rohita* and *Cirrhinus mrigala* spawn in relation to water quality, survival and growth under recirculating system. *The Indian Journal of Animal Sciences (ICAR, India)* 74: 686-689. **Impact factor 0.13**
48. Sharma, J. G. and Chakrabarti, R. 2003. Role of stocking density on growth and survival of catla, *Catla catla* and rohu, *Labeo rohita* larvae and water quality in a recirculating system. *Journal of Applied Aquaculture (The Haworth Press, Inc. Binghamton, NY, U.S.A)* 14: 171-178.
49. Kumar, S., Sharma J. G. and Chakrabarti, R. 2000. Quantitative estimation of proteolytic enzyme and ultrastructural study of anterior part of intestine of Indian major carp (*Catla catla*) larvae during ontogenesis. *Current Science (Current Science Association & Indian Academy of Science, India)*. 79: 1007-1011. **Impact factor 0.926**
50. Sharma, J. G. and Chakrabarti, R. 2000. Replacement of live-food with refrigerated-plankton food for *Cyprinus carpio* (L) larvae cultured with three different types of biological filters. *Current Science (Current Science Association & Indian Academy of Science, India)* 25: 214-219. **Impact factor 0.926**
51. Sharma, J. G. and Chakrabarti, R. 2000. Seasonal occurrence of freshwater medusa *Limnocyclus indica* in a lake of river Yamuna. India. *Aquatic Ecology (Kluwer Academic Publishers, The Netherlands)* 34: 205-207. **Impact factor 1.456**
52. Sharma J. G. and Chakrabarti, R. 1999. Larval rearing of common carp *Cyprinus carpio*: A comparison between natural and artificial diets under three stocking densities. *Journal of World Aquaculture Society (World Aquaculture Society, USA)* 30: 490-495. **Impact factor 0.732**

53. Chakrabarti, R. and Sharma, J. G. 1998. Influence of management protocols on common carp growth under nursery conditions: relative importance of food and water quality. *Aquaculture International (Chapman &Hall, UK)* 6: 293-301. **Impact factor 0.984**
54. Sharma, J. G. and Chakrabarti, R. 1998. Effects of different stocking densities on survival and growth of grass carp, *Ctenopharyngodon idella* larvae using recirculating system. *Journal of Applied Aquaculture (The Haworth Press Inc, USA)*.8: 79-83.
55. Chakrabarti, R. and Sharma. J. G. 1997. Ontogenic changes of amylase and proteolytic enzyme activity of Indian major carp, *Catla catla* (Ham.) in relation to natural diet. *Indian Journal of Animal Sciences (ICAR, India)* 67: 932-934. **Impact factor 0.13**
56. Sharma, J. G. and Chakrabarti, R. 1997. Effects of filtration and aeration on survival and growth of *Ctenopharyngodon idella* fry in recirculation system. *Indian Journal of Experimental Biology (NISC, CSIR, India)* 35: 56-58. **Impact factor 1.165**

Conference Publication

1. Chakrabarti, R., Sharma, J. G. and Kumar, S. 2001. Carp larviculture: A brief review. In: *Captive Breeding for Aquaculture and Fish Germplasm Conservation* (Ponniah, A. G., Lal, K. K. and Basheer, V. S., eds.) NBFGR-NATP Publication No. 3

Book

1. Srivastava, R.K. and Sharma, J.G. 2014. "Jaiv Prodyogiki" (Biotechnology). University Publication, New Delhi, India, pp.232. ISBN: 978-81-7555-665-2
2. Chakrabarti R. and Sharma, J. G. 2008. *Aquahouse: New Dimension of Sustainable Aquaculture*. Indian Council of Agricultural Research, ICAR, New Delhi, India.

Book Chapter

1. Chakrabarti, R. and **Sharma J. G.** 2013. Digestive enzyme profile of carps: An overview. In: *Advances in Fish Research* (Goswami, U. C., ed.), Vol. V., Narendra Publishing House, New Delhi, India, pp.59-76.

Popular Articles

1. Sharma, J. G. 2010. Climate Change Reason and Impact (Hindi). Climate Change and Society (*Ministry of Earth Sciences, MoES, New Delhi*), pp. 64-70.
2. Sharma, J. G. 2010. Climate Change (Hindi). Climate Change (*Ministry of Earth Sciences, MoES, New Delhi*), pp. 145-150.
3. Sharma, J. G. 2009. Global Warming: Problem & Solution (Hindi). Global Warming (*Ministry of Earth Sciences, MoES, New Delhi, India*), pp.149-154.