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ACADEMIC QUALIFICATION:

PhD in Marine Science (specialization in microbiology); Goa University & National Institute of Oceanography (NIO), Goa, India. December, 2005.

M.Sc. in Marine Science; University of Calcutta, West Bengal, India; 1996.

B.Sc. in Zoology (Honors) with Chemistry and Botany; University of Calcutta, West Bengal, India; 1994.

GRANTS/FELLOWSHIPS:

- **SI** (Swedish Institute, Sweden) - Guest Postdoctoral Scholarship. October, 2009 to March, 2011.
- **JSPS** (Japan Society for the Promotion of Science, Japan) - Postdoctoral Research Fellowship. November, 2005 to November, 2007.
- **UGC-DAAD** (University Grants Commission - Deutscher Akademischer Austausch Dienst, Germany) - Fellowship. June to November, 2003.
- **CSIR** (Council of Scientific and Industrial Research, India) - Senior Research Fellowship. September, 2002 to September, 2005.
- **UGC** (University Grants Commission, India) - Research Fellowship. 1998 (declined).

AWARDS/HONORS:

- **Editor-In-Chief**. Environment and Pollution (ISSN: 2249-1716), BIOINFO publications. 2012.
- **Advisory Board Member**. International Journal of Microbiology Research (ISSN: 0975-5276), BIOINFO publications. 2012.
- **Advisory cum Editorial Board Member.** Oriental Journal of Chemistry (ISSN: 2231-5039). Oriental Scientific Publishing Co. 2012.
- **Travel grant** from the National Foundation of Science and Advanced Technologies (NFSAT), Armenia. October, 2012.
- **Biodata published** in the 30th pearl (2012) and 25th silver (2007) anniversary edition of Marquis Who's Who in the World.

- **Financial support** from the NIO to Talented Young Researcher, India. August, 2005.
- **CSIR-Foreign Travel grant** for Research Scholar; India. August, 2005.
- **Indian Science Congress Association-Young Scientist** (in Environmental Science section) for the year 2004-2005 selected at the 92nd Indian Science Congress, Gujarat, India. 2005.
- **Best paper presentation** award at the International Workshop on Marine Pollution and Ecotoxicology (WMPET), Goa, India. 2004.
- **Cash** award from the NIO-Special Funds for the US patent no. 6544773; 2003.
- **Travel grant** from the 4th Asia-Pacific Marine Biotechnology Conference (APMBC; Hawaii, USA) committee. 2002.

WORK EXPERIENCE:

- **Dean**. Dept. of Biotechnology, UNESCO Chair in Life Sciences International Postgraduate Educational Center (LSIPEC), Armenia. *Biophysical properties of cell hydration and its use in environmental sciences*. Advisor; Professor Sinerik Ayrapetyan September, 2012 to present.
- **Senior Scientist.** Center for Ecological Noosphere Studies, National Academy of Sciences, Armenia. Establishment and management of microbiology laboratory, and training of technicians. May, 2012 to September, 2012.
- **Scientist (Scientific advisor)**. Vanevan University (Institute), Ministry of Education and Science, Armenia. Advising scientific committee members on international project collaboration and guiding graduate research. January, 2008 to August, 2011.
- **Postdoctoral Researcher**. *Effect of solar radiation, and nitrate as photosensitizer on freshwater bacteria.* Supervisor; Professor Stefan Bertilsson. Limnology, Dept of Ecology and Genetics, Uppsala University, Sweden. October, 2009 to March, 2011.
- **Research Scientist I**. *Subsurface uranium fate and transport: Integrated experiments and modeling of coupled biogeochemical mechanisms of nanocrystalline uraninite oxidation by Fe(III)-(hydr)oxides*; Department of Energy – Environmental Remediation Sciences Program, USA. Supervisor; Dr. Rajesh Sani. Chemical & Biological Engineering Department, South Dakota School of Mines & Technology (SDSM & T), SD, USA. August, 2008 to June, 2009.
- **Postdoctoral Researcher**. *Biogeochemistry and bioremediation of heavy metals in Uranouchi inlet, Kochi prefecture, Japan*. Supervisor; Professor Kimio Fukami. Graduate School of Kuroshio Science (GRAKUS), Kochi University, Japan. November, 2005 to November, 2007.
- **Senior Research Fellow**. *Mercury-resistant marine bacteria and their role in bioremediation of certain toxicants*. Supervisor; Dr. N. Ramaiah. NIO, Goa, India. September, 2002 to September, 2005.
- **UGC-DAAD Fellow**. *Molecular analysis of mercury resistance in marine mercury-resistant bacteria and application of such bacteria in bioremediation of mercury*. Supervisor;

Professor Irene Wagner-Döbler. German National Centre for Biotechnology, Braunschweig, Germany. June to November, 2003.

- **Project Assistant III**. *Coastal Ocean Monitoring and Prediction System* (COMAPS) and several Environmental Impact Assessment (EIA) projects. Supervisor; Dr. N. Ramaiah. NIO, Goa, India. December, 1998 to September, 2002.
- **Research Fellow**. Chemical and biological analyses of waters from aquaculture systems. Supervisor; Professor Amalesh Choudhury. S.D. Marine Biological Research Institute, West Bengal, India. April to December, 1997.

PARTICIPATION IN SCIENTIFIC PROJECTS (other than mentioned above)**:**

1. *ELF EMF - induced modulation of ionizing radiation effect on plant germination*. UNESCO Chair-LSIPEC, Armenia. September 2012 to present.
2. *Permeable reactive bio-barriers for uranium removal: Role of iron minerals on uranium fate and transport*. SDSM & T, USA. Aug, 2008 to June, 2009.
3. *Integrated Coastal and Marine Area Management (ICMAM)*. NIO, Goa, India. 2003.
4. *Environmental monitoring for capital dredging of area at Jatadharmohan creek and surrounding area at Paradip, Orissa*. NIO, Goa, India. 2002.
5. *Environmental monitoring for the disposal of treated effluents near Nagapattinam sponsored by PPN power plant, Chennai*. NIO, Goa, India. 2001.
6. *Bay of Bengal Process Studies (BOBPS)*. NIO, Goa, India. 2001.
7. *Rapid environmental impact assessment for SPM construction of BPCL Refinery, Gopalpur, Orissa*. NIO, Goa, India. 1999 to 2001.
8. *Consultancy services for disposal of treated sewage effluents in the estuary of river Mandovi at Campal, Panaji*. NIO, Goa, India. 1999.
9. *Environmental monitoring for capital dredging of area for mooring buoys and near berth no. 10 and 11 at Mormugao Port*. NIO, Goa, India. 1999.
10. *Coastal landforms and bathymetry study around Shankarpur-Digha stretch, West Bengal using remotely sensed data*. Dept. of Marine Science, Indian Institute of Remote Sensing, Dehradun, India. 1998.
11. *Studies on the physico-chemical characteristics and primary productivity in water and biological characteristics around Jambu Island and Lower long sand, Hooghly Matlah estuary, Sunderbans*. University of Calcutta, India. December, 1995 to March, 1996.
12. *Observation of Shrimp farming with special reference to the Fisheries Management*. University of Calcutta, India. May, 1995 to March, 1996.

RESEARCH INTERESTS:

Environmental microbiology, microbial biotechnology, cell hydration in realization of biological effects of weak chemical and physical signals, biological effect of radiation on living organisms, biogeochemistry of nutrients and heavy metals, microbial food chain, microbiology of extreme

environments, environmental impact assessment, plant-microbe interaction, identification of emerging environmental contaminant issues and their effect from ecological perspectives, effect of changing climate variability on microbes, bioremediation of toxic chemicals, microbial contamination of food and quality control, etc.

TEACHING EXPERIENCE:

University teaching:

- **Supervising** research students and trainees at the UNESCO Chair-LSIPEC, Armenia. September, 2012 onwards.
- **Assisted** (unofficial) in guiding a PhD student in the Limnology Dept., Uppsala University, Sweden. October, 2009 to March, 2010.
- **Taught** (as unofficial proxy) 3rd year undergraduate classes (cell biology, reproduction and chromosomal structure) at the SDSM & T, USA. April, 2009.
- **Taught** 2nd year undergraduate classes (basic microbiology and environmental science) at the Vanevan University, MES, Armenia. February to August, 2008.
- **Supervised** undergraduate research theses (sediment biogeochemistry and microbial bioremediation) at the GRAKUS, Kochi University, Japan. June, 2006 to October, 2007.
- **Supervised** summer trainees and project assistants (environmental microbiology, biogeochemistry, and microbial bioremediation) at the NIO, Goa, India. 2000 to 2004.

Community teaching:

- Volunteered as **social worker cum teacher** for an NGO in educating villagers and high school students about socio-economic impacts of prawn aquaculture. Sagar Island, West Bengal, India. 1996 to 1997.
- Volunteered as **private teacher** in biology and English for financially challenged high school students. Kolkata, West Bengal, India. 1992 to 1994.

UNIVERSITY SERVICE:

- **Microbiology laboratory manager**. Limnology, Uppsala University, Sweden. 2010 to 2011.
- **Member** of the organizing committee for seminar by research fellows. NIO, Goa, India. 2002 to 2004.
- **Microbiology laboratory manager**. NIO, Goa, India. 2002 to 2003.
- **Student representative** in M.Sc. curriculum development, and field excursion planning and arrangement. Marine Science Dept., Ballygunge Science College, University of Calcutta, India. 1995 to 1996.
- **Student representative** in B.Sc. field excursion planning and arrangement. Zoology Dept., Bangabasi College, University of Calcutta, India. 1992 to 1993.

TEACHING INTERESTS:

Basic & applied microbiology, environmental microbiology, biotechnology, environmental science, bioremediation, general biology, marine science, ecotoxicology, microbial diversity and ecology, ecosystem management, biogeochemistry of heavy metals, aquatic pollution, etc.

PUBLICATIONS & PATENT (Google Scholar h-index 6; IF> 20; December, 2012)**:**

In journal:

1. **De Jaysankar**, Fukami K., Iwasaki K., and Okamura K. Distribution of heavy metals at the Uranouchi Inlet, Kochi prefecture, Japan. Fisheries Science. Vol. 75, No.2, pp. 413-423, 2009. IF= 0.82.
2. **De Jaysankar**, Ramaiah N., and Vardanyan L. Detoxification of toxic heavy metals by marine bacteria highly resistant to mercury. Marine Biotechnology. Vol. 10, No. 4, pp. 471-477, 2008. IF= 2.59.
3. **De Jaysankar**, Ramaiah N., Bhosle N.B., Garg A., Vardanyan L., Nagle V.L., and Fukami K. Potential of Mercury-resistant Marine Bacteria for Detoxification of Chemicals of Environmental Concern. Microbes and Environments. Vol. 22, No. 4, pp. 336-345, 2007. IF= 2.25
4. **De J.**, and Ramaiah N. Characterization of marine bacteria highly resistant to mercury exhibiting multiple resistance to toxic chemicals. Ecological Indicators. Vol. 7, pp. 511-520, 2007. IF= 3.10.
5. **De Jaysankar**, and N. Ramaiah. Occurrence of large fractions of mercury-resistant bacteria in the Bay of Bengal. Current Science. Vol. 91, No. 3, pp. 368-372. 2006. IF= 0.89.
6. **De Jaysankar**, Sarkar A., and Ramaiah N. Aerobic degradation of highly chlorinated PCBs by a marine bacterium, Pseudomonas CH07. World Journal of Microbiology and Biotechnology. Vol. 22, No. 12, pp. 1321-1327, 2006. IF= 1.21.
7. **De Jaysankar**, Sarkar A., and Ramaiah N. Bioremediation of toxic substances by mercury resistant marine bacteria. Ecotoxicology. Vol. 15, No. 4, pp. 385-389, 2006. IF= 3.51.
8. Ramaiah N., and **De J.** Unusual rise in mercury resistant bacteria in coastal environs. Microbial Ecology. Vol. 45, pp. 444-454, 2003. IF= 3.25.
9. **De Jaysankar.**, Ramaiah N., Mesquita A., and X. N. Verlekar. Tolerance to various toxicants by marine bacteria highly resistant to mercury. Marine Biotechnology. Vol. 5, pp. 185-193, 2003. IF= 2.59.

Book/Proceedings:

10. Vardanyan L., Schmieder K., Sayadyan H., Heege T., Heblinski J., Agyemang T., **De J.**, and Breuer J. Heavy metal accumulation by certain aquatic macrophytes from Lake Sevan (Armenia). In Sengupta M and Dalwani R. (Editors). Proceedings of TAAL-2007: The 12th World Lake Conference. Jaipur, India. pp. 1028-1038. 2008.

11. Ramaiah N., **De J.**, and Iyer S.R. Environmental pollution detection and bioremediation by marine bacteria. In K.G. K Hiremath (Ed.), Recent Advances in Environmental Science. pp. 470. ISBN 81-7141-679-9. Discovery, xviii, New Delhi, India. pp. 376-398. 2003.
12. Das S., Mitra K., **De J.**, Das K., and Misra A. A study on socio-economic and socio-cultural problems of the coastal people of Sunderbans (full paper). Workshop on Sunderbans Day, Calcutta, 3rd June, 2001.

Dissertation:

13. Mercury-resistant marine bacteria and their role in bioremediation of certain toxicants. PhD thesis, Goa University, India. pp. 232. September, 2005.
14. Studies on the physico-chemical characteristics and primary productivity in water and biological characteristics around Jambu Island and Lower long sand, Hooghly Matlah estuary, Sunderbans. M.Sc. dissertation, Univ. of Calcutta, India. pp. 65. August, 1996.
15. Observation of Shrimp farming with special reference to the Fisheries Management. M.Sc. dissertation (compulsory), Univ. of Calcutta, India. pp. 80. August, 1996.

Conference (*presented by self):

16. Peyton B.M.**,** Ginn T.R., Sani R.K., Spycher N., Adhikari A., **De J.**, Gurram R., and Stewart B. Subsurface Uranium Fate and Transport: Integrated Experiments and Modeling of Coupled Biogeochemical Mechanisms of Nanocrystalline Uraninite Oxidation by Fe(III)-(hydr)oxides. DOE-ERSP 4th Annual PI Meeting 2009. National Conference Center, Lansdowne, Virginia, USA. April 20-23, 2009.
17. **De J.***, Sani R.K., Stewart B., Peyton B.M., Spycher N., and Ginn T.R. Reoxidation and remobilization of uraninite - the current status. Western South Dakota Hydrology Conference, Rapid City, South Dakota, USA. p. 19, 2009.
18. **De J.***, Ramaiah N., Bhosle NB, Garg A, Vardanyan L.G., and Fukami K. Physiological and genetic analyses of heavy metal detoxification potential of marine bacteria. 7th Asia-Pacific Marine Biotechnology Conference (APMBC), Kochi, India. p. 98. 2006.
19. **De J.***, Fukami K., and Iwasaki K. Effects of intensive aquaculture on heavy metal concentration in sediments of Uranouchi bay, Japan. 7th APMBC, Kochi, India. p. 125. 2006.
20. Ramaiah N., **De J.**, Narvekar G., Imam N., and Thomas D. Heavy metal detoxification potential of marine bacteria. 7th APMBC, Kochi, India. p. 99. 2006.
21. Ramaiah N., Rodrigues V., **De J.**, Kakti S., Samant D., and Sadhasivan A. Bacteriological quality of Mandovi and Zuari during 1998-2005: Lessons for ecosystem management from microbiological perspective. Workshop on Science-Policy interactions on the river basins and coastal zone management, NIO, Goa, India. 2006.
22. **De J.*** Bioremediation of mercury in medical waste using mercury-resistant marine bacteria. Abstract Book 3rd Young Medics' International Conference, 19-21 Sept. 2005, Yerevan, National Academy of Sciences, Republic of Armenia, Ministry of Health, Republic of Armenia, Armenian Medical Association. Yerevan, Armenia. pp. 85-86. 2005.

23. **De J.*** Toxic waste bioremediation by mercury-resistant marine bacteria. (Short paper). Synopsis of the presentations, Young Scientist award program, 92nd Indian Science Congress, Ahmedabad, India. pp. 33-36. 2005.
24. **De J.**, and Ramaiah N.. Mercury-resistant marine bacteria for bioremediation of toxic heavy metals (accepted short paper). IASME / WSEAS International Conference on Energy, Environment, Ecosystems and Sustainable Development, Athens, Greece. 2005.
25. **De J.***, and Ramaiah N. Large fractions of mercury-resistant bacteria in deeper zones in the Bay of Bengal: Implication of general response to stress adaptation? Dynamic Planet, Australia. 2005.
26. **De J.*** Toxic waste bioremediation by mercury-resistant marine bacteria. Proceedings of the 92nd session of the Indian Science Congress, Part III (YS abstracts); YS award programme, Section of Environmental Sciences. Ahmedabad, India. 2005.
27. **De J.***, Wagner-Döbler I., Sarkar A., and Ramaiah N. Bioremediation of toxic substances by mercury resistant marine bacteria. (extended abstract) International Workshop on Marine Pollution and Ecotoxicology (WMPET), NIO, Goa, India. p. 85. 2004.
28. **De J.***, and Ramaiah N. Bioremediation Potential of Mercury-resistant Marine Bacteria. (extended abstract). Conference on microbiology of the tropical seas (COMITS), NIO, Goa, India. p. MB (P) 02. 2004.
29. **De J.**, Ramaiah N., and Sarkar A. Bioremediation potential of bacteria highly resistant to mercury. (abstract). 4th APMBC, Hawaii. p. 18. 2002.
30. Ramaiah N., and **De J.** Are increases in mercury resistant bacteria indications of altered microflora in the marine environments? (accepted abstract). 6th International conference on Water Pollution, Greece. 2001.
31. Ramaiah N., **De J.**, and Iyer S. Bacterial means of marine pollution stress detection and certain bioremedial measures. (abstract). Seminar on "Advancement of Science in India" - NCAOR, Goa, India. p. 218. 2000.

Technical report:

32. ICMAM interim project report, NIO, Goa, India. 2003.
33. BOBPS interim project report, NIO, Goa, India. 2003.
34. COMAPS project reports, NIO, Goa, India. 1999-2002.
35. Rajagopal M.D. et. al. Monitoring of ecological conditions of Jatadharmohan Creek and Santra Creek during dredging period - Bi-monthly Report Vl-X (NIO/SP-25, 26, 27, 28, 29/2002). NIO, Goa, India. 2002.
36. Fondekar S.P. et. al. Post project environmental monitoring for 330 MW combined cycle power plant at Pillaiperumalnallur in Nagapattinam district TN (NIO/SP-5/2002). NIO, Goa, India. 2002.
37. Singbal S.Y.S. et. al. Comprehensive marine environmental impact assessment for SPM/COT and sub-sea pipeline off Jhatipadar (NIO/SP-32/2000). NIO, Goa, India. 2000.

38. Verlencar X.N. et. al. Environmental monitoring for capital dredging of area for mooring buoys and near berth No. 10 and 11 at Mormugao Port (NIO/SP-20/2000). NIO, Goa, India. 2000.
39. De Souza S.N. et al. Consultancy services for the disposal of treated sewage effluent in the estuary of river Mandovi at Campal, Panaji (NIO/SP-21/2000). NIO, Goa, India. 2000.
40. De Souza S.N. et al. Consultancy services for disposal of treated sewage effluents in the estuary of river Mandovi at Campal, Panaji (NIO/SP-16/99). NIO, Goa, India. 1999.
41. Singbal S.Y.S. et al. Rapid marine environmental impact assessment for SPM/COT and sub-sea pipeline off Jhatipadar (NIO/SP-17/99). NIO, Goa, India. 1999.

Invited talk/Seminar series:

42. Exclusion Zone (EZ), the 4th phase of water – a status report on its current research. UNESCO Chair – Life Sciences International Postgraduate Educational Center, Armenia. 12/11/2012
43. Importance of aquatic macrophytes in controlling water quality. UNESCO Chair – Life Sciences International Postgraduate Educational Center, Armenia. 15/10/2012.
44. Reoxidation and remobilization of uraninite - the current status with special reference to Fe minerals. Limnology, Uppsala University, Sweden. 19/04/2010.
45. Bacteria - a good friend of human. Vanevan University, Armenia. 20/08/2009.
46. Role of bacteria in industrial biotechnology. Vanevan University, Armenia. 14/07/2009.
47. Bioremediation potential of natural bacteria. Vanevan University, Armenia. 11/06/2008.
48. Role of bacteria in environmental impact assessment. Centre for coastal zone management, Kolkata, India. 10/12/2007.
49. Aerobic degradation of highly chlorinated polychlorobiphenyls by a marine bacterium, *Pseudomonas* CH07. GRAKUS, Kochi University, Japan. 14/11/2006.
50. Microbial Ecology and Bioremediation of Uranouchi Inlet, Kochi, Japan. Part-II. GRAKUS, Kochi University, Japan. 31/08/2006.
51. Unusual rise in mercury-resistant bacteria in coastal environs. GRAKUS, Kochi University, Japan. 30/06/2006.
52. Microbial Ecology and Bioremediation of Uranouchi Inlet, Kochi, Japan. Part-I. GRAKUS, Kochi University, Japan. 12/05/2006.
53. Microbial demethylation in biogeochemistry and bioremediation of mercury. GRAKUS, Kochi University, Japan. 19/04/2006.
54. Mercury-resistant marine bacteria and their role in bioremediation of certain toxicants. Department of Marine Science, Goa University, India. 03/08/2005.
55. Toxic waste bioremediation by mercury-resistant marine bacteria. 92nd session of the Indian Science Congress, Ahmedabad, India. 25/01/2005.

56. Mercury-resistant marine bacteria biotransfrom a variety of highly toxic pollutants. National Institute of Oceanography, India. 10/08/2004.

Poster presentation (*presented by self)**:**

57. L. Vardanyan, **J. De***, Importance of aquatic macrophytes in controlling water quality, Seventh Annual Conference on the Physics, Chemistry, and Biology of Water, Vermont, USA, October 18 – 21, 2012.
58. Peyton B.M., Ginn T.R., Sani R.K., Spycher N., Stewart B., Issarangkun M., Barkouki T., **De J.**, and Gurram R. Subsurface Uranium Fate and Transport: Integrated Experiments and Modeling of Coupled Biogeochemical Mechanisms of Nanocrystalline Uraninite Oxidation by Fe(III (hydr)oxides. DOE-ERSP 4th Annual PI Meeting 2009. National Conference Center, Lansdowne, Virginia, USA. April 20-23, 2009.
59. Rodrigues V., Kakti S, **De J.**, d'Silva C., and Ramaiah N. Distribution of certain human pathogenic bacteria along the central west coast of India. 7th APMBC, Kochi, India. p. 195. 2006.
60. Ramaiah N., Verlekar X.N., Dhargalkar V.K., Desai S.R., **De J.**, and Shama K. Phytoplankton and bacteriological indicators of marine environmental stress: case studies from west coast of India. Presented at the International Workshop on Marine Pollution and Ecotoxicology, NIO, Goa, India. 2004.
61. Kakti S., **De J.**, Verlekar X.N., and Ramaiah N. Bacteriological indicators of marine environmental health: Case studies from Mandovi and Zuari estuaries. COMITS, NIO, Goa, India. p. PMB (P) 01. 2004.
62. **De J.***, and Ramaiah N. Bioremediation Potential of Mercury-resistant marine bacteria. COMITS, NIO, Goa, India. 2004.

Under review/acceptance:

1. **De J.**, Leonhäuser J., and Vardanyan L., and Ayrapetyan S. Removal of mercury in fixed-bed continuous upflow reactors by mercury-resistant bacteria and effect of sodium chloride on their performance (accepted by ICAMR-2013 for publication in AJMR).
2. Lilia Narinyan, Gayane Ayrapetyan, **Jaysankar De**, and Sinerik Ayrapetyan. Age-Dependent Increase in Na^+/Ca^{2+} Exchange-Magnetosensitivity in Heart Muscle is due to Dysfunction of Na^+/K^+ Pump-α_3 Isoforms. (under review).
3. Vardanyan L., Schmieder K., Sayadyan H., Heege T., Heblinski J., Agyemang T., and **De J.** Bioaccumulation of heavy metals by aquatic macrophytes from main rivers of Lake Sevan. (informally accepted in Hydrobiologia).
4. Sukiasyan A., Mikaelyan Y., **De J**., and Ayrapetyan S. ELF EMF -induced modulation of ionizing radiation effect on plant germination. (under review with authors).
5. **De J.**, and Fukami K. Spatio-temporal variation of heavy metals at the Uranouchi Inlet, Kochi prefecture, Japan. (under review).

6. **De J.**, Aki H., and Fukami K. Spatio-temporal variation of heavy metals at the Uranouchi Inlet and Urado bay, Kochi prefecture, Japan. (under review).
7. Vardanyan L., and **De J.** Distribution and ecology of aquatic macrophytes of Lake Sevan Basin. (under review).
8. Singh G., Sengör S.S., **De J.**, Stewart B., Squillace E., Spycher N., Ginn T.M., Peyton B.M., and Sani R.K. Reoxidation and remobilization of uraninite - a review. (under review).
9. **De J.**, Grubisic L., Bertilsson S., and Tranvik L. Effect of solar radiation and nitrate on dissolved organic matter and bacteria in freshwater lake. (under review with authors).

Press report (http://www.anandabazar.com/archive/1061005/5desh18.htm**):** Article published on my PhD research in the Anandabazar Patrika. (leading Bengali newspaper in West Bengal, India) on 06/10/2005.

Popular article (http://nio.org**):** Better biological weapon to fight with tougher PCBs.

Patent: Sarkar A., **De J.**, and Ramaiah N. "Microbial process for degradation of PCBs in Clophen A-50 using novel marine microorganism, Pseudomonas CH07" - US patent # 6544773, April 8, 2003.

EXPERTISE:

Samplers: Grab (Van Veen, Ekman-Birge), corers, water samplers (Niskin, Nansen and Kitahara), multiple plankton net, and zooplankton trawling net etc.

Instruments: Echo sounder, CTD, YSI, ORP meter, autoanalyzer, GC, ICP-AES, CVAAS, UV-VIS spectrophotometer, light & scanning electron microscopy, energy dispersive x-ray spectrometry, Kinetic Phosphorescence Analyzer (KPA), Flowcytometer etc.

Methods: Environmental monitoring and assessment, biological and chemical analyses of water and sediment including analysis for heavy metals, radionuclide and organic pollutants, general and specific microbiological methods for aerobes and anaerobes, protein estimation and profiling, microbial identification using biochemical and 16S rRNA sequencing, PCR, southern hybridization, DGGE, 454 pyrosequencing and other molecular biological methods.

Computer proficiency: Windows, Adobe Photoshop, software for running instruments like AAS, GC, ICP-AES, KPA, nucleotide sequencing & editing, image-processing software for remote sensing, and statistical software like R.

Special skill: Vastly experienced in onboard sampling and analyses (spent more than 120 ship-days on ORV Sagar Kanya, CRVs Sagar Shukti, Sagar Paschimi, Sagar Purvi, etc. and several small and big mechanical and automatic boats).

VOLUNTEER ACTIVITIES:

- Worked for "Paribesh Unnayan Parishad" (an NGO) for carrying out socio-economic projects to aware and educate poor villagers. 1996-1997.

- Honorary member and advisor of “Britter Baire” (an NGO) for helping poor students. 2005-present.
- Honorary member and advisor of Center for Coastal Zone Management, Kolkata, India. 2005-present.

Reviewer for:

Journal of Environmental Chemistry and Ecotoxicology, Journal of hazardous materials, Chemical and Biochemical Engineering Quarterly, African Journal of Environmental Science and Technology, World Journal of Microbiology and Biotechnology, Ecological Indicators, Fisheries Science, African Journal of Microbiology Research, Applied Microbiology and Biotechnology, BIOINFO-Environment and Pollution, International Journal of Microbiology Research, etc.

COLLABORATORS:

- Center for Ecological Noosphere Studies, National Academy of Sciences, Armenia.
- Limnology, Dept. of Ecology and Genetics, Uppsala University, Sweden.
- Graduate School of Kuroshio Science, Kochi University and Center for Advanced Marine Core Research, Kochi, Japan.
- Environmental Molecular Science Laboratory, PNNL, USA.
- South Dakota School of Mines and Technology, SD, USA.
- Microbial Communication group, Helmholtz-Zentrum für Infektionsforschung (formerly known as GBF), Braunschweig, Germany.
- National Institute of Oceanography, Goa, India.

PROFESSIONAL AFFILIATIONS:

Life member: Indian Science Congress Association (Kolkata, India), Center for Coastal Zone Management, (Kolkata, India), Young Biologists Association (Armenia), DAAD alumni club, Indian JSPS alumni club, SciLifeLab-Uppsala (Sweden), The Science Advisory Board (USA), and various online scientific groups and communities.

Member: World Scientific and Engineering Academy and Society (WSEAS), Association of Microbiologists of India, Bioremediation Discussion Group, OceanExpert, Oceanographers Net, The International Association for Ecology (INTECOL), Zoological Society of India (Kolkata, India),

LANGUAGE PROFICIENCY: English, Bengali, Hindi, Armenian, Japanese, German.