

CURRICULUM VITAE

Name : **Dr. Srikanth Mutnuri**

Designation : **Associate Professor**

Department/Institute/University : **Biological Sciences, Birla Institute of Technology and Science-Pilani, Goa campus, NH 17 B, Zuari Nagar, Goa 403726, India**

Date of Birth : **19/03/1977**

Education (Post-Graduation onwards & Professional Career)

Sl No.	Institution Place	Degree Awarded	Year	Field of Study	Rank
1.	Pachaiyappa College/ Univ. of Madras, Chennai	M.Sc	1998	Botany	First class
2.	Anna University	Ph.D	2004	Environmental Microbiology	NA

A. Position and Honors

Position and Employment

Sl No.	Institution Place	Position	From (Date)	To (date)
	Birla Institute of Technology and Science – Pilani, K K Birla Goa campus	Associate Professor – Biological Sciences	Feb 2013	Till date
1.	Birla Institute of Technology and Science – Pilani, K K Birla Goa campus	Assistant Professor – Biological Sciences	June 2008	Jan 2013
2.	Birla Institute of Technology and Science – Pilani, K K Birla Goa campus	Lecturer – Biological Sciences	June 2005	June 2008
3.	Alpha Arts and Science College, Chennai	Lecturer – Biotechnology	January 2005	May 2005

Honors/Awards

- Member of Goa University's "Internal Quality Assurance Cell"

- Appointed by the Government of Goa as the Member of Expert committee constituted for technical evaluation of bids for the Municipal solid waste (MSW) processing facility going to be set up at Bainguinim, North Goa.
- Mentor for Sustainable Biosolutions LLP , a BITS incubate company and they have won 1st prize of 50 K at “TiE 50K Big Idea Business Plan Competition” final round held on 22nd May 2013 at TiE Hubli. The business plan was on an organic fertilizer developed in my lab (Applied and Environmental Biotechnology).
- Two month fellowship from German Academic Exchange Service (DAAD) under reinvitation programme for DAAD alumni. Worked with Dr.Marcell Nikolausz, Bioenergy department, Helmholtz Centre for Environmental Research, Leipzig, Germany from 20th May 2012 till 18th July 2012.
- Recipient of American Society for Microbiology & Indo US Science and Technology Forum (ASM IUSSTF) Indo US Research Professorship October 2010 .Will be carrying out Stable isotope probing at Rutgers University in the coming summer (June – July 2011)
- Appointed as nodal officer by the Goa Government for monitoring Pollution in Comba well waters.
- Two month fellowship from German Academic Exchange Service (DAAD) under reinvitation programme for DAAD alumni. Worked under Prof. Matthias Kastner, Bioremediation department, Helmholtz Centre for Environmental Research, Leipzig, Germany from 20th May 2008 till 20th July 2008.
- Received FEMS young Scientist award to present paper at the 14th International Biodeterioration and Biodegradation symposium 2008.
- Helmholtz association’s junior scientist award to present a poster at International conference on Environmental Biotechnology, Leipzig, Germany. 2006
- Best paper award at National conference on Environmental Conservation, 2006 held at BITS-Pilani.
- Recipient of German Academic Exchange Service (DAAD – UGC) sandwich model fellowship for the year 2001 – 2002 and 2002 – 2003. Under this fellowship carried out laboratory work at UFZ – Centre for Environmental Research, Germany and obtained Ph.D degree from Anna University, India.

Professional Experience and Training relevant to the Project
PRACTICAL TRAINING / COURSES

- Completed course work on Chemistry of Environment, Statistical methods and computer application, Biochemical engineering and Analytical techniques in Biotechnology.
- Two week practical training on “Culture techniques of halophilic bacteria and bioreactor handling” during the period 20.01.2000 till 04.02.2000 under the guidance of Dr. Ing. Matthias Gerhardt, BIOPRACT GmbH at Centre for Environmental studies, Anna University, Chennai, India.
- Five days practical training on “High Performance Liquid Chromatography” during the period 31.03.2000 till 04.04.2000 from CHEMITO instruments at Centre for Environmental studies, Anna University, Chennai, India.
- One week course on Radioactivity (working with radioactive substances and handling radioactive substances and safety measures) from 8th October till 12th October 2001 at Institute for Interdisciplinary Isotope research, University of Leipzig, Leipzig, Germany.
- One week practical course on Laser Scanning Microscope course from 7th October till 11th October 2002 at Department of Inland Water Research, Magdeburg, Germany.
- Three days course on “Lipid Biomarker analysis as tool to assess complex microbial community composition, physiological state and metabolic fluxes” from 4th till 6th February 2003 at UFZ Centre for Environmental Research Halle, Germany
- Four days course on “Food Microbiology” from 26th till 29th April 2010 at Leeds, UK organized by Leeds City council

B. Publications

Journals

1. Degradation of anthracene and pyrene supplied by microcrystals and by non-aqueous phase liquids - Srikanth Mutnuri, N.Vasudevan and Matthias Kaestner*, Applied Microbiology and Biotechnology, Vol. 67 (2005), pp. 569 - 576
2. Changes in Fatty Acid Composition of *Chromohalobacter israelensis* with varying Salt Concentrations - Srikanth Mutnuri, N.Vasudevan, Matthias Kaestner and Hermann Heipeiper*. Current Microbiology, Vol. 50 (2005), pp. 1–5.
3. Influence of bioaugmentation with wheat bran on bioremediation of anthracene contaminated soil - Srikanth Mutnuri, N.Vasudevan* and D.Beck, Asian Journal of Microbiology, Biotechnology and Environmental Sciences, 2005.

4. Biocatalytic production of a commercial textile dye (Indigo) from a xenobiont – Srikanth Mutnuri*, Chanakya Bandi and Anasuya Ganguly, Research Journal of Microbiology, Vol 4, Is 3 (2009), pp 82 – 88.
5. Effect of caffeine and saponin on anaerobic digestion of food waste – Vidhya Prabhudesai, Anasuya Ganguly and Srikanth Mutnuri* “Annals in Microbiology” Vol 59, Is 4 (2009), pp 643 – 648.
6. Biodegradation of hydrocarbons in the presence of cyclodextrins - Sivaraman C, Anasuya Ganguly and Srikanth Mutnuri* "World Journal of Microbiology and Biotechnology" Vol 26, Is 2 (2010), pp 227 - 232.
7. Biogas Generation Potential by Anaerobic Digestion for Sustainable Energy Development in India – P.Venkateswara Rao, Ranjay Dey, S.S.Baral and Srikanth Mutnuri. Renewable and Sustainable Energy reviews Volume 14, Issue 7, September 2010, Pages 2086-2094.
8. Isolation of Hydrocarbonoclastic bacteria from Bilge oil contaminated water - Sivaraman C, Anasuya Ganguly, Marcell Nikolausz and Srikanth Mutnuri. Accepted in International Journal of Environmental Science and Technology Vol 8, No.3, Summer 2011. (Impact factor 3.157)
9. “Cloning and expression of catechol 2, 3 dioxygenase and cyclodextrin glucanotransferase gene in *E.Coli* and its role in biodegradation“ C.Sivaraman, Anasuya Ganguly and Srikanth Mutnuri “International Journal of life Science and Pharma Research” Vol 2/Issue 3/Jul-Sept 2012 pp L10 – L19.
10. Role of Cyclodextrin Glucanotransferase Enzyme in Biodegradation C.Sivaraman, Anasuya Ganguly and Srikanth Mutnuri “Advances in Environmental Research” (2012), Vol. 1, No. 2 pp97-108.
11. Study of a Marine Microbial Fuel Cell on a Pilot Scale. G. Chithralekha and Srikanth Mutnuri, “Chemical Sciences Transactions”., 2013
12. Biochemical Methane Potential of Agro Wastes," Vidhya Prabhudesai, and Srikanth Mutnuri Journal of Energy, vol. 2013, Article ID 350731, 7 pages, 2013.
13. Role of additional carbon substrate on biodegradation of 1,4 dioxane using bacterial consortium enriched from industrial sludge P.Arulazhagan, I.T. Yeom, Sivaraman C, Srikanth Mutnuri and Rajesh Banu, accepted in Advances in Environmental Biology (2013).
14. Biodegradation of crude oil by *Pseudomonas aeruginosa* and *Escherichia fergusonii* isolated from Goan coast. Rajesh Pasumarthi, Sivaraman

Chandrasekharan, Srikanth Mutnuri. Accepted in Marine Pollution Bulletin (2013).

15. *Terra Preta* as an Alternative for the Management of Sludge from Waste Water Treatment Plant (2013) accepted and to be published in “The Handbook on *Terra Preta* sanitation”
16. Cow urine as a potential source for struvite production Meghanth Prabhu and Srikanth Mutnuri accepted in International Journal of recycling of organic waste in agriculture.
17. "Pre-treatment of Cottage Cheese to Enhance Biogas production," by Vidhya Prabhudessai, Bhakti Salgaonkar, Judith Braganca and Srikanth Mutnuri under consideration in BioMed Research International

Book Chapters

“Hydrocarbonoclastic capability of a *Bacillus sp.* Isolated from marine waters” Srikanth Mutnuri and Vasudevan Namasivayam Published in Water and Environment Management Series.2003. Ed. by Rema Devi and Naved Ahsan. IWA publishing, Pg No 691 – 694.

“Biosurfactant production by an extremely halophilic bacterium” Srikanth Mutnuri Vasudevan Namasivayam and Matthias Kästner Published in Water and Environment Management Series.2003. Ed. by Rema Devi and Naved Ahsan. IWA publishing, Pg No 761 – 768.

C. Research Support

Ongoing Research Projects

Sl No.	Title of Project	Funding Agency		Date of sanction and Duration
1.	Genetic diversity of polyaromatic hydrocarbon degrading bacteria and their role in biodegradation	Department of Science and Technology, Government of India	Principial Investigator	3 years (Completed)
2.	Expression of cyclodextrin glucosyl transferase gene in hydrocarbon degrading bacteria for enhancing bioremediation	Department of Biotechnology, Government of India	Principial Investigator	3 years (Completed in Feb 2011)
3.	Anaerobic Digestion of food waste in a horizontal plug flow reactor	University Grants Commission, Government of India.	Principial Investigator	3 years (completed in Sep 2011)

3.	Survey of microbial <i>in-situ</i> PAH degradation activity based on Southern hybridization using gene probes	International Biodeterioration and Biodegradation Society's bursary scheme	Principal Investigator	6 months (completed)
4.	Experimental pilot scale horizontal plug flow reactor for anaerobic digestion of food waste	Goa Energy Development Agency	Principal Investigator	3 years (ongoing)
5.	Biocatalytic Production of a commercial textile dye - Indigo	Department of Science, Technology & Environment	Principal Investigator	3 years (ongoing)
6.	Analysis of metabolically active bacterial species in anaerobic digesters	Council for Scientific and Industrial Research	Principal Investigator	3 years (ongoing)
7.	Biotransformation of phosphogypsum by sulphate reducing bacteria	Department of Biotechnology	Principal Investigator	1 year (Recommended)
8.	Role of environmental toxins in kidney related diseases of Canacona Taluka, Goa	Council for Scientific and Industrial Research	Co Investigator	3 years (ongoing)
9	Development and Demonstration of two decentralized wastewater treatment plants	Centre of Research Excellence in waste, Water and Energy management – BITS Pilani	Principal Investigator	3 years (ongoing)
10	Treatment of Nitrogenous WasteWater using Microalgae and its Utilization for Production of Biofuel and other Value added Products	Centre of Research Excellence in waste, Water and Energy	Co Investigator	3 years (ongoing)

11	Anaerobic co-digestion of food waste and organic fraction of municipal solid waste for the production of biogas and concomitant use of biogas as fuel for cooking	management – BITS Pilani Centre of Research Excellence in waste, Water and Energy management – BITS Pilani	Co Investigator	3 years (ongoing)
12	“Empowered septic tank as decentralized wastewater treatment system”	DBT BIRAC – Bill & Mellinda Gates foundation	Principal Investigator In collaboration with Ghent University and Sustainable Biosolutions pvt ltd	2 years (ongoing)

National Research Collaboration

- **Experimental Pilot scale horizontal plug flow reactor for anaerobic digestion of food waste** – Dr.Hoysall Chanakya, Centre for Sustainable Technologies, Indian Institute of Science, Bangalore

International Research Collaborations

- **Collaboration with German Technical Cooperation, Technical University, Hamburg and Hamburg Wasser on GTZ-BMU – Waste to Energy project – ongoing. Currently appointed as consultant who will provide scientific back up. Total consultancy cost (Rs 10 lacs)**
- **Sustainable energy production from solid food waste of a small community** – Collaboration with Dr. Michel Torrijos, Laboratoire de Biotechnologie de l’Environnement, INRA, Narbonne, France. Under this collaboration funded by French Embassy, Ms.Vidhya Prabhudesai my PhD student will stay nine months in France to start the characterization of the various fractions of the wastes and to measure the methane potentials. Period : May 2009 – Jan 2010.
- **Isotope biogeochemical concepts to characterise the fate of organic chemicals in the environment** with Dr.Hans Hermann Richnow, Head, Isotope Biogeochemistry, Helmholtz Centre for Environmental Research, Leipzig, Germany under bilateral

cooperation in Science and Technology funded by International Bureau of the Federal Ministry of Education and Research. Period : Jan 2009 – July 2009.

Member of Professional Societies

- American Society for Microbiology
- Society for Applied Microbiology
- Association of Microbiologists of India
- International Biodeterioration and Biodegradation Society
- International Solid waste Association

Consultancy:

- Hitachi India pvt ltd consultancy project titled “titled “To establish COD(Cr) quality testing method for sea water”
- Oil and Natural Gas corporation Ltd (ONGC) sponsored consultancy project entitled “Setting up of pilot project at Hazira for biofixation of carbon dioxide and greenhouse gas abatement with microalgae”
- Consultant for German Technical Cooperation on GIZ-BMU – Waste to Energy project from 17/10/2011 till 31/03/2014.
- Consultant for Lila Environmental and Digital solutions Pvt Ltd for providing wastewater treatment solutions. Currently working on developing household wastewater treatment plant as well as on pharmaceutical wastewater treatment for Sanofi pharmaceuticals- ongoing.
- Consultant for DeerTree Technologies Pvt. Ltd. For setting up 3 tonnes biogas plant based on vegetable waste and fish waste for Madgaon Municipality.
- STUDY AND ANALYSIS OF DISCHARGE TO RIVER SAL FROM KONKAN RAILWAY / E.S.I NALLAH, SALPEM LAKE, S.T.P AND ENROUTE DISCHARGES UPTO SINQUETIM – MARGAO / NAVELIM – PWD, Madgaon

Other Professional activities

- Short course on Wastewater Treatment october 11 - 13 2011 for public works department, Goa in collaboration with Dr.Michel Torrijos Laboratoire de Biotechnologie de l'Environnement, INRA, Narbonne, France.
- Organizing secretary of International Water Association's international conference on “Microbes in Wastewater & Waste Treatment, Bioremediation and Energy Production”. This conference is scheduled during January 24 – 27, 2011 at Birla Institute of Technology and Science – Pilani, Goa campus, Goa, India.
- Organizing Secretary of American Society for Microbiology sponsored International Workshop on Bioremediation. Jan 4 – Jan 16th 2010 in association with Prof. Max Haggblom, Rutgers University, USA
- Convenor of Conference on Anaerobic Digestion and Renewable Energy through Microbes Jan 13 – 15 2009
- Editorial member of Asian Journal of Microbiology, Biotechnology and Environmental Sciences
- Chief Editor of International Journal of Anaerobic digestion and Renewable Energy
- Reviewer of International Journal “ Bioresource Technology”
- Reviewer of “International Journal of Environmental Science and Technology
- Reviewer of “Journal of Petroleum Technology and Alternate Fuels”
- Reviewer of “World Journal of Microbiology and Biotechnology”

- Faculty in charge for Institute's Biological Sciences club called "SYMBIONTS"

Conferences

- Key note lecture titled "**Terra Preta as an Alternative for the Management of Sludge from Waste Water Treatment Plant**" at 1st International Terra Preta Conference at Hamburg University of Technology, 29 – 30 August 2013
- Poster presentation titled "Microbial diversity in a pilot scale horizontal plug flow reactor set up for anaerobic digestion of food waste" at Elsevier's Water Research conference held during 20th January 2013 – 23rd January 2013 at Singapore Expo, Singapore.
- Oral presentation "Anaerobic digestion of septage and food waste – A waste to energy project in Nashik" at National Convention on "**Current and Emerging Trends in Indian Biogas and Bio-fertilizer Development**" during **15-16 September, 2012** at **IIT Delhi**
- Oral presentation "Biomethanation potential of cashew apple waste" at International conference on Agricultural Biotechnology in Sustainable Development" Colombo, Sri Lanka from March 12 – 13th 2012.
- Oral Presentation at the 3rd International Conference on Ecotoxicology and Environmental Sciences held during 28-30 November, 2011. at Miramar Residency, Miramar, Panji, Goa. *Organized by* INSTITUTE OF ECOTOXICOLOGY AND ENVIRONMENTAL SCIENCES titled Purification and Characterization of Cyclodextrin Glucanotransferase Enzyme and Its Role in Biodegradation of Diesel Oil Contaminated Soil
- Oral presentation "Anaerobic co digestion of sewage and food waste" at 1st International conference on Biogas Microbiology" held at Leipzig, Germany from September 14 – 16th 2011.
- Presented a poster titled" Role of cyclodextrin glucanotransferase in enhancing biodegradation" at the Gordon Research Conference on Applied and Environmental Microbiology - Functional Interactions from Molecules to Biomes" held at Mount Holyoke College, South Hadley, Massachusetts, July 10-15, 2011.
- Presented a poster titled "Biomethanation potential of agro wastes" at The 3rd Asia Pacific Young Water Professionals Conference November 21 – 24, 2010, Singapore.
- Participated in 1st International Terra Preta Sanitation organized by Technical University, Hamburg during 26 – 29th September 2010
- Poster Presentation at FLOURESCENCE 2009, An International Conference of Fluorescence in Biology March 16th - 19th 2009 – Mumbai, India titled "ROLE OF FLUORESCENCE IN STUDYING MICROBIAL DIVERSITY"
- Poster Presentation at 14th International Symposium on Biodeterioration and Biodegradation (IBBS-14), October 6th - 11th 2008– S. Alessio Siculo (ME, Italy) titled "ISOLATION OF HYDROCARBONOCLASTIC BACTERIA (MSK1) FROM BILGE OIL CONTAMINATED WATERS"
- Oral Presentation at Golden Jubilee of Indo-German Cooperation in Higher Education on September 8-9 2008 titled "MICROBIAL FUEL CELLS"
- Poster Presentation at 8th IWA Specialized Conference on Small Water and Wastewater Systems and 2nd IWA Specialized Conference on Decentralized Water and Wastewater International Network, February 05 - 09, 2008– Coimbatore, India titled "ANTHRACENE DEGRADATION BY BACTERIA PRESENT IN BILGE OIL"
- Poster Presentation at 48th Annual conference of Association of Microbiologists of India during 18th December – 21st December 2007 – Chennai, India titled "ISOLATION OF A BACTERIAL STRAIN WITH BIODEGRADATION AND BIODESULPHURIZATION CAPABILITY"

- Oral Paper presentation at National seminar on New trends in Biotechnology during 11th & 12th January 2007 - Goa, India titled “EFFECT OF VARYING SALT CONCENTRATIONS ON CHROMOHALOBACTER ISRAELENIS WITH VARYING CONCENTRATIONS OF PHENOL”.
- Oral Paper presentation at National Conference on Environmental Conservation during 1st September till 3rd September 2006 - Pilani, India titled “MINERALIZATION OF ANTHRACENE AND PYRENE IN THE PRESENCE OF BIOAVAILABILITY MODIFYING COMPOUNDS”.
- Poster Presentation at International conference on Environmental Biotechnology during 9th July till 13th July 2006 – Leipzig Germany titled “MINERALIZATION OF ANTHRACENE BY SPHINGOMONAS XENOPHAGA BA2 IN THE PRESENCE OF SOLUBILITY MODIFYING COMPOUNDS”.
- Oral Paper presentation at International Conference on Water and Wastewater perspectives of Developing countries during 11th December till 13th December 2002 – New Delhi, India titled “HYDROCARBONOCLASTIC CAPABILITY OF A *BACILLUS SP.* ISOLATED FROM MARINE WATERS” and “BIOSURFACTANT PRODUCTION BY AN EXTREMELY HALOPHILIC BACTERIUM”.

Place : Goa
Date : 09/05/2014

Srikanth Munturi
Signature of Investigator