

CURRICULUM VITAE

ARADHANA SRIVASTAVA, PHD.

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University School of Chemical Technology,

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EDUCATION

Postdoc in Bioprocess Engineering, Jan,1997-Dec,1998 – The Technical University of Denmark, Denmark
Postdoc research in *Heterologous protein expression in non-Saccharmyces cerevisiae yeasts*

PhD in Biochemical Engg. & Biotechnology, 1994 - Indian Institute of Technology, Delhi
PhD Dissertation in *Extractive lactic acid bioconversion using ion-exchange resin*

M.Tech in Chemical Engineering, 1988 - Indian Institute of Technology, Kanpur
M.Tech Dissertation in *Alkylolation of p-cresol using ion-exchange resin*

B.Tech in Chemical Technology (Biochemical Engineering), 1986 - Harcourt Butler Technological Institute, Kanpur

EXPERIENCE

GG S INDRAPRASTHA UNIVERSITY, New Delhi

Associate Professor, University School of Chemical Technology, Sept 6, 2013- till Dec13, 2018

Professor, University School of Chemical Technology, December 14, 2018- till date

-Successfully produced 1 PhD, 5 Master thesis. Developed technologies for high cell density microalgae cultivations to produce multiple range of products such as biofuels, lipids, hydrocarbon, and pigments proteins

BITS-Pilani, Hyderabad, India

Associate Professor and Head of Dept. for Dept. of Chemical Engineering, August 2008 - September 2012

Associate Professor, Dept. of Chemical Engineering, August 2008- December 2012

- Joined the new BITS-Pilani, Hyderabad campus in August 2008 as a Head of Department.

- Developed the “Chemical Engineering” department in my leadership by recruiting and developing a departmental team of faculty & staff, and also developing 7 core chemical engineering labs.

NGEE ANN, SINGAPORE

Visiting Lecturer, Division of Chemical and Biomolecular Engineering, School of Life Science and Chemical Technology
February 2007- July 2008

INDIAN INSTITUTE OF TECHNOLOGY DELHI, INDIA

Assistant Professor at Dept. of Biochemical Engineering and Biotechnology, March 2002 - January 2007

Visiting Faculty at Dept. of Biochemical Engineering and Biotechnology, December 1999 - February 2002

- Successfully produced 17 Master thesis (including 1 MS research and 2 independent study) and 2 PhD thesis

*-Got granted an **Indian patent 312409** on “A method and composition for the production of human interferon alpha 2B in Pichia pastoris” .*

TECHNICAL UNIVERSITY OF DENMARK, LYNGBY, DENMARK

Assistant Professor of Research (Postdoc) at Dept. of Biotechnology, Centre for Process Biotechnology, January 1997 - December 1998

*- Work earned 7 **International Patents** on the “Method for production of Heterologous polypeptides in transformed yeast cells”.*

JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI, INDIA

Part Time Faculty at the Center for Biotechnology, August 1995 - May 1996

FIELD OF SPECIALIZATION

Teaching

- (i) **Taught UG/PG courses at USCT, GGSIPU, New Delhi:** *Introduction to Biochemical Engineering, Environmental Engineering and Waste Management, Unit Operations-II Lab, Design and Analysis of Biological Reactors, Industrial Pollution Engineering, Biochemical Engg, Adv. Biochemical Engg, Protein Science and Engg., Adv. Biochemical Engg. Lab, Bioprocess Equipment Design, Bioreaction Engg., Microbiology, Microbiology Lab, Advanced Biochemical Engineering, Metabolic Engineering, Bioprocess Instrumentation and control*
- (ii) **Taught Undergraduate courses at BITS Pilani Hyderabad campus, India:** *Thermodynamics, Measurement techniques, Process Control, Chemical Process Calculations, Heat Transfer Operations, Mass Transfer Operations, Process Plant safety and Environmental Pollution Control.*
- (iii) **Taught Undergraduate modules at Ngee Ann, Singapore:** *Biomolecular Science- complete module covering Microbiology and Molecular Biotechnology, Process Engineering Design, Chemical Engineering labs covering experiments based on unit operations, mass transfer, heat transfer, and process control.*
- (iv) **Taught undergraduate and Post-Graduate courses at I.I.T. Delhi, India:** *Bioprocess Calculations, Fluid-Solid Separations, Transport Processes, Transport Phenomena, Animal Cell Technology, Bioprocess Engg. Lab, Bioseparation, Physical and chemical properties of biomolecules, Enzyme Engg. and Technology, Bioinformatics, Introduction to Biochemical Engineering, and Bioprocess Engg.*

Research

Bioprocess Engineering, Microbial Fermentations-yeast, bacteria, and microalgae, Renewable energy sources and utilization-cellulose to products, Product and Process development- Bioethanol, Biopolymer, lipids, pigment proteins, high energy molecules (hydrocarbon), and the heterologous proteins like alpha 2 B interferon, Bioremediation of heavy metals from wastewater and river Yamuna, Reduction in greenhouse gasses in environment via CO₂ sequestration and utilization in microbial growth.

AWARDS IN RESEARCH

1. **Best poster paper** award at International conference ICSEPM-2016
2. **Best paper award** in CHEMCORD-2016
3. **Second best poster paper award** in National Seminar BIOHORIZON- 2004
4. **Second best poster paper award** in National Biotechnology Conference-2006
5. **Second best research paper award** in Indo-Korean Symposium on Biochemical Engineering and Biotechnology', March 22-23, 2007
6. **Best poster paper award** in International conference on strategies for environmental protection and management (ICSEPM-2016), Dec 11-13, 2016

POSTDOCTORAL RESEARCH WORK

Project title: Heterologous protein expression in non-*Saccharomyces cerevisiae* yeasts

Worked in a group comprising of researchers and scientists headed by **Prof. Jens Nielsen, Professor and Director*** at **Biocentrum, Technical University of Denmark, Lyngby, Denmark.**

***(Currently working as Director and Professor, System Biology, Chalmer's University, Goteborg, Sweden email: nielsenj@chalmers.se**

The major objectives of this project were- To find out alternative yeast host closely related to *Saccharomyces cerevisiae*, and develop high level expression systems for heterologous protein synthesis; and study the physiology of recombinant yeasts in batch and chemostat cultivation. The *outcome of this work – got a DE, US, JP, AU, AT, EU and WO patents GRANTED.*

US Patent No. 6190883 B1 (Feb 2001), EU Patent No. 1109922B1 (May 2004). DE Patent No. 69917294T T2 (May 2005). WO 00/14258 A1 (March 2000). Austria Patent No. AT266733TT (May 2004). Australia Patent No. AU5504099 A (March 2000). Japanese Patent No. JP2002524082T T (August 2002).

RESEARCH SUPERVISION AT IIT DELHI, BITS PILANI, HYD. AND GGSIPU DELHI

PhD Thesis: 3 (completed and awarded), 1 thesis supervision running.

M.S. (Research)/ M Tech. Thesis: 2 3(completed and awarded), 1 running

M. Tech. (SURA project):1 (completed)*

B. Tech. projects: 50(completed), 5 running

* SURA project award is a highly prestigious project at IIT Delhi and given to only 10-15 best projects every year

INTERNATIONAL PUBLICATIONS IN JOURNAL

1. Nilesh Kumar, Shriya Hans, Ritu Verma, Aradhana Srivastava, 2020, Acclimatization of microalgae *Arthrospira platensis* for the treatment of heavy metals in river Yamuna, Water Science and Engineering, 13(3), p214-222. <https://doi.org/10.1016/j.wse.2020.09.005>, ISSN: 1674-2370.
Citation 2, Impact factor-1.963, h index-25
2. Ritu Verma, K.V.L. Kusuma Kumari, Aradhana Srivastava, Arinjay Kumar, 2020, Photoautotrophic, mixotrophic, and heterotrophic culture media optimization for enhanced microalgae production, Journal of Environmental Chemical Engineering, 8(5), 104149, 1-13, <https://doi.org/10.1016/j.jece.2020.104149>, ISSN: 2213-3437.
Citation 11, Impact factor-4,300, h index-72
3. Verma R, Mehan L, Kumar R, Kumar A., Srivastava A (2019) Computational fluid dynamic analysis of Computational fluid dynamic analysis of hydrodynamic shear stress generated by different impeller combinations in stirred bioreactor, Biochemical Engineering journal, 151 (107312), 1-10, <https://www.sciencedirect.com/science/article/abs/pii/S1369703X19302475>, ISSN: 1369-703X.
Citation-11, Impact factor-3.978, h index-124
4. Ritu Verma and Aradhana Srivastava, 2018, Carbon Dioxide Sequestration and Its Enhanced Utilization by Photoautotroph Microalgae, Environmental Development, 27, 95-106. <https://www.sciencedirect.com/science/article/abs/pii/S2211464517302798>, ISSN:2211-4645.
Citation-24, Impact factor- 3.326, h-index- 31
5. Luv Mehan, Ritu Verma, Rahul Kumar, Aradhana Srivastava, 2018. Illumination wavelengths effect on *Arthrospira platensis* production and its process applications in river Yamuna water, Journal of Water Process Engineering, 23, 91-96., ISSN: 2214-7144 <https://doi.org/10.1016/j.jwpe.2018.03.010>, ISSN: 2214-7144.
Citation-8, Impact factor- 5.485, h index-44
6. Verma R, Kumar R, Mehan L, Srivastava A (2018) Modified conventional bioreactor for microalgae cultivation. J Bioscience and Bioeng. 125(2), 224-230. ISSN:1389-1723. <https://doi.org/10.1016/j.jbiosc.2017.09.003>, ISSN: 1389-1723
Citation-13, Impact factor-2.894, h index-110
7. Ritu, V., Rahul, K., Luv, M., Aradhana Srivastava, 2016, CO₂ sequestration/utilization for the microalgal growth in photobioreactor, International journal of Environmental Engineering, 3(1), 162-165., [doi: 10.15224/978-1-63248-084-2-42](https://doi.org/10.15224/978-1-63248-084-2-42), ISSN:2374-1724.
8. Anjali Madhavan, Aradhana Srivastava, Akihiko Kondo, and Virendra S. Bisaria, 2012, Bioconversion of Lignocellulose-Derived Sugars to Ethanol by Engineered *Saccharomyces cerevisiae*, *Critical Review in Biotechnology*, 01(32); 22-48. <https://doi.org/10.3109/07388551.2010.539551>, ISSN:0738-8551
Citation index 94, impact factor 8.108, h index- 92
9. Anjali Madhavan, Sriappareddy Tamalampudi, Aradhana Srivastava, Hideki Fukuda, Virendra S. Bisaria, Akihiko Kondo, 2009, Alcoholic fermentation of xylose and mixed sugars using recombinant *Saccharomyces cerevisiae* engineered for xylose utilization, *Applied Microbiol. Biotechnol.*, 82(6): 1037-1047. <https://link.springer.com/article/10.1007%2Fs00253-008-1818-2>, ISSN:0175-7598
Citation index 109, impact factor 4.813, h index-221
10. Madhavan A., Tamalampudi S., Ushida K., Kanai D., Srivastava A., Fukuda H., Bisaria V.S., and Kondo A., 2009, Xylose Isomerase from Polycentric Fungus *Orpinomyces*: Gene Sequencing, Cloning and Expression in *Saccharomyces cerevisiae*, *Applied Microbiol. Biotechnol.*, 82(6):1067-1078. [doi: 10.1007/s00253-008-1794-6](https://doi.org/10.1007/s00253-008-1794-6), ISSN:0175-7598
Citation index 198, impact factor 4.813 h index-221
11. Madhavan A., Tamalampudi S., Ushida K., Kanai D., Srivastava A., Fukuda H., Bisaria V.S., and Kondo A., 2008, www.ncbi.nlm.gov/pubmed/19050860 or [GI169733248](http://www.ncbi.nlm.nih.gov/nuccore/169733247?ordinalpos=1&itool=EntrezSystem2.PEntrez.Sequence.SequenceResultsPanel.SequenceRVDocSum) or [EU411046.1](http://www.ncbi.nlm.nih.gov/nuccore/169733247?ordinalpos=1&itool=EntrezSystem2.PEntrez.Sequence.SequenceResultsPanel.SequenceRVDocSum) or <http://www.ncbi.nlm.nih.gov/nuccore/169733247?ordinalpos=1&itool=EntrezSystem2.PEntrez.Sequence.SequenceResultsPanel.SequenceRVDocSum>.

12. Ghosalkar A, Sahai V., **Srivastava A.**, 2008, Secretory expression of Interferon alpha 2b in Recombinant *Pichia pastoris* using three different secretion signals, *Protein Expression and Purification*, **60(2)**, 103-109. doi: [10.1016/j.pep.2008.02.006](https://doi.org/10.1016/j.pep.2008.02.006). ISSN: 1046-5928 ,
Citation index 60, impact factor 1.65, h index-81
13. Ghosalkar A, Sahai V., **Srivastava A.**, 2008, Optimization of chemically defined medium for recombinant *Pichia pastoris* for maximum biomass production, *Bioresource Technology*, **99(16)**, 7906-7910. DOI: [10.1016/j.biortech.2008.01.059](https://doi.org/10.1016/j.biortech.2008.01.059), ISSN: 0960-8524
Citation index 72, impact factor 9.642, h index-294
14. Narayanan, N., Roychoudhury P K, and **Srivastava A.**, 2004, Isolation of adh mutant of *Lactobacillus rhamnosus* for production of L(+) lactic acid, *Electronic JI. Of Biotechnology*, **7(1)**, 72-84. https://scielo.conicyt.cl/scielo.php?pid=S0717-34582004000100010&script=sci_arttext&tlng=en ISSN: 0717-3458,
Citation index 25, impact factor 2.8, h index-57
15. Narayanan, N., Roychoudhury P K, and **Srivastava A.**, 2004, L (+) lactic acid production and its polymerization, *Electronic JI. Of Biotechnology*, **7 (2)**, 167-179. https://scielo.conicyt.cl/scielo.php?pid=S0717-34582004000200008&script=sci_arttext&tlng=enISSN: 0717-3458,
Citation index 395, impact factor 2.8, h index-57
16. Kumar, D., Jain, V. K, Shanker, G. and **Srivastava, A.**, 2003, Utilization of Fruits waste for Citric acid production by solid state fermentation, *Process Biochemistry*, **38**,1731-38. [https://doi.org/10.1016/S0032-9592\(02\)00253-4](https://doi.org/10.1016/S0032-9592(02)00253-4), ISSN: 1359-5113
Citation index 134, impact factor 3.757, h index-157
17. Kumar, D., Jain, V. K, Shanker, G. and **Srivastava, A.**, 2003, Citric acid production by solid state Fermentation using sugarcane bagasse, *Process Biochemistry*, **169**, 1725-29. [https://doi.org/10.1016/S0032-9592\(02\)00252-2](https://doi.org/10.1016/S0032-9592(02)00252-2) ISSN: 1359-5113
Citation index 169, impact factor 3.757, h index-157
18. **Srivastava A.**, Rubiah Y., and Roychoudhury P K, An empirical model for extractive lactic acid bioconversion using ion-exchange resin, 1999, *Artificial cell, blood substitute and Biotechnology*, **27 (5 & 6)**, 403-410. <https://doi.org/10.3109/10731199909117711>
Citation index 2, impact factor 5,246, h index-46
19. Roychoudhury P. K., **Srivastava A.**, and Sahai V., Extractive bioconversion of lactic acid, 1995, *Advances in Biochemical Engg./ Biotechnology*, **53**, 61-87, Ed. A. Fiechter, Springer-Verlag. <https://link.springer.com/chapter/10.1007/BFb0102325>
Citation index 37, impact factor 19.880, h index-87
20. **Srivastava A.**, Roychoudhury P K, and Sahai V., Extractive lactic acid bioconversion using ion-exchange resin, 1992, *Biotechnology and Bioengineering*, **39 (6)**, 607-613. <https://doi.org/10.1002/BIT.260390604>, ISSN: 1097-0290
Citation index 143, impact factor 4.530, h index-189

Total Citations 1507 (As indicated in Google Scholar and RG search done on Aug, 2021)

INTERNATIONAL RESEARCH PUBLICATIONS IN CONFERENCE

21. Ritu, V., Arinjay K., **Aradhana Srivastava**, 2019, Effect of rotational speeds and impeller combinations on the growth of *Arthrospira platensis* in stirred tank bioreactor. An International conference on ‘Basic/Applied Sciences Textile, Mining, Environmental Engineering and Renewable Energy, Climate Change for Sustainable Development’ (SYNERGY-2019). Organised by Dr G C Mishra Educational Foundation at Jawaharlal Nehru University, New Delhi (July 6, 2019). ISSN:2350-0077
22. Ritu, V., Manvi, Dutta M., Arinjay K., **Aradhana Srivastava**, 2019, Effect of carbon supplements in nutrient media on microalgae growth and pigments production, International conference on IEEEES11, 11th International Exergy, Energy and Environment Symposium (IEEEES-19), SRM Institute of Science and Technology, Chennai, India, July 14-18, 2019. ISBN 978-93-5382-239-2.
23. Nilesh, K., Shriya Hans, Ritu, V., Neeru Anand, **Aradhana Srivastava**, 2019, Sequestration of Chromium III and VI ions from waste water by *Spirulina* sp. And valueadded pigment production. International conference on ‘Basic/Applied Sciences Textile, Mining, Environmental Engineering and Renewable Energy, Climate Change for Sustainable Development’ (SYNERGY-2019). Organised by Dr G C Mishra Educational Foundation at Jawaharlal Nehru University, New Delhi (July 6, 2019). ISSN:2350-0077
24. Yagya G., Amrithesh Patuari, **Aradhana Srivastava**, Leena Khanna, 2019, Synthesis of Dimethyl terephthalate from renewable source derived platform molecule. International conference on ‘Basic/Applied Sciences Textile, Mining, Environmental Engineering and Renewable Energy, Climate Change for Sustainable Development’ (SYNERGY-2019). Organised by Dr G C Mishra Educational Foundation at Jawaharlal Nehru University, New Delhi (July 6, 2019). ISSN:2350-0077
25. Y Gupta, R Verma, A Garg, **A Srivastava**, 2017, E-Waste to Z-Waste, *AICHe Annual Meeting*, USA

26. Ritu Verma, Deeksha Pandey, Luv Mehan, Rahul Kumar, **Aradhana Srivastava**, 2017. Nitrogenous waste treatment by *Spirulina* in Continuous Expanded Photobioreactor, National Conference on Biological Engineering (BESCON2017) held at Netaji Subhas Institute of Technology (NSIT), New Delhi.
27. Rahul Kumar, Luv Mehan, **Aradhana Srivastava**, 2016, Dengue Capsid inhibition: In-silico approach, International conference on strategies for environmental protection and management (**ICSEPM-2016**)- Mini Symposium on “Environmental Health and Environmental Sciences”, Dec 11-13, organized by BRSI held at JNU, India. **(Obtained best poster paper award)**
28. Luv Mehan, Rahul Kumar, **Aradhana Srivastava**, 2016, Growth kinetics of *A. platensis* under different illumination wavelengths, International conference on strategies for environmental protection and management (**ICSEPM-2016**)- Mini Symposium on “Environmental Biotechnology, Waste water and social perspective”, Dec 11-13, organized by BRSI held at JNU, India.
29. Ritu, V., **Aradhana Srivastava**, 2016, Batch cultivation of *Nannochloropsis sp.* and *A. platensis* in photobioreactor, International conference on strategies for environmental protection and management (**ICSEPM-2016**)- Mini Symposium on “Environmental Biotechnology, Biorefinery and solid waste management”, Dec 11-13, organized by BRSI held at JNU, India.
30. Ritu, Verma, **Aradhana Srivastava**, 2016, Photobioreactor Design for the cultivation of shear sensitive microalgae cells, 2nd International Conference on Environmental Impact in Manufacturing, Biotechnology, and Construction, organized by **ISSRD** (USA), 24-25 September, 2016. San Diego, USA.
31. Ritu, Verma, Rahul, Kumar, Luv, Mehan, **Aradhana Srivastava**, 2015, CO₂ sequestration/utilization for the microalgal growth in photobioreactor, International Conference on “**Advances in Applied Sciences and Environmental Technology-2015**”, p62-65, Dec 28-29, Thailand (DOI: 10.15224/978-1-63248-084-2-42)
32. D. Purnima, P. Nagaraju, I. Sreedhar, and **A. Srivastava**, 2010, Synthesis of Polylactic acid and its composites with natural fibres, **ICCE-2009**, Thailand, Jan 2010.
33. VS Bisaria, A Kondo, A Madhavan, **A Srivastava**, 2009 Cofermentation of Lignocellulose-derived Sugars by Recombinant Yeast through Xylose Isomerase Route, **Asian Federation of Biotechnology Symposium-2009**, organised by “The Korean Society for Biotechnology and Bioengineering”. Korea.
34. A. L. Geng, Tan Yong Hao, Soh Cheun Hoe Cliff, Goh Kiow Leng Hedy, New Jen Yan, **Aradhana Srivastava**, Lignocellulolytic Enzyme Production in Submerged Fermentation of Horticulture Wastes, **ISWA/WMRAS World Congress 2008**, 3 – 6 Nov 2008, Uniquely Singapore
35. A. L Geng., Ko An Ru Amy, Tan Pei Loo, Goh Kiow Leng Hedy, New Jen Yan, **Aradhana Srivastava**, Pretreatment of wood wastes for reducing sugar production through enzymatic hydrolysis, **ISWA/WMRAS World Congress 2008**, 3 – 6 Nov 2008, Uniquely Singapore
36. A. Madhavan, S. Tamalampudi, N. Nakamura, **A. Srivastava**, H. Fukuda, A. Kondo, V.S. Bisaria, 2007, Bioconversion of xylose to ethanol by recombinant *S. cerevisiae* expressing a novel xylose isomerase, Poster paper at **International conference on New Horizons in Biotechnology (NHBT-2007)**, NIST Trivendrum, India, November 26th -29th.
37. A. Ghosalkar, V. Sahai, **A. Srivastava**, 2007, Secretary expression of Interferon alpha 2b in Recombinant *Pichia pastoris* using three different secretion signals, Poster paper at **GTC Bio Conference on “Protein Discovery and Development”**, Sept 6-7, Bethesda, Maryland, USA.
38. A. Ghosalkar, V. Sahai, **A. Srivastava**, 2007, Optimization of Chemically Defined Medium and Production of Interferon Alpha 2b in Fermentor Cultures Using Recombinant *Pichia pastoris*, Poster paper at **GTC Bio Conference on “Protein Discovery and Development”**, Sept 6-7, Bethesda, Maryland, USA.
39. A. Ghosalkar, V. Sahai, **A. Srivastava**, 2007, Secretary expression of humaninterferon α2b using modified α factor signal peptide in *Pichia pastoris*.”**BIOHORIZON 2007 Joint Indo-Korean Symposium on Biochemical Engineering and Biotechnology**, March 22-23, 2007, Indian Institute of Technology, Delhi **(OBTAINED SECOND BEST RESEARCH PAPER AWARD)**.
40. Moller K., Tidemand L.D.,**Srivastava, A.**,Piskur J., Nielsen J., and Olson, L., Evaluation of novel hosts for heterologous protein production, **3rd European Symposium on Biochemical Engineering Science**, 10-13 September 2000, Copenhagen, Denmark.
41. **A. Srivastava**, ‘Heterologous protein production by yeast strains’, 1998, Paper presentation in **Nordic Network on Physiological Engineering**, Oslo, Norway.
42. **A. Srivastava**, L. Olsson, J. Piskur, J. Winther, and J. Nielsen, 1998, Expression and Characterization of *S. cerevisiae* PEP4 gene in *S. kluyveri*, Poster paper presentation in **Danish Biotechnology Conference**, Vejle, Denmark.
43. **A. Srivastava**, P.K. Roychoudhury, and V. Sahai, An application of downstream processing- Extractive lactic acid fermentation, 1991, International seminar on **Downstream processing in Biotechnology**, Calcutta, India.

NATIONAL PUBLICATIONS IN CONFERENCE (PRESENTATIONS)

44. Ritu Verma, Deeksha Pandey, Luv Mehan, Rahul Kumar, **Aradhana Srivastava**, 2017, Nitrogenous waste treatment by *Spirulina* in continuous expanded bed photobioreactor. Poster paper presentation in BESCON-2017 organized by **Biological Engineering Society of India** and NSIT, New Delhi, Sept 8-9, 2017.
45. Rahul Kumar, Luv Mehan, **Aradhana Srivastava**, 2016, Dengue Capsid Protein inhibition- In silico drug design, Eureka, **CHEMCHORD-2016**, GGS Indraprastha University, Delhi.

(OBTAINED BEST PAPER AWARD)

46. I. Sreedhar, D.Purnima · Aradhana Srivastava, · K. V. Raghavan , Dispersion Studies of Zeolite Catalyzed Toluene Nitration, Proceedings of International Symposium & **62nd Annual Session of IChE in association with International Partners** (CHEMCON 2009), Visakhapatnam India, Dec 27-30 (2009)., Visakhapatnam India
47. Lalit Kumar, Ashwani Gautam, Mayank Garg, Anuj Dhariwal, **Aradhana Srivastava** and Vikram Sahai, 2008, Production of l (+) lactic acid in chemically defined medium and its downstream processing for pharmaceutical and food applications, A conference of *Association of Microbiology of India*, April 2008
48. A. Gopal, A. Dhariwal, V. Sahai, and **A. Srivastava**, 2007, Polymerization of L(+) Lactic acid to polylactides, **I2 TECH 2007**, IIT Delhi, New Delhi
49. A. Ghosalkar, M. Gore, V. Sahai, and **A. Srivastava**, 2006, Alpha 2 B interferon production using recombinant *Pichia pastoris*, Poster paper presented at *National Biotechnology Conference-2006: Current trends and future perspectives*, September 2-3, IIT Roorkee, India.

(OBTAINED SECOND BEST POSTER PAPER AWARD)

50. A. Ghosalkar, M. Gore, V. Sahai, and **A. Srivastava**, 2005, Interferon alpha 2B gene isolation and expression in *Pichia pastoris*, **I2 TECH 2005**, IIT Delhi, New Delhi.
51. Amarjeet Kumar and **A. Srivastava**, 2005, Metabolic fluxes in recombinant *P. pastoris* expressed with HSA protein, **I2 TECH 2005**, IIT Delhi, New Delhi.
52. A. Madhavan, A. Srivastava, and V.S. Bisaria, 2005, Isolation and expression of xylose isomerase gene in *S. cerevisiae*, **I2 TECH 2005**, IIT Delhi, New Delhi.
53. S. Singh, R. Narayanan, and A. Srivastava, 2005, Study of mitochondrial disorders through genomics and proteomics tools, **I2 TECH 2005**, IIT Delhi, New Delhi.
54. Feroz Khan, **Aradhana Srivastava** and B. N. Mishra, 2005, Identification of regulatory sites controlling expression rate of poly-β-hydroxybutyrate (PHB) genes under conditions of phosphate starvation by phylogenetic footprinting method. Poster paper presented at *Biohorizon-2005*, IIT Delhi, New Delhi.
55. E. Ravikrishnan, **A. Srivastava**, and S. Mishra, 2004, Importance of secondary structure in cleavage of signal peptide of mitochondrial proteins by Mitochondrial Processing Peptidases, Poster paper presented at *Biohorizon-2004*, IIT, New Delhi.

(OBTAINED SECOND BEST POSTER PAPER AWARD)

56. A. Gaur, A. Dhariwal, V. Sahai, and **A. Srivastava**, 2004, L(+) lactic acid fermentation using *adh* mutants of *Lactobacillus rhamnosus*, Poster paper presented at *Biohorizon-2004*, IIT Delhi, New Delhi.
57. Narayanan N., Roychoudhury P K, and **Srivastava A.**, 2002, Production of L(+) lactic acid using mutant of *Lactobacillus rhamnosus*, *National seminar on Biotechnology in Industry, organized by IChE*, Sept 19-20, Cochin, 77-82.
58. Jhunjhunwala, S. and Srivastava A., 2002, Metabolic flux analysis for L-lactic acid production using *Lactobacillus rhamnosus*, Poster paper presented at *Biohorizon-2002*, IIT Delhi, New Delhi.
59. Dhariwal A. and Srivastava A., 2002, L-lactic production in a continuous cell –recycle system, Poster paper presented at *Biohorizon-2002*, IIT Delhi, New Delhi.
60. Sridhar K., Roychoudhury P.K., Sahai V., and Srivastava A., 1991, Biological Treatment and the conversion of cheese whey waste to lactic acid, *IE(I) J-CH*, vol-72, p45-47.

PUBLICATION IN BOOK (AS CHAPTER)

61. Aradhana Srivastava, 2005, “Protein Sequencing: An emerging Bio-information Technology”, *In: Green Chemistry: Environment friendly techniques*, NPH, New Delhi. (This book is also published by Alpha Science International, UK)

PATENTS GRANTED

1. Method for production of heterologous polypeptides in transformed yeast cells.
US Patent No. 6190883 B1 (Feb 2001),
EU Patent No. 1109922B1 (May 2004),
DE Patent No. 69917294T T2 (May 2005),
WO 00/14258 A1 (March 2000),
Austria Patent No. AT266733TT (May 2004),
Australia Patent No. AU5504099 A (March 2000),
Japanese Patent No. JP2002524082T T (August 2002)
2. A method and composition for the production of human interferon alpha 2B in *Pichia pastoris*.
Indian Patent 312409 (May 2019)

EDITED BOOKS

1. Rao, D G, 2005, “Introduction to Biochemical engineering”, Tata Mc Graw hill Co., New Delhi, India

2. Member of the editorial Board for “Book of Abstract” for “CHEMCON 2005” conducted by Indian Institute of Chemical Engineers, IICHE, Delhi Chapter.

SPECIAL COURSES COORDINATED AND LECTURES PRESENTED

1. **Srivastava A.**, and Mishra S., 2004, QIP Programme “Bioinformatics tools and their applications” for faculty of Engineering colleges in India, Funded by **All India council of Technical Education, Govt. of India, New Delhi**, India, July 12th to 24th, 2004 at Department of Biochemical Engg. & Biotechnology, IIT Delhi.
(This was a **two weeks Short term course** coordinated and about 70% contents covered by me, July 12th - 24th, 2004)
2. **Srivastava, A.**, Phylogenetic Prediction tools, Short term course on Bioinformatics, March 27-28, 2006 at Department of Biochemical Engg. & Biotechnology, IIT Delhi.
3. **Srivastava, A.**, Sequence Alignment tools, Short term course on Bioinformatics, March 27-28, 2006 at Department of Biochemical Engg. & Biotechnology, IIT Delhi.

THESIS SUPERVISION

PHD THESIS SUPERVISION AT GGSIPU: (1 AWARDED AND 1 RUNNING)

1. **Ritu Verma:** Bioprocess strategies for microalgae cultivation in fed batch. 2015-2019 (Supervisors A. Jain and A. Srivastava), Thesis awarded in 2020.
2. **Anil Kumar:** Biodiesel production from Kusum and Rubber seed oils via Biotransesterification, 2017 -till date, running. (Supervisor Dr A. Srivastava)

PHD THESIS SUPERVISED (AWARDED AT IIT DELHI): (2 NOS.)

3. **Anand Ghosalkar:** Studies on alpha 2B interferon production in recombinant *Pichia pastoris*, 2008. (Supervisor A. Srivastava and Cosupervisor Dr V. Sahai)
4. **Anjali Madhavan:** Simultaneous conversion of xylose and glucose using recombinant *Saccharomyces cerevisiae*, 2008. (Supervisor Dr V S Bisaria and Cosupervisor Dr A. Srivastava)

M.S. /M. TECH THESIS SUPERVISED: (17 AT IIT DELHI, AND 6 AT GGS INDRAPRASTHA

UNIVERSITY) (23 NOS.)

1. **Niju Narayanan:** L(+) lactic acid production in mutant of *Lactobacillus rhamnosus*, 2002. (Supervisor A. Srivastava and Cosupervisor Dr P. K. Roychoudhury)
2. **Ashish Nawani:** Kinetic study of growth and sporulation of probiotic bacteria *L. sporogenes*, 2001. (Supervisor A. Srivastava and Cosupervisor Dr V. Sahai)
3. **T Vasisht Reddy:** Molecular thermodynamics of HIV protease- inhibitor complex, 2001. (Supervisor Dr B Jayaram and Cosupervisor Dr A. Srivastava)
4. **Anirudh Gupta:** Studies on removal of cells from the broth containing Xanthan Gum, 2002. (Supervisor Dr V Sahai and Cosupervisor Dr A. Srivastava)
5. **Anuj Dhariwal:** L(+) lactic acid production in continuous cell recycle system using *Lactobacillus rhamnosus* mutant, 2003. (Supervisor A. Srivastava)
6. **Suchit Jhunjunwala:** Metabolic flux analysis for L-lactic acid production in *Lactobacillus rhamnosus*, 2003. (Supervisor A. Srivastava)
7. **Raghav Narayanan,** Mitochondrial Disorders study through genomic analysis, 2003. (Supervisor Dr A. Srivastava)
8. **Akshun Gulati,** *MigI* Mediated Glucose Repression in *Saccharomyces cerevisiae*, 2003. (Supervisor Dr A. Srivastava)
9. **E. Ravikrishnan:** Study of transport of nuclear coded mitochondrial proteins through genomics, 2004. (Supervisor Dr S. Mishra and Cosupervisor Dr A. Srivastava)
10. **Vishisht K Jain:** Metabolic flux analysis for anaerobic ethanol production in *Saccharomyces cerevisiae*, 2004. (Supervisor A. Srivastava)
11. **Raju Tomer:** Computational analysis of bacterial genome *M. tuberculosis*, 2004. (Supervisor Dr B Jayaram and Cosupervisor Dr A. Srivastava)
12. **Abhishek Arun:** Computational analysis of bacterial genome *Salmonella typhi*, 2004. (Supervisor Dr B Jayaram and Cosupervisor Dr A. Srivastava)
13. **Amarjeet Kumar:** Metabolic flux analysis for enhancing the biomass yield in recombinant *P. pastoris* expressed with HSA protein, 2005. (Supervisor A. Srivastava)
14. **Ashish Goel:** L(+) lactic acid production in fed-batch process, 2005. (Supervisor A. Srivastava and Cosupervisor Dr V. Sahai)
15. **Aman Preet Singh Mann:** Study of role of signal peptides in nuclear coded mitochondrial COX protein, 2005. (Supervisor Dr S. Mishra and Cosupervisor Dr A. Srivastava)

16. **Harrinder Arya:** Studies on xylitol production and metabolic flux analysis in *C. boidini*, July 2006. (Supervisor A. Srivastava and Cosupervisor Dr V. S Bisaria)
17. **Vimanyu Jain:** Purification of alpha interferon produced by recombinant *P. pastoris*, Dec 2006. (Supervisor A. Srivastava and Cosupervisor Dr V. sahai).
18. **Ritu Verma,** Design of Algal photobioreactor for CO₂ sequestration, July 2015- (Supervisor Dr A. Srivastava)
19. **Deeksha Pandey,** Utilization/Treatment of nitrogenous waste by Microalgae in the Photobioreactor, July 2016 (Supervisor Dr A. Srivastava)
20. **KVL Kusuma Kumari,** Induction of high lipid in microalgae for enhanced biodiesel production, July 2018 (Supervisor Dr A. Srivastava)
21. **Arushi Kanwaria,** Treatment of different types of oils using laccase. 2020, (Supervisor Dr A. Srivastava)
22. **Arushi Kanwaria,** Optimization of parameters for biotransesterification in biodiesel production from kusum and Rubber seed oil. July 2021(Supervisor Dr A. Srivastava).
23. **Vishvender P. Singh,** CO₂ sequestration and production of microalgae and its valuable products in bioreactor, July 2021 (Supervisors Dr Arinjay Kumar and Dr A. Srivastava).
24. **Karnvir Singh,** Production and identification of lipase from *Candida rugosa*, July 2021(Running), (Supervisors Dr Arinjay Kumar and Dr A. Srivastava)

B.TECH, RESEARCH/ DESIGN PROJECTS COMPLETED at IITD, BITS HYDERABAD and GGSIPU: (50 completed 5 running)

1. **Manish Kandpal,** Purification and Characterization of XylA protein from *Candida boidini*, 2005(Supervisor Dr A. Srivastava)
2. **Sriskandh Subramanian,** Conversion of molasses to lactic acid and its subsequent polymerization to make blends, 2005. (Supervisors Dr V. Kaul and Dr A. Srivastava)
3. **Ruchika Singh,** Computational analysis of bacterial genome *B. anthracis*, 2006. (Supervisor Dr A. Srivastava)
4. **Sugandha Singh,** Study of mitochondrial disorders through genomics and proteomics tools, 2006. (Supervisor Dr A. Srivastava)
5. **Karthik Pawan,** Treatment of the waste oil from restaurant and using it for biodiesel production and analysis. 2011., (Supervisor Dr A. Srivastava)
6. **Kartvya Bholra and Jigyasa Kapoor,** Conversion of polysaccharides of mango kernels to fermentable sugars. 2012. (Supervisor Dr A. Srivastava)
7. **Avaneesh Kulkarni and Vikas Reddu,** Conversion of polysaccharides to tamarind seeds to fermentable sugars. 2012. (Supervisor Dr A. Srivastava)
8. **Dashkar Amber and Pallav Gorain,** Production of lactic acid from sugarcane bagasse. 2012. (Supervisor Dr A. Srivastava)
9. **Sunil Kumar Racha,** Production of lactic acid from tamarind seed powder. 2012. (Supervisor Dr A. Srivastava)
10. **R. Gokulkrishnan,** Process plant design for interferon alpha 2b production of capacity 10 kg/year. 2012. (Supervisor Dr A. Srivastava)
11. **R. Sankara Narayanan,** The use of ionic liquids to concentrate nitric acid water mixture via Extractive Distillation. 2012. (Supervisor Dr A. Srivastava)
12. **Savyasachee Jha and Dhruv Gambhir,** Production of Biodiesel from waste oil. 2012. (Supervisor Dr A. Srivastava)
13. **Gaurav Tayal,** Production of Biodiesel by Transesterification of Jatropha oil, 2014. (Supervisor Dr A. Srivastava)
14. **Rishabh Chaudary,** Feasibility report on Production of Ammonium Nitrate, 2014. (Supervisor Dr A. Srivastava)
15. **Pranav Narayan,** ABE production from Rice husk hydrolysate using *Clostridium acetobutylicum*, June 2015 (Supervisor Dr A. Srivastava)
16. **Aakash Dhingra,** Alcohol production from Banana peel hydrolysate using *Klebsiella oxytoca*, June 2015. (Supervisor Dr A. Srivastava)
17. **Harshit Wadhwa,** Alpha amylase production, June 2017. (Supervisor Dr A. Srivastava)
18. **Saqib Sherwani,** Acetone, butanol and ethanol fermentation using hydrolysed agriculture waste, June 2017 (Supervisor Dr A. Srivastava)
19. **Luv Mehan,** CFD analysis of Bioreactor BIOFLO110. June 2017 (Supervisors Dr A. Srivastava and Dr Monisha Mridha Mandal) running
20. **Rahul Kumar,** Treatment / utilization of Yamuna water for microalgae growth June 2017 (Supervisors Dr A. Srivastava and Mr Vinay Shah)
21. **Mehak S.,** Biodegradation of Plastic waste June 2017 (Supervisors Dr A. Srivastava and Dr Dinesh Kumar)
22. **Manu Kadyan,** Transglutaminase production using *S. morabanesi*, June 2017 (Supervisor Dr A. Srivastava)
23. **Gargi,** Production of transglutaminase from *Streptovverticillium morabaenese*, June 2018 (Supervisor Dr A. Srivastava)
24. **Nishtha Bhatnagar,** Effect of transglutaminase on mixing properties of oat flour, June 2018 (Supervisor Dr A. Srivastava)
25. **Ranu Sharma,** PHB production using *Bacillus subtilis*, June 2018 (Supervisor Dr A. Srivastava and Mr Azad Singh)
26. **Sumit,** The catalytic pyrolysis of plastic waste to produce liquid fuels, June 2018 (Supervisor Dr A. Srivastava)

27. **Chayanika Sugara**, Production of fructose syrup from glucose using isomerase enzyme immobilized in calcium alginate beads, June 2018 (Supervisor Dr A. Srivastava)
28. **Keshav Raghav**, Production of glucose from potato starch using *Aspergillus niger*, June 2018 (Supervisor Dr A. Srivastava)
29. **Saurabh Malik**, Production of Bioethanol from tamarind kernels using *Klebsiella oxytoca*, June 2018 (Supervisor Dr A. Srivastava)
30. **Yagya Gupta**, synthesis of dimethyl terephthalate from renewable source derived platform molecule. June 2019 (Supervisor Dr A. Srivastava)
31. **Hitesh**, “Simulation of Urea manufacturing process using Aspen”, June 2019 (Supervisor Dr A. Srivastava)
32. **Shikhar Sharma**, Feasibility analysis for the production of alcohol plant, June 2019 (Supervisor Dr A. Srivastava)
33. **Prashant**, Feasibility analysis for ammonia production plant, June 2019 (Supervisor Dr A. Srivastava)
34. **Nikita**, Caproic Acid Production with *Lactobacillus rhamnosus* and *Clostridium acetobutylicum* using *Cynodon dactylon* Grass in Sequential Fermentation, June 2019 (Supervisor Dr A. Srivastava)
35. **Harshprabha**, “Caproic acid production from *Cynodon dactylon* using mixed culture of *Lactobacillus rhamnosus* and *Clostridium acetobutylicum*”, June 2019 (Supervisor Dr A. Srivastava)
36. **Nilesh**, Biosorption of Chromium Ions from wastewater by both living and Non-living Microalgae. June 2019 (Supervisors Dr A. Srivastava and Dr Neeru Anand)
37. **Apoorv Garg**, Xylanase Production from Coconut Shell Using *Aspergillus niger* by Solid State Fermentation. Running (Supervisors Dr A. Jain and Dr A. Srivastava)
38. **Ashutosh Raje**. Adsorption of Inorganic Nitrogen Compounds on Adsorbent Biochar Prepared by Pyrolysis of Peat Moss, June 2020 (Supervisor Dr A. Srivastava)
39. **Saurabh Dagar**, Adsorption of heavy metal ions using peat moss as adsorbent, June 2020 (Supervisor Dr A. Srivastava)
40. **Azad Ali**. Brief overview of extraction of oil From *Spirulina sp.* Microalgae for biodiesel production, June 2020 (Supervisor Dr A. Srivastava)
41. **Manvi**, Lipase production from immobilized *Bacillus subtilis* and other strains, June 2020 (Supervisor Dr A. Srivastava)
42. **Vansh Pandhi**, “Lipase production from *Bacillus subtilis* and other strains”, June 2020 (Supervisor Dr A. Srivastava)
43. **Sweta Kumari**, Study on the simulation and optimization of fed batch reactor for the production of ethanol, Jan 2021(Supervisor Dr Arinjay Kumar and Co-supervisor Dr A. Srivastava)
44. **Govind Madhav**, Study of simulation and optimization of continuous biochemical reactor, Jan 2021 (Supervisor Dr Arinjay Kumar and Co-supervisor Dr A. Srivastava).
45. **Sweta Kumari**, Study on Production of Lactic Acid from fruit-based solid waste (Sugarcane Bagasse), July 2021(Supervisor Dr Arinjay Kumar and Co-supervisor Dr A. Srivastava)
46. **Govind Madhav**, Study on Production of Lactic Acid from fruit-based solid waste (Orange peel extract), July 2021 (Supervisor Dr Arinjay Kumar and Co-supervisor Dr A. Srivastava)
47. **Shailesh Shukla**, Bioremediation using microalgae, July 2021 (Supervisor Dr A. Srivastava)
48. **Prashant Mukund**, Bioremediation using peat-moss, July 2021 (Supervisor Dr A. Srivastava)
49. **Yashaswini Sagar**, July 2021 (Supervisor Dr A. Srivastava)
50. **Vidvindu Gupta**, A study on the production of biooil from wood biomass using fast pyrolysis, July 2021 (Supervisor Dr A. Srivastava)

SURA (SUMMER UNDERGRADUATE RESEARCH ASSISTANTSHIP) PROJECT AWARD UNDER IRD (INDUSTRIAL RESEARCH AND DEVELOPMENT) OF IIT DELHI (COMPLETED)

25. **Raghav Narayanan and Harrinder Arya**: Study of Respiratory Enzymes in *Saccharomyces cerevisiae* through Genomics, 2004. (Supervisor Dr A. Srivastava)

RESEARCH/ CONSULTANCY PROJECTS COMPLETED

- **Srivastava A.**, 2020-21, Enhanced microalgae production in fed batch for high lipids and pigment proteins production, FRGS project No. DRC/FRGS/USCT/Dr Aradhana Srivastava/2020/1938/31, GGSIPU, INR 0.17 million (Worked as a PI).
- **Srivastava A.**, 2019-20, Effect of carbon supplementation in nutrient media on microalgae growth, lipids and pigments production, FRGS project No. DRC/FRGS/USCT/Dr Aradhana Srivastava/2019/1553/35, GGSIPU, INR 0.15 million (Worked as a PI).
- **Srivastava A.**, 2018-19, Treatment of heavy metals in Yamuna water using acclimatized microalgae, FRGS project No. DRC/FRGS/USCT/Dr Aradhana Srivastava/2018/30(1115)2, GGSIPU, INR 0.2 million (Worked as a PI).
- **Srivastava A.**, 2017-18, Utilization/treatment of Yamuna water for the high cell density cultivation of microalgae and lipid biosynthesis, FRGS project No. DRC/FRGS/USCT/Dr Aradhana Srivastava/2017-18/32, GGSIPU, INR 0.2 million (Worked as a PI).

- **Srivastava A.**, 2016-17, Utilization and treatment of nitrogenous industrial waste for growth of microalgae and amino acid biosynthesis, FRGS project No. DRC/FRGS/USCT/Dr Aradhana Srivastava/2016-17/11P, GGSIPU, INR 0.2 million (Worked as a PI).
- **Srivastava A.**, Sreedhar I., and Purnima D., 2009, Assessment of Technology and upscaling of poly lactic acid (PLA) granules production, National Bank for Agriculture and Rural Development, R&C project, BITS Hyderabad, Jun-Aug 2009, INR 0.071 million (Worked as a PI).
- **Srivastava A.**, Sahai V., and Koul V., Process optimization Strategies for L(+) lactic acid production and its lactides formation using mutant of *L. rhamnosus*, June 2005-December 2006, Funded by Department of Biotechnology, Ministry of Science and Technology, New Delhi, Govt. of India, project No. IITD/IRD/RP01789 (Worked as a PI). Amount INR 1.717 million
- Mishra S., and **Srivastava A.**, Study of transport pathways for nuclear coded mitochondrial proteins in *Saccharomyces cerevisiae* through genomics, June 2003 – May 2005, Ministry of Human Resource and Development, New Delhi, Govt. of India, project No. IITD/IRD/RP01542 (Worked as a CO-PI) Amount INR 1.6 million
- **Srivastava A.**, and Mishra S., 2004, QIP Programme “Bioinformatics tools and their applications” for faculty of Engineering colleges in India, Funded by All India council of Technical Education, Govt. of India, New Delhi, India, July 12th to 24th at Department of Biochemical Engg. & Biotechnology, IIT Delhi.
- Sahai, V., Bisaria, V.S., and **Srivastava A.**, Training of Scientists for one month on the topics-(I) Culture maintenance, (ii) Fermentation, (iii) Centrifugation, (iv) Downstream processing, July 2001, Foundation of Innovation and Technology Transfer- consultancy project, Indian Institute of Technology Delhi, New Delhi (Worked as a CO-PI)
- Sahai, V., Bisaria, V.S., Roychoudhury P.K., and **Srivastava A.**, Culture maintenance and media optimization for lactic acid producing bacteria, June 2001– May 2002, Foundation of Innovation and Technology Transfer- consultancy project, Indian Institute of Technology Delhi, New Delhi, Project No. FT/03/351/98 (Worked as a CO-PI) Amount INR 0.2 million
- **Srivastava A.**, Production of L(+) lactic acid by *Lactobacillus rhamnosus*, September 2002 – August 2003, Industrial Research and Development Project, Indian Institute of Technology Delhi, New Delhi, Project No. IITD/IRD/mi00250/4431 (Worked as a PI) Amount INR 0.1 million
- **Srivastava A.**, Heterologous protein expression in *P. pastoris*, September 2002 – August 2003, Industrial Research and Development Project, Indian Institute of Technology Delhi, New Delhi (Worked as a PI) Amount INR 0.5 million
- Bisaria, V.S., Sahai, V., and **Srivastava A.**, High cell density fermentation and stability studies on biofertilizers, Phase-I, Jun 2002 – May 2004, Foundation of Innovation and Technology Transfer- consultancy project, Indian Institute of Technology Delhi, New Delhi, Project No. FT/03/1248/02 (Worked as a CO-PI) Amount INR 0.5million.
- Bisaria, V.S., Sahai, V., and **Srivastava A.**, High cell density fermentation and stability studies on biofertilizers, Phase-II Jun 2004-May 2006, Foundation of Innovation and Technology Transfer- consultancy project, Indian Institute of Technology Delhi, New Delhi, Project No. FT/03/1248/02 (Worked as a CO-PI) Amount INR 0.5 million.

MEMBERSHIPS & AFFILIATIONS

- Founder Member, Biological Engineering Society, India
- Life Member, Biotech Research Society of India, India

ACADEMIC ACHIEVEMENTS

- Best poster paper award at International conference ICSEPM-2016
- Best paper award in CHEMCORD-2016
- Recipient of certificate from honorable Vice Chancellor Professor B N Jain in REFLECTIONS 2012 for contributing and being a part of Task force, mission 2012, and Vision 2020 at BITS PILANI.
- Second best research paper award at Indo-Korean Symposium on Biochemical Engineering and Biotechnology’, March 22-23, 2007, Indian Institute of Technology, Delhi
- Second best poster paper award at National Biotechnology Conference-2006: Current trends and future perspectives, September 2-3, Indian Institute of Technology, Roorkee, India.

- Second best poster paper award at Biohorizon-2004, IIT, New Delhi
- Supervised a SURA award project in 2004 at IIT Delhi
- Recipient of Merit scholarship during B.Tech. program at HBTU Kanpur
- Recipient of National Merit Scholarship upto class XII
- Recipient of District scholarship upto class X

OTHER ACHIEVEMENTS

- Member, Library Committee, GGSIPU
- Member (IPR cell), GGSIPU
- Nodal Officer, International Affairs, USS
- Chaired a session for IDCT-2021 held at USCT, GGSIPU.
- Coordinator, Time-table at USCT, GGSIPU, August 2016 to Dec 2017.
- Coordinator, B. Tech. (Biochemical Engineering), GGS Indraprastha University, New Delhi, September 2013 September 2017
- Developed a Biochemical lab to cater the needs for doing microbiology, biochemistry, and bioprocess engineering work at USCT, GGS IPU.
- Member, Training and Placement, University School of Chemical Technology, GGS Indraprastha University, New Delhi, September 2013 to September 2017
- Co-Convener, National Conference on “Innovation and Development in Chemical Technology (IDCT-14)” held at University School of Chemical Technology, GGS Indraprastha University, New Delhi, 28th February - 1st March 2014.
- Worked as an “Observer” for End Term Examination May-2014, May 2015, May 2016, May 2017, and May 2018 for different Centers (affiliated Engineering and Management Institutes) of Indraprastha University.
- Member, Biochemical Engg. Lab Development at USCT, GGSIPU.
- Member, B Tech. & MTech (Biochemical Engg.) syllabus and course Development Committee.
- Convener at tenth session on “Bioprocess Technology” in International Conference “Indraprastha International Conference on Biotechnology (IICB-2013)”, held at University School of Biotechnology, GGS Indraprastha University, Delhi, 22nd -25th October 2013.
- Member, Technical committee, Indo-Danish International Conference on “Wind Energy: Materials Engineering and Policies”, to be held at BITS Pilani, Hyderabad campus, Nov 22-23, 2012.
- Convener, Lab Growth Plan for Chemical Engineering Department, BITS Pilani University.
- Member, Technical committee, National Conference on “Sustainable Water resources management and impact of climate change”, held at BITS Pilani, Hyderabad campus, March 5-6, 2010.
- Head of Department, Chemical engineering, August 2008 to August 2012. Established following teaching labs under my leadership- Measurement Techniques II lab, Transport Phenomena lab, Selected Chemical Engineering Operations lab, Process control lab, Chemical Reaction Engineering lab, Environmental Engineering lab and CAD labs for Chemical Engineering department at BITS Pilani, Hyderabad campus.
- Member of Lab Planning committee, Recruitment committee, Disciplinary committee, Library committee, Construction monitoring committee from 2008- 2010, and Academic Advisory council, and Academic Counseling Cell from 2008 to December 2012 at BITS Pilani Hyderabad campus
- Member, Senate at BITS Pilani, from August 2008 to Dec 2012
- Member of task force for “Chemical Engineering” curriculum design and representing the Hyderabad campus in the cross campus committee.
- Member, Task Force for the Consultancy and Marketing of Research and Consultancy at BITS-Pilani, April 2009 to Dec 2012. Prepared specialized documents for the task force of “Consultancy and Marketing” at BITS Pilani:- 1. “University and Industry Linkages of BITS Pilani” covering an extensive review of the industries partners relations with BITS and how to strengthen them, 2. “Business development Manager –Job description, 3. Organization Chart for “BDM”, 4. “Charter for Business Development Manager”.
- Member of a Task Force in the benchmarking of Chemical Engg curriculum for undergraduate course at BITS Pilani, Hyderabad Campus.
- Worked as a reviewer for the journals “Biotech Progress” and “Bioresource Technology” etc.
- President, Dance and Dramatics club and a member of Board of Recreational activities, IIT Delhi, 2002-2006.
- Convener, Departmental faculty board, Department of Biochemical Engg. & Biotechnology, Indian Institute of Technology, Delhi, 2003-2006
- Participated in the development of curriculum for courses – Physical and Chemical properties of Biomolecules, Bioseparation and Bioinformatics for the undergraduate students of DBEB, IIT Delhi.
- Established research lab “Protein Expression Lab” at IIT Delhi, 2004.
- Worked as a coordinator for conducting IIT JEE at one of the center of Delhi.
- Evaluated the performance of an engineering college situated at Haryana for AICTE.
- Time Tabling using software S-PLUS for the departmental modules of “Chemical and Biomolecular Engineering” at Ngee Ann, Singapore, 2007-08.

VISION FOR RESEARCH IN NEXT FIVE YEARS

My vision for next five years is to innovate through research and development in biochemical/chemical Engineering and biotechnology fields and produce products from effective green processes, do research work useful for society development.

I have a passion for developing technology for new products and new processes for the production of wide range of chemical and biochemical products desired by the society.

My current research has focus on followings: -

1. High Cell density Microalgae production in fed batch operation using modified bioreactor
2. Enhanced lipid and pigments -**Phycocyanin** and **Chlorophyll**, and **high energy hydrocarbon** molecules production in microalgae.
3. Reduction of greenhouse gasses; Carbon dioxide sequestration and utilization for microalgae growth; new green processes and product development for biofuels.
4. Utilization/Treatment of nitrogenous industrial wastes by microalgae for biomass and lipid production and biosynthesis of other valuable products.
5. Bioremediation and Treatment of heavy metals from Yamuna water using microalgae

My interest is to develop green process technology. I would like to get funding to scaleup the processes developed on microalgae to higher scale whether it is high cell density or heavy metals removal by live cells. Being an academician and researcher; I bring no boundaries of R&D areas while considering the product and process development and do multidisciplinary research. That is also reflected in my teaching contributions at various high level national and international institute/ University.

https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=r9hzHq0AAAAJ&pagesize=80
