

Dr. T.GAJENDRAN

ASSISTANT PROFESSOR (Sr. Gr)

Department of Biotechnology

UCE – BIT Campus, Tiruchirappalli-620024

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Research Area:

- Bioprocess engineering
- Membrane Technology
- Environmental Biotechnology

Educational Qualifications:

Qualification	University	Specialization
Ph.D.	ANNA UNIVERSITY	Membrane Technology
PG	ANNAMALAI UNIVERSITY	M. Tech Industrial Biotechnology
UG	MADRAS UNIVERSITY	B. Tech Chemical Engineering

Experience:

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
Department of Biotechnology, BIT (Campus), Anna University, Tiruchirappalli.	Assistant Professor (Sr. Gr)	03-09-2009	Till date	16
Department of Chemical Engineering, Sts Peters University, Chennai.	Assistant Professor	30.10.2007	01.09.2009	9 Months 8 Days
Department of Chemical Engineering, Adhiyamaan Engineering college, Hosur, Tamil Nadu.	Lecturer	02.10.2006	25.10.2007	2 Years one month 21 Days

Department of Biotechnology, Sri Nandhanam College of Engineering & Technology, Tirupattur, Tamilnadu.	Lecturer	05.06.2006	30.09.2006	3 Months 26 Days
Department of Chemical Engineering, Sri Lakshmi Narayana Polytechnic, Dharmapuri, Tamilnadu.	Lecturer	19.08.1999	10.04.2003	3 Years 7 month 23 days

Additional / Academic Responsibilities at University:

1. Department placement coordinator
2. Website coordinator
3. Antidrug committee member
4. NSS Program officer
5. Deputy warden (2010-2012)
6. Deputy controller of Examination (2010-2011)

Membership of Scientific and Professional Societies:

1. Life Member of the Indian Society for Technical Education (ISTE) – LM 112762
2. Life Member of the Indian Institute of Chemical Engineers – LM-61737

Fellowships and Grants received:

1. Revolutionizing Eco - friendly packaging: Harnessing banana leaves for a Sustainable future.
2. Production And Analysis of 2,3-Butanediol By *Bacillus SP.*- TEQIP II Sponsored_ project (2015-2016)
3. Extraction and characterization of Biodiesel from the seed of *PASSIFLORA FOETIDA*- TEQIP II Sponsored project (2014-2015)
4. Green Synthesis of Noble Metal of Platinum Nano particles from Ocimum Sanctum (TULSI) Plant Extract - DBT-TNSCST (2013-2014)

Completed PG/UG Projects:

- a. Number of PG Projects Completed: **15**
- b. Number of UG Project Completed: **60**

Research Guidance (Ph.D.) (Completed):

Sl. No	Name of the scholar	Title of the thesis	Year of registration	Date of viva voce
1.	PRABHU N	EXPOLARATION OF EFFECTIVE FIBRINOLYTIC AGENT FROM NEWLY ISOLATED ALCALIGENES AQUATILIS PJS_1	2017	27-08-2021

Research Guidance (Ph.D.) (Ongoing):

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	KAVITHA S	PRODUCTION OF ETHANOL FROM LIGNOCELLULOSIC BIOMASS	2019	Thesis Submitted
2.	JEEVITHA S	NANOTECHNOLOGY ASSISTED BIOLOGICAL REMIDATION	2019	Provisionally confirmed

Publications:

a. Books:

- Innovative and Hybrid Technologies for Wastewater Treatment and Recycling (Taylor & Francis Group)-2024
- Theoretical back round for measurement of volumetric mass transfer coefficient KLA and procedure for estimation by dynamic gassing out technique.

b. book chapters:

Title	Author	Year	Publisher	ISBN No
Comprehensive review of the prospective and development for the production of bio alcohols using nanoparticles	N. Prabhu,S. Karthika Devi, and T. Gajendran,	2021	Elsevier	978-0-12-822401-4
Several assorted characterization methods of nanoparticles	G. Adaikala Selvan, S. Rachel and T. Gajendran	2021	Elsevier	978-0-12-822401-4
Sustainable Bioprocessing for a Clean and Green Environment Biosurfactant: A Sustainable Replacement for Chemical Surfactants	Tamil Elakkiya Vadivel, Ravishankar, Krishnan, T. Gajendran	2021	Taylor and Francies	DOI: 10.1201/9781003035398 Page:217
Therapeutic Application Of Microorganisms	N. Prabhu, S. Karthika Devi, and T. Gajendran	2020	Nova Science Publisher, USA	978-1-53619-062-5

c. International and National Journals:

S. NO	TITLE OF THE PAPER	AUTHORS	NAME OF THE JOURNAL	VOLUME & YEAR	PAGE NO	
					FROM	TO
1.	Bioconversion of <i>Sargassum wightii</i> to ethanol via consolidated Bioprocessing using <i>Lachnoclostridium phytofermentans</i> KSM 1203	Kavitha. S Gajendran. T Saranya. K Manivasagan. V	Elsevier-Fuel	(2023) 128465	347	359
2.	‘An insight- A Statistical investigation of consolidated bioprocessing of <i>Allium ascalonicum</i> leaves to ethanol using <i>Hangateiclostridium thermocellum</i> KSMK1203 and synthetic consortium’,	Kavitha, S, Gajendran, T, Saranya, K, Selvakumar, P, Manivasagan, V & Jeevitha, S	Renewable Energy,	187 2022	403	416
3.	Study on consolidated bioprocessing of pre-treated <i>Nannochloropsis gaditana</i> biomass into ethanol under optimal strategy	Kavitha S, Gajendrn T, Saranaya K, Selvakumar V, Manivasagam V	Elsevier - Renewable Energy	2021 & 172	440	452
4.	Investigation Of Novel Biological Pretreatment For Microbial Infection Control In Organic Mushroom Cultivation	Karunakaran S, Prabhu N, Gajendran Tholan, Manivasagam Veerasamy.	International Journal of Aquatic Science	2021 & 12 (3)	57	68

5.	Sequestration of Potential Enzymes from Mushrooms compost waste	G Surendran, S Karunakaran, N Prabhu, S Karthika Devi and T Gajendran	IOP Conference Series: Materials Science and Engineering	2021 & 1145	1	10
6.	Effects of Neonicotinoid in surface water and soil in sugarcane field at Ariyalur and Namakkal districts	Rajagopalan V, Gajendran T	Environmental Engineering and Management	2021&20 (2)	283	290
7.	Exploration of new effective fibrinolytic agent from <i>Alcaligenes aquatilis</i> <i>PJS_1</i> from polluted soil	N. Prabhu, K. Sangeetha, C. Jayanthi and T. Gajendran	Journal of Environmental Biology	2020 & 41	572	580
8.	Sequestration and purification of essential enzymes from <i>Pleurotus florida</i> compost waste and its application studies	S Karthika Devi, N Prabhu*, S Monika, N M Swapna, S Vaishali, T Gajendran	Journal of Applied Biology & Biotechnology	2020 & 8(1)	64	65
9.	Sequestration and purification of laccase, catalase and lipase from oyster mushroom (<i>Pleurotus florida</i>) compost waste and its application studies	Prabhu N, Gajendran T , Karthika Devi S, Kavitha K, Shalini K, Vaishali S	European Journal of Biotechnology and Bioscience	2019 & 7(6)	23	29
10.	Comparison studies on lipase production using immobilized <i>Exiguobacterium aestuari</i> by repeated batch bioreactor	Prabhu N, Gajendran T , Kokilavani A, Dhanapriya S, Preetha K	European Journal of Biotechnology and Bioscience	2019 & 7(6)	30	37

11.	A review on successive generations of nattokinase based fibrinolytic agent	Prabhu N Gajendran T, Ravi Shankar K, Sandhiya Devi P, Srimathi K and Rajapriya P.	European Journal of Pharmaceutical and Medical Research	2019 & 6(11)	170	175
12.	Comparison study on production of 2, 3-butanediol using batch flask fermentation from two different microorganisms	N. Prabhu, T. Gajendran, B.Kartika, S. Monisha, S. Saarumathi	International Research Journal of Biological Sciences	2019 & 8(6)	7	11
13.	Biosynthesis and Characterization of silver nanoparticles from <i>Acacia auriculiformis</i> flower extract	N. Prabhu, T. Gajendran, V.Shiney, S. Keerthana, J. NaveenaBhashini	International Journal of Modern Science and Technology	2018 & 3(10)	213	219
14.	Production and purification of extracellular pullulanase by <i>Klebsillaerogenes</i> NCIM 2239	N. Prabhu, R. Umamaheswari, M. Vijay Pradhap Singh, S. Karunakaran, C. Kaliappan and T. Gajendran	African Journal of Biotechnology	2018 & 17(14)	486	494
15.	Green Synthesis of Noble Metal of Platinum Nanoparticles from <i>Ocimum sanctum</i> (Tulsi) Plant- Extracts	N. Prabhu, T. Gajendran	IOSR Journal of Biotechnology and Biochemistry (IOSR-JBB)	2017 & 3 (1)	107	112

16.	Invitro reduction, kinetic modeling and Optimization of parameters for biosorption of Cr (VI) using an ecological sorbent	Sujitha K, Ravi Shankar K, Gajendran T , Vasanthi B	IOSR-JESTFT	2014 & 8(6)	1	7
17.	Purification and flux decline of protein solution using series model through modified cellulose acetate ultrafiltration membrane	Gajendran T & Stalin N	Research Journal of Chemistry and Environment	2015 & 19(6)	1	6
18.	Performance studies of polyethersulfone ultrafiltration membrane for fruit juice concentration and purification	Gajendran T & Stalin N	Research Journal of Biotechnology	2014 & 9(12)	1	13
19.	Comparative studies on the anticancer activity of colehicine by various controlled drug delivery modes	E. Balasubramanian, T. Gajendran	Int J Pharm Biosci	2013 & 4 (1)	9	26

Sponsored Research Projects:

Sl.No	Name of the project	Funding agency	Duration	Status
1	Revolutionizing Eco - friendly packaging: Harnessing banana leaves for a sustainable future.	CSRC-Student innovative project under research support scheme-Anna university	2025 June-2025 May	ongoing
<u>2</u>	Production and analysis of 2,3-Bu1tanediol by <i>Bacillus SP.</i> -	TEQIP II Sponsored project	(2015- 2016)	Completed

3	Extraction and characterization of Biodiesel from the seed of <i>PASSIFLORA FOETIDA</i>	TEQIP II Sponsored project	(2014-2015)	Completed
4	Green Synthesis of Noble Metal of Platinum Nano particles from Ocimum Sanctum (TULSI) Plant Extract	DBT-TNSCST	(2013-2014)	Completed

List of Seminar / Short Term Course /FDP/ Workshop organized:

- Organized National Level Symposium on BIORITZ-24K at Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli.
- Organized National Level Symposium on BIORITZ-22K at Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli.
- Organized National Level Symposium on BIORITZ-2K19 at Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli.
- Coordinated TEQIP II Sponsored two weeks Faculty Development Programme on Implications of Chemical and Biological Sciences in Biotechnology (ICBSB'16) held from 22nd June to 05th July 2016 at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Organized TEQIP-II sponsored by National Level Symposium on BIORITZ-16 at Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli from February 23 -24 2016.
- Coordinated TEQIP II Sponsored One week Faculty Development Programme on “Principles of Bioreactor Engineering” held from 16th December to 22nd December 2013 at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.

List of Seminar / Short Term Course /FDP/ Workshop attended:

- Faculty development programme on “Nanotechnology in Agriculture” attended from January-March, 2024.
- Faculty development programme on “Forest and their Management” attended from January-April, 2024.
- Two weeks Interdisciplinary Refresher Course conducted by Teaching Learning Centre, Ramanujan college University of Delhi on “Advanced Research Methodology” attended from 22nd September to 06th October, 2023.
- Two weeks industrial training programme on “plastics processing and testing” attended from 12th to 26th July, 2023.
- Faculty development programme on “learning improvement techniques” attended from 21st to 23rd April 2016.
- Faculty development programme on “Comprehensive Approach of Biotechnological Applications” attended from 16th to 29th April, 2015.

National / International Conferences organized / Participated:

- National conference on “Recent trends in environment, energy and sustainability” REES’24 held on 22nd to 23rd February-2024.
- “International conference on sustainable technologies in healthcare and environment” (INCHE-2020) Dr.T.Gajendran participated on 6th & 7th March 2020.
- Coordinated TEQIP II Sponsored International conference on Advances in Biological, Chemical and Physical sciences (ABCPS’2017) from March 13th to 15th, 2017 held at Anna University, BIT Campus, Tiruchirappalli.
- “Concentration of orange juice using ultrafiltration employing biopolymer blend polyethersulfone membrane” T. Gajendran, N.Stalin, G.Arthanareeswaran Participated and Paper Presented in the International Conference on Membrane Science and Technology 2013 (MST 2013) was held on august 27-29 at University Teknologi Malaysia, Kualalumpur, Malaysia.
- Studies of flux decline for cellulose acetate/ poly cyclic dimer poly sulfone polymer ultra filtration membrane using resistance in series model” T. Gajendran, Participated and Paper Presented in the International Conference on Green Technology for Environmental pollution prevention and control (ICGTEPC-2014) held at NIT, Tiruchirappalli, Tamil Nadu, India

- Participated in the national workshop on quality initiatives in technical & Higher educational institutions (in compliance with NBA&NAAC Accreditation) from 22nd - 24th October, 2013 at Hyderabad.
- Participated in the Babha Atomic Research Centre (BARC) Sponsored workshop titled “Micro-Nanotechnology for Societal Cause” Conducted by PSG Institute of Advanced Studies, Coimbatore on 4th & 5th of October, 2012.
- Participated in the “International Workshop on Micronucleus Assays with Buccal Cells for Human and Environmental Monitoring” held on 9-13 February 2011 at Anna University of Technology, Tiruchirappalli.
- Participated in the Workshop on “Bio separation Technique” Under TEQIP Community Services on 14th April, 2007 at Department of Chemical Engineering, NIT, Tiruchirappalli.
- Participated in the workshop on “Recent Trends in Process Modelling and Control” on 28th February 2009 at Adhiyamaan college of Engineering, Hosur

Professional recognitions:

(A) Chairperson for conferences / Seminar / Technical symposia:

- Chairperson in the National level technical symposium BIORITZ-2K24
- Chairperson in the National level technical symposium BIORITZ-2K23
- Chairperson in the National level technical symposium BIORITZ-2K23
- Chairperson in the “International Conference on Sustainable Technologies in Healthcare and Environment” (INCHE-2020)
- Resource person in the TEQIP II Sponsored Hands-on training program on “Molecular and analytical Techniques in Biotechnology -2015 (MATB -2015)” held from 7th September to 11th September 2015 at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Resource person in the TEQIP II Sponsored International conference on “Modern Progress in Biotechnology held from 9th October to 10th October 2014 at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Resource person in the DBT sponsored short term training course on Hands on Training on “Biopharmaceutical Approaches in plant-based drug discovery (PHYTODRUGS -

2012)” held from 02nd May to 16 May, 2012 at Anna university of Technology, Tiruchirappalli – 24.

(B) Guest lectures delivered:

- Guest lecture delivered in the “international conference on sustainable technologies in healthcare and environment” (INCHE-2020)
- Guest lecture delivered on “INTELLECTUAL PROPERTY RIGHTS” at PABCT, Tiruchirappalli.
- Guest lecture delivered on “CHEMICAL REACTION ENGINEERING” at PABCT, Tiruchirappalli.
- Guest lecture delivered on “APPLIED THERMODYNAMICS FOR BIOTECHNOLOGISTS” at PABCT, Tiruchirappalli.
- Guest lecture delivered on “MASS TRANSFER OPERATIONS” at PABCT, Tiruchirappalli.
- Guest lecture delivered on “MASS TRANSFER OPERATIONS” at St.Michael Eng college, Kalayar kovil.
- Guest lecture delivered on “CHEMICAL REACTION ENGINEERING” at Dhanalakshmi Srinivasan college of engineering and technology, Perambalur.

DECLARATION:

I certify that the information furnished above is correct and true to the best of my knowledge and belief.

Signature of the staff member

Head of the Department

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