

CURRICULUM VITAE

Dr.K.Ravishankar
Assistant Professor(Sr.Gr)
Department of Biotechnology
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➤ **Research Area:**

- Bioprocess Technology
- Bioseparation Engineering
- Environmental Biotechnology

➤ **Educational Qualifications:**

Qualification	College/University	Year of completion
Ph.D. (Biotechnology)	Anna University, Chennai.	2015
PG (Biotechnology)	A.C.Tech Campus, Anna University, Chennai	2005
UG (Chemical Engineering)	VIT University (Formerly Vellore Engineering College), Vellore.	2003

Experience: (chronological order)

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
University College of Engineering, BIT Campus, Anna University, Tiruchirappalli.	Assistant Professor(Sr.Gr)	02.09.2014	Till date	9Y 0M 5D
University College of Engineering, BIT Campus, Anna University, Tiruchirappalli.	Assistant Professor	02.09.2009	01.09.2014	5Y 0M 1D
Karunya University, Coimbatore	Senior Lecturer	02.07.2007	01.09.2009	2Y 2M 2D
Rajalakshmi Engineering College, Tandalam,	Lecturer	02.02.2006	25.06.2007	1Y 4M 22D

Chennai				
Sri Nandhanam College of Engineering and Technology, Tirupattur	Lecturer	24.06.2005	30.12.2005	0Y 6M 7D

➤ **Awards / Honours Received:**

Sl. No.	Name of the Awards, Honour and Recognition	Achievement	Organization	Year
1.	Won the Special Prize with Cash Award of Rs.10000/-	Designed and exhibited the prototype insulin biosensor for the diagnosis of Polycystic Ovary Syndrome (PCOS)	Technology exhibition 2020 cum training programme, CTDT, Anna University Chennai	2020

➤ **Additional / Academic Responsibilities at University:**

1. UG Programme coordinator
2. Department time table coordinator
3. NBA Co-Coordinator
4. Downstream processing lab –incharge
5. Department equipment maintenance/service coordinator

➤ **Membership of Scientific and Professional Societies:**

1. Life Member of the Indian Society for Technical Education (ISTE) – LM 112762

➤ **Fellowships and Grants received:**

Fellowships

S.No.	Year	Award	Organization
1.	1997-1998	Chief Minister Merit Scholarship	Tamilnadu State Government
2.	2003-2005	GATE Fellowship	MHRD, Govt. of India
3	2020	Under my mentorship, Students “Ms. B. Madhumathi Devi, Ms. S. Poornima have exhibited the prototype diagnosis of PCOS in the “Technology exhibition 2020 cum Training programme” and have won the special prize with cash award of Rs.10000/-	Anna University, Chennai

Grants

S No.	Title of Project	Contribution	Funding Agency	Amount (Rs)	Duration
1.	Sequential anaerobic solar photo-fenton process for effective treatment of textile effluents	Co- PI	DBT -River cleaning	31,17,200/-	(3 years) May 2017– May 2020
2.	Fabrication of Insulin biosensor based on aptamer functionalized gold nanoparticles for the diagnosis of Polycystic Ovary Syndrome (PCOS)	Mentor	CTDT (Students Innovative Project scheme), Anna University, Chennai	25000/-	6 months (Jul 2019 – Dec 2019)
3.	Production of L-Glutaminase by <i>Pseudomonas aeruginosa</i> KRS7 under solid state fermentation	Mentor	TEQIP II (Students Innovative Project scheme)	10000/-	4 months (Dec 2015 – Apr 2016)
4.	Production of xylanase using cost effective media by newly isolated organism	Project Guide	TNSCST- Students Innovative Project scheme	10000/-	4 months (Dec 2010 – Apr 2011)
5.	Isolation, screening and optimization of alkaline protease production using newly isolated organism	Project Guide	TNSCST- Students Innovative Project scheme	10000/-	4 months (Dec 2009 – Apr 2010)

➤ Completed PG/UG Projects:

- a. Number of PG Projects Completed: 13 Nos
- b. Number of UG Project Completed: 45 Nos

➤ **Research Guidance (M.S/Ph.D.) (Ongoing):**

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	Vijay Pradhap Singh M	Biodegradation of Industrial Effluent using microbial consortium immobilized onto strychnous potatorum	July 2021	Confirmation completed
2.	Manikandan S	Eviction of hazardous pollutants from waste water using various adsorbents and optimization of physio-chemical parameters by statistical approach	Jan 2022	Course Work
3.	Hinduja M	Production, characterization and purification of biosurfactants from marine microorganism and their potential applications in cosmeceutical industries	July 2023	Course Work

➤ **Publications:**

a. **Books / book chapters:**

S. No.	Authors	Title of the Book chapter	Publisher and ISBN No
1	Tamil Elakkiya V, Rajaram K, MeenakshiRV, Ravi Shankar K , Suresh Kumar P	“Green Synthesis of MgO Nanoparticles Using <i>Sesbania bispinosa</i> and its In Vitro Effect on Chlorophyll Content in Long Bean Plant” in Hand book on Green Synthesis of Nanoparticles: Applications and Prospects. (2021) , pp 289-300	Springer Publications, Singapore, ISBN: 978-981-15-5179-6
2	Tamil Elakkiya V, Theresa V, Ravishankar K , Renganathan S, Gajendran T	“Biosurfactant: A Sustainable Replacement for Chemical Surfactants” in Hand book on Sustainable Bioprocessing for a Clean and Green	CRC Press, ISBN: 9781003035398

		Environment. (2021) , pp 217-234	
3	Ravishankar K , Madhumathi Devi B, Tamil Elakkiya V , Ronaldo Anuf	“Genetic Engineering of Microorganisms: Advances and Challenges” in Hand book on Microbes for a Sustainable Environment and Human Welfare: Advancements and Opportunities. (2020) , pp 1-38	Nova Science Publishers, ISBN: 978-1-53619-0625
4	Kheerthana R , Vishnu sankar S, Sabya sachi das, Ravishankar K , Ronaldo Anuf	“Application of microorganism for the production of biofuels - Emerging trends and opportunities” in Hand book on Microbes for a Sustainable Environment and Human Welfare: Advancements and Opportunities. (2020) ,pp 171-216	Nova Science Publishers, ISBN: 978-1-53619-0625
5	K.Ravi Shankar , V. Theresa, R. Brindha , S. Renganathan	“Bioprocessing for enhanced biological textile wastewater treatment” in Hand book on Bioprocess Engineering for a Green Environment (2018) , pp 99-130	CRC Press, ISBN: 978-1-138-03597-3
6	K.Ravi Shankar , R. Brindha	Fed-batch fermentation of Bacillus subtilis AKRS3 for efficient production of alkaline protease using different feeding strategies (2016) , pp 44-53	SELP Publications, ISBN: 978-93-80509-82-2

b. International Journals:

1. Tamil Elakkiya V, Meenakshi, RV, Karthik, V, **Ravi Shankar, K**, SureshKumar, P and Hanan A **(2021)** “Green synthesis of copper nanoparticles using *Sesbania aculeata* to enhance the plant growth and antimicrobial activities” International Journal of Environmental Science, pp 1-10. **(Impact Factor: 3.519)**
2. Prabhu N, Gajendran T, **Ravi Shankar K**, Sandhiya Devi P, Srimathi K and Rajapriya P. **(2019)** “A review on successive generations of nattokinase based fibrinolytic agent” European ournal of Pharmaceutical and Medical Research., 6(11) , pp 170 -175 **(Impact Factor: 6.222)**
3. Parveen M, Vijayalakshmi R, Divya P, Tamil Elakkiya V and **Ravishankar K (2016)** “Synthesis of fluorescent carbon dots from the leaves of *Millettia pinnata* for detection of allura red in food samples” International Journal of Research in Pharmacology & Pharmacotherapeutics, Special Issue1, pp 90-93. **(Impact factor : 4.659)**
4. Sujitha K, **Ravi Shankar K**, Gajendran T, Vasanthi B., **(2014)**. Invitro reduction, kinetic modeling and Optimization of parameters for biosorption of Cr (VI) using an ecological sorbent. IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT) ., 8(6), PP 01-07 **(Impact factor : 6.162)**
5. **Krishnan Ravishankar.**, Muthusamy Ashok kumar, K.Saravanan., **(2012)** Isolation of Alkaline Protease from *Bacillus subtilis*. Afr. J. Biotech.,11(69),pp.13415-13427. **(Impact factor: 0.9)**

c. National Journal:

1. Ravi shankar K, Vijay Pradhap Singh M, Tamil Elakkiya V, Theresa V **(2022)** “Characterization of Bacterial Cellulose Produced by *Bacillus velezensis* MN661247 isolated from Rotten Pomegranate” Vol. 8 (12) February pp no 21-34 **(Impact factor: 6.3)**
2. Ravi Shankar K, Tamil Elakkiya V, Nandhine R, Paavalan R, Paramasivan T **(2019)** “Development of Biophoto voltaic cell for the production of electricity using microbial communities” SSRN electronic Journal, Vol. 1, July pp no 1-10 **(Impact factor: 1)**

3. **Ravishankar K.** and Mahalakshmi R., (2017) “Repeated batch fermentation for the synthesis of L-Glutaminase by an immobilized *Pseudomonas aeruginosa* KRS7” *Research Journal of Biotechnology*, Vol. 12 (2) February pp no 71-82
(Impact factor: 0.3)
4. Hanan A, Gowsalya G, Tamil Elakkiya V and **Ravishankar K (2016)** “Exploration of beneficial activities of marine algae for cosmeceuticals” *Seaweed Research and Utilisation*, Volume 38, issue 2, pp 132- 136.
5. **Krishnan Ravishankar.**, Muthusamy Ashok kumar, K.Saravanan., (2012), Optimal conditions for the production of extracellular alkaline protease from a newly isolated *Bacillus subtilis* AKRS3. *Research in Biotech*,3(5),45-54,ISSN: 2229-791X.
6. Anu Jacob, Muthusamy Ashok kumar, **Krishnan Ravishankar.**, (2012) Screening of the nutrient parameters for protease production by *Bacillus cereus* using Plackett-design under submerged fermentation . *SJB Journals: A Journal of life sciences*, 2(2), 26-31.

➤ **Sponsored Research Projects:**

Sl.No	Name of the project	Funding agency	Project value (Rs.)	Duration	Status
1.	Sequential anaerobic solar photo-fenton process for effective treatment of textile effluents	DBT	31,17,200/-	3 Years (11.05 2017 – 10.05.2020)	Completed
	Fabrication of Insulin biosensor based on aptamer functionalized gold nanoparticles for the diagnosis of Polycystic Ovary Syndrome (PCOS)	CTDT (Students Innovative Project scheme), Anna University, Chennai	25000/-	6 months (Jul 2019 – Dec 2019)	Completed

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

- Organized Five days Value added course on Biomolecules (VACB'17) held from 28th August to 01st September **2017** at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Organized 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.
- Organizing committee member in TEQIP II Sponsored two days workshop on “Advances in Biotechnology” held on 16th and 17th March **2016** organized by Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Organized TEQIP II Sponsored two days national level Symposium BIORITZ '16 from 23 – 24th February, **2016** at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Organized TEQIP II Sponsored two days national level Symposium BIORITZ '14 from 30 – 31st October, **2014** at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Organized TEQIP II Sponsored One week Faculty Development Programme on “Principles of Bioreactor Engineering” held from 16 - 22nd December **2013** at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Organizing committee member in TEQIP II Sponsored One week Faculty Development Programme on “Emerging Trends in Biotechnology” held at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli during 19th -25th August **2013**.

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

- Two weeks Industrial Training Programme on “Plastics Processing and Testing” organized by Department of Chemicals and Petrochemicals, Ministry of chemicals and Fertilizers, Govt of India, at CIPET, CSTS Madurai from June 10 -22nd , **2021**.
- Two weeks Online Faculty Development Programme on “ICT Tools for Teaching Learning Process and Institute” jointly organized by Electronics and ICT Academies supported by Ministry of Electronics and Information Technology (MeitY), Government of India held from March 10 -21st , **2021**.

- Attended keynote lectures on "Innovations, IPR, Incubation, Startups and Technology Transfer in the Technology Exhibition 2020 cum Training Programme" held at Anna University, Chennai during 27-29th February **2020**.
- Faculty Development Programme on Learning Improvement Techniques organized and conducted by Teaching Learning Centre, IIT Madras from 21 - 23rd April **2016**.
- TEQIP II Sponsored two days workshop on "Advances in Biotechnology" held on 16 - 17th March **2016** at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- TEQIP II Sponsored course on "Faculty Development Programme" 01st March **2016**, organized by Anna University, BIT Campus, Tiruchirappalli in association with Confederation of Indian Society(CII).
- TEQIP II Sponsored Faculty Development Programme on "Comprehensive Approach of Biotechnology Applications from April 16-29, **2015**, organized by Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli
- UGC Sponsored 78th Orientation Programme from 01 - 28th February **2013** conducted by UGC-Academic Staff College, Bharathidasan University, Tiruchirappalli.
- International workshop on "Micronucleus assay with Buccal cells for Human and Environmental Monitoring" from 9-13th February **2011** at Anna University of Technology, Trichy.
- Participated in Indian Chemical Engineering Congress CHEMCON – 2010 held during 27-29, December **2010** at Department of Chemical Engineering, Annamalai University, Annamalai nagar, Tamilnadu.
- AICTE sponsored Staff Development Programme (SDP) on "Fabrication of sub – 100 nm patterning of Biochip for Next Generation Healthcare" organized by Nano Biotechnology lab, Department of Biotechnology from 3-14th May, **2010** at Periyar Maniammai University, Thanjavur.

➤ **NPTEL/SWAYAM online certification course**

S.No	Name of the course	Conducted by	Duration of the course	Performance	Equivalence of NPTEL course with regular FDP
1	Bioreactors	IIT Madras	Feb-March 2018 (4 Weeks)	Elite	-
2	Principles of Downstream Techniques in Bioprocess	IIT Madras	Feb-March 2018 (4 Weeks)	-	-
3.	Dairy and Food Process and Products Technology	IIT Kharagpur	July- Oct 2018 (12 Weeks)	Elite	1½ Week
4	Nanotechnology in Agriculture	IIT Kanpur	Aug- Oct 2018 (8 Weeks)	Elite	1 Week
5	Cell culture Technologies	IIT Kanpur	Feb-Apr 2019 (8 Weeks)	Elite	1 Week
6	Medical Biomaterials	IIT Madras	Feb-Apr 2019 (8 Weeks)	-	1 Week

➤ **National / International Conferences organized / Participated:**

Conferences Participated:

International:

1. “International Conference on Sustainable Technologies in Healthcare and Environmnet” (INCHE -2020) organized by department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, Tamilnadu held during 6th & 7th March ,**2020**.
2. TEQIP II Sponsored International Conference on Biological, Chemical and Physical Sciences (ABCPS), 13-15th March **2017**, presented paper titled “Biodiesel Production using neem oil with immobilized lipase from *Pseudomonas aeruginosa* TEN 01” organized by department of

Biotechnology, Anna University, BIT campus, Trichy

3. TEQIP II Sponsored International Conference on Trends and Innovations in Chemical & Pharmaceutical Technologies, 2-4th February **2017**, presented paper titled “Optimization of Biosurfactant production from *Pseudomonas aeruginosa* TEN01 and its enhanced biosorption of heavy metals” organized by department of Biotechnology, Anna University, BIT campus, Trichy
4. SERB-DST Sponsored International conference on Advances in Algal Biotechnology from 10th - 12th August **2016**, presented paper “Exploration of beneficial activities of marine algae for cosmeceuticals” organized by VIT University, Vellore.
5. International conference on “Genomics & Proteomics” (ICGP 2011) from 14th - 16th July 2011 at National Institute of Technology, Calicut.

National:

1. IOCL Sponsored Conference on Emerging Trends in Chemical and Petrochemical Technology held during 10th to 11th March **2016** at Department Petrochemical Technology, Anna University, BIT Campus, Tiruchirappalli.
2. DBT sponsored conferences on “Contemporary Trends in Bioenergy and Green Technology:Challenges and Opportunities”(NCCTBGT) organized by department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, Tamilnadu held during February 25-26,**2016**.
3. DST Sponsored conferences on “Innovations and New Horizons in Algal Technology and Biotechnology (ORA-2015)” organized by department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, Tamilnadu held during February 26-27,**2015**.
4. Conference on “Optimization Techniques in Engineering Sciences and Technologies (OPTTEST – 2013)” held from 19th - 20th April **2013** at Bannari Amman Institute of Technology, Sathyamangalam, Erode district.

Conferences organized :

- Organized TEQIP II Sponsored International conference on Advances in Biological, Chemical and Physical sciences (ABCPS'2017) from 13 - 15th March, **2017** held at Anna University, BIT Campus, Tiruchirappalli.

➤ **Professional recognitions:** (details like chairperson/member of a committee, reviewer, editor ...etc)

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

- Session Chair in “International Conference on Sustainable Technologies in Healthcare and Environment” (INCHE -2020) organized by department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, Tamilnadu held during 6 -7th March ,**2020**
- Chairperson for paper presentation in BIORITZ -2K19 conducted by Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli during 29 - 30th August **2019**.
- Head the Technical event (Symposium) at R.V.S College of Engineering & Technology, Department of Petrochemical Engineering on 28th March **2017**.
- Resource person in the TEQIP II Sponsored Hands on training program on “Molecular and analytical Techniques in Biotechnology -2015 (MATB - 2015)” held from 7 - 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 9 - 10th October **2014** at Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
- Acted as Presiding Officer in General Elections to Lok Sabha - **2014** for Manachanallur Assembly Constituency on 24th April 2014.
- 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 02 - 16th May, **2012** at Anna university of Technology, Tiruchirappalli – 24.

(B) Guest lectures delivered:

Delivered a invited lecture in “International Conference on Sustainable Technologies in Healthcare and Environment” (INCHE -2020) organized by department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, Tamilnadu held during 6th & 7th March ,**2020**.

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

Dean