

DEPARTMENT OF BIOTECHNOLOGY ENGINEERING
GRANT DETAILS-2023-24

External grant						
S N	Name of the PI & Co-PI	Sponsorin g Agency	Grant amount (₹)	Title of the Project	Duration of Project	Status
Fund Received by Faculty:						
1.	Dr. Ujwal P. and Dr. Santhosh Poojary	KSBDB- GoK	3,80,000	Biofuel research, information and demonstration centre, Nitte	Ongoing	Ongoing
2.	Dr. Harshitha M Jathanna	VGST- GoK	5,00,000	Cost-effective Nanocellulose Synthesis using Agricultural Residues from Coastal Karnataka and Preparation of Nanocellulose Hydrogels for Controlled Release of Fertilizers	2 years	Ongoing
3	Dr Vidya SM	BRNS	12,52,925	Development of Underutilized legume-millet	3 years	Sanctione d

				synbiotic nutraceutical formulation in mitigation of obesity and malnutrition		
Total			21,32,925			
Research Grant received with UG Student Group (Faculty as mentor):						
Dr. SANTHOSH POOJARY			5,500.00	DESIGN OF MINIATURE PROTOTYPE FOR ORGANIC WASTE BASED COMPRESSED BIOGAS PRODUCTION AND PURIFICATION		
Dr. VENKATESH KAMATH			7,000	DESIGN AND CONSTRUCTION OF WAVEFORM BIOREACTOR FOR CYANOBACTERIAL GROWTH		
No. of External Research Grants:				5		
No. of faculty received Research Grants:				5		
Total Grant amount received				Rs 21,45,425		

Other Research Grants (Funded by the Institute): Sanctioned Amount					
S N	Name of the PI & Co-PI	Sponsoring Agency	Grant amount (₹)	Duration of Project	Status

1.	Dr. Santhosh Poojary	Nitte (Deemed to be University)	1,50,000	2	Ongoing
2.	Dr. Santhosh Poojary	Nitte (Deemed to be University)	20,000	1	Ongoing
3.	Dr. Harshini Ullal	Nitte (Deemed to be University)	50,000	1	Ongoing
4.	Dr. Harshini Ullal	Nitte (Deemed to be University)	10,000	1	Ongoing
Sanctioned Grant Total (2023-24)			Rs 44,37,050		

Faculty Patents for AY August 01st 2023 – July 31st 2024

S.N	Faculty Names	Title	Patent Published /Granted	Application/Grant Number	Date of Publication n/ Grant
CAYm1 (2023-24)					
1	Dr Chetan DM	Device For Electricity Generation From Waste Water Treatment	Granted	6304216	05/09/2023 UK Design
2	Dr. Harshitha M Jathanna	Process for Pretreatment of Pongamia Cake using Biodiesel Derived Crude Glycerol	Published	2023410772 61	24.11.2023
3	Dr Sneha Nayak	Fabrication Method for Electrochemical Sensor modified using Bio Derived silver nanoparticles	Published	2024410037 84	09/02/2024
4	Dr Vidya SM, Dr Louella Concepta Goveas	Method for formulation of bioactive EPS rich probiotic beverage	Published	2024410070 95	09.02.2024

5	Dr Vidya SM	The Process to produce clear gel from <i>Cyclea</i> leaves	Published	202441000422	16/02/2024
6	Dr Vidya SM	Co-fermented Nutritional Formulation from Seeds and Millets	Published	202341038197	01/12/2023
7	Dr Vidya SM, Dr Venkatesh Kamath H, Dr Anil Kumar HS	Nanoparticle Based TDS Detection	Published	202341038199	01/12/2023
8	Dr Louella Concepta Goveas, Dr Sneha Nayak,	A Method For Removal Of Trace Triphenylmethane Methyl Green Dye From Aqueous Solutions	Published	202441024421	12/04/2024
9	Dr. Sneha Nayak, Dr. Louella Concepta Goveas	A Method for Detection of Mercury in Aqueous Solutions	Published	202441028576	19/04/2024
10	Dr. Sneha Nayak, Dr. Louella	An eco-friendly and cost-effective method for removing organophosphate pesticides	Published	202441021468	29/03/2024

	Concepta Goveas				
1	Dr. Sneha Nayak, Dr. Louella Concepta Goveas	A method for adsorptive degradation of triphenylmethane methyl green dye	Published	202441018486	29/03/2024
1	Dr. Louella Concepta Goveas	Method for Synthesizing Hydrophobin-based Amphipathic Protein Micelles for encapsulating Hydrophilic Drugs	Published	202441047303	05/07/2024
1	Dr Chetan DM	System And Method Development To Expedite The Mechanism Of National Educational Policy (Nep) Using Soft Computing	Published	.202311060667	13/10/2023
1	Dr Chetan DM	AI And IOT Based Enhanced Patient Healthcare Monitoring System	Published	202321069307	24/11/2023

Research Paper Publications for AY August 01st 2023 – July 31st 2024

Sl No	Month	Paper	Details
1	November	Naaz S, Shet, V.B. , Mubarak, N.B., Green synthesis of copper oxide nanoparticles: Characterization and applications for environmental and biomedical fields, The Canadian Journal of Chemical Engineering. 2023, https://doi.org/10.1002/cjce.25142)	Journal: The Canadian Journal of Chemical Engineering, Q2, Scopus, ISSN: 00084034, 1939019X, SJR: 0.44 H: Index: 75
2	November	Soman S, Kulkarni S, Pandey A, Dhas N, Shirur KS, Gude RS, Vidya SM, Nayak S , George SD, and Mutalik S. Unlocking the Power of MXenes—Crafting a 2D Nanoplatform for Tomorrow: Synthesis, Functionalization, Stability, and Biomedical Applications Materials Today Communications. 2023107711. https://doi.org/10.1016/j.mtcomm.2023.107711	Journal: Materials Today Communication, Q2, Scopus, Impact Factor: 3.8, H Index: 36, Cite Score: 4.1, SJR: 0.644, ISSN: 2352-4928 Journal Link: https://www.sciencedirect.com/journal/materials-today-communications
3	December	Vinayagam, R., Nagendran, V., Goveas, L.C. , Narasimhan, M.K., Varadavenkatesan, T., Chandrasekar, N. and Selvaraj, R. Structural characterization of marine macroalgae derived silver nanoparticles and their colorimetric sensing of hydrogen peroxide, Materials Chemistry and Physics, 2024, Volume 313, https://doi.org/10.1016/j.matchemphys.2023.128787 .	Journal: Materials Chemistry and Physics Q1, Scopus and Web of Science, H Index: 170 ISSN: 02540584, CiteScore: 7.7 SNIP: 1.01, SJR: 0.75, Impact Factor: 4.6. Journal Link: https://www.sciencedirect.com/journal/materials-chemistry-and-physics
4	December	Goveas, L.C. , Selvaraj, R., Vinayagam, R. and Sajankila, S.P. , 2023. Rhamnolipid assisted degradation of petroleum crude oil by indigenous Pseudomonas sp. WDE11 in seawater. <i>Journal of Environmental Chemical</i>	Journal: Journal of Environmental Chemical Engineering Q1, Scopus and Web of Science, H

		Engineering, Volume 12, Issue 1, 2024, 111693, https://doi.org/10.1016/j.jece.2023.111693	Index: 107 ISSN: 02540584, CiteScore: 9.5, SJR: 1.2, Impact Factor: 7.7, Journal Link: https://www.sciencedirect.com/journal/journal-of-environmental-chemical-engineering
5	January	Goveas, L. C., Nayak, S., Kumar, P. S., Vinayagam, R., Selvaraj, R., & Rangasamy, G. (2024). Recent advances in fermentative biohydrogen production. <i>International Journal of Hydrogen Energy</i> . 54: 200-217 https://doi.org/10.1016/j.ijhydene.2023.04.208	Journal: Q1, Scopus and Web of Science, H Index:248, ISSN: , CiteScore: 12.1 SNIP:1.423 , SJR: 1.32, Impact Factor: 7.2, Journal Link: https://www.sciencedirect.com/journal/international-journal-of-hydrogen-energy
6.	January	Vinayagam R, Nagendran V, Goveas, L. C., Narasimhan M. K., Varadavenkatesan, T, Samanth A, Selvaraj Rj, (2024), Machine learning, conventional and statistical physics modeling of 2,4-Dichlorophenoxyacetic acid (2,4-D) herbicide removal using biochar prepared from <i>Vateria indica</i> fruit biomass, <i>Chemosphere</i> , 350, https://doi.org/10.1016/j.chemosphere.2024.141130	Journal: Chemosphere, Q1, Scopus and Web of Science, H Index: 288 ISSN: 0045-6535, CiteScore: 13.3, SNIP: 1.708, SJR: 1.632, Impact Factor: 8.8 Journal Link: https://www.sciencedirect.com/journal/chemosphere
7.	February	S. Murthuza, B. K. Manjunatha, S. M. Vidya, F. K. Shaikh, V. N. Magare and R. L. S. Hallur, Isolation, Purification and Anti-Cancer Potency of Novel Compound 6-Ethyl-3-Hydroxy-4-Methyl-8aH-Xanthen- 9(10aH)-One from <i>Mesua ferrea</i> Linn from Western Ghats of Karnataka, <i>Indian Journal of Pharmaceutical Sciences</i> , 2023, 85(6):1702-1712. DOI: 10.36468/pharmaceutical-sciences.1226	
8.	February	Selvaraj R, Nagendran V, Murugesan G, Goveas LC, Varadavenkatesan T, Samanth A, Vinayagam R, Brindhadevi K. Synthesis of magnetic biochar composite using <i>Vateria indica</i> fruits through in-situ one-pot hydro-	Journal: Q1, Scopus and Web of Science, H Index:164, Print ISSN: 0013-9351

		carbonization for Fenton-like catalytic dye degradation. Environmental Research.2024, 250:118414. https://doi.org/10.1016/j.envres.2024.118414	Online ISSN: 1096-0953 CiteScore: 11 SNIP: 1.8 , SJR: 1.64, Impact Factor: 8.3 Journal Link: https://www.sciencedirect.com/journal/environmental-research
9.	March	Vinayagam R, Nagendran V, Murugesan G, Goveas LC , Varadavenkatesan T, Samanth A, Selvaraj R. In-situ one-pot synthesis, characterization of magnetic hydrochar and its application as Fenton-like catalyst for the degradation of methylene blue dye. Materials Chemistry and Physics. 2024, 317:129160. https://doi.org/10.1016/j.matchemphys.2024.129160	Journal: Materials Chemistry and Physics Q1, Scopus and Web of Science, H Index: 170 ISSN: 02540584, CiteScore: 7.7 SNIP: 1.01, SJR: 0.75, Impact Factor: 4.6. Journal Link: https://www.sciencedirect.com/journal/materials-chemistry-and-physics
10.	March	Selvaraj R, Jogi S, Murugesan G, Srinivasan NR, Goveas LC , Varadavenkatesan T, Samanth A, Vinayagam R, Alshehri MA, Arivalagan P. Machine learning and statistical physics modeling of tetracycline adsorption using activated carbon derived from Cynometra ramiflora fruit biomass. Environmental Research. 2024, 252:118816. https://doi.org/10.1016/j.envres.2024.118816	Journal: Q1, Scopus and Web of Science, H Index:164, Print ISSN: 0013-9351 Online ISSN: 1096-0953 CiteScore: 11 SNIP: 1.8 , SJR: 1.64, Impact Factor: 8.3 Journal Link: https://www.sciencedirect.com/journal/environmental-research
11.	April	Vasappa RK, Mohan DS, Mutalik S, Krishnaswamy MB, Srinivasalu AK , Suryanarayana M, Muddappa VS . In vivo toxicity and biodistribution of	Journal: Q2, Scopus, H Index:67 ISSN: , 2364-821X

		intravenously administered antibiotic-functionalized gold nanoparticles. Gold Bulletin. 2024, 1-2. https://doi.org/10.1007/s13404-024-00343-9	CiteScore: SNIP: , SJR: , Impact Factor: 2.2
12	May	Miyar HK, Jathanna NN, Selvaraj R, Vinayagam R, Pugazhendhi A, Goveas LC . Multifunctional Hydrophobin-Like Protein (HFB-NJ1): A Versatile Solution for Wastewater Treatment. Environmental Research. 2024, 255,:119139. https://doi.org/10.1016/j.envres.2024.119139	Journal: Q1, Scopus and Web of Science, H Index:164, Print ISSN: 0013-9351 Online ISSN: 1096-0953 CiteScore: 11 SNIP: 1.8 , SJR: 1.64, Impact Factor: 8.3 Journal Link: https://www.sciencedirect.com/journal/environmental-research
13	June	Goveas, L.C. , Nagendran, V., Selvaraj, R., Vinayagam, R., Nayak, S. Polyaromatic hydrocarbon removal from wastewater using sustainable carbon-based adsorbents: A recent update. <i>Clean Techn Environ Policy</i> (2024). https://doi.org/10.1007/s10098-024-02921-z	Journal: Q1, Scopus and Web of Science, H Index: 75, 1618-9558, Print ISSN 1618-954X, CiteScore: 6.2 SNIP: , SJR: , Impact Factor: 4.2
14.	July	Selvaraj R, Nagendran V, Varadavenkatesan T, Goveas LC , Vinayagam R. Stable Silver Nanoparticles Synthesis Using Tabebuia aurea Leaf Extract for Efficient Water Treatment: A Sustainable Approach to Environmental Remediation. Chemical Engineering Research and Design. 2024, Volume 208 , Pages 456-463, https://doi.org/10.1016/j.cherd.2024.07.012	Journal: Q2, Scopus and Web of Science, H Index: 125, Print ISSN: 0263-8762 Online ISSN: 1744-3563 , CiteScore: 6.1 SNIP: , SJR: 0.66, Impact Factor: 3.7
15	October	Poojari M, Vardhan H, Jathanna HM , Reddy DG. Microwave and Ultrasonic Pretreatment-Assisted Upgradation of Iron Ore of Karnataka Region from India. Journal of Mines, Metals & Fuels. 2023 Oct 1;71(10).10.18311/jmmf/2023/33576	Journal: Q4, Scopus, H Index: 13,

			ISSN, 0022-2755, SJR: 0.11,
16	April	Poojari M, Jathanna HM, Vijay VS, Mendonca S, DSilva R. Analysis of Lightweight Braking Material System for an ATV. Journal of The Institution of Engineers (India): Series D. 2024 Apr 23:1-1.	Journal: Q3, Scopus, H Index: 19, ISSN, 22502122, 22502130 , SJR: 0.11,

Book/Book Chapters for AY August 01st 2023 – July 31st 2024

Sl No	Name	Book/Book Chapter Details	ISSN/ISBN Number
1	Harshitha M Jathanna, G Santhosh	Book Chapter Titled “Biopolymer Sustainable Films: Mechanical and Biological Properties” in Tailored Functional Materials for Clean and Sustainable Development by Apple Academic Press Inc., CRC Press, Taylor & Francis Group	978-1-77491-365-9 (hbk); 978-1-77491-365-6 (pbk); 978-1-77491-365-1 (ebk)
2	Lokitha Paduvetnaya, Kamath H. Venkatesh* and Harishkumar Madhyastha	Book Chapter titled “Metabolic Materials from Cyanobacteria and Microalgae: Biotechnology, Biochemistry and Biotherapeutics: In: Harnessing Microbial Potential for Multifarious Applications by Springer Singapore Month & Year: April 2024 DOI: https://doi.org/10.1007/978-981-97-1152-9	978-981-97-1151-2(hbk), 978-981-97-1154-3(ebk)
3	Chetan DM, Bommegowda K	Book Titled “Bio-Medical Instruments and its Applications” Published by IP Innovative Publication Pvt. Ltd.; First Edition (7 October 2023)	ISBN-10 : 9391208967 ISBN-13 : 978-9391208967

4	Chetan DM, Jayachandra S Yaradoddi, B.S. Priya, Nanjunda Swamy Ramesh S Bhat	Book Titled A-Z MCQs in Microbiology for UGC-CSIR NET Life Sciences Exam Publisher : IP Innovative Publication Pvt. Ltd.; First Edition (16 January 2023)	ISBN-10 : 9391208665 ISBN-13 : 978-9391208660
5	I. R. Mithanthaya, Vinataka B Shet and Mokhsitha M	Experimental Study on Strength Properties of Concrete Incorporated with Bacteria. In: Menon, N.V.C., Kolathayar, S., Rodrigues, H., Sreekeshava, K.S. (eds) Recent Advances in Civil Engineering for Sustainable Communities. IACESD 2023. Lecture Notes in Civil Engineering, vol 459. Springer, Singapore. https://doi.org/10.1007/978-981-97-0072-1_4	Print ISBN 978-981-97-0071-4 Online ISBN 978-981-97-0072-1