NITTE (Deemed to be University) | NMAM INSTITUTE OF TECHNOLOGY

DEPARTMENT OF BIOTECHNOLOGY ENGINEERING

GRANT DETAILS-2024-25

External grant						
SN	**Name of the PI & Co-PI**	**Sponsoring 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**	**300,000**	**Biofuel research, information and demonstration centre, Nitte**	**Ongoing**	**Ongoing**
2.	**Dr Vidya SM**	**DAE-BRNS**	**5,39,254**	**Development of Underutilized legume-millet symbiotic nutraceutical formulation in mitigation of obesity and malnutrition**	**3 years**	**Ongoing**
		Total	**8,39,254**			
Research Grant received with UG Student Group (Faculty as mentor):						

Dr Ujwal P	**5000**	EXTRACTION, SYNTHESIS AND CHARACTERISATION OF BIOSUSTAINABLE SOY- OIL BASED ALGAL INK
No. of External Research Grants:		**3**
No. of faculty received Research Grants:		**3**
Total Grant amount received		8,44,254

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. Sneha Nayak & Dr Louella Concepta Goveas	Nitte (Deemed to be University)	**1,00,000**	**2**	**Ongoing**
2.	Dr. Sandesh K & Dr Ujwal P	Nitte (Deemed to be University)	**1,50,000**	**2**	**Ongoing**
3.	Dr. Louella Concepta Goveas & Dr	Nitte (Deemed to be University)	**1,50,000**	**2**	**Ongoing**

	Vidya SM, Dr Sneha Nayak				
4.	Dr. Vidya SM	Nitte (Deemed to be University)	**1,60,000**	**2**	**Ongoing**
Sanctioned Grant Total (2024-25)			**Rs 14,04,254**		

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Faculty Patents for AY August 01st 2024 – July 31st 2025

S.N.	Faculty Names	Title	Patent Published/Granted	Application/Grant Number	Date of Publication/ Grant
1	Dr. Ujwal P Dr Sandesh K	RAPID ARSENIC DETECTION KIT FOR FRUITS AND VEGETABLES	Granted	554287 Application No 202441034519	13/11/2024
2	Dr Chetan DM	IOT-DRIVEN SOIL MONITORING AND CROP MANAGEMENT WITH MACHINE LEARNING (ML) FOR FERTILIZER RECOMMENDATION	Published	Application No 202411097657 A	27/12/2024
3.	Dr. Chetan DM	ML AND IOT IN AGRICULTURE: PRECISION CROP RECOMMENDATION BASED ON RAINFALL	Published	Application No 202411061647 A	30/08/2024
4.	Dr. Chetan DM	A MICROORGANISMS STAINING KIT	Granted	431044-001	18/11/2024
5	Dr. Harshitha M Jathanna	COMPOSITION AND CONDITIONS FOR PRODUCING AND IMPROVING MICROBIAL OIL AND PIGMENT FROM CRUDE GLYCEROL	Published	Application No 202541013772 A	28/02/2025

6	Dr Sneha Nayak	COMPOSITION AND METHOD FOR SYNTHESIS OF SILVER NANOPARTICLE-BASED NANOCOMPOSITE	Published	Application No.202541046040	30/05/2025
7	Dr Vidya SM	BIOPOLYMERIC COMPOSITION FOR THE FABRICATION OF FOAM LIKE BIOMATERIALS	Published	Application No.202441070408 A	04/10//2024
8	Dr. Shyama Prasad Sajankila	Beer Brewing Method Utilizing Mud Pot Fermentation	Published	202441099576	20-12-2024
9	Dr Ujwal P, Dr Sandesh K	A Method Of Producing Sustainable Asphalt From Bio Refinery Derivative	Published	202441057308	02-08-2024
10	Dr. Louella Concepta Goveas, Dr. Vijeesh V	THREE-DIMENSIONAL PRINTABLE THERMORESPONSIVE SMART HYDROGEL COMPOSITION AND METHOD THEREOF	Published	02541024572 A	28-03-2025
11	Dr Sneha Nayak, Dr Louella Concepta Goveas, Dr Abhishek Rao	AUTOMATED BACTERIAL COLONY DETECTION AND COUNTING SYSTEM AND METHOD THEREOF	Published	202541020588 A	21/03/2025

NITTE (Deemed to be University) | NMAM INSTITUTE OF TECHNOLOGY

Research Paper Publications for AY August 01st 2024 – July 31st 2025

Sl No	Month	Paper	Details
1	August	Selvaraj R, Iyer RV, Murugesan G, **Goveas LC**, Varadavenkatesan T, Samanth A, Vinayagam R. Modeling 2, 4-dichlorophenoxyacetic acid adsorption on candle bush pod-derived activated carbon: Insights from advanced statistical physics models. Journal of Water Process Engineering. 2024, 106027.https://doi.org/10.1016/j.jwpe.2024.106027	Journal: Journal of Water Process Engineering, Q1, Scopus and Web of Science, H Index:89, Online ISSN: 2214-7144 CiteScore: 10.7 SNIP: , SJR: 1.28 , Impact Factor: 6.3 Journal Link: https://www.sciencedirect.com/journal/journal-of-water-process-engineering
2	September	Shamanna V, Srinivas S, Couto N, Nagaraj G, **Sajankila SP**, Krishnappa HG, Kumar KA, Aanensen DM, Lingegowda RK, NIHR Global Health Research Unit on genomic surveillance-India consortium. Geographical distribution, disease association and diversity of Klebsiella pneumoniae K/L and O antigens in India: roadmap for vaccine development. Microbial Genomics. 2024, 10(7):001271.**https://doi.org/10.1099/mgen.0.001271**	Journal: Microbial Genomicsl, Q1, Scopus and Web of Science, H Index:52, ISSN:20575858 . Impact Factor: 4.0 Journal Link: https://www.microbiologyresearch.org/content/journal/mgen
3	September	Nagendran V, **Goveas LC**, Vinayagam R, Varadavenkatesan T, Selvaraj R. Nanozymes in environmental remediation: A bibliometric and comprehensive review of their oxidoreductase-mimicking capabilities. Microchemical Journal. 2024 Sep 21:111748.https://doi.org/10.1016/j.microc.2024.111748	Journal: Microchemical Journall, Q1, Scopus and Web of Science, H Index:107, Online ISSN: 1095-9149, Linking ISSN: 0026-265X CiteScore: 8.7 SNIP: , SJR: 0.74 , Impact Factor:4.9 Journal Link: https://www.sciencedirect.com/journal/microchemical-journal
4	October	**Nayak, S.**, Hegde, R.B., Rao, A.S. *et al.* Revitalizing agriculture with the potential of cashew nutshell liquid: a comprehensive exploration and synergy with AI. *Discov Appl Sci* **6**, 557 (2024). https://doi.org/10.1007/s42452-024-06258-6	Journal: Discover Applied Sciences, Q1, Scopus, Impact Factor: NIL, H

			Index: 74, Cite Score: 7.0, SJR: NA, ISSN: 3004-9261 Journal Link: https://link.springer.com/journal/42452
5	November	**Nayak S, Goveas LC, Sajankila SP**. Exploring the efficacy of Pongamia pinnata-induced silver nanoflowers for efficient adsorptive degradation of malachite green dye. Biotechnology for Sustainable Materials. 2024 Nov 19;1(1):17.	ISSN: 2948-2348, Journal Link: https://biotechsustainablematerials.biomedcentral.com/
6.	November	Menezes A, **Goveas LC,** Vinayagam R, Selvaraj R, Harnessing carbon-based adsorbents for poly- and perfluorinated substance removal: A comprehensive review, Journal of Water Process Engineering, 69, 2024, 106621, https://doi.org/10.1016/j.jwpe.2024.106621.	Journal: Journal of Water Process Engineering, Q1, Scopus and Web of Science, H Index:89, Online ISSN: 2214-7144 CiteScore: 10.7 SNIP: , SJR: 1.28 , Impact Factor: 6.3 Journal Link: https://www.sciencedirect.com/journal/journal-of-water-process-engineering
7.	November	**Goveas, L.C.**, Darshini, S.M., Kausthubha, P. Padyana, S. Anvitha, Suvarna, A,R. Lewis S. P, **Vidya S. M** Probiotic *Lactobacillus plantarum* SVP2 fermented bioactive EPS-rich milk whey functional beverage. *J Food Sci Technol* (2024). https://doi.org/10.1007/s13197-024-06126-6	Journal: Journal of Food Science and Technology, Q1, Scopus H Index:105, **Electronic ISSN** 0975-8402, **Print ISSN,**0022-1155, CiteScore: 7.7 SJR: 0.66 , Impact Factor: 2.6 https://link.springer.com/journal/13197
8.	November	Rao U K, **Goveas LC**, Arun A, Gokhale A. Biosorption of Pb (II) by extracellular polymeric substance of Lysinibacillus sp. SS1: optimization, kinetics, and isotherms. Bioremediation Journal. 2024 Nov 20:1-3.	Journal: Bioremediation Journal, Q2, Scopus H Index:41, CiteScore: 5.3 SJR: 0.47 , Impact Factor: 1.9 https://www.tandfonline.com/journals/bbrm20

9.	December	Nagendran V, **Goveas LC,** Vinayagam R, Varadavenkatesan T, Selvaraj R. Challenges and advances in nanocellulose-based adsorbents for dye removal: mechanisms and future directions. Discover Applied Sciences. 2024 Dec 18;7(1):14.https://doi.org/10.1007/s42452-024-06413-z	Journal: Discover Applied Sciences, Q1, Scopus, Impact Factor: NIL, H Index: 74, Cite Score: 7.0, SJR: NA, ISSN: 3004-9261 Journal Link: **https://link.springer.com/journal/42452**
10.	January	Rai,V, Granada DL, Skariyachan S, **P Ujwal;. K Sandesh** In vitro and In silico investigation deciphering novel antifungal activity of endophyte *Bacillus velezensis* CBMB205 against Fusarium oxysporum. Scientific Reports. 2025 Jan 3;15(1):684.	Journal: Scientific Reports, Q1, Scopus, Impact Factor: 3.8, H Index: 315, Journal Link: **https://www.nature.com/srep/**
11.	January	Darshini Shivamogga Mohan, Murali Badanthadka, Anushri Umesh, Bharath Basavapattana Rudresh, Manjunatha Bukkambudhi Krishnaswamy, Rashmi Kanugodu Vasappa, Sahayog Narayan Jamdar, **Vidya Shimoga Muddappa**, Guar galactomannan ameliorates radiation-induced intestinal injury in mice. Bioactive Carbohydrates and Dietary Fibre, 33 (2025) 100466 https://doi.org/10.1016/j.bcdf.2024.100466	Journal: Bioactive Carbohydrates and Dietary Fibres, Q1, Scopus, Impact Factor: NIL, H Index: 40, Cite Score: 6.0, Journal Link: https://www.sciencedirect.com/journal/bioactive-carbohydrates-and-dietary-fibre
12	January	Vinayagam R, Batra S, Murugesan G, **Goveas LC**, Varadavenkatesan T, Menezes A, Selvaraj R. Emerging Contaminant Removal Using Eco-Friendly Zinc Ferrite Nanoparticles: Sunlight-Driven Degradation of Tetracycline. Emerging Contaminants. 2025, Volume 2, Issue 1:100469.https://doi.org/10.1016/j.emcon.2025.100469	Journal: Emerging Contaminants, Q1, Scopus, Impact Factor: 5.3, H Index: 36, Cite Score: 10.0, **ISSN**

			24056642, 24056650 Journal Link: https://www.sciencedirect.com/journal/emerging-contaminants
13	November	Joshi, K., Navalgund, L., & **Shet, V. B.** (2024). **Studies on Bio-denitrification of Wastewater Using Immobilized GAC in Draft Tube Spouted Bed Reactor**. Journal of Environmental Health and Sustainable Development, 9(4), 2470-2479.https://doi.org/10.18502/jehsd.v9i4.17394	**Quartile:**03 **H-Index:**10 **ISSN:** 24766267, 24767433 https://jehsd.ssu.ac.ir/
14.	February	Varadavenkatesan T, Nagendran V, Vinayagam R, **Goveas LC,** Selvaraj R. Green synthesis of silver nanoparticles using Lagerstroemia speciosa fruit extract: catalytic efficiency in dye degradation. Materials Technology. 2025 Dec 31;40(1):2463955.https://doi.org/10.1080/10667857.2025.2463955	Journal: Materials Technology, Q1, Scopus, Impact Factor: 2.9, H Index: 45, Cite Score: 10.0, **0.614 (2023)** SNIP, **0.554 (2023)** SJR, **ISSN: 10667857, 1753555** Journal Link: https://www.tandfonline.com/journals/ymte20
15.	February	Sheikh T, Nagendran V, Vasant S K, Mallya U, Mutalik S,Khan F, **Nayak S**, Sarvajith MS, Acacia auriculiformis mediated synthesis of silver nanoparticles for the sensitive and rapid electrochemical sensing of nitrite in water sample, Microchemical Journal, Volume 211, 2025, 113162, https://doi.org/10.1016/j.microc.2025.113162.	Journal: Microchemical Journall, Q1, Scopus and Web of Science, H Index:107, Online ISSN: 1095-9149, Linking ISSN: 0026-265X CiteScore: 8.7 SNIP: , SJR: 0.74 , Impact Factor:4.9

			Journal Link: https://www.sciencedirect.com/journal/microchemical-journ
16	February	B. K. Manjunatha · V. K. Vamshee · N. G. Poojitha · R. J. Kiran · S. T. Mythili · R. Divakara · R. A. Sreenivasa · **S. M. Vidya,** Bioremediation of polycyclic aromatic hydrocarbons (acenaphthene, anthracene, fluoranthene, fluorene) by Aspergillus niger HQ170509.1 fungus, International Journal of Environmental Science and Technology https://doi.org/10.1007/s13762-025-06370-z	Journal: International Journal of Environmental Science and Technology, Q1, Scopus and Web of Science, H Index:101, **Electronic ISSN** 1735-2630 **Print ISSN** 1735-1472 CiteScore: 5.6 Impact Factor:2.80 Journal Link: https://www.sciencedirect.com/journal/microchemical-journ
17	February	Pradeepa, Vasappa RK, Mohan DS, Krishnaswamy MB, **Anil Kumar HS, Venkatesh KH,,** Gamana G, **Vidya SM**. Ascorbic acid-Sodium Borohydride coupled supersensitive gold nanoparticles for water quality assurance. Nanotechnology for Environmental Engineering. 2025;10(1):12., https://doi.org/10.1007/s41204-025-00406-y	Journal: Nanotechnology for Environmental Engineering, Q2, Scopus and Web of Science, H Index:, **Electronic ISSN** 2365-6387, **Print ISSN:** 2365-6379, CiteScore: 6.5 Impact Factor:2.80 Journal Link: https://link.springer.com/journal/41204
18	February	Vinayagam R, Jogi S, Murugesan G, **Goveas LC**, Varadavenkatesan T, Samanth A, Selvaraj R, Mesoporous carbon from *Vateria indica* fruit for efficient 2,4-D herbicide removal: Mechanistic insights from double-layer statistical physics modelling and regeneration studies, Diamond and Related Materials, Vol 154, 2025, 112149, https://doi.org/10.1016/j.diamond.2025.112149	Journal: Diamond and Related Materials Q1, Scopus, Impact Factor: 4.3, H Index: 126, Cite Score: 6.0, Journal Link: https://www.sciencedirect.com/jou

			rnal/diamond-and-related-materials
19	April	Jathanna HM, Poojari M, Ravi KS, Venkatesh BN, Hanumanthappa H, Goriparti NS, Shanmugam BK. Augmented lipid biosynthesis in native fungus through dual-stage optimization of lignocellulosic biomass residue pretreatment and fermentation conditions. Biomass Conversion and Biorefinery. 2025 Apr 25:1-4.	Journal: Biomass Conversiona nd Refinery Q2, Scopus, Impact Factor: 3.5, H Index: 56, Journal Link: https://link.springer.com/journal/13399
20	April	**Nayak S, Goveas LC**. Adsorption of residual methyl green by extracellular polymeric substance of Lysinibacillus sp. SS1: A sustainable approach to wastewater treatment. Biodegradation. 2025 Jun;36(3):1-1.	Journal: Biodegradation Q2, Scopus, Impact Factor: 3.1, H Index: 95, Journal Link: https://link.springer.com/journal/10532
21	May	**Nayak, S., Hegde, R.B., Rao**, A.S. Poojary R Unlocking the potential of essential oils in aromatic plants: a guide to recovery, modern innovations, regulation and AI integration. *Planta* 262, 6 (2025). https://doi.org/10.1007/s00425-025-04724-y	Journal: *Planta* , Q1, Scopus H Index: 194, ISSN 00320935, 14322048 CiteScore: 6.9 Impact Factor: 3.6 https://scijournals.onlinelibrary.wiley.com/journal/10974660
22	May	Girish T., Prasad S.V., Patil, N. I., Shetty, D., **Nayak, S.,** Advances in food azo dye detection through nanoparticle modified electrochemical sensors with a focus on sustainable nano-materials *Journal of Chemical Technology and Biotechnology* (2025). https://doi.org/10.1002/jctb.7887	Journal: *Journal of Chemical Technology and Biotechnology* , Q1, Scopus H Index: 142, ISSN 10974660, CiteScore: 7.0 Impact Factor: 3.174 https://scijournals.onlinelibrary.wiley.com/journal/10974660

23	May	**Goveas, L.C.**, Khanapur, P., **Chetan, D.M.** Nannuri, K., **Shishir R.K,** Murugesan, G., **Rao, R.N.**, Selvaraj, R., Vinayagam, R., **Vidya, S.M.,** Anti-biofilm and anti-cancer effects of biosurfactant from *Lactobacillus plantarum* SVP2 in fermented milk whey beverage. *J Food Sci Technol* (2025). https://doi.org/10.1007/s13197-025-06306-y	Journal: Journal of Food Science and Technology, Q1, Scopus H Index:105, Electronic ISSN, 0975-8402, Print ISSN,0022-1155, CiteScore: 7.7 SJR: 0.66, Impact Factor: 2.6 https://link.springer.com/journal/13197
24	May	**Goveas, L.C.** Artificial Sweeteners and the One Health crisis: Toxicity effects and Ecological consequences. *Discov Appl Sci* 7, 535 (2025). https://doi.org/10.1007/s42452-025-07107-w	Journal: Discover Applied Sciences, Q1, Scopus, Impact Factor: NIL, H Index: 74, Cite Score: 7.0, SJR: NA, ISSN: 3004-9261 Journal Link: **https://link.springer.com/journal/42452**
25	May	**Rao AS**, Shenoy R, Keshav LB, Malhotra K, **Nayak S,** Poojary R. Identification of prognostic factors contributing towards mortality in leptospirosis patients: a statistical and score-based model approach. Discover Applied Sciences. 2025 Jun;7(6):1-29.https://doi.org/10.1007/s42452-025-07167-y	Journal: Discover Applied Sciences, Q1, Scopus, Impact Factor: NIL, H Index: 74, Cite Score: 7.0, SJR: NA, ISSN: 3004-9261 Journal Link: **https://link.springer.com/journal/42452**
26	June	**Shet, V. B., Kantakere, S.**, Eshwarachar, V. C., Rao, S. P., Mogaveera, P. S., Manjunatha, P., … Mubarak, N. M. (2025). *Theobroma cacao* pod shells extract mediated production of FeO nanoparticles to explore nanoadsorbent, nanofertilizer and enzyme activator applications. *Nanotechnology for Environmental Engineering, 10*(3). https://doi.org/10.1007/s41204-025-00457-1	**Journal: Nanotechnology for Environmental Engineering, H Index: 37 Scopus Quartile : Q1 Print ISSN: 2365-6379 Journal link: https://link.springer.com/journal/4120**

27	July	Hegde RB, Kudva V, **Nayak S**, Sampathila N, Thalengala A. Advanced techniques for seed quality assessment and germination monitoring. Discover Applied Sciences. 2025 Jul 1;7(7):690.https://doi.org/10.1007/s42452-025-07284-8	Journal: Discover Applied Sciences, Q1, Scopus, Impact Factor: NIL, H Index: 74, Cite Score: 7.0, SJR: NA, ISSN: 3004-9261 Journal Link: **https://link.springer.com/journal/42452**
28	July	**Goveas, L.C.** Interactions between polyaromatic hydrocarbons and microplastics: Environmental mechanisms and ecotoxicological impacts. *Environ Geochem Health* 47, 320 (2025). https://doi.org/10.1007/s10653-025-02636-0	Journal: Environmental Geochemistry and Health , Q1, Scopus, Impact Factor: 3.4, H Index: 99, Cite Score: 6.9, SJR: 0.871, **Print ISSN:** 0269-4042 Journal Link: https://link.springer.com/journal/10653
29	July	Joshi, K., Navalgund, L., Mubarak, N. M., & **Shet, V. B**. (2025). Insight mechanism of ANN model for denitrification in spouted bed bioreactor. Nature. https://doi.org/10.1038/s41598-025-11109-4	**Scopus Quartile :** Q1 **E ISSN:** 2045-2322 **Journal link:** https://www.nature.com/srep/

Book/Book Chapters/Conference Proceedings for AY August 01st 2024 – July 31st 2025

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Sl No	Name	Book/Book Chapter Details	ISSN/ISBN Number
1	**Louella Concepta Goveas, SM Vidya,** Ramesh Vinayagam, Raja Selvaraj	Circular Bioeconomy Approaches for Valorizing Waste Streams into Bio-jet Fuel. In: Baskar, G., Ashokkumar, V., Rokhum, S.L., Moholkar, V.S. (eds) Circular Bioeconomy Perspectives in Sustainable Bioenergy Production. Energy, Environment, and Sustainability. Springer, Singapore. https://doi.org/10.1007/978-981-97-2523-6_15	• Print ISBN • 978-981-97-2522-9 • Online ISBN • 978-981-97-2523-6
2	**Vinayaka B Shet**	**Title**: Nanotechnology: Principles and applications **Publisher:** REST	**ISBN:** 978-81-978468-1-6
3	Nabisab Mujawar Mubarak, Saran Kumar & **Vinayaka B Shet**	Thematic Issue in Biomass Conversion and Refinery Journal Titled Novel and Innovative Technological Trends in Biomass Volarisation. Mubarak, N., Kumar, S. & Shet, V.B. Novel and innovative technological trends in biomass volarisation. *Biomass Conv. Bioref.* 15, 8135 (2025). https://doi.org/10.1007/s13399-025-06769-1	
4	**Sneha Nayak**	Kapilan N, Premnath K, Varshitha D, **Nayak S,** Sunil S. Laboratory Simulation Studies on Evaporative Fuel Loss from Storage Tanks. InBIO Web of Conferences 2025 (Vol. 172, p. 01004). EDP Sciences.https://doi.org/10.1051/bioconf/202517201004	Volume 172 (2025)
5	**Harshitha M Jathanna**	Jathanna HM, Prabhu P, Rai S, HK SP. Synthesis of Nanocellulose from Indigenous Sources and Application in Dye Removal. InBIO Web of Conferences 2025 (Vol. 172, p. 03004). EDP Sciences.https://doi.org/10.1051/bioconf/202517203004	Volume 172 (2025)
6	**Sneha Nayak**	Rao AS, BH KP, Poojary R, Shenoy R, Nayak S. Comprehensive Exploration of Acute Febrile Illnesses with Low Platelet Count Syndrome: From Epidemiology to AI-Driven Solutions. In2025 International Conference on Artificial Intelligence and Data Engineering (AIDE) 2025 Feb 6 (pp. 26-33). IEEE.	2025 International Conference on Artificial Intelligence and

			Data Engineering (AIDE) 202
7	**Louella Concepta Goveas**	Goveas LC, Selvaraj R, Vinayagam R. Overview on Occurrence of Arsenic on Human Health and Its Removal Through Microorganisms. InArsenic Removal Technologies: From Challenges to Innovative Solutions 2025 Jul 23 (pp. 1-11). Cham: Springer Nature Switzerland.//doi.org/10.1007/978-3-031-91171-2_1	• Print ISBN • 978-3-031-91170-5 • Online ISBN • 978-3-031-91171-2