

# DEPARTMENT OF BIOTECHNOLOGY



## BIOPROCESS TECHNOLOGY RESEARCH CENTRE

# BIOPROCESS TECHNOLOGY RESEARCH CENTRE



## ABOUT US

The Bioprocess Technology Research Group (BTRG) is a specialized centre dedicated to advancing sustainable and innovative bioprocess technologies for environmental, industrial, and healthcare applications. The centre focuses on integrating biological systems such as microbes, microalgae, and enzymes with cutting-edge technologies to develop cost-effective, eco-friendly solutions.



## Vision

The Bioprocess Technology Research Group (BTRG) is a specialized centre dedicated to advancing sustainable and innovative bioprocess technologies for environmental, industrial, and healthcare applications. The centre focuses on integrating biological systems such as microbes, microalgae, and enzymes with cutting-edge technologies to develop cost-effective, eco-friendly solutions.



## Mission

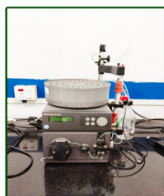
- To create and optimize bioprocesses that enhance the production of bio-based products.
- To promote environmentally friendly practices that reduce waste and energy consumption.
- To collaborate with industry partners, academic institutions, and stakeholders to translate research findings into practical applications.
- To train and mentor the next generation of scientists and engineers in bioprocessing and biotechnology.

## Key Research Areas

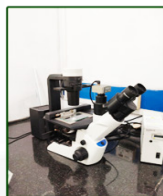
- Algal Biotechnology
- Biofuels Production
- Bioprocess Engineering
- Biorefinery and Sustainable Processes
- Downstream Processing and Process Optimization
- Energy Biotechnology
- Environmental Biotechnology
- Food biotechnology
- Microbial Biotechnology
- Waste Biomass Valorization

## Equipment details

- HPLC with detectors (FL, ELSD, and PDA)
- Q-PCR
- Fermenter
- Cooling centrifuge
- Microscope
- Fast Protein Liquid Chromatography (FPLC)
- Fourier transform infrared spectroscopy (FTIR)
- Photobioreactor system
- Bioreactors
- Fluorescence Spectrophotometer
- Nano Drop
- Liquid chromatography-mass spectrometry (LC-MS)
- Spray Dryer
- Bench top centrifuge
- Gas chromatography
- UV Visible Spectrophotometer
- Analytical HPLC
- Lyophiliser



Fast Performance  
Liquid Chromatography



Fluorescence  
Microscope



RT-PCR



Lyophilizer



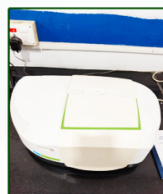
Ultra Sonic Crusher



Gas Chromatography



UV-Vis  
Spectrophotometer



Fourier transform  
infrared spectroscopy  
(FTIR)



HPLC with detectors (FL, ELSD and PDA)



## Equipment details

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- Ultra Sonic Crusher
- Steam Distillation
- Simple Distillation
- Incubator
- Soxlet Extraction
- Refractometer
- Venturimeter
- Orificemeter
- Reynolds Apparatus
- Bernoullis Apparatus
- Composite wall apparatus
- Natural convection
- Forced convection
- Laminar Air flow
- Mixed Flow reactor in series
- Autoclave
- Hot Air oven
- Tray dryer
- Waterbath
- Fume Hood

## Our Team



Dr. M. Sudhamani,  
Associate Professor



Dr. Ashish Appasaheb K,  
Assistant Professor



Dr. G. Siva Reddy,  
Assistant Professor



Dr. Arige Nikhil Swaraj,  
Assistant Professor



Dr. M. Maheswara Reddy,  
Assistant Professor



Dr. Gayatri Dangeti,  
Assistant Professor



Dr. G. Koteswara Reddy,  
Assistant Professor



Dr. D. Praveen Kumar,  
Assistant Professor



Dr. Pritam Kumar Dikshit,  
Assistant Professor



Dr. Madan Sonkar,  
Assistant Professor



Dr. R. Gnanasekaran,  
Assistant Professor



Dr. Manupati Hemalatha,  
Assistant Professor



Dr. B. Navyatha,  
Assistant Professor



Dr. Nageswar Rao,  
Assistant Professor

## Our Collaborators

- University of Maryland Medical Center (UMMC), Baltimore
- Stanford University, USA
- Addis Ababa University, Ethiopia
- Chungbuk National University, South Korea
- University of Melbourne, Australia
- Sunway University, Malaysia
- Brown University, USA
- CSIR - National Institute for Interdisciplinary Science and Technology (NIIST), India
- Indian Institute of Technology-Delhi, India
- Indian Institute of Technology-Guwahati, India
- Indian Institute of Technology-Jodhpur, India
- National Institute of Technology, Allahabad, India
- Vel Tech, India
- Central University of Rajasthan, India
- Sharda University, India

## Scholars Information

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|---|--|
| • P. Chandra Tejaswi<br>Ph.D Scholar (Full Time)<br>Reg. No.: 2202010101      | • Hari Prasad Reddy S<br>Ph.D Scholar (Part Time)<br>Reg. No.: 193010001           |
| • Narisetty Bhavya Sri<br>Ph.D Scholar (Part Time)<br>Reg. No.: 2402012002    | • Kalisetty Lakshmi Sowjanya<br>Ph.D Scholar (Part Time)<br>Reg. No.: 183010002    |
| • Adapala Monica<br>Ph.D Scholar (Part Time)<br>Reg. No.: 2202010001          | • Firew Elias Teka<br>Ph.D Scholar (Part Time)<br>Reg. No.: 173010019              |
| • Gottumukkala Hiranmayee<br>Ph.D Scholar (Part Time)<br>Reg. No.: 2002011002 | • Venkata Veerapandu Sangareddy<br>Ph.D Scholar (Part Time)<br>Reg. No.: 173010013 |

## Highlights of Research Centre Works

- Development of scalable and eco-friendly bioprocesses with potential applications in biofuels, nutraceuticals, and industrial enzymes.
- Publication of high-impact research papers in renowned journals, contributing to the global knowledge base in biotechnology and bioprocessing.
- Advancement in waste-to-value technologies, promoting circular economy principles and reducing environmental footprints.
- 3 Ph.D were awarded, 2 patents were granted and 4 patents are published. for innovative bioprocess technologies, demonstrating significant advancements in sustainable bio-based production and industrial applications.
- 50 papers have been published in SCI journals related to bioprocess technology
- State, national and international research collaboration with University of Maryland Medical Center (UMMC), Stanford University, Addis Ababa University, Chungbuk National University (South Korea), University of Melbourne, CSIR-NIIST, Vel Tech, Central University of Rajasthan, Indian Institute of Technology-Delhi, Indian Institute of Technology-Guwahati, Sharda University, Sunway University, Brown University, National Institute of Technology,

## Projects – Sponsored, Agencies

Name	Title of the Project	Amount Sanctioned (in Rs.)	Funding Agency
Dr. Muddada Sudhamani	Trace metal nutritional security of rural women and their economic empowerment through food fortification technology	40,19,877	DST
Dr. Pritam Kumar Dikshit	Modification of graphite sheet anode with Iron (II, III) oxide-carbon dots for enhancing the performance of microbial fuel cell	2,50,000	KLEF

## Projects – Sponsored, Agencies

Name	Title of the Project	Amount Sanctioned (in Rs.)	Funding Agency
Dr. Pritam Kumar Dikshit	Acetobacter Xylinum mediated Nano-cellulose Production and its Characterization	1,35,840	KLEF
Dr. G. Siva Reddy	Invitro Biocompatibility of fibrous scaffolds for Bone tissue engineering	25,200	RV Labs
Dr. Pritam Kumar Dikshit	Fabrication of carboxymethyl cellulose-based hydrogels for heavy metal detection in E-waste	23,250	Aqura Infotech
Dr. Gujjula Koteswara Reddy	Designing of anaerobic hybrid reactor for treatment of clinical wastewater	25,000	RV Labs
Dr. Mallu Maheshwara Reddy	Assessment of air quality and emission reduction strategies for industrial zones	25,000	AP Boiler Services and Spares
Dr. Muddada Sudhamani	Testing of Chemical impurities caused by moisture contents and degradation	23,650	GK Techno Solutions
Dr. Pritam Kumar Dikshit	Development of low cost natural liquid spray for bacterial protection	34,068	Handlooms India
Dr. Pritam Kumar Dikshit	Potential application of rejected contaminants from paper industry in fired clay brick production	25,000	Gounder and Co Hollow Bricks
Dr. Chelliah Arun	Screening of influence of antibiotic drugs on rates	5,36,000	Gentox
Dr. G. Siva Reddy	Development of molecular and biochemical wastes analysis through simulations	1,52,542	SAS Solutions

## Projects – Sponsored, Agencies

Name	Title of the Project	Amount Sanctioned (in Rs.)	Funding Agency
Dr. Mallu Maheshwara Reddy	Study of chemical parameters of cement	41,200	VVS Traders
Dr. Gujjula Koteswara Reddy	Environmental impact assessment (EIA) of process industrial sludge disposal using pollution indices	28,500	SS Traders
Dr. Chelliah Arun	Designing and Process optimization of graphite electrodes based reactor for treatment of industrial sludge	33,300	SS Traders
Dr. Mallu Maheswara Reddy	Biomedical waste management and occupational safety measures	69,492	New Age Life Sciences
Dr. G. Siva Reddy	Anti-microbial activity and purification of glycolipids produced by <i>Achromobacter xylosoxidans</i> using computational approach	25,000	Aqura Infotech

## Publication Analytics – Including SDGs

### Analysis Summary

- **Publications aligned with SDGs:** ~30 publications.
- **Key SDGs addressed:** SDGs 3, 6, 7, 9, 12, and 13.

### Insights:

1. The publications prominently targetted environmental sustainability (SDGs 6, 12, 13) and innovations in industrial biotechnology (SDG 9).
2. A significant portion contributes to health-related SDGs - biomedical applications (SDG 3).
3. Publications highlight the conversion of waste into valuable resources, reinforcing SDG 12 goals.



## Patents

- A System for Enhancing Wastewater Treatment Efficiency Through Microbial Consortia Optimization-202441076811.
- Method for producing itaconic acid from *Aspergillus niveus* and its characterization-202441055539.
- Implementation of Machine Learning (ML) based Approaches for Predictive Analysis of Biodiversity Dynamics in IOT Based Environmental Monitoring Systems-202341042488.
- Analysis of diversity of plant growth promoting properties of microbiomes associated with plants in desert soils- 202311012924.
- Artificial Intelligence Based Technique To Study The Impact Of Nanoparticles In Treating Skin Cancer Through Topical Creams-202241060871.
- Deep Learning Techniques to Analyse the Antimicrobial Resistance of Drugs Against Viruses Causing Infections-202241027907.

## Top Publications

- Kumar, A., Pandit, S., Sharma, K., Agrawal, S., Kuhad, R.C., Mathuriya, A.S., Dikshit, P.K., Mishra, S.K., Seth, C.S. and Prasad, R., 2024. Microbial degradation of cellulose extracted from wheat bran for bioelectricity production using microbial fuel cell. *Process Safety and Environmental Protection*, 190, pp.574-585.
- Gnanasekaran, R., Yuvaraj, D., Muthu, C.M., Ashwin, R., Kaarthikeyan, K., Kumar, V.V., Ramalingam, R.J., Al-Lohedan, H. and Reddy, K., 2024. Extraction and characterization of biocompatible hydroxyapatite (Hap) from red big eye fish bone: Potential for biomedical applications and reducing biowastes. *Sustainable Chemistry for the Environment*, 7, p.100142.
- Navyatha, B. and Nara, S., 2024. The effects of conjugating anti-MUC1 aptamers on gold nanobipyramids and nanostars for photothermal cancer ablation. *Nanomedicine*, 19(24), pp.1957-1975.
- Hiranmayee, G., Marik, D., Sadhukhan, A. and Reddy, G.S., 2023. Isolation of plant growth-promoting rhizobacteria from the agricultural fields of Tattiannaram, Telangana. *Journal of Genetic Engineering and Biotechnology*, 21(1), p.159.

## List of Publications – IEEE, SCI, SCIE, WoS and Scopus

- Sonkar, M., Nag, K., Mahapatra, K., Chandra, V., Sankhyan, S., Ray, S., Kumar, V., Kumar, P., Upadhyay, T.K., Kumar, S., Kumar, K., 2024. Recent Advances in Bacterial Extracellular Polymeric Substances Mediated Heavy Metal Removal: An Eco-friendly and Innovative Approach. *Bioremediation Journal*, 1–24.
- Sankhyan, S., Kumar, P., Sonkar, M., Kumar, S., Pandit, S. and Ray, S., 2024. Co-metabolism of substrates by *Pseudomonas aeruginosa* NG4 regulates biosurfactant production. *Agric. Biotechnol.*, 61, 103382.
- Trivedi, R., Upadhyay, T.K., Khan, F., Pandey, P., Kaushal, R.S., Sonkar, M., Kumar, D., Saeed, M., Khandaker, M.U., Emran, T.B., Siddique, M.A.B., 2024. Innovative strategies to manage polluted aquatic ecosystem and agri-food waste for circular economy. *Environmental Nanotechnology, Monitoring & Management*, 21, 100928
- Navyatha, B. and Nara, S., 2024. The effects of conjugating anti-MUC1 aptamers on gold nanobipyramids and nanostars for photothermal cancer ablation. *Nanomedicine*, 19(24), pp.1957–1975.
- Gnanasekaran, R., Yuvaraj, D., Muthu, C.M., Ashwin, R., Kaarthikeyan, K., Kumar, V.V., Ramalingam, R.J., Al-Lohedan, H. and Reddy, K., 2024. Extraction and characterization of biocompatible hydroxyapatite (Hap) from red big eye fish bone: Potential for biomedical applications and reducing biowastes. *Sustainable Chemistry for the Environment*, 7, p.100142.
- Agarwal, T., Costantini, M., Pal, S. and Kumar, A., 2022. Oxygenation therapies for improved wound healing: current trends and technologies. *Journal of Materials Chemistry B*, 10(39), pp.7905–7923.
- Sethupathy, A., Piriya, P.S., Kumar, R.R., Shanthi, M., Rangabhashiyam, S., Arun, C. and Ragavan, K.V., 2022. Assessment of methane enrichment efficacy of pre-disintegrated water hyacinth biomass using sonic wave assisted biosurfactant. *Fuel*, 316, p.123375.
- Sethupathy, A., Pathak, P.K., Sivashanmugam, P., Arun, C., Banu, J.R. and Ashokkumar, M., 2022. Enrichment of hydrogen production from fruit waste biomass using ozonation assisted with citric acid. *Waste Management & Research*, 40(5), pp.556–564.

## List of Publications – IEEE, SCI, SCIE, WoS and Scopus

- Sabbagh, F., Muhamad, I.I., Niazmand, R., Dikshit, P.K. and Kim, B.S., 2022. Recent progress in polymeric non-invasive insulin delivery. *International journal of biological macromolecules*, 203, pp.222–243.
- Deshmukh, A.R., Dikshit, P.K. and Kim, B.S., 2022. Green in situ immobilization of gold and silver nanoparticles on bacterial nanocellulose film using *Punica granatum* peels extract and their application as reusable catalysts. *International Journal of Biological Macromolecules*, 205, pp.169–177.
- Goswami, L., Kayalvizhi, R., Dikshit, P.K., Sherpa, K.C., Roy, S., Kushwaha, A., Kim, B.S., Banerjee, R., Jacob, S. and Rajak, R.C., 2022. A critical review on prospects of bio-refinery products from second and third generation biomasses. *Chemical Engineering Journal*, 448, p.137677.
- Tripathi, B., Pandit, S., Sharma, A., Chauhan, S., Mathuriya, A.S., Dikshit, P.K., Gupta, P.K., Singh, R.C., Sahni, M., Pant, K. and Singh, S., 2022. Modification of graphite sheet anode with iron (II, III) oxide–carbon dots for enhancing the performance of microbial fuel cell. *Catalysts*, 12(9), p.1040.
- Reddy, K., Reddy, N., Nadeem Siddiqui, S.R.G., Renukuntla, A. and Panjala, N., 2022. Molecular docking and bioactivity studies of covalent inhibitors targeting rdrp of sars-cov-2. *Rasayan Journal of Chemistry*, 15(4), pp.2666–2675.
- Gujjula, K.R., Narasimha Rakesh, P., Hari Sairam, A. and Reddy, V.N., 2022. Numerical Implementation of Electrokinetics for Removal of Heavy Metals from Granite Waste. *Iranian Journal of Chemistry and Chemical Engineering*, 41(5), pp.1573–1587.
- Chintalapudi, V.K., Kanamarlapudi, R.K.S., Mallu, U.R. and Muddada, S., 2022. Characterization of biosorption potential of *Brevibacillus* biomass isolated from contaminated water resources for removal of Pb (II) ions. *Water Science and Technology*, 85(8), pp.2358–2374.
- Elias, F., Muddada, S., Muleta, D. and Tefera, B., 2022. Antimicrobial potential of *Streptomyces* spp. isolated from the rift valley regions of Ethiopia. *Advances in Pharmacological and Pharmaceutical Sciences*, 2022(1), p.1724906.

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- Elias, F., Muddada, S., Muleta, D. and Tefera, B., 2022. Purification and characterization of bioactive metabolite from *Streptomyces monomycin* RVE129 derived from the rift valley soil of Hawassa, Ethiopia. *BioMed Research International*, 2022(1), p.7141313.
- Avula, V.R., Prince, M.J.A., Reddy, G.S. and Devarapu, S.R., 2022. Consistent Rheological Behavior of Formate Based Fluid for Drilling and Workover Operations.
- Sumalatha, B., Narayana, A.V., Khan, A.A., Venkateswarulu, T.C., Reddy, G.S., Reddy, P.R. and Babu, D.J., 2022. A Sustainable Green Approach for Efficient Capture of Strontium from Simulated Radioactive Wastewater Using Modified Biochar. *International Journal of Environmental Research*, 16(5), p.75.
- Arun, C., Lakshmi, P.M., Sethupathy, A., Karthikeyan, S., Sivashanmugam, P. and Rajesh Banu, J., 2021. Study on removal of silver and polyethylene terephthalate from exposed radiography films using enzyme protease. *Journal of Material Cycles and Waste Management*, 23, pp.1947–1954.
- Sethupathy, A., Kumar, P.S., Sivashanmugam, P., Arun, C., Banu, J.R. and Ashokkumar, M., 2021. Evaluation of biohydrogen production potential of fragmented sugar industry biosludge using ultrasonication coupled with egtazic acid. *International Journal of Hydrogen Energy*, 46(2), pp.1705–1714.
- Arya, I., Poona, A., Dikshit, P.K., Pandit, S., Kumar, J., Singh, H.N., Jha, N.K., Rudayni, H.A., Chaudhary, A.A. and Kumar, S., 2021. Current trends and future prospects of nanotechnology in biofuel production. *Catalysts*, 11(11), p.1308.
- Borah, A.J., Dikshit, P.K., Doloi, M., Moholkar, V.S. and Poddar, M.K., 2021. Extraction and characterization of lignin from waste invasive weeds with dioxane-based process. *Biomass Conversion and Biorefinery*, pp.1–10.
- Reddy Gujjula, K., Reddy Varakala, N., Dhakate, D., Ellamla, H.R. and Jabes B, S., 2021. An insight into SARS-CoV-2 phylogenetics and genomics for sixty isolates occurring in India. *Journal of Applied Biotechnology Reports*, 8(2), pp.116–126.

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- Reddy, G.S., Adhikari, S., Siddiqui, N., Reddy, G.K., Reddy, N.K. and Avula, V.R., 2021. Statistical Optimization of mineral salt medium components for *Achromobacter xylosoxidans* GSR21 production using Central Composite Design (CCD). *Research Journal of Pharmacy and Technology*, 14(12), pp.6632–6638.
- Chintalapudi, V.K., Kanamarlapudi, R.K.S., Mallu, U.R. and Muddada, S., 2021. Effect of pretreatment of biomass on biosorption and its real time application. *Polish Journal of Chemical Technology*, 23(1), pp.16–24.
- Avula, V.R., Nalajala, V.S., Reddy, G.S. and Prince, M.J.A., 2021. Methane hydrate thermodynamic phase stability predictions in the presence of salt inhibitors and their mixture for offshore operations. *Chemical Thermodynamics and Thermal Analysis*, 3, p.100022.
- Sethupathy, A., Arun, C., Sivashanmugam, P. and Kumar, R.R., 2020. Enrichment of biomethane production from paper industry biosolid using ozonation combined with hydrolytic enzymes. *Fuel*, 279, p.118522.
- Reddy, G.S., Reddy, V.N., Sultana, N., Dhakate, D., Jayanth, R. and Reddy, N., 2020. Thermophysical and transport properties of acetone–water mixtures at 303.15, 308.15, 313.15 and 318.15 K. measurement, 7(05), p.2020.
- Reddy, G.K., Reddy, V.N., Sunandini, V. and Hemalatha, K., 2020. Cost estimation of electrokinetic soil remediation for removal of six toxic metals from contaminated soil. *Nature Environment and Pollution Technology*, 19(5), pp.1899–1904.
- Ega, S.L., Drendel, G., Petrovski, S., Egidi, E., Franks, A.E. and Muddada, S., 2020. Comparative analysis of structural variations due to genome shuffling of *Bacillus subtilis* VS15 for improved cellulase production. *International journal of molecular sciences*, 21(4), p.1299.
- Kanamarlapudi, S.L.R.K. and Muddada, S., 2020. Biosorption of iron (II) by *Lactobacillus fermentum* from aqueous solutions. *Polish Journal of Environmental Studies*, 29(2), pp.1659–1670.
- Lakshmi, E.S., Rao, M.R.N. and Muddada, S., 2020. Response surface methodology–artificial neural network–based optimization and strain improvement of cellulase production by *Streptomyces* sp. *Bioscience Journal*, 36(4).

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- Sethupathy, A., Arun, C., Ravi Teja, G. and Sivashanmugam, P., 2019. Enhancing hydrogen production through anaerobic co-digestion of fruit waste with biosolids. *Journal of Environmental Science and Health, Part A*, 54(6), pp.563–569.
- Reddy, G.K. and Kiran, Y., 2019. A theoretical mechanism in the degradation of polyolefin plastic waste using phytochemical oxidation process. *The Journal of Solid Waste Technology and Management*, 45(4), pp.468–478.
- Mallu, M.R., Dronavalli, N., Nannapaneni, S., Kamarapu, A. and Vemula, S., 2019. Detection and Characterization of CryIac in BT Cotton Hybrids of MECH 162 and RCH2. *Research Journal of Pharmacy and Technology*, 12(12), pp.5855–5859.
- Kante, R.K., Somavarapu, S., Vemula, S., Kethineni, C., Mallu, M.R. and Ronda, S.R., 2019. Production of recombinant human asparaginase from *Escherichia coli* under optimized fermentation conditions: effect of physicochemical properties on enzyme activity. *Biotechnology and Bioprocess Engineering*, 24, pp.824–832.
- Kanamarlapudi, S.L.R.K. and Muddada, S., 2019. Structural changes of Biomass on Biosorption of Iron (II) from Aqueous Solutions: Isotherm and Kinetic Studies. *Polish Journal of Microbiology*, 68(4), pp.549–558.
- Kanamarlapudi, S.L.R.K. and Muddada, S., 2019. Application of food-grade microorganisms for addressing deterioration associated with fortification of food with trace metals. *International Journal of Food Properties*, 22(1), pp.1146–1155.
- Gujjula, K.R., Yarrakula, K. and Lakshmi U, V., 2019. Reducing agents enhanced electrokinetic soil remediation (EKSR) for heavy metal contaminated soil. *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)*, 38(3), pp.183–199.
- Gujjula, K.R., Yarrakula, K., 2019. Geo-chemical exploration of granite mining waste using XRD, SEM/EDX and AAS analysis. *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)*, 38(2), pp.215–228.
- Sudhamani, M., Batish, V.K. and Heller, K.J., 2018. Application of mobilization gene promoter for heterologous expression and curing of plasmid pSMA23.

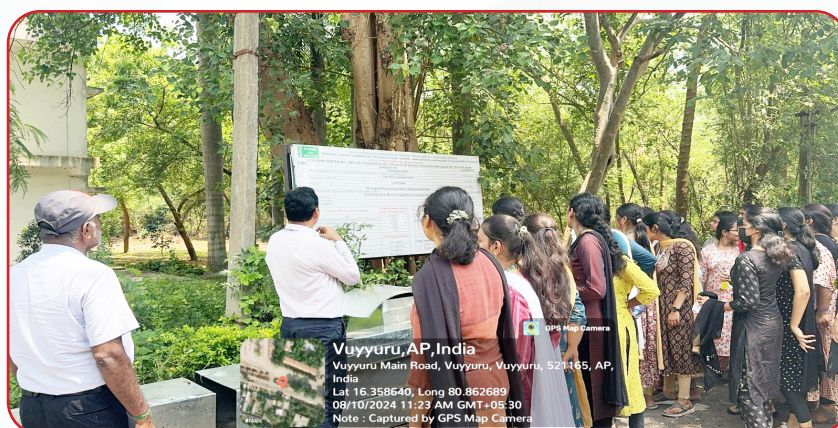
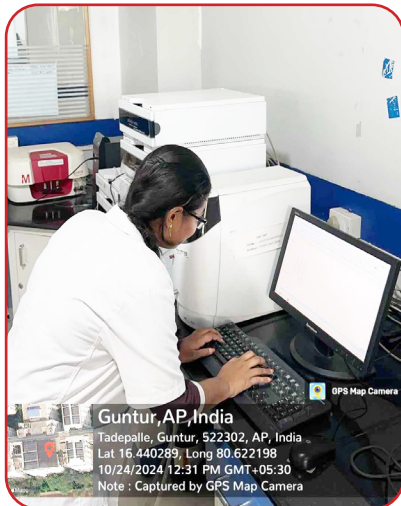
## List of Publications – IEEE, SCI, SCIE, WoS and Scopus

- Kante, R.K., Vemula, S., Somavarapu, S., Mallu, M.R., Gowd, B.B. and Ronda, S.R., 2018. Optimized upstream and downstream process conditions for the improved production of recombinant human asparaginase (rhASP) from *Escherichia coli* and its characterization. *Biologicals*, 56, pp.45–53.
- Mallu, M.R., 2018. Hematological and immunomodulatory evaluation of methanolic extract of *Sorghum bicolor* leaves. *International Journal of Green Pharmacy (IJGP)*, 12(01).
- Krishna, K.R., Yamuna, G., Divya, P. and Muddada, S., 2018. Biosorption of Fluoride from Aqueous Solutions Using *Bacillus subtilis* Biomass. *Asian Journal of Chemistry*, 30(2), pp.427–433.
- Reddy, G.S., Mahendran, B. and Reddy, R.S., 2018. Kinetic Measurements for *Achromobacter xylosoxidans* GSR-21 During Biosurfactant Production in Two-phase system and developing a Double-exponential model for viable cell profile [34]. *Journal of Pharmaceutical Sciences and Research*, 10(5), pp.1223–1228.
- Reddy, G.S., Srinivasulu, K., Mahendran, B. and Reddy, R.S., 2018. Production and stability studies of the biosurfactant isolated from *Achromobacter xylosoxidans* GSR-21. *Biointerface Research in Applied Chemistry*, 8(4), pp.3388–3394.
- Sudhamani, M., 2018. Expression of structural gene of the bacteriocin nisin in mammalian cells. *Research Journal Of Biotechnology*, 13(2), pp.75–79.

## Achievements related to Facilities & Research Contributions



## Achievements related to Facilities & Research Contributions



## Achievements related to Facilities & Research Contributions



**Students Industrial Visit to KCP Sugar & Industries Corporation Limited, Vuyyuru**



**Best Teacher Award 2024 to Dr. G. Siva Reddy, Asst. Prof. KLU**



(DEEMED TO BE UNIVERSITY)



**CATEGORY 1  
UNIVERSITY**  
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GRADE**

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2024  
NATIONAL  
INSTITUTIONAL  
RANKING  
FRAMEWORK

**RANKED 22**  
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UNIVERSITIES

**45 YEARS OF  
EDUCATIONAL  
LEADERSHIP**