

Name of Faculty **Dr.Rajasri Yadavalli**
 Designation Associate Professor& I/C Head, Department of Biotechnology
 Nature of Job/Appointment Contract till May 2022.
 Date of Joining 30-05-2019



E-mail rajasriy_biotech@cbit.ac.in

Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (Biotechnology)	Awarded
PG	M. Tech. (Chemical engineering)	First
UG	B.Tech (Chemical engineering)	First with Distinction

Work Experience Total 18 years
 Teaching 18 Years 6months
 Research 13 years(along with teaching)
 Industry --
 Others --

Area of Specialization Bioprocess engineering, Microalgal Biotechnology, Alternate Biofuels

Professional Memberships
 1. Lifetime member(BRSI LM 2565) , Biotech Research Society of India(BRSI)

- Responsibilities held at Institution Level
- I/C Head, Department of Biotechnology, 06-06-2019 to till date
 - Co Chairman-Green Audit Committee
 - Regulatory and Core committee member from 2nd April 2020 to till date
 - Academic council member from 16-05-2020 to till date
 - STRIDE,UGC quality mandate implementation member from 8-04-2020 to till date
 - Anti Ragging Squad member from 25-02-2020 to till date
 - Disciplinary committee member from 25-02-2020 to till date
 - Institute Innovation cell member from 25-02-2020 to till date
 - Career development cell, member from 25-02-2020 to till date
 - Member in drafting IPR and Innovation policies for institute
 - Board member, ACIC-CBIT Research and Entrepreneurship Foundation
- Responsibilities held at Department Level
- Chairman Board of Studies,
 - Chairman, Performance Assessment Committee
 - Chairman, Department Advisory Board
 - Chairman, Course Expert Group

- Research Guidance
- Guided more than 30 B.Tech student projects and Internships from 2005 to 2022
 - Co supervised two students Jeremiah Paul and D Navya sree in successfully completing project entitled "Transesterification of CNSL (Cashew Nut Shell Liquid)" assigned by University of South Africa along with Prof V Vasudeva rao,Professor, Mechanical Engg department from July 2021 to September 2021.
 - Co Supervised Ms K. Manjusha , Research Scientist, R &D ,UPES ,Dehradun for completion of her Ph.D thesis on "Algal based waste water treatment and biofuels production" from 2016 to 2018
 - Guided M.Tech Biotechnology student on "Treatment of Dairy Effluent using microalgae in open and closed pond systems with simultaneous studies on the algal biomass compositions" for submission of his Mtech Thesis in

Sreenidhi Institute of Science and Technology, Hyderabad
from August 2012 to August 2013

Listed as panel of PhD examiner by

- University of South Africa, South Africa
- Manipal Institute of Technology, MAHE, Manipal University, India
- Kamaraj College, Thoothukudi, Tamilnadu, India
- Dr Y Rajasri is invited as Review Editor on the Editorial Board of Bioenergy and Biofuels (specialty section of Frontiers in Energy Research and Frontiers in Bioengineering and Biotechnology).
- Guest Editor of the Special Issue "Sustainable Biotechnologies For Food, Fuel And Environment" for Energy Nexus published by Elsevier Ltd
- Dr.Y Rajasri has been invited to review reputed journals of Frontiers in Microbiology ,Environmental Progress, Frontiers in Microbiology ,Environmental Progress
- Nominated as Advisory member for implementation of Skill Vigyan Program, DBT, GOI at state level by Telangana State Council of Science and Technology(TSCOST)
- Travel Grant by DST-SERB and UGC, Government of India of worth Rs 1.5 lakhs for research paper presentation " 8th Asian-Oceanian Symposium on Plant Lipids (ASPL2019)" organized by The Commonwealth Scientific and Industrial Research Organization (CSIRO), Canberra, Australia from 19th Nov to 22nd Nov 2019
- Travel Grant by UGC, Government of India of worth Rs 2 lakhs for research paper presentation on "Integrated approach for treating dairy effluent using Chlorella pyrenoidosa and energy-efficient production of biomass in an internally illuminated bubble column photobioreactor" at the 4th International Conference on Algal Biomass, Biofuels and Bioproducts-2014, held at Santa Fe, New Mexico, United States of America organized by Elsevier Inc. from June 15th-18th 2014
- Young Engineers Award 2013-14 in Chemical Engineering discipline awarded by Institute of Engineers, India
- Recognition and Appreciation for Research for three consecutive years 2013, 2014 and 2015 from Sreenidhi Institute of Science and Technology
- Won Best Teacher Award in 2014, 2015 from Sreenidhi Institute of Science and Technology.
- Best Merit Student award in B.Tech from 1998-2002.
- Nagarjuna University VIII Rank in B.Tech Chemical Engineering in 2002.

Awards Received

Courses Handled at Under Graduate / Post Graduate Level.

No. of Papers Published

Projects

Consultancy

Bioprocess engineering, downstream Processing, Bioprocess dynamics and control, Process principles and reaction engineering

National Journals – 03 International Journals – 11

National Conferences – 00 International Conferences – 02

- "Establishment of Atal Community Innovation Center at CBIT for encouraging startups"
Project Coordinator/SPOC: Dr. Rajasri Yadavalli
Sponsoring agency: Atal Innovation Mission
Budget: Rs 2.25 crores
Duration: March 2021 to March 2026

- "Microalgal Biomass Production in Energy Efficient Internally Illuminated Bubble Column Photobioreactor (IIBCPBR) For Biodiesel Production"
Principal Investigator: Dr. Rajasri Yadavalli
Co-Principal Investigator: Dr C S Rao & Dr. Ramgopal Rao
Sponsoring Agency: DBT, Govt of India
Budget: 33.82 lakhs
Duration: Sept 2016-Aug 2018

Title: A device to absorb Carbon Dioxide from the atmosphere
Budget: Rs 75,000/-
Company: Neonflake Enterprises (OPC) Pvt Ltd
Duration: Sept 2022 to March 2023

Patents	<p>"Microbial Pigment Composition As Nucleic Acid Staining Agent" by Inventors: Arunachalam Kalirajan, Yadavalli Rajasri ,Sharma Neha, Shanmugam Rajeshkumar, Amirtham Jacob Appadorai Ranjitsingh with Indian patent application No 202241004271A was published on 4/2/2022</p>
Technology Transfer	--
Invited Speaker	<ul style="list-style-type: none"> Delivered a guest lecture on "IPR and Startups" in one week National e-Workshop on Innovation and Intellectual Property Rights (NeW IPR-2022) organized by CSIR-Institute of Minerals and Materials Technology (IMMT) , Bhubaneswar, India from June 13-18, 2022. Will deliver an invited talk in International Conference on Biotechnology for Sustainable Bioresources and Bioeconomy (BSBB-2022) and the XIX Convention of the Biotech Research Society, India (BRSI) which will be held during December 7-11, 2022 at Indian Institute of Technology (IIT), Guwahati, India. Delivered a guest lecture on "Motivation towards Entrepreneurship" at Vignan 's Institute of Management and Technology For Women, Telangana on 20th Dec 2021 Organized an online International Conference On Biotechnology and Interdisciplinary Technologies (iCBIT'21) as Conference Organizing secretary in association with FABA academy and ACIC-CBIT from 8-12 November 2021 Delivered an online guest lecture on "Microalgal biotechnology" during FDP in Emerging trends in Biotechnology organized by Genesin of educational Impressions, Uttarakhand, on 26th April 2021 Delivered a guest lecture on "Biofuels" at Oakridge International School as a part of #Oak inspireon program to inculcate the culture of research in children on 5th Feb 2019 Delivered an Invited lecture on "Optimization of microalgal cultivation for biodiesel and value added products in a bio refinery approach" at International conference International Conference on Biotechnological Research and Innovation for Sustainable Development, XV BRSI Convention jointly organised by CSIR-IICT and BRSI from Nov 22nd to 25th 2018
No. of Books/Chapter Published with details	<ul style="list-style-type: none"> S. Deepak Mohan Reddy, N. Deepika, Meghana Reddy Dropathi, Vishwanutha S, J Dhanish Daaman, C. Nagendranatha Reddy, Rajasri Yadavalli* (Aug 2022). Factors affecting the Microalgal productivity in Photobioreactors. In Ranjna Sirohi, Ashok Pandey , Sang Jun Sim , Jo-Shu Chang, Duu-Jong Lee (Eds.), Current Developments in Biotechnology and Bioengineering: Photobioreactors: Design and Applications Elsevier. ISBN: 9780323999113 C. Nagendranatha Reddy, Y. Vineetha, A. Priyanka, A. Shalini, Bishwambhar Mishra, Y. Rajasri, V. Swapna, Chapter 29 - Techno-economic and environmental impact analysis of biofuels produced from microalgal biomass, Editor(s): Baskar Gurunathan, Renganathan Sahadevan, Biofuels and Bioenergy, Elsevier, 2022, Pages 687-712, ISBN9780323900409, https://doi.org/10.1016/B978-0-323-90040-9.00006-0. Bishwambhar Mishra, Rajasri Yadavalli, Y. Vineetha, C. Nagendranatha Reddy* (2020). Recent advancements and challenges of nanomaterials application in biofuel production. In "Praveen Kumar R et al. (Eds.) Nanomaterials Application in Biofuels and Bioenergy Production Systems (pp. 7-43) United Kingdom: Elsevier, ISBN: 978-012-82-2401-4. Sunita Varjani, Bishwambhar Mishra*, Rajasri Yadavalli, Xuan-Thanh Bui, Mohammad J. Taherzadeh, Dinesh

Chand Agrawal, Siming You, Jo-Shu Chang (2020). Petroleum waste biorefinery: A way towards a circular economy. In Thallada Bhaskar et al. (Eds.), Waste Biorefinery, (pp. 375-385):Elsevier, ISBN: 9780128218792

- C. Nagendranatha Reddy, Sanjeet Mehariya, Kavitha, R. Yukesh Kanna, K. Jayaprakash, Rajasri Yadavalli, Rajesh banu, Obulisamy Parthiba Karthikeyan (2020) Electro-Fermentation of Biomass for High-Value Organic Acids. In Verma P (Ed.), Biorefineries: A Step Towards Renewable and Clean Energy. Clean Energy Production Technologies. (pp. 417-436).Singapore:Springer

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops.Other Trainings (**Attended and/or Organized**).

- Organized a One Week webinar cum FDP Series on “Current Progress and Future Prospects of Biotechnology” organized by Department of Biotechnology, Chaitanya Bharathi Institute of Technology (A), Hyderabad in association with Andhra Pradesh Akademi of Sciences during 8-13 June 2020
- One week Online faculty Development Program on “Outcome Based Education (OBE) and NBA Accreditation Process (UG) organized by Chaitanya Bharathi Institute of Technology (A), Hyderabad from 28th May to 5th June 2020
- Attended Interactive hands on Effective online teaching workshop organized by IIT, Bombay on 16-05-2020
- NATE course of 12 weeks offered by NATE in June 2020
- Attended five days hands on workshop on “patent searching, drafting and filing” (online mode) from 29-05-2020 to 02-06-2020
- Attended 4-days Online Course on Examination Reforms conducted during organized by AICTE 22-25 April, 2020
- Attended webinar on Importance of communication skills in Borderless community organized by Prometric on 28-04-2020
- Attended Webinar on Research workflows, Research Metrics and Excellence in Academic Institutes organized by AICTE and Elsevier on 14-05-2020
- Attended Webinar on Strengthening Research capabilities remotely Empowering Indian Research on COVID-19 organized by DBT & Elsevier on 22-05-2020
- Attended Webinar on Outcome based education software organized by Vmedulife on 11-06-2020
- Attended Webinar on Innovation, Incubation & Entrepreneurship organized by ESCI on 26 June 2020
- Attended Webinar on Achievements of women in Military IIC MHRD, Leadership talk on 02-05-2020
- Attended Webinars on Innovation and Incubation organized by ACIC ,AIM from 1st April to 29th May 2020
- Attended Webinars on Innovation and Incubation and Entrepreneurship organized by IIC MHRD sessions 29th April to 22nd May 2020

Details of Journal Publications/Conferences (**National and International**)

Total Journal Publications: 16
Papers presented at National conferences: 10
Papers presented at International conferences: 15

Peer Reviewed Publications

- Anitha Mogilicharla, V. Swapna, Rajasri Yadavalli*. Effect of semi batch and fed batch addition of glucose on alkaline protease production: A Multi-objective optimization approach. International Journal of Engineering Systems Modelling and Simulation (Online October 2023). (SCOPUS Indexed) DOI: 10.1504/IJESMS.2022.10046792
- Yadavalli, R., Ratnapuram, H., Peasari, J.R. et al. Simultaneous production of astaxanthin and lipids from *Chlorella sorokiniana* in the presence of reactive oxygen species: a biorefinery approach. Biomass Conv. Bioref. (2021). <https://doi.org/10.1007/s13399-021-01276-5>
- Yadavalli, R., Ratnapuram, H., Motamarry, S. et al. Simultaneous production of flavonoids and lipids from *Chlorella vulgaris* and *Chlorella pyrenoidosa*. Biomass Conv. Bioref. (2020). <https://doi.org/10.1007/s13399-020-01044-x>

- Manoj Kumar Enamala, Swapnika Enamala, Murthy Chavali, Jagadish Donepudi, Rajasri Yadavalli, Bhulakshmi Kolapalli, Tirumala Vasu Aradhyula, Jeevitha Velpuri, Chandrasekhar Kuppam "Production of biofuels from microalgae - A review on cultivation, harvesting, lipid extraction, and numerous applications of microalgae" Renewable and Sustainable Energy Reviews 94, 2018, 49–68(SCOPUS Indexed; Thomson Reuters Impact Factor: 8.050) UGC 21088-10266
- Rajasri Yadavalli, John Reddy Peasari, Priyadarshini Mamindla, Praveenkumar, Sri Mounika, Jayasree Ganugapati "Phytochemical screening and in silico studies of flavonoids from *Chlorella pyrenoidosa*" Informatics in Medicine Unlocked (Elsevier Publ.) Volume 10, 2018, Pages 89–99(SCOPUS Indexed) UGC care A list of journals scopus indexed
- Hari Prasad Ratnapuram, SS Vutukuru, Rajasri Yadavalli "Mixotrophic transition induced lipid productivity in *Chlorella pyrenoidosa* under Stress Conditions for biodiesel production" Heliyon Elsevier publication Volume 4(1), 2018(SCOPUS Indexed) UGC- 8845- 17185
- Yadavalli, R; Ratnapuram, Hari Prasad. A novel approach to study the metabolomics of a facultative microalgae *Chlorella sorokiniana* with transition in trophic mode by two stage operation in comparison with in silico studies Phycologia, Suppl. Supplement; Abingdon Vol. 56, Iss. 4, (Aug 2017): 201.
- Mounika Asuthkar, Yamini Ganti, Ramgopal Rao S, C S Rao, Rajasri Yadavalli. "Effect of Different Wavelengths of Light on the Growth of *Chlorella Pyrenoidosa*". International Journal of Pharmaceutical Sciences and Research (2016), Vol. 7(2): 847-851 (SCOPUS Indexed)
- Rajasri Yadavalli, Ramgopal Rao S, C S Rao "Lipid Productivity in *Chlorella Pyrenoidosa* Under Nitrogen Starvation: Energy Evaluation of An Internally Illuminated Bubble Column Photo Bioreactor" Asian Jr. of Microbiol. Biotech. Env. Sc. Vol. 16, No. (1): 245-251, 2014(SCOPUS Indexed; H Index : 10 & NAAS Rating - 2.6
- Yadavalli, R., Rao, C. S., Rao, R. S. and Potumarthi, R. (2014), "Dairy effluent treatment and lipids production by *Chlorella pyrenoidosa* and *Euglena gracilis*: study on open and closed systems". Asia-Pacific Jnl of Chem. Eng, 9: 368–373. doi: 10.1002/apj.1805 (SCI; Impact Factor :0.797)
- Rajasri Yadavalli and Gowtham Rao H R V N "Two Stage Treatment of Dairy Effluent Using Immobilized *Chlorella pyrenoidosa*" J Environ Health Science Eng. 11: 36, 2013. (SCI; Impact Factor :1.23)
- Rajasri Yadavalli, Ramgopal Rao S and C. S. Rao, "Lipid Productivity of *Chlorella Pyrenoidosa* In A Customized Lab Scale Photobioreactor Under Stress Conditions" International Journal of Chem Tech Research Vol 5(2), 719-726, 2013. (SCOPUS Indexed; IC Value :4.91)
- Rajasri Yadavalli, Ramgopal Rao S and C. S. Rao, "Response Surface Methodological Approach to Optimize Process Parameters for The Biomass Production of *Chlorella Pyrenoidosa*" International Journal of Bio-Technology and Research Vol 3 (1), 37-48, 2013. (Impact Factor JCC: 1.2579).
- Rajasri Yadavalli and SS. Vutukuru "Growth responses of *Chlorella pyrenoidosa* in different media in the presence of an algaecide 'Water Health (M119)'. Asian Jr. of Microbiol. Biotech. Env. Sc. Vol. 14(4): 497-500, 2012. (SCOPUS Indexed; H Index :9 & NAAS Rating - 2.6)
- Rajasri, Y., S. Ramgopal Rao, C.S. Rao, "Lipid Accumulation Studies in *Chlorella Pyrenoidosa* Using Customized Photobioreactor- Effect of Nitrogen Source, Light Intensity and Mode of operation" International Journal of Engineering Research and Applications Vol 2(3), 2446-2453, 2012. (SCOPUS Indexed)
- Rajasri Y, C.S. Rao, S. Ramgopal Rao, D. Chandrakanth Reddy and KSR Siva Sai "Effect of different culture media & light intensities on cell concentrations of *Chlorella pyrenoidosa* in photoautotrophic growth conditions" International Journal of Natural and Engineering Sciences Vol 4 (3), 53-57, 2010. NAAS Rating - 2.6

Conference Publications

- Yadavalli, R. and Ratnapuram, H., 2017, August. A Novel Approach To Study The Metabolomics Of A Facultative Microalgae *Chlorella sorokiniana* With Transition In Trophic Mode By Two Stage Operation In Comparison With In Silico Studies. In PHYCOLOGIA (Vol. 56, No. 4, pp. 201-201). NEW BUSINESS OFFICE, PO BOX 1897, LAWRENCE, KS 66044-8897 USA: INT PHYCOLOGICAL SOC.

Papers Presented At International Conferences

- C. Nagendranatha Reddy, Y. Rajasri, B. Mishra, Y. Vineetha, A. Shalini, Conductive Granular Graphite As Alternate Electrode Material For Efficient Bioelectricity Generation In Microbial Fuel Cells, International e-Conference on Materials Processing & Characterization – 2020 (ICMP&C - 2020) 18-19 September, 2020
- Rajasri Yadavalli* and R. Hari Prasad "Simultaneous Production Of Astaxanthin And Lipids From *Chlorella Sorokiniana* In Presence Of Reactive Oxygen Species" at 8th Asian Oceanian symposium on Plant Lipids organized by CSIRO, Canberra, Australia from Nov 19th to 22nd 2019
- Rajasri Yadavalli* and R. Hari Prasad "Optimization of microalgal cultivation for biodiesel and value added products in a bio refinery approach" at International Conference on Biotechnological Research and Innovation for Sustainable Development, XV BRSI Convention jointly organised by CSIR-IICT and BRSI from Nov 22nd to 25th 2018
- Snehasri Motamarry, Mirza Narjis Fathima, Hari Prasad Ratnapuram, Rajasri Yadavalli*. "Comparative study of production and extraction of Flavonoids from *Chlorella vulgaris* and *Chlorella*

pyrenoidosa” at International conference International Conference on Biotechnological Research and Innovation for Sustainable Development, XV BRSI Convention jointly organised by CSIR-IICT and BRSI from Nov 22nd to 25th 2018

- Sharanya Dhawalagiri, Sushmita Sama, Hariprasad Ratnapuram, Rajasri Yadavalli*. “Growth of Chlorella Sorokiniana in Small Scale Race Way Pond Using Grape Pomace as Nutrient Source in Fed Batch Mode For Bioethanol and Lipid Production” at International conference International Conference on Biotechnological Research and Innovation for Sustainable Development, XV BRSI Convention jointly organised by CSIR-IICT and BRSI from Nov 22nd to 25th 2018
- R.Hari Prasad, Pruthvi Rao K, Y.Rajasri*. Comparative studies on simultaneous production of lipids and astaxanthin from Chlorella sorokiniana in two stage operated photobioreactors” at International conference on Emerging trends in Biotechnology for waste conversion under DBT sponsored project organized by CSIR-NEERI and BRSI from 8-10 October, 2017 (Won second Prize in Biorefineries and Bioenergy Theme)
- Y.Rajasri*, John Reddy P, Vinoshna Sama, Jayasree Ganugapati “Phytochemical Screening and Insilico studies of Flavonoids from Chlorella pyrenoidosa” at International conference on Emerging trends in Biotechnology for waste conversion” under DBT sponsored project organized by CSIR-NEERI and BRSI from 8-10 October, 2017
- Sneha Sri Motamarry, Mirza Fathima Narjis, Hariprasad Ratnapuram, Rajasri Yadavalli* “Optimization of stress conditions in Chlorella sorokiniana for enhanced lipid and PUFA content” at International conference on Emerging trends in Biotechnology for waste conversion under DBT sponsored project organized by CSIR-NEERI and BRSI from 8-10 October, 2017.
- R. Hari Prasad and Y.Rajasri*, “A Novel Approach to Study the Metabolomics of a Facultative Microalgae Chlorella species with Transition in Trophic Modes by Two Stage Operation along with Insilico Studies” at VI Congress of ISAP NANTES - France from 18-23 June 2017 .(Hariprasad won Young Researcher award)
- T. Sree Sowmya, Ch. Venkata Avinash, K. Pruthvi Rao, R. Hari Prasad and Y.Rajasri* “An integrated approach for bioactive compounds production from Chlorella sorokiniana using synthetic active biotransformation (via photo systems) and simultaneous treatment of dairy effluent” at International conference on Biotechnology and Bioengineering trends ICBT -2017 organised by JNTU,Hyderabad from 23-25 March 2017

Papers Presented At National Conferences

- Motamary Sneha Sri, Mirza Narjis Fathima, Vinoshna Sama, R.Hariprasad, Y.Rajasri, “Treatment of ‘Uppal Nallacheruvu Lake’ Water using Chlorella sorokiniana in Continuous Stirred Tank Reactor (CSTR)” presented an oral presentation at Emerging Environmental Challenges-An engineering approach , A National symposium organized by CSIR-NEERI and Dept of Chemical Engineering BITS, Hyderabad on 16th Feb 2018.(Won consolation prize)
- S.Sushmitha, P.John reddy, D.Sharanya reddy, R.Hariprasad, Y.Rajasri, “Growth of Chlorella sorokiniana in Small Scale Race Way Pond Using Grape Pomace as Nutrient Source in Fed Batch Mode for Biodiesel Production” presented a poster at Emerging Environmental Challenges-An engineering approach , A National symposium organized by CSIR-NEERI and Dept of Chemical Engineering BITS, Hyderabad on 16th Feb 2018.(Won consolation prize)
- R. Hari Prasad and Y. Rajasri, “Microalgae biomass and value added products “ presented a poster at DBT stall in Bioenergy Urja Ustav - 2017 organized by MoPNG at Pune on July 7-8,2017.

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