Dr. PAIDINAIDU PALURI

Assistant Professor,

Department of Chemical Engineering,

Indian Institute of Technology (ISM), Dhanbad.

Telephone : +91-326-223-5933 (O)

Mobile : +91-94711-92195

E-mail : naidu@iitism.ac.in

Education

- B. Tech., Chemical Engineering, Andhra University (2008).
- M.Tech, Chemical Engineering, Indian Institute of Technology Hyderabad (2012).
- Ph.D., Chemical Engineering, Indian Institute of Technology (ISM) Dhanbad (2021).

Research interests

- Biomass conversion technologies
- Wastewater treatment

Publications

Journal Papers

1. **P.P. Naidu**, M. Anand, "Importance of VIIIa inactivation in a mathematical model for the formation, growth, and lysis of clots," *Mathematical Modelling of Natural Phenomena, 9(6): 1-17,* ***2014.*** **(Q1, Impact factor: 4.157).** www.mmnp-journal.org/articles/mmnp/pdf/2014/06/mmnp201496p17.pdf
2. **Paluri, P.,** Ahmad, K.A. & Durbha, K.S. "Importance of estimation of optimum isotherm model parameters for adsorption of methylene blue onto biomass derived activated carbons: Comparison between linear and non-linear methods." *Biomass Conversion and Biorefinery,* ***2020.*** **(Q1, Impact factor: 4.987).** https://doi.org/10.1007/s13399-020-00867-y
3. **Paluri, P.,** Durbha, K.S. "Equilibrium, kinetic and thermodynamic study for the adsorption of methylene blue onto activated carbons prepared from

the banana root through chemical activation with phosphoric acid." *Biomass Conversion and Biorefinery*, ***2021*****. (Q1, Impact factor: 4.987).** https://doi.org/10.1007/s13399-021-01883-2

4. Akash Pratim Bora, Lutukurthi D. N. V. V. Konda, **Paidinaidu Paluri**, Krishna Sandilya Durbha, "Valorization of hazardous waste cooking oil for the production of eco-friendly biodiesel using a low-cost bifunctional catalyst". *Environmental Science and Pollution Research*, **2023**. **(Q1, Impact factor: 5.8)** [https://doi.org/10.1007/s11356-023-26177-0]

Conference Papers

1. **Paluri P.,** D.K. Sandilya, "Preparation and characterization of activated carbons from green coconut pulp by chemical activation with phosphoric acid", 69th Annual session of Indian Institute of Chemical Engineers (CHEMCON 2016), December 27-30, 2016, Anna University and IIT Madras, India.
2. **Paluri P.,** K.A. Ahmad, D.K. Sandilya, "Comparison of linear and non-linear methods for determination of optimum equilibrium isotherm for adsorption of methylene blue onto prepared activated carbon", 72nd Annual session of Indian Institute of Chemical Engineers (CHEMCON 2019), December 15-19, 2019, IIT Delhi, India

Teaching

- CHC14103, Mechanical Operations, (2013-14)
- CHC15104, Mass Transfer Operations – I, (2013-15)
- CHC16104, Mass Transfer Operations – II, (2013-15)
- CHC51104, Advanced Numerical Methods for Chemical Engineers, (2014-15)
- CHH15101, Mathematical Methods in Chemical Engineering, (2015-19)
- CHE52120, Mathematical Methods in Chemical Engineering, (2014-18)
- CHC13206, Fluid Mechanics Lab, (2013-14), (2018-20)
- CHC15201, Chemical Reaction Engineering Lab, (2013-14)
- CHC16204, Mass Transfer Lab, (2013-17)
- CHC51202, Advanced Numerical Methods for Chemical Engineers Lab, (2014-16), (2018-19)
- CHC15201, Mechanical Operation Lab, (2013-14), (2016-19)

- CHC14102, Heat Transfer, (2018-20)
- CHC14104, Energy Resources, (2018-19)
- CHC13102, Fluid Mechanics, (2019-20)
- CHC15103, Petroleum Refining and Petrochemicals, (2019-20)
- CHC15202, Heat Transfer Lab, (2019-20)
- CHC203, Heat Transfer (2020-22)
- CHC210, Heat Transfer Lab, (2020-21)
- CHC207, Principles of Mass Transfer, (2020-23)
- CHC531, Chemical Engineering Lab, (2020-21)
- CHC301, Separation Processes, (2022-24)
- CHO301, Petroleum Refining, (2022-2025)
- CHC511, Term Paper and Presentation, (2023-24)
- CHD401, Petrochemical Technology, (2024-25)
- CHC305, Mass Transfer Lab, (2024-25)
- CHC211, Process Control Lab, (2024-25)

Projects:

- A project entitled "Leaching of lead from electric arc furnace steel dust using Ultrasound" under FRS for an amount of Rs. 6.50 lakhs.
- A minor project entitled "Natural waste derived activated carbon for the removal of a dye from an aqueous solution" under TEQIP- II for an amount of Rs. 2.00 lakhs.

M.Tech supervision:

- **Vivek Chaudhary**, "Studies on adsorption of methylene blue using activated carbon prepared from sugarcane bagasse", 2014-2016.
- **Narendra Yadav**, "Preparation and Characterization of activated carbons from Pithecellobium ducle fruit feel and removal of methyl orange dye from aqueous solution", 2016-2018.
- **Khwaja Alamgir Ahmad**, "Removal of malachite green dye from wastewater with Adsorption technique using prepared activated carbons from green coconut pulp", 2018-2020.
- **Nageshwar**, "Production of hydro-char using hydrothermal carbonization of corncob", 2022-2024.
- **Kshitij Mishra**, "Production of hydro-char using hydrothermal carbonization of banana root", 2022-2024

Ph. D. Supervision (Completed/Ongoing):

- **Nageshwar**, "Biomass conversion to bio-coal", 2024 (Ongoing)

Awards & Honors

- Prathiba award from the government of Andhra Pradesh, 2002
- Fellow of The Indian Institute of Chemical Engineers, 2016