

Dr. Pinaki Dey's Profile



Dr. Pinaki Dey, M.Tech, Ph.D

Assistant Professor, Department of Biotechnology

School of Agriculture and Biosciences, KITS

Specialization : Biochemical Engineering, Membrane separation, Fermentation Technology ,
Lignocellulosic biorefinary and Enzyme Technology

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Date of Joining KITS: 08/08/2016

Academic Background

Degree	University	Year
Postdoc	Department of Biochemical Engineering and Biotechnology, IIT-Delhi under DBT funded project	2013
Ph.D	Chemical Engineering Department, NIT Durgapur, under DST- GREEN TECHNOLOGY PROJECT, Govt. of India	2012

Degree	University	Year
M.Tech	Industrial Biotechnology, SASTRA University, Tiruchirapally	2008
B.Tech.	BCET, West Bengal University of Technology (WBUT)	2006

Courses Taught

- Bioprocess Engineering
- Industrial Biotechnology
- Downstream Processing
- Fluid Mechanics
- Enzyme Engineering

Research Interests

- Lignocellulosic Biorefinery
- Biofuel Production
- Membrane separation processes
- Lactic acid production
- Biopolymer Production

MOST RECENT PUBLICATIONS

- An Improved enzymatic pre-hydrolysis strategy for efficient bioconversion of Industrial pulp and paper sludge waste to bioethanol using a semi-simultaneous saccharification and fermentation process, **Pinaki Dey**; Vivek Rangarajan; Jayato Nayak; Diganta Bhusan Das; Steeve Branden Wood, **Fuel (Elsevier)**, **IF: 6.609**, Published 2021. Volume 294, 120581. ISSN: 0016-2361.
- Current perspective on improved fermentative production and purification of fungal cellulases for successful biorefinery applications: a brief review, **Pinaki Dey**, Vivek Rangarajan, Joginder Singh, Jayato Nayak & Kevin Joseph Dilip, **Biomass Conversion and Biorefinery** (2021), **Springer**, Published: 06 January **2021**, **Impact factor : 4.987**, **ISSN : 2190-6823**.
- Sinapic acid safeguards cardiac mitochondria from damage in isoproterenol-induced myocardial infarcted rats, P. Stanely Mainzen Prince, **Pinaki Dey**, S. J. Roy., **Journal of**

Biochemical and Molecular Toxicology, Wiley, DOI: 10.1002/jbt.22556. Volume 34, Issue 10, Impact factor : 3.642 (2020), ISSN : 1099-0461

- Lignocellulosic bioethanol production: prospects of emerging membrane technologies to improve the process – a critical review, Pinaki Dey*, Parimal Pal, Joseph Dilip Kevin and Diganta Bhusan Das, **Reviews in Chemical Engineering, DE GRUYTER, (2018)** DOI: 10.1515/revce-2018- 0014, **Impact factor : 6.299, ISSN: 2191-0235.**
- Improved production of cellulase by *Trichoderma reesei* (MTCC 164) from coconut mesocarp based lignocellulosic wastes under response surface-optimized condition, Pinaki Dey , Joginder Singh, Jismole Scaria, Athira. P. Anand, 8:402 (2018)1-13, **3 Biotech, (Springer), Impact Factor: 2.406, Electronic ISSN : 2190-5738**

PROJECTS HANDLED

- **Received 0.1 lakhs from TEQUIP Phase II grant (Thapar University) for guiding of one M-Tech Student in research project work. “ Title : Fermentative Production of Poly Hydroxy Butyrate (PHB) from sucrose based renewable resources, 2014”**
- **Received 0.25 lakhs and 0.10 lakhs as Karunya short term research grant (Faculty) “Title : Assessment of advanced fed-batch semi-simultaneous saccharification and co-fermentation (SSSCF) approach for bioethanol production from selected lignocellulosic biomass, 2017”**
- **Received 0.10 lakhs as Karunya short term research grant (Faculty) “Title : High solid loading enzymatic saccharification of waste paper sludge for production of simple sugars : A solution towards waste disposal problem of paper pulp industry, 2018.**

PATENTS PUBLISHED/GRANTED

- The patent name : “Development of improved production process of cellulase from waste pulp and paper sludge material”, Dr. Pinaki Dey, Dated : 8/5/19, **Patent No: 201941018465**
- High solid loading saccharification process of waste pulp and paper sludge (pps) material for production of fermentable simple sugars in concentrated form, Dr. Pinaki Dey and Mr. STEVE BRANDEN WOOD (UR15BT074), **Patent No. 202041019318 dated 06.05.2020**

Memberships in Professional Bodies

- Biotech Research Society of India (BRSI)