

DR ANUP KUMAR SWAIN

Assistant Professor



1. **RESEARCH INTEREST:**

Adsorptive and biological removal of pollutants and dyes from industrial wastewater; Inverse fluidization.

2. **PERSONAL INFORMATION:** DOB: 25. 06. 1977

3. **CONTACT INFORMATION:** IGIT, Sarang,

anup.k.swain@igitsarang.ac.in

4. **EDUCATIONAL QUALIFICATION:**

Institution	Course	Board / University	Year of passing	Percentage of Marks
Govt. Boys High School, Unit-I, Bhubaneswar	H.S.C.E.	B.S.E., Odisha	July, 1992	77.33 (580 / 750)
BJB College, Bhubaneswar	H.S.E.	C.H.S.E., Odisha	July, 1994	79.11 (712 / 900)
IGIT Sarang, Odisha	B.E. (Chemical)	Utkal University, Odisha	Oct., 1999	64.38 (2704 / 4200)
Faculty of Technology & Engineering, Baroda, Gujarat	M.E. (Chemical)	The Maharaja Sayajirao University of Baroda, Gujarat	March, 2003	64.27 (1157 / 1800)
NIT, Rourkela, Odisha	PhD (Chemical)	NIT, Rourkela, Odisha	August 2021	8.91 (CGPA)

5. **OVERVIEW OF PHD RESEARCH WORK CONDUCTED :**

Studies on Removal of Ammonia-Nitrogen from Industrial Wastewater using
Inverse Fluidized Bed Biofilm Reactor

6. **CURRENT RESEARCH STATEMENT :** Phase holdup studies in

Inverse Fluidized Bed

7. **EXPERIENCE :**

Organization	Last Position	Period
I.G.I.T., Sarang (Govt. of Odisha)	Assistant Professor in Chemical Engg.	09.01.2012 to till date
G.I.E.T., Gunupur	Associate Professor	07.12.2005 to 31.12.2011
N.I.T., Rourkela, Odisha	Teaching Assistant	30.01.2004 to 06.12.2005
Bayer ABS Limited, Vadodara, Gujarat	R&D Executive	01.09.2003 to 27.01.2004
J.I.T.M., Paralakhemundi	Lecturer	09.03.2001 to 30.07.2001
I.G.I.T., Sarang	Lecturer (Part time)	25.10.2000 to 28.02.2001

Total work experience = 22 years 00 months (as on December 2024)

Total teaching experience = 21 years 07 months (as on December 2024)

8. **MEMBER OF PROFESSIONAL BODIES :** Life Members of

IChE, ISTE, OBA, OES, and OCS

9. **PUBLICATIONS :** 8 journals + 1 book

10. **YEAR WISE PUBLICATION LIST :**

8. Anup Kumar Swain, Abanti Sahoo, Effect of C/N ratio, temperature, and pH on the removal of ammonia-nitrogen from wastewater using inverse fluidized bed

biofilm reactor, Indian Journal of Chemical Technology, 29 (4) (2022) 429-435.
<https://doi.org/10.56042/ijct.v29i4.59667>.

7. Anup Kumar Swain, Abanti Sahoo, Hara Mohan Jena, Satish Chandra Bhuyan, Effect of superficial gas velocity and ratio of bed volume to reactor volume of inverse fluidized bed biofilm reactor on the removal of ammonia-nitrogen from wastewater, Indian Journal of Chemical Technology, 28 (6) (2021) 709-716.

<https://doi.org/10.56042/ijct.v28i6.52855>.

6. Anup Kumar Swain, Abanti Sahoo, Hara Mohan Jena, Hemalata Patra, Industrial wastewater treatment by Aerobic Inverse Fluidized Bed Biofilm Reactors (AIFBBRs): A review, Journal of Water Process Engineering, 23 (2018) 61-74.
<https://doi.org/10.1016/j.jwpe.2018.02.017>.

5. Anup Kumar Swain, Hemalata Patra, G. K. Roy, Predicting Tube Side Heat Transfer Coefficient with Nomograph, Chemical Products Finder-The Journal of Materials & Equipment for the Process Industries, 27 (12) (2009) 19-22.

4. Anup Kumar Swain, G. K. Roy, Prediction of shell side heat transfer coefficient for common liquids: Use of Nomograph, Chemical Engineering World, 40 (11) (2005) 63-64.

3. Anup Kumar Swain, Hiren D. Raval, Copolymers of Methyl Methacrylate and Methacrylic Acid: Synthesis and Characterization, Chemical Engineering World, 40 (8) (2005) 85-89.

2. Hiren D. Raval, Anup Kumar Swain, Multiple Extrusion of HDPE: Study of Degradation and Stabilization, Chemical Products Finder-The Journal of Materials & Equipment for the Process Industries, 23 (9) (2005) 45-47.

1. Anup Kumar Swain, G. K. Roy, Prediction of shell side heat transfer coefficient for common gases: Use of Nomograph, Chemical Engineering World, 39 (8) (2004) 83-84.

1. Anup Kumar Swain, Hemalata Patra, G. K. Roy, Mechanical Operations, Tata McGrawHill Education Pvt. Ltd., India, 2010. ISBN: 978-0-07-070022-2. URL: <http://www.mhhe.com/swain/mo>.

11. **JOURNAL REVIEW ACTIVITY:** Nil

12. **EDITORIAL BOARD MEMBER:** Nil

Journals and Books Edited:

13. **MASTER'S THESIS SUPERVISION:** 01

14. **PHD THESIS SUPERVISION:** Nil

15. **FUNDED PROJECT:** Nil

16. **SUBJECTS TEACH:** UG Level: Chemical & Polymer Technology, Heat & Mass Transfer Operations, Fluid Mechanics & Hydraulic Machines, Industrial Stoichiometry, Fluid Flow & Flow Measurement, Mechanical Operations, Chemical Engineering Thermodynamics, Modern Separation Techniques, Fuel & Energy Technology.

PG Level: Mass Transfer Operations, Coal Chemicals.

17. **ACHIEVEMENTS:** Nil

18. **RESEARCH SCHOLAR ID:**

ORCID: 0000-0003-3479-6433

SCOPUS ID: 13906750700

References :

3. Prof. Manoranjan Sahu, Assistant Professor, ESED, IIT Bombay, mrsahu@iitb.ac.in
2. Prof. Abanti Sahoo, Professor, Chemical Engg. Dept., NIT Rourkela, asahoo@nitrkl.ac.in
1. Prof. Bhim Charan Meikap, Professor, Chemical Engg. Dept., IIT Kharagpur, bcmeikap@che.iitkgp.ac.in