

CURRICULUM VITAE

Dr. YASHOBANTA KUMAR MOHANTY

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EDUCATIONAL QUALIFICATIONS

- **Ph.D.** Chemical Engineering—July-2008
National Institute of Technology, Rourkela, Orissa
(Thesis title: Dynamics of a Gas-solid Fluidized Bed Using Secondary Fluidizing Medium)
- **M.E.** Chemical Engineering—1999
(Specialization: Coal Chemicals & Fertilizers)
National Institute of Technology, Rourkela, Orissa
- **A.M.I.E.** Chemical Engineering—Summer - 1996
The Institution of Engineer's (India)
- **B.Sc.** Physics, Chemistry & Mathematics –1990
Fakir Mohan College, Balasore, Orissa
(Utakl University)

WORK EXPERIENCE (Teaching: 15 years; Industrial: 13 months)

- **02.01.14 joined** **Principal**
SRINIX College of Engineering, Balasore
- **18.03.09 to 31.12.13** **Vice-Principal**
Gandhi Institute of Engineering & Technology
Gunupur-765 022; Dist: Rayagada, Orissa
- **01.08.08 to till date** **Professor & Head**
Gandhi Institute of Engineering & Technology
Gunupur-765 022; Dist: Rayagada, Orissa
- **16.06.03 to 31.7.08** **Assistant Professor & Head**
Chemical Engineering Department
Gandhi Institute of Engineering & Technology
Gunupur-765 022; Dist: Rayagada, Orissa
- **16.06.99 to 15.06.03** **Lecturer**
Chemical Engineering Department
Gandhi Institute of Engineering & Technology
Gunupur-765 022; Dist: Rayagada, Orissa
- **02.01.99—15.06.99** **Lecturer**
Chemical Engineering Department
Indira Gandhi Institute of Technology
Sarang; Dist: Dhenkanal, Orissa
- **15.01.93—31.03.94** **Trainee Engineer**
Chemech Engineers Pvt Ltd
Ambattur; Chennai-58

PUBLICATIONS

- **Journal Publications**

International: 17

- ❖ “Effect of Promoters on the Dynamics of Gas-Solid Fluidized Bed—Statistical and ANN Approach”, China Particuology [Vol 5, 2007, 401-407], Impact Factor - 0.942
- ❖ “Effect of Secondary Fluidizing Medium on Hydrodynamics of Gas-Solid Fluidized Bed - Statistical and ANN Approaches”, Chemical Engineering Journal, [Vol 148, Issue 1, 2009, 41-49]., Impact Factor -2.918
- ❖ “Effect of Promoters and Secondary Fluidizing Medium on Mixing– Statistical and ANN Approaches”, Asia Pacific Journal of Chemical Engineering, [Vol 3, Issue 5, 2008, 550-559]. Impact Factor -1.707
- ❖ “Mixing Characteristics of Binary Mixtures Using Promoters and Secondary Fluidizing Medium”, Powder Technology, [Vol 183, 2008, 101- 109]. Impact Factor -1.960
- ❖ “Dynamics of Gas-solid Fluidized Bed Using Secondary Fluidizing Medium-Statistical and ANN Approaches”, International Journal of Chemical Engineering, Serial Publications New Delhi, [Vol 2 (1), 2009, 47-61].
- ❖ “Response Surface Modelling and Optimization of Single Stage Fluidized Bed and Studies on Quality of Fluidization”, International Journal of Chemical Engineering, New Delhi, Vol 3, No 2, 2010, 119 – 135.
- ❖ “Measurement and Prediction of Effective Thermal Conductivity of Binary Liquid mixture”, International Journal of Chemical Engineering Research, [Vol 2 (2), 2010, 119 – 132]
- ❖ “Removal of AS (III) from Waste Water by using a Novel Adsorbent – Both experimental and Statistical Studies”, International Journal of Engineering & Science Research (IJESR), [Vol. 2, Issue-2, Article No. 3, Feb 2012, 63-80]
- ❖ “Hydrodynamics of Three-phase Fluidization of a Homogeneous Ternary Mixture of Irregular Particles”, Chemical Engineering Science, Vol. 79, 2012, 210-218. Impact Factor: 2.601
- ❖ “Hydrodynamics of liquid-solid semi-fluidized bed with irregular homogeneous ternary mixture”, Powder Technology, Vol 235, 2013, 921-930, Impact Factor: 2.221
- ❖ “Hydrodynamics of Three phase Fluidization of a homogeneous ternary mixture of regular particles – Experimental & statistical analysis”, Powder Technology, Vol 237, 2013, 594-601. Impact Factor: 2.221
- ❖ “Prediction of bed fluctuation & expansion ratios for homogeneous ternary mixtures of spherical glass bead particles in a three-phase fluidized bed”, The Canadian Journal of Chemical Engineering, Vol 9999, 2013, 01-07, Impact Factor: 0.748
- ❖ Hydrodynamics of gas-solid fluidization of a homogeneous ternary mixture in a conical bed-prediction of bed expansion & fluctuation ratios, Particuology, Article in press, 2013, doi: <http://dx.doi.org/10.1016/j.partic.2013.02.009>

- ❖ Prediction of bed pressure drop and top packed bed formation in gas-liquid-solid semi-fluidized bed with irregular homogeneous binary mixtures, Korean journal of Chemical Engineering, Article in press, 2013
- ❖ Adsorption studies of As (III) from wastewater with a novel adsorbent in a three-phase fluidized bed by using response surface method, J. Environmental Chemical Eng. Vol 1, Issue 3, 2013, 150-158.
- ❖ Prediction of pressure drop & hold up for homogeneous ternary mixtures of spherical glass bead particles in a three phase fluidized bed, Chemical Engineering Communications, **in press for publication**, 2013. IF: 1.052
- ❖ Effect of temperature and concentration on density, viscosity and ultrasonic velocity of the binary liquid mixture: Pentan-1-ol (1) + Nitrobenzene (2), Russian Journal of Physical Chemistry A, 2014, issue 9, Vol. in press

National: 04

- ❖ “Prediction of Fluctuation Ratio in Gas-Solid Fluidized Bed of Irregular Particles Using a Secondary Fluidizing Medium” Journal of Indian Chemical Engineer, [49, 2 (2007) 134-142]. IF 0.5
- ❖ “Effect of Distributor Area on the Dynamics of Gas – Solid Fluidized Beds - A Statistical Approach” Indian Chemical Engineer, [49, 1 (2007) 1-10]. IF 0.5
- ❖ “Effect of Baffles on Dynamics of Gas-Solid Fluidized Bed” Journal of the Institution of Engineers (India) [Vol 81, March 2001, 32-34].IF 1.232
- ❖ “Effect of Column Diameter on Dynamics of Gas-Solid Fluidized Bed—A Statistical Approach” Indian Journal of Chemical Technology, [Vol 16, January 2009, 17-24], IF 0.267

• Book (01)

- ❖ Book titled “Theory and Problems in Chemical Reaction Engineering” with Mr. S K Behera (Co-author), M/s Khanna Publishers, New Delhi, 2005

RESEARCH PROJECT

Hydrodynamic Studies of a Multistage Fluidized Bed: Funded by AICTE, New Delhi (2008-2010)

Project Cost: 09 Lakh

Reviewer of International Journals

- Chemical Engineering Journal (Elsevier)
- Chemical Engineering Science (Elsevier)
- Chemical Product and Process Modeling

Title of Ph D Thesis

“Dynamics of a Gas – solid fluidized bed using Secondary Fluidizing Medium”

Guide: Prof K C Biswal and

Co-guide: Prof B P Mohanty

Award Received: Indian Society for Technical Education (ISTE) **Best Teacher Award 2013**
for the Odisha Section

Area of Specializations

Fluidization Engineering

Chemical Reaction engineering

Mass Transfer operations.

Number of Scholars guiding for Ph D: 04

PROFESSIONAL MEMBERSHIP

- **Member, The Institution of Engineers (India)—M-137688-2**
- **Life Member, Indian Institute of Chemical Engineers— LM – 29788**
- **Life Member, Indian Society for Technical Education -- LM 66882**

FABRICATION WORK

- 1—2 Shell & Tube Heat Exchanger in the Chemical Engineering Department at GIET, Gunupur for students demonstration purpose

SHORT-TERM, REFRESHER COURSES, ETC. ATTENDED

- Taken an SERC School—CEP course on “Modeling & Optimization of Chemical Reactors” conducted between 02 and 07 May 2005 at IIT Bombay
- Taken an AICTE-&ISTE- sponsored short-term training programme on “ Circulating Fluidized Bed Technology & Its Prospective” conducted between 03 and 15 January 2005 at Bengal Engineering & Science University, Howrah
- Taken an Internal Auditor Training Course on ISO 9001: 2000 IQE conducted between 09 and 10 September 2002 at GIET, Gunupur (Course given by: Institute of Quality and Environment, Bhubaneswar)
- AICTE sponsored short term course on “Failure analysis of Engineering Materials” conducted between 09 and 14 March 2009 at GIET, Gunupur, Rayagada, Orissa.
- MHRD/AICTE Summer School (Staff Development Programme) on “Nanotechnology: Processing & Applications” conducted between 14 and 19 September 2009 at Bhubaneswar organized by IIT, Kharagpur.
- AICTE sponsored short term course on “Solid and Hazardous Waste Management” conducted between 12-19 October, 2010 at IIT Kharagpur.
- AICTE Sponsored FDP on Computer Aided Process Engineering & Computational Fluid Dynamics” conducted between 6-18 may 2013, at JITM, Paralakhemundi.

PAPRES PRESENTED/ATTENDED AT SEMINARS/CONFERENCEES : 14

- Presented a paper entitled “ Utilization of Mill Rejects of Power Plants through Circulating Fluidized Bed Combustion—A Green Power Technology” at the **International Conference** on Impact of Industrialization on Environmental Pollution— Its Control & Abatement conducted between 13 and 15 October 2006 at GIET, Gunupur
- Presented a paper entitled “ Circulating Fluidized Bed Combustion—A Green Power Technology” at the National Seminar on Chemical Products from Agriculture and Forest Residues” at Jagannath Institute for Technology and Management, Paralakhemundi on 04 Sept 2005
- Presented a paper entitled “ Effect of Secondary Air on Fluctuation and Expansion in a Gas-Solid Fluidized Bed” at **Chemcon - 2007** organized by the Indian Institute of Chemical Engineers (Code no: 1035; p10 in the proceedings) at Kolkata
- Effect of Column Diameter on Dynamics of Gas-solid Fluidized Bed, **Chemcon- 2008** (Orall presentation). Ref: MS # 62/2008
- Eco-friendly waterborne Inorganic Zinc Rich Primer for Cathodic Protection of Steel Surfaces, 6th **International Symposium** on Surface Protective Coatings SSPC 2009,Grand Sala, Cidade de Goa, Feb. 25, 2009
- Design of Pultruded Fibre Glass Reinforced Plastics (FRP) Insulators for Metro Railways, **International Conference “ IEEMA”** at Bangalore, Dec 2008, 1-6
- Quality assurance mechanism at institute level for ensuring continuous improvement of technical education—an overview, National Seminar at GIET, Gunupur, Nov. 13-14, 2009
- Recent development in core branches of engineering— A special focus on environmental pollution, National Seminar at GIET, Berhampur, October 08-09, 2010, pp 30-35.
- Removal of Boron from waste water by using a novel adsorbent – both experimental and statistical studies, UGC National Seminar on new frontiers of chemical analysis – Part II, Gunupur College, Gunupur, 24-25 March, 2011,
- Optimization of Secondary Fluidized Column for the Improvement of Quality of Fluidization By RSM Based Central Composite Design, **Chemcon- 2011**,Ref: MS # tp 62/2011
- “Hydrodynamics of Three-phase Fluidization of a Homogeneous Ternary Mixture of Irregular Particles- Both Dimensional and Statistical Analysis”, IChE CHEMCON 2012, Paper ID: 338
- “Effective teaching strategies for professional Education”, ISTE 16th Annual convention at Vikash College of Engineering for Women, Bargarh, 10-11 November 2013.
- “Effect of Column Diameter on Hydrodynamics of Three –phase Fluidization of a Homogeneous Ternary Mixture” **International Conference CFB – 11** to be held in 2014 in CHINA.
- “Solid Waste Management Through Geopolymer Technology For the Development of Value Added Product” 4th International Conference on Solid Waste Management & Exhibition (Icon SWM 2014), (code 30-42) at Hyderabad.

ORGANIZATIONAL AND ADMINISTRATIVE EXPERIENCE

- **Convener, International Conference** on Impact of Industrialization on Environmental Pollution—Its Control & Abatement conducted between 13 and 15 October 2006 at GIET, Gunupur (Funded by AICTE, New Delhi)
- **Convener, Technical Committee for the National Seminar** on “ Utilization of Forest and Mineral Resources for Economic Growth” conducted on 20th October 2003 at GIET, Gunupur
- **Convener, National seminar** on “Challenges to Quality Technical Education: the Role of IQAC”, Conducted between 13- 14 November 2009 at GIET, Gunupur (Funded by NAAC)
- **Convener, National Seminar** on Recent Advances in Chemical Engineering – 2010 conducted between 30 and 31 January 2010 at GIET, Gunupur
- **Convener, Student Level National Seminar** on Recent Advances in Chemical Engineering – 2011 conducted on 1st December 2011 at GIET, Gunupur (Funded by ISTE, New Delhi)
- **Convener, National seminar** on “Solid Waste Management: Issues & Challenges” conducted on 24-25 August 2013 at GIET, Gunupur (Funded by AICTE, New Delhi)
- **Documentation work:** Implementation of ISO 9001:2000, accreditation by NBA (AICTE) and NAAC (UGC) at GIET, Gunupur.
- **Sole responsibility for preparation and submission of proposals to the state government and UGC and MHRD respectively for obtaining state university and deemed-to-be university status**
- **Convener, Disciplinary Committee,** GIET, Gunupur
- **Secretary, Faculty Club,** GIET, Gunupur

PERSONAL PROFILE

- Father's Name Mr. Debendra Nath Mohanty
- Date of Birth 01.02.1970
- Sex Male
- Marital Status Married with two sons
- Nationality Indian
- Passport No F7874037
- Religion Hinduism
- Languages Known Oriya, English, Hindi and Tamil
- Strengths Sincerity, hardworking and punctuality
- Hobbies Reading and writing books & watching News

Dr Yashobanta Kumar Mohanty