

## BIO-DATA

### 1. Name: Arun Kumar Jana

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2. **Date of Birth:** 15<sup>th</sup> February, 1977

3. **Highest Qualification:** Ph.D.

### 4. Degree Obtained

University	Degree	Year	Field of Specialization
University of Calcutta	B. Sc. (Hons. in Chemistry)	1998	Chemistry
University of Calcutta	B. Tech.	2001	Chemical Technology (Petrochemicals & Petroleum Refinery Engineering)
University of Calcutta	M. Tech.	2002	Petrochemicals & Petroleum Refinery Engineering
I.I.T., Kharagpur	Ph.D.	2008	Multiphase Flow

### 5. Employment Record

University	Designation	Period
SVNIT, Surat	Assistant Professor	3 <sup>rd</sup> August, 2007 to till date

### 6. Other Related Experience (Research)

University	Designation	Period
N.A.		

### 7. International Publications

- (1) A.K. Jana, G. Das, P.K. Das (2006), "Flow regime identification of two-phase liquid-liquid upflow through vertical pipe", Chemical Engineering Science, Vol. 61, Page No. 1500-1515.
- (2) A.K. Jana, G. Das, P.K. Das (2006), "A novel technique to identify flow patterns during liquid-liquid two-phase upflow through a vertical" ; Industrial and Engineering Chemistry Research, Vol. 45, Page No. 2381-2393.

- (3) A.K. Jana, T.K. Mandal, D.P. Chakrabarti, G. Das, P.K. Das (2007), "An optical probe for liquid-liquid two-phase flows" ; Measurement Science and Technology, Vol. 18, Page No. 1562-1575.
- (4) A.K. Jana, P. Ghoshal, G. Das, P.K. Das (2007), "An analysis of pressure drop and holdup for liquid-liquid upflow through vertical pipes" ; Chemical Engineering and Technology, Vol. 30, Page No. 920-925.
- (5) V. Agarwal, A.K. Jana, G. Das, P.K. Das (2007), "Taylor bubbles in liquid filled annuli: some new observations" ; Physics of Fluids, Vol. 19, Page No. 108105(1-4); American Institute of Physics.
- (6) T.K. Mandal, A.K. Jana, R. Patra, G. Das (2007), "Hydrodynamics intermittent flow through small diameter vertical pipe during liquid-liquid two phase flow" ; International Journal of Chemical Sciences, Vol. 5(4), Page No. 1701-1711.
- (7) A.K. Jana, G. Das, P.K. Das (2008), "Vertical upflow of two immiscible liquids through a venturimeter", in International Journal of Multiphase Flow, Vol. 34, Page No. 1119 – 1129.
- (8) M. N. Katariya, A. K. Jana, P. A. Parikh (2013) "Corrosion inhibition effectiveness of zeolite ZSM-5 coating on mild steel against various organic acids and its antimicrobial activity", Journal of Industrial and Engineering Chemistry, Vol. 19 Page No. 286–291.
- (9) Y.N. Thakare, A.K. Jana (2013) "Expanded beds: a process solution for adsorptive separations in waste-water treatment", International Journal of Chemical Engineering and Applications, Vol. 4, No. 6, Page No. 377-381.
- (10) Y.N. Thakare, A.K. Jana (2014) " Adsorptive separation of copper by DION PK208 ion exchange resin" International Journal of Scientific Engineering and Technology, Vol. 3 Issue No.5, Page No. 620-624.
- (11) Y.N. Thakare and A.K. Jana, (2015) "Performance of high density ion exchange resin (INDION225H) for removal of Cu(II) from waste water" Journal of Environmental Chemical Engineering, Vol. 3, Page 1393–1398.
- (12) Y.N. Thakare, S.S. Shewale and A.K. Jana, (2016) "Experimental Investigation and modeling of copper ion adsorption in packed and expanded bed", Chemical Engineering and Processing: Process Intensification, Vol. 109, Page 51-58.
- (13) J.V. Gohel, A.K. Jana and M. Singh, (2017) "Highly enhanced photocurrent of novel quantum-dot-co-sensitized PbS–Hg/CdS/Cu:ZnO thin films for photoelectrochemical applications", Applied Physics A, 123, Page 506(1-12).

#### 8. Consultancy and Sponsored research activities:

Sr. No.	Project Title	Name of the funding agency	Fund Sanctioned Rs.	Duration	Status
1.	Development of a liquid solid fluidized bed process for removal	Institute Research Grant,	6,30,000/-	Two year (Sanctioned in 2014)	Completed

	of Cu(II) from aqueous medium using ion exchange resin and its CFD based modelling				
2.	Environmentally Safe Disposal of Refinery Sludges via Catalytic Conversion to Value-added Hydrocarbons (as Co-PI)	DST, GOI	6,71,000/-	One year (Sanctioned in October, 2017)	Ongoing

### 9. Reviewer of the following International Journals

1. Computers & Fluids
2. Chemical Engineering and Technology
3. Chemical Engineering Science
4. Asia Pacific Journal of Chemical Engineering
5. Journal of Nanostructure in Chemistry
6. Environmental Progress
7. Environment, Development and Sustainability
8. International Journal of Fluid Mechanics Research

### 10. National/International Conferences

- 1) A. K. Jana, and G. Das, "Phase inversion in liquid – liquid two phase up flow in vertical pipe", Published in the proceedings of 1<sup>st</sup> National Conference of Research Scholars and Young Scientists in Chemical Engineering held in IIT, Kharagpur, India, 25<sup>th</sup> to 27<sup>th</sup> September 2004.
- 2) Y. N. Thakare and A. K. Jana, 'Expanded Beds: A Process Solution for Adsorptive Separations in Waste-Water Treatment' 4<sup>th</sup> International Conference on Chemical Engineering and Applications – CCEA 2013 during 12<sup>th</sup> -13<sup>th</sup> October 2013 in Paris, France

### 11. Workshops/STTPs Organized

- 1) Organized STTP on "Energy Conservation and Recycling" during 7th - 11th July 2008 as a Co-coordinator.
- 2) Organized STTP on "Advanced Instrumental Methods of Analysis" during 24th - 28th August 2009 as a Co-coordinator.
- 3) Organized Workshop on COMSOL Multiphysics Modelling on 6<sup>th</sup> December 2013.
- 4) Organized Workshop on FEM and Artificial Neural Network based Modelling and Simulations on 7<sup>th</sup> August 2014.

## 12. Seminars/Workshop/Short term courses attended

- 1) Attended 'Workshop on Data Analysis and Modeling', September 27, 2004, Organized on the occasion of the 1<sup>st</sup> National Conference of Research Scholars and Young Scientists in Chemical Engineering held in IIT, Kharagpur, India, 25<sup>th</sup> to 27<sup>th</sup> September 2004.
- 2) Attended 'Workshop of Hands-on-Training Program on MATLAB AND NEURAL NETWORK TOOLBOX' held in IIT, Kharagpur, India, 2<sup>nd</sup> to 3<sup>rd</sup> April 2005.
- 3) Attended 'Induction Training Programme' held during 21<sup>st</sup> to 23<sup>rd</sup> January 2008 at SVNIT Surat.
- 4) Attended 'Pedagogy Training' held at SVNIT Surat during 12<sup>nd</sup> to 15<sup>th</sup> May 2008.
- 5) Attended 'Research Methodology in Engineering' held during 16<sup>th</sup> to 17<sup>th</sup> May 2008 at SVNIT Surat.
- 6) Attended Workshop on 'Nanotechnology: A Sustainable Alternative to Environment' held at SVNIT during 19<sup>th</sup> to 23<sup>rd</sup> January 2009.
- 7) Attended Workshop on 'Treatment and Disposal of Wastewaters' held at SVNIT during 5<sup>th</sup> to 9<sup>th</sup> October 2009.
- 8) Attended IUCEE Workshop on 'Computational Fluid Dynamics' held at SVNIT during 5<sup>th</sup> to 9<sup>th</sup> July 2010.
- 9) Attended Workshop on 'Upstream Petroleum Technology' organized by ONGC Ahmedabad during 11<sup>th</sup> to 13<sup>th</sup> November 2010.
- 10) Attended ISTE Workshop on 'Computational Fluid Dynamics' held at SVNIT during 12<sup>th</sup> to 22<sup>nd</sup> June 2012.
- 11) Attended Workshop on 'A-Z of Natural Gas and LNG' held at Petronet's Dahej Terminal, Dahej during 31<sup>st</sup> January to 2<sup>nd</sup> February 2013.
- 12) Attended Workshop on 'Six-Sigma & Statistical Analytical Tools', held at SVNIT on 22<sup>nd</sup> March 2013.
- 13) Attended Workshop on 'Advances on Wastewater Treatment and Energy Generation', held at SVNIT during 30<sup>th</sup> September to 4<sup>th</sup> October 2013.
- 14) Attended Workshop on 'Green Chemistry and Engineering: Towards a Sustainable Future', held at SVNIT during 18<sup>th</sup> to 22<sup>nd</sup> November 2013.
- 15) Attended Workshop on 'Objective & outcome Based Education', held at SVNIT during 21<sup>st</sup> to 22<sup>nd</sup> December 2013.
- 16) Attended Workshop on 'Fundamentals and special topics in heat transfer', held at SVNIT during 23<sup>rd</sup> June to 27<sup>th</sup> June 2014.
- 17) Attended Workshop on 'Design of experiment and artificial neural network', held at SVNIT during 22<sup>nd</sup> June to 26<sup>th</sup> June 2015.
- 18) Attended Workshop on 'Interfacial engineering and nanotechnology for sustainable environment (IENSE-15)', held at SVNIT during 20<sup>th</sup> to 14<sup>th</sup> August 2015.

### 13. Administrative & Community Services

#### Institute level

1. Member of Library Committee since 6<sup>th</sup> January 2009 to till date.
2. Associate Warden since 1<sup>st</sup> July 2010 to 4<sup>th</sup> October 2011.
3. Warden since 4<sup>th</sup> October 2011 to 1<sup>st</sup> July 2013.
4. Chief Warden since 1<sup>st</sup> July 2013 to 4<sup>th</sup> June 2014.
5. Chief Warden since 14<sup>th</sup> March 2017 to till date.
6. Member, Central Library Committee.

#### Departmental level

1. PG In-Charge, [M.Tech. (Regular) and M.Tech. (Research)] from 12th June 2012 to 14<sup>th</sup> March 2017.
2. Ph.D. Coordinator since 11<sup>th</sup> July 2016 to 14<sup>th</sup> March 2017.
3. In-charge of Heat Transfer Operations Lab.
4. Coordinator, Departmental Library

### 14. Other Information

**Ph.D. Supervision:** 1 (Final presentation pending) + 2 (ongoing)  
**M.Tech. Dissertations:** 11 (completed) + 1 (ongoing)

#### (i) Ph.D. Supervision:

Sr. No.	Student Name (Adm. No.)	Title of Thesis	Supervisor(s)
1.	Yogeshwar N. Thakare (D11CH001)	Investigation on Liquid-Solid Expanded Bed Using High Density Ion Exchange Resin	Dr. A.K. Jana
2.	Raj Kumar (DS14CH002)	Registered for Ph.D.	Dr. C.M. Patel Dr. A.K. Jana
3.	Girish D. Vegad (D16CH005)	Registered for Ph.D.	Dr. A.K. Jana

#### (ii) M.Tech. Dissertations Guided: 11 completed

Sr. No.	Student Name (Adm. No.)	Month & Year of Completion	Title of Thesis	Supervisor(s)
1.	Harshal S. Sawasakde (P07CH810)	July 2009	A study on the hydrodynamics in gas-liquid two-phase flow using fluent	Dr. A.K. Jana

2.	Samir V. Wankhede (P09CH811)	July 2011	Hydrodynamics of liquidliquid two-phase flow through a horizontal pipeline	Dr. A.K. Jana
3.	Jayanti B. Makwana (P10CH810)	July 2012	Liquid-liquid extraction of aromatic from a mixture of hydrocarbons using binary system solvent and Ionic liquid	Dr. A.K. Jana
4.	Mayuri Katariya (P10CH824)	July 2012	Zeolite as a corrosion resistant coating	Dr. P.A. Parikh Dr. A.K. Jana
5.	Jayant Raushan (P10CH818)	July 2012	Hydrolysis of methyl acetate in presence of HZSM-5 catalyst	Dr. P.A. Parikh Dr. A.K. Jana
6.	Mane Ravindra Mahadev (P11IP053)	July 2013	Analysis of oil journal bearing using Comsol software	Mr. Sandeep Soni Dr. A.K. Jana
7.	Vishal B. Thakare (P11CH024)	July 2013	Hydration of $\alpha$ -pinene using Amberlyst 15 wet/ zeolite Hbeta as catalyst and optimization of its process parameters	Dr. A.K. Jana
8.	Mohit Singh (P12CH005)	July 2014	A study on efficient nanostructured photoanode synthesis and its optimization for application in solar energy capturing	Dr. J.N. Solanki Dr. A.K. Jana
9.	Ajay Diliprao Gaikwad (P13CH009)	July 2015	CFD based Simulation of Liquid-Solid Fluidized Bed Reactor in 2D and 3D	Dr. A.K. Jana
10.	Pooja Jangir (P14CH001)	July 2016	Numerical simulations on liquid-liquid two-phase flow splitting at microfluidic junctions with different branch angles using Level Set Method	Dr. A.K. Jana
11.	Rahul Kumar Sharma (P15CH007)	July 2017	n-hexane hydroisomerization over bimetallic hierarchical zeolite beta	Dr. A.K. Jana

**15. Membership of professional Societies/Bodies**

Life Associated Member of Indian Institute of Chemical Engineers (LAM-29404)

**Position Vacant:**

Research scholar positions under FIR and PEC category

**Broad area of research:**

Multiphase flow; CFD; Heterogeneous catalysis; Ion-exchange, Petrochemicals and Petroleum Refining etc.

Date: 14/11/2017

Place: Surat

(Dr. Arun Kumar Jana)