

CURRICULUM VITAE

1. Name : Dr. UDAYABHANU. G

2. Date of Birth : 31.5.1960

3. Educational Qualifications

Degree	Name of Board/University	Year of Passing	% Marks	Class
SSLC	Kerala State Board	1975	73.17	I
Pre Degree	Kerala University	1977	63.2	I
BSc	Kerala University	1980	73.3	I
MSc	Cochin University	1982	65	I
MPhil	ISM, Dhanbad	1984	8.39/10	I with Distn.
PhD	ISM, Dhanbad	1992	NA	NA

4. Scholarships Awarded

- a. ISM Merit Scholarship for MPhil in 1983
- b. Qualified GATE 1984
- c. CSIR National Eligibility Test for JRF in 1984.

5. Employment Profile

Sl No	Name of Institution	Position Held	From	To
1	IIT (ISM) Dhanbad	Lecturer (Rs 2200 – Rs 4000) and (Rs 3000 – Rs 5000)	5.3.1988	21.2.2000
2	IIT (ISM) Dhanbad	Assistant Professor (Rs 8000 - Rs 13000)	22.2.2000	31.12.2005
3	IIT (ISM) Dhanbad	Associate Professor (Promoted through CAS) Rs 16400 – Rs 20000)	1.1.2006	07.8.2007
4	IIT (ISM) Dhanbad	Associate Professor (By open selection) PB 4, AGP 9500	8.8.2007	31.12.2010
5	IIT (ISM) Dhanbad	Professor (PB 4 AGP 10500)	1.1.2010	Continuing

6. No of Publications in reputed Journals : 80

7. Publications in Proceedings : 45

8. Some recent publications

- a. Mriganka Das, Amrita Biswas, Bidyut Kumar Kundu, M. Adilia Januário Charmier, Attreyee Mukherjee, Shaikh M Mobin, **G Udayabhanu**, Suman Mukhopadhyay, 'Enhanced pseudo-halide promoted corrosion inhibition by biologically active zinc(II) Schiff base complexes', *The Chemical Engineering Journal*, 357 (2019) 447 – 457 (Feb 2019) doi: 10.1016/j.cej.2018.09.150.

- b. Chandan Kumar Maiti, Goutam Hatui, Kartikey Verma, **G Udayabhanu**, Devendra Deo Pathak, G C Nayak, 'Single pot fabrication of N doped reduced GO (N-rGO) /ZnO-CuO nanocomposite as an efficient electrode material for supercapacitor application', *Vacuum*, 157 (2018) November, 145 – 154, DOI: 10.1016/j.vacuum.2018.08.019.
- c. Subhajit Dash, Haribandhu Chaudhuri, Radha Gupta, **G Udayabhanu**, 'Adsorption Study of Modified Coal Fly Ash with Sulfonic Acid as a Potential Adsorbent for the Removal of Toxic Reactive Dyes from Aqueous Solution: Kinetics and Thermodynamics', *Environmental Chemical Engineering*, 6 (2018) 5897 - 5905, DOI: 10.1016/j.jece.2018.05.017.
- d. S Kumar, A S Venkatesh, Rambabu Singh, **G Udayabhanu**, D Saha, 'Geochemical signatures and isotopic systematics constraining dynamics of fluoride contamination in groundwater across Jamui district, Indo-Gangetic alluvial plains, India', *Chemosphere*, 205 (2018) 493 – 505.
- e. Amrita Biswas, Punita Mourya, Dipanjan Mondal, Sagar Pal, **G. Udayabhanu**, Grafting effect of gum acacia on mild steel corrosion in acidic medium: Gravimetric and electrochemical study, *J. Molecular Liquids*, (2018), 251, Feb, 470 – 479, DOI: 10.1016/j.molliq.2017.12.087.
- f. Neetha V Thampi, Rohith P. John, Keka Ojha and **G. Udayabhanu**, 'Effect of Hydrophobic Modification on the Properties of Polymer-Blended Microemulsion Gels', *J Surfactants & Detergents*, 21, 2, 269 – 282 (2018), DOI: 10.1002/jsde.12017.
- g. Dharmendra Kumar Singh, Eno E. Ebenso, Mantu Kr. Singh, Debasis Behera, **G. Udayabhanu**, Rohith P. John, "Non-toxic Schiff bases as efficient corrosion inhibitors for mild steel in 1M HCl: Electrochemical, AFM, FE-SEM and theoretical studies", *J Molecular Liquids*, (2018) 250, January, 88 – 99, doi:10.1016/j.molliq.2017.11.132.
- h. Mriganka Das, Amrita Biswas, Bidyut Kumar Kundu, Mohammad Mobin Shaikh, **G Udayabhanu**, Suman Mukhopadhyay, 'Targeted synthesis of cadmium(II) Schiff base complexes towards corrosion inhibition on mild steel', *RSC Advances*, 7 (77) 48569 – 48585, October 2017, DOI: 10.1039/C7RA08633D.
- i. Subhajit Dash, Haribandhu Chaudhuri, Radha Gupta, **G Udayabhanu** and Ashis Sarkar, "Fabrication and application of low cost thiol functionalized coal fly ash for selective adsorption of heavy toxic metal ions from water", *I & EC Research*, 56 (6), pp 1461–1470 (2017)
- j. Goutam Hatui, Ganesh Chandra Nayak, **G Udayabhanu**, "One pot solvothermal Synthesis of Sandwich-like Mg Al Layered Double Hydroxide anchored Reduced Graphene Oxide: An excellent electrode material for Supercapacitor", *Electrochimica Acta*, 219 (2016) 214 – 226.
- k. Saheli Bera, T K Rout, **G. Udayabhanu** and Ramanuj Narayan, 'Water-Based Eco-friendly Hybrid Coating for enhanced Corrosion Protection & Adhesion on Galvanized Steel', *Progress in Organic Coatings*, 101, 24 – 44 (2016)
- l. Dharmendra Kumar, Santosh Kumar, **G Udayabhanu** and Rohit P John, "4(N,N-dimethylamino) benzaldehyde nicotinic hydrazone as corrosion inhibitor for mild steel in 1M HCl solution: An experimental and theoretical study, *J. of Molecular Liquids*, 216 (2016) 738 – 746; dxdoi1016/j.molliq.2016.02.012.
- m. S Bera, **G Udayabhanu**, R Narayan, T K Rout, "High performance chrome free for white rust protection of zinc", *Material Science and Technology*, 32, 4 (2016) 338 - 347; DOI:10.1179/1743284715Y.000000008.
- n. Neetha V Thampi, Rohith P. John, Keka Ojha and **Udayabhanu G. Nair**, "Effect of Salts, Alkali, and Temperature on the Properties of Sodium Oleate Hydrogel", *I & EC Research*, 55 (20), (2016), pp 5805–5816, DOI: 10.1021/acs.iecr.6b00158.
- o. Amrita Biswas, Sagar Pal, **G Udayabhanu**, "Experimental and theoretical studies of xanthan gum and its graft co-polymer as corrosion inhibitor for mild steel in 15% HCl", *Applied Surface Science*, 353 (2015) 173-183.

9. Sponsored Research Projects.

Agency	Title	Amount (Rs)	Year
ONGC	Development of nano material reinforced particle gel systems for water and gas shut off in carbonate reservoirs (Co-PI with Dr Vikas Mahato and Prof. V P Sharma)	428.68 Lakhs	2018
ONGC	Development of low dosage hydrate inhibitors for the prevention of Gas Hydrate Formation in the Oil and Gas	39.62	2018

	field operations (Co-PI with Dr Vikas Mahato)	Lakhs	
Ministry of Coal	Development of guidelines for prevention and mitigation of explosion hazard by risk assessment and determination of explosibility of Indian coal incorporating risk based mine emergency evacuation and re-entry protocol (Co-Investigator with Prof. D C Panigrahi, Prof. S Choudhary, Prof. R M Bhattacharya, Dr. D P Mishra, Prof. A K Varma, Prof. V K Saxena, Prof. M K Singh, Dr. Haider Banka and Dr. P Sahu)	833.57 Lakhs	2017
Ministry of Coal	Development of handy method of coal categorisation and prediction of spontaneous heating susceptibility of Indian coals (Co-Investigator with Prof. D.C.Panigrahi and Dr. V.K. Saxena)	6.19 Lakhs	2001
World Bank	A study of air-borne respirable dust concentration at work places in chromite mines of Sukinda belt, Orissa (Co-Investigator with Prof. D.C.Panigrahi of Dept of Mining, ISM)	5.50 Lakhs	2003
World Bank	Survey of illumination and respirable dust levels in an underground zinc mine of HZL (Co-Investigator with Dr N.C.Karmakar of Deptt. of Mining, ISM)	3.40 Lakhs	2003
Ministry of Coal	Studies on problems on spontaneous heating of coal pillars and development of techniques for its prevention, early detection and control (Co-Investigator with Prof. D.C.Panigrahi and Dr. V.K. Saxena)	7.00 Lakhs	2003

10. Departmental Level Projects

Agency	Title	Amount (Rs)	Year
DST, Govt of India	FIST Program to Augment the Research Facilities in the Department for purchasing a 400 MHz NMR (PI with Dr B Chowdhury, Dr Swapan Dey and Dr S Sahu as Co PI) Sanction Order No SR/FST/CSI-256/2013 dated Nil Nov, 2013	165.00 Lakhs	2013

11. Consultancy Projects:

Agency	Title	Amount (Rs)	Year
NTPC, Rihand STPP	Estimation of abundance, characterisation & identification of end-uses of ferrospheres collectable from various fields of ESP in Rihand STPP. (Co-CI with Dr A.Sarkar of Deptt. Of Applied Chemistry, ISM)	2.00 Lakhs	2009
NTPC, Rihand	Study on use of fly ash for manufacture of polypropylene composites for various products.	6.995 Lakhs	2010

STPP	(Co-CI with Dr A.Sarkar of Deptt. Of Applied Chemistry, ISM)		
Dept. of Mining & Geology. Govt. of Jharkhand	Preparing merit list for Geological Analysts for the Dept. of Mining & Geology, Govt. Of Jharkhand. (Co-CI in charge of practical skill evaluation. CI Prof. M Jawed)	2.90 Lakhs	2010
NIMH Nagpur	FTIR Spectroscopic Analysis of Coal, Minerals and free silica (Co-CI with Dr A.Sarkar of Deptt. of Applied Chemistry, ISM)	1.79 lakhs	2008
TATA STEEL	14 weeks Course for Engineering Supervisors of Tata Steel (Co-CI with Dr T.K.Chatterjee of Deptt. of Electrical Engg., ISM)	40.00 lakhs	2007

12. Membership of Editorial Committees

- Proceedings of International Conference on Challenges in Coal and Mineral Beneficiation, Tata McGraw Hill, New Delhi, 2001
- Mine Environment and Ventilation, Oxford – IBH, New Delhi, 2001

13. Research guidance:

- PhDs Awarded : 15

In Applied Chemistry

- Dr. Surabhi (9.4.2010), Principal Guide, Co- guide - Prof Nikkam Suresh (A study on the recovery, characterization and utilization of carbonaceous material in Indian fly ash)
- Dr. Himanshu Shekhar Shukla (10.9.2012), Sole Guide (Synergistic Effect of some Organic Compounds and Inorganic Anions on the Inhibition of Mild Steel Corrosion in Acid Medium).
- Dr Baisali Sengupta (7.11.2012), Joint Guide with Prof V P Sharma (Study The Performance of Cross-Linked Polymer Gel System of Low Toxicity for Optimization of Chemical EOR Process for Oil Industry).
- Dr Vikash Kumar Saw (6.11.2013), Joint Guide with Prof S Laik (Studies of Methane Hydrate Formation and Dissociation in Presence of Extraneous Material).
- Dr. K M P Singh (9.3.2015), Guide, External Guide Dr Gouricharan (Studies on Flocculation of Indian Non-coking Coal Fines using Suitable Reagents).
- Dr. Neetha V Thampi (16.10.2015), Joint Guide with Dr Keka Ojha (Synthesis and characterization of water soluble VES and polymer embedded VES gels for potential applications in hydraulic fracturing).
- Dr. Kumari Sangita (31.3.2016), Guide, External guide Dr. Bably Prasad (Study on conversion of fly ash into zeolite and utilization of fly ash zeolite in pollution abatement).
- Dr. Shrenivas S Ashrit (31.3.2017), Principal guide, Co-guide Prof. R Venugopal and External guide Dr. K N Udpa (Analysis and characterization of steel plant LD slag fines and feasibility studies on product development for industrial application).

9. Dr. Shobha Kumari (30.6.2017), Guide, External guide Dr J K Pandey (Development of a standard method for determination of mineral matter and quartz in coal and airborne respirable dust and study the effect of beneficiation on quartz content of coal).
10. Dr. Saheli Bera (28.11.2017), Guide, External guide Dr. T K Raut (Studies on water based anti-corrosive coatings for galvanised steel and aluminium substrates).
11. Dr. Dharmendra Kumar Singh (23.3.2018), Co-guide, Principal guide Dr Rohit P John (studies on corrosion inhibition properties of selected nicotinic hydrazone compounds)
12. Dr. Amrita Biswas (30.8.2018), Principal guide, Co guide Dr Sagar Pal (Studies on some grafted or modified natural polymers as corrosion inhibitor for mild steel in acidic medium)
13. Dr. Subhajit Dash (17.9.2018), Principal guide, Co-guide Prof. Ashis Sarkar (Surface modification of coal fly ash and its application in adsorption and catalysis).

In Mining Engineering

1. Dr J K Pandey (15.1.2007), Co-guide, Principal Guide – Prof. D C Panigrahi (A study on chromium contamination in open cast chromite mine environment and development of a method of control)
2. Dr Murlidhar Yadav (21.2.2007), Co-guide, Principal Guide – Prof D C Panigrahi (Study of Different Fire Retardants and Sealants for Preventing and Controlling Fires in Indian Coal Mines)

b. Ongoing PhD guidance: Full Time – 4; Part Time - 5

Full Time

- i. Mr Ritesh Kumar (IIT (ISM) scholar), Co-guide, Prof. N Suresh
- ii. Ms. Thithi Sen (CSIR scholar), Co-guide, Dr R Thangavel
- iii. Mr Subash Padhan (IIT (ISM) scholar)
- iv. Ms Priya Kesri (IIT (ISM) scholar)

Part Time

- i. Mr. Suresh Kumar, Central ground Water Board, Patna
- ii. Mr Jathin Mohapatra, Tata Steel
- iii. Ms Mohua Sinhababu, Tata Pigments
- iv. Mr. Satyapraksh Rajhans, Co-guide Dr. Thangavel
- v. Mr. Amit Mondal, tata Steel

- c. i. MTech : Awarded : 1
- ii. MPhil : Awarded : 5

14. Administrative / Student Affairs Responsibilities held

- a. Dean (Academic), From 11.4.2017
- b. Associate Dean (Acad & Research), From 18.4.2014 to 10.4.2017
- c. Head, Department of Applied Chemistry from July 2008 to April 2014
- d. Chairman JEE from 2012 to 2014

- e. Vice-Chairman JEE from 2008 - 12
- f. Faculty-in-Charge (Examination) from January 2005 to Nov 2007
- g. Chairman, Semester Examination Monitoring Committee (Core group)
- h. Chairman, Maintenance Scrutiny Committee.
- i. Member, Core group for drafting the Peer Review Committee report.
- j. Hostel Warden (Opal Hostel) from 1994 to 1996 and 1998 - 2005
- k. Member, Core group for preparing document for NAAC accreditation.
- l. Member, Committee for the MACP of Group III and Group IV staff of ISM.
- m. Member of several other Committees constituted by the competent authorities for different purposes

15. Memberships of Professional bodies:

- a. Member, Electrochemical Society (USA)
- b. Life Fellow, Society for the Advancement of Electrochemical Science & Tech (SAEST)
- c. Life Member, Electrochemical Society of India
- d. Life Member, Indian Institute of Mineral Engineers
- e. Life Member, Indian Society for Surface Science & Technology
- f. Life Member, Indian Science Congress Association
- g. Life Member, Indian Association of Nuclear Chemists and Allied Scientists (IANCAS)
- h. Life Member, Indian Society for Technical Education.

16. Organisation of Seminar / Symposium etc.

- a. Member, Organising Committee, MPT 2018
- b. Chairman, Local Organising Committee, Annual Conference of Indian Council of Chemists, 2016.
- c. Member, Organising Committee, International Mine Ventilation Congress, New Delhi, November, 2009
- d. Member, Organising Committee, International Conference on Challenges in Coal and Mineral Beneficiation, Dhanbad, December, 2001
- e. Member, Organising Committee, International Mine Environment and Ventilation Symposium, Dhanbad, January, 2001
- f. Organising Secretary, Workshop on Characterisation and Utilization of fly ash.