

## Detailed Biodata

Personal website: [www.nanochemistrylab.com](http://www.nanochemistrylab.com)

1. Name and full correspondence address: Dr. Priyabrat Dash  
Professor, Department of Chemistry, NIT Rourkela, Rourkela, Odisha 769 008
2. Email(s) and contact number(s): dashp@nitrkl.ac.in, pdash1234@rediffmail.com, 8895121141(M), 0661-246-2664(O)
3. Institution: NIT Rourkela, Rourkela, Odisha
4. Date of Birth: 25/10/1979
5. Gender (M/F/T): M
6. Category Gen/SC/ST/OBC: Gen
7. Whether differently abled (Yes/No): No
8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/Institution	% of marks
1.	BSc	1999	Chemistry (Hons.)	Utkal University	72.6
2.	MSc	2001	Chemistry	Utkal University	73.4
3.	M.Tech	2004	Materials Science	IIT Bombay	9.24/10
4.	PhD	2010	Chemistry	University of Saskatchewan, Canada	83.8

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.  
**“Towards Rational Design of Nanoparticle Catalysts”, Prof. Robert W. J. Scott,  
University of Saskatchewan, Canada, 2010**
10. Work experience (in chronological order)

S.No.	Positions held	Name of the Institute	From	To	Pay scale
1.	Professor	NIT Rourkela	29/03/2023	onwards	179100 pay 14A level
1.	Associate Professor	NIT Rourkela	02/02/2018	28/03/2023	157100 pay 13A2 level
2.	Assistant Professor	NIT Rourkela	01/01/2016	01/02/2018	110800 pay 12 level
3.	Assistant Professor	NIT Rourkela	10/11/2011	31/012/2015	24900 AGP 8000
4.	Postdoctoral Fellow	University of Ottawa	16/04/2010	09/11/2011	CAD 36000/annum
5.	Research Assistant	IIT Bombay	10/09/2004	26/05/2005	INR 5000/month
6.	Research Officer	Gharda Chemicals Limited, Maharashtra	01/07/2004	04/09/2004	INR 10000/month

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

	Name of the Award	Awarding Agency	Year
10.	Prof. R. C. Tripathy Award for Best Young Scientist in Chemical Science	Odisha Chemical Society	2018
9.	Certificate of Outstanding Contribution in Reviewing for the month of Dec, 2016	Applied Surface Science (Elsevier)	2016
8.	Postdoctoral Fellowship	University of Ottawa, Canada	2010-2011
7.	University of Ottawa Postdoctoral Travel Award	University of Ottawa, Canada	2010
6.	Canadian Catalysis Foundation Travel Award	Canadian Catalysis Foundation	2010
5.	CGSR Student Travel Award	University of Saskatchewan, Canada	2008, 2009, 2010
4.	Graduate Teaching Fellowship	University of Saskatchewan, Canada	2005-2010
3.	CSIR-UGC-JRF-NET	CSIR, India	2002, 2003
2.	GATE	MHRD, India	2002-2004
1.	Best High School Student Award	Biswanath Bidyapith, Athagarh, Odisha	1994

12. Publications (*List of papers published in SCI Journals, in year wise descending order*).

**(Total Citations = 2393, h-index= 29, i-10 index= 44)**

S.No.	Author	Title	Name of Journal	Volume	Page	Year
53.	S. J. Sahoo, B Maji, A. Das, R. K. Sharma, P. Dash*	Metal–Organic Framework-Templated Growth of Cation-Substituted Metal Oxide Shell MO (M= Co, Ni, and Zn) on a CuO Core: An In-Depth Understanding of Methane Gas-Sensing Performance	<b>ACS Applied Electronic Materials</b>	7 (9)	3922	2025
52.	V. Rout, B. Maji, H. V. Annadata, R. Maharana, D. K. Panda, J. Samantaray, U. K. Goutam, K. Samanta, M.	Solar Assisted Mitigation of Chloramphenicol and H <sub>2</sub> Evolution Using CuNi Alloy Nanoparticles on h-BN Doped g-C <sub>3</sub> N <sub>4</sub> : A Comprehensive Approach Combining Synchrotron and DFT Analysis	<b>ACS Applied Materials &amp; Interfaces</b>	16 (50)	69333	2024

	Mishra, P. Dash*					
51.	A. Das, B. Maji, S. J. Sahoo, J. Singh, P. Dash*	Facile design of Ti <sub>3</sub> C <sub>2</sub> TX (MXene) modified spherical SrTiO <sub>3</sub> structure towards highly sensitive room temperature detection of NO <sub>2</sub>	ACS Applied Electronic Materials	5789	6(8)	2024
50.	S. J. Sahoo, P. Dash*	Investigation into NO <sub>2</sub> Gas Sensing Behaviour of Defect Induced Heteroatom (N, B) Doped Reduced Graphene Oxide Modified Mesopores MgFe <sub>2</sub> O <sub>4</sub>	New Journal of Chemistry	48	15358	2024
49.	S. J. Sahoo, A. Das, B. Maji, U. K. Goutam, P. Dash*	Effect of Ni-substituted Cu-MOF precursor towards efficient NO <sub>2</sub> gas detection: A comprehensive comparative gas sensing study between MOF-derived and traditionally synthesized CuO/NiO based nanocomposite	ACS Applied Electronic Materials	6(4)	2349	2024
48.	V. Rout, B. Barik, D. K. Panda, S. Subudhi, A. Mohapatra, R. K. Sharma, P. Dash*	Grafting of CuCo Alloy Nanoparticle on g-C <sub>3</sub> N <sub>4</sub> Sheet: An Efficient Strategy for Solar-Driven Photocatalytic Degradation of Ibuprofen and H <sub>2</sub> Gas Evolution by Water Splitting	Industrial & Engineering Chemistry Research	63(18)	8054	2024
47.	B. Maji, P. Dash*	Investigation into the enhanced gas sensing performance for CH <sub>4</sub> : Comparative study of MOF-derived and traditionally synthesized ZnCo <sub>2</sub> O <sub>4</sub> flower based composite	Sensors and Actuators B: Chemical	40	135182	2024
46.	P. S. Nayak, B. Maji, B. Barik, S. J. Sahoo, V. Rout, A. Das, P. Dash*	Oxygen Vacancy Enhanced Catalytic Activity in Pt Nanoparticle Decorated GO-CexOy Catalyst for the Efficient Synthesis of Pyran based Derivatives	New Journal of Chemistry	47(27)	13004	2023
45.	S. J. Sahoo, B. Barik, B. Maji, P. S. Nayak, N. Behera, P. Dash*	A redox accessible Cu-BTC metal organic framework-based nanocomposite for selective and sensitive electrochemical sensing of Triclosan in real sample	Journal of Electroanalytical Chemistry	943	117589	2023
44.	B. Maji, S. J. Sahoo, V. Rout, B. Barik, N. Behera, P.	Highly Sensitive and Selective Non-enzymatic Sensing of Glyphosate using FTO modified MOF-Derived CuCo <sub>2</sub> O <sub>4</sub> Nanostructures	Industrial & Engineering Chemistry Research	62(8)	3477	2023

	<b>Dash*</b>	Intercalated in Protonated-g-C <sub>3</sub> N <sub>4</sub> and 3D-Graphene Oxide Sheets				
43.	B. Maji, B. Barik, S. J. Sahoo, L. Satish K. Achary, K. K. Sahoo, J. P. Kar, <b>P. Dash*</b>	Shape Selective Comprehensive Gas Sensing Study of Different Morphological Manganese-Cobalt Oxide based Nanocomposite as Potential Room Temperature Hydrogen Gas Sensor	<b>Sensors and Actuators B: Chemical</b>	380	133348	2023
42.	L. S. K. Achary, R. Parida, A. Kumar, S. Giri, <b>P. Dash*</b>	Silicomolybdic Acid Intercalated Graphene Oxide-based Solid Acid: Catalytic Activity and Investigation of Structural Stability by DFT analysis	<b>Materials Chemistry &amp; Physics</b>	285	126096	2022
41.	P. S. Nayak, B. Barik, L. Satish K. Achary, B. Maji, S. J. Sahoo, <b>P. Dash*</b>	Facile Design of WO <sub>3</sub> Nanorods Decorated Graphene Oxide 1D-2D Nano catalyst towards Synthesis of Quinoline and its Derivatives	<b>New Journal of Chemistry</b>	46 (10)	4850	2022
40.	B. Maji, L. Satish K. Achary, B. Barik, S. J. Sahoo, A. Mohanty, <b>P. Dash*</b>	MnCo <sub>2</sub> O <sub>4</sub> Decorated (2D/2D) rGO/g-C <sub>3</sub> N <sub>4</sub> -based Non-Enzymatic Sensor for Highly Selective and Sensitive Detection of Chlorpyrifos in Water and Food Samples	<b>Journal of Electroanalytical Chemistry</b>	909	116115	2022
39.	B. Barik, S. J. Sahoo, B. Maji, J. Bag, M. Mishra, <b>P. Dash*</b>	Microwave-Assisted Development of Magnetically Recyclable PANI Modified CoFe <sub>2</sub> O <sub>4</sub> -WO <sub>3</sub> p-n-n Heterojunction: A Visible-Light-Driven Photocatalyst for Antibiotic Toxicity Reduction	<b>Industrial &amp; Engineering Chemistry Research</b>	60 (42)	15125	2021
38.	B. Barik, M. Mishra, <b>P. Dash*</b>	Ionic Liquid-Assisted Synthesis of Novel PANI/ZnWO <sub>4</sub> /WO <sub>3</sub> Ternary Nanocomposite: A Facile Double Electron Transfer Photocatalyst for Efficient Degradation of Herbicide	<b>Environmental Science: Nano</b>	8	2676	2021
37.	B. Ekka*, G. Dhar; S. Sahu; M. Mishra; <b>P. Dash*</b> ; R. K. Patel*	Removal of Cr(VI) by Silica-Titania Core-Shell Nanocomposites: In Vivo toxicity assessment of the adsorbent by Drosophila melanogaster	<b>Ceramics International</b>	47	19079	2021
36.	B. Barik, B. Maji, J. Bag, M. Mishra, J.	Design of a Non-cytotoxic ZnFe <sub>2</sub> O <sub>4</sub> -CeO <sub>2</sub> /BRGO Direct Z-scheme	<b>ChemistrySelect</b>	6(1)	101	2021

	Singh, P. Dash*	Photocatalyst with Bio-reduced Graphene Oxide as Cocatalyst				
35.	A. Kumar, L. Rout, L. S. K. Achary, S. K. Mohanty, P. S. Nayak, B. Barik, P. Dash*	Solvent Free Synthesis of Chalcones over Graphene Oxide-Supported MnO <sub>2</sub> catalysts synthesized via Combustion Route	<b>Materials Chemistry &amp; Physics</b>	259	124019.	2020
34.	L. S. K. Achary, B. Maji, S. N. Ghosh, J. P. Kar, P. Dash*	Efficient Room Temperature Detection of H <sub>2</sub> Gas by Novel ZnFe <sub>2</sub> O <sub>4</sub> -Pd Decorated rGO Nanocomposite	<b>International Journal of Hydrogen Energy</b>	Just Accepted		2019
33.	B. Barik, P. S. Nayak, A. Kumar, L. S. K. Achary, L. Rout, P. Dash*	Synthesis of Alumina based Cross-Linked Chitosan-HPMC Biocomposite Film: An Efficient and User-friendly Adsorbent for Multipurpose Water Purification	<b>New Journal of Chemistry</b>	10.1039/C9NJ03945G		2019
32.	B. Barik, P. S. Nayak, A. Kumar, L. S. K. Achary, L. Rout, P. Dash*	Ionic liquid assisted mesoporous silica-graphene oxide nanocomposite synthesis and its application for removal of heavy metal ions from water	<b>Materials Chemistry &amp; Physics</b>	239	122028	2020
31.	L. S. K. Achary, P. S. Nayak, B. Barik, A. Kumar, P. Dash*	Ultrasonic-Assisted Green Synthesis of $\beta$ -Amino Carbonyl Compounds by Copper Oxide Nanoparticles Decorated Phosphate Functionalized Graphene Oxide via Mannich Reaction	<b>Catalysis Today</b>	doi.org/10.1016/j.cattod.2019.07.050	-	2019
30.	P. S. Nayak, B. Barik, L. S. K. Achary, A. Kumar, P. Dash*	Gold nanoparticles deposited on MnO <sub>2</sub> nanorods modified graphene oxide composite: A potential ternary nanocatalyst for efficient synthesis of betti bases and bisamides	<b>Molecular Catalysis</b>	474	110415-110429	2019
29.	L. Rout, A. Kumar, L. S. K. Achary, B. Barik, P. Dash*	Ionic liquid assisted combustion synthesis of ZnO and its modification by Au-Sn bimetallic nanoparticles: An efficient photocatalyst for degradation of organic contaminants	<b>Materials Chemistry &amp; Physics</b>	232	339-352	2019
28.	L. Rout, A. Kumar, P. K. Chand, L. S. K. Achary, P. Dash*	Microwave-Assisted Efficient One-Pot Multi-Component Synthesis of Octahydroquinazolinone Derivatives Catalyzed by	<b>ChemistrySelect</b>	4	5696-5706	2019

		Cu@Ag Core-Shell Nanoparticle				
27.	B. Ekka, S. R. Nayak, L. S. K. Achary, Sarita, A. Kumar, S. Mawatwal, R. Dhiman, P. Dash*, R. K. Patel*	Synthesis of hydroxyapatite-zirconia nanocomposite through sonochemical route: A potential catalyst for degradation of phenolic compounds	<b>Journal of Environmental Chemical Engineering</b>	6(5)	6504	2018
26.	L. S. K. Achary, A. Kumar, B. Barik, P. S. Nayak, N. Tripathy, J. P. Kar, P. Dash*	Reduced graphene oxide-CuFe <sub>2</sub> O <sub>4</sub> nanocomposite: A highly sensitive room temperature NH <sub>3</sub> gas sensor	<b>Sensors and Actuators B: Chemical</b>	272	100-109	2018
25.	L. S. K. Achary, A. Kumar, L. Rout, S. V. S. Kunapuli, R. S. Dhaka, P. Dash*	Phosphate Functionalized Graphene Oxide with Enhanced Catalytic Activity for Biginelli Type Reaction under Microwave Condition	<b>Chemical Engineering Journal</b>	331	300-310	2018
24.	S. Milan, A. Kumar, L. Satish, B. Surisweta, P. Dash, H. Sahoo*	Insights into binding interaction between Copper ferrite Nanoparticle and Bovine Serum Albumin: An impact on protein conformation and activity	<b>Luminiscence</b>	DOI: 10.1002/bio.3499	DOI: 10.1002/bio.3499	2018
23.	J. K. Sahoo, A. Kumar, L. Rout, J. Rath, P. Dash, H. Sahoo*	An investigation of heavy metal adsorption by hexadentate ligand-modified magnetic nanocomposites	<b>Separation Science and Technology</b>	53	863-876	2018
22.	L. Rout, A. Kumar, R. S. Dhaka, G.N. Reddy, S. Giri, P. Dash*	Bimetallic Au-Cu Alloy Nanoparticles on Reduced Graphene Oxide Support: Synthesis, Catalytic Activity and Investigation of Synergistic Effect by DFT Analysis	<b>Applied Catalysis A: General</b>	538	107-122	2017
21.	A. Kumar, L. Rout, L. S. K. Achary, R. S. Dhaka, P. Dash*	Greener Route for Synthesis of aryl and alkyl-14H-dibenzo [a,j] xanthenes using Graphene Oxide-Copper Ferrite Nanocomposite as a Recyclable Heterogeneous Catalyst	<b>Scientific Reports</b>	7	42975-42992	2017
20.	B. Ekka, R.	Fluoride Removal in Waters	<b>Journal of</b>	151	303-318	2017

	S. Dhaka, R. K. Patel*, P. Dash*	using Ionic Liquid-Functionalized Alumina as a Novel Adsorbent	<b>Cleaner Production</b>			
19.	A. Kumar, L. Rout, L. S. K. Achary, S. K. Mohanty, P. Dash*	A Combustion Synthesis Route for Magnetically Separable Graphene Oxide-CuFe <sub>2</sub> O <sub>4</sub> -ZnO Nanocomposite with Enhanced Solar Light-Mediated Photocatalytic Activity	<b>New Journal of Chemistry</b>	41	10568-10583	2017
18.	S.A. Pappus, B. Ekka, S. Sahu, D. Sabat, P. Dash, M. Mishra*	A toxicity assessment of Hydroxyapatite nanoparticles on development and behavior of Drosophila melanogaster	<b>Journal of Nanoparticle Research</b>	19	136-151	2017
17.	J. K. Sahoo, A. Kumar, J. Rath, T. Mohanty, P. Dash, H. Sahoo*	Guar gum-coated iron oxide nanocomposite as an efficient adsorbent for Congo red dye	<b>Desalination and Water Treatment</b>	95	342-354	2017
16.	M. Mishra*, D. Sabat, B. Ekka, S. Sahu, U. P. P. Dash	Oral intake of Zirconia nanoparticle alters neuronal development and behaviour of Drosophila melanogaster	<b>Journal of Nanoparticle Research</b>	19	282-293	2017
15	D. Sabat, A. Pattnaik, B. Ekka, P. Dash, M. Mishra*	Investigation of Titania Nanoparticles on Behaviour and Mechanosensory Organ of Drosophila melanogaster	<b>Physiology &amp; Behaviour</b>	167	76-85	2016
14	B. Ekka, M. K. Sahoo, R. K. Patel*, P. Dash*	Titania Coated Silica Nanocomposite Prepared via Encapsulation Method For The Degradation of Safranin-O Dye From Aqueous Solution: Optimization Using Statistical Design	<b>Water Resources &amp; Industry</b>	10.1016/j.wri.2016.08.001	10.1016/j.wri.2016.08.001	2016
13.	A. Kumar, L. Rout, R. S. Dhaka, L. S. K. Achary, A. Mohanty, P. Dash*	An Investigation into the Solar Light-Driven Enhanced Photocatalytic Properties of a Graphene Oxide-SnO <sub>2</sub> -TiO <sub>2</sub> Ternary Nanocomposite	<b>RSC Advances</b>	6	32074-32088	2016
12	L. Rout, A. Kumar, R. S. Dhaka, P. Dash*	Bimetallic Ag-Cu alloy nanoparticles as a highly active catalyst for the enamination of 1,3-dicarbonyl compounds	<b>RSC Advances</b>	6	49923-49940	2016
11.	L. Satish, S. Rana, M. Arakha, L. Rout, B.	Impact of imidazolium based ionic liquids on the structure and stability of lysozyme	<b>Spectroscopy Letters</b>	49	383-390	2016

	Ekka, P. Dash, H. Sahoo					
10.	A. Kumar, L. Rout, R. S. Dhaka, S. L. Samal, P. Dash*	Design of a Graphene Oxide-SnO <sub>2</sub> Nanocomposite with Superior Catalytic Efficiency for the Synthesis of $\beta$ -enaminones and $\beta$ -enaminoesters.	RSC Advances	5	39193-39204	2015
9.	B. Ekka, L. Rout, M. K. Sahu, A. Kumar, R. K. Patel*, P. Dash*	Removal efficiency of Pb(II) from aqueous solution by 1-alkyl-3-methylimidazolium bromide ionic liquid mediated mesoporous silica	Journal of Environmental Chemical Engineering	3	1356-1364	2015
8.	L. Rout, P. Rengasamy, B. Ekka, A. Kumar, P. Dash*	Supported Bimetallic AgSn Nanoparticle as an Efficient Photocatalyst for Degradation of Methylene Blue Dye	Nano	10	1550059-1550072	2015
7.	T. Balcha, J. Strobl, C. Fowler, P. Dash, R. W. J. Scott	Selective Aerobic Oxidation of Crotyl Alcohol using Au-Pd Core-shell Nanoparticles	ACS Catalysis	1	425-436	2011
6	C. F. Calver, P. Dash, R. W. J. Scott	Selective Hydrogenation Activity of Ag-Pd Catalysts Prepared by Galvanic Exchange Reactions	ChemCatChem	3	695-697	2011
5	P. Dash, R. W. J. Scott	One-pot synthesis of supported-Nanoparticle Materials in Ionic Liquid solvents	Materials Letters	65	7-9	2011
4.	P. Dash, S. Miller, R. W. J. Scott	Stabilizing Nanoparticle Catalysts in Imidazolium-based Ionic Liquids: A Comparative Study	Journal of Molecular Catalysis A: Chemical	329	86-95	2010
3.	P. Dash, T. Bond, C. Fowler, W. Hou, N. Coombs, R. W. J. Scott	Rational Design of Supported-PdAu Nanoparticle Catalysts from Structured Nanoparticle Precursors	Journal of Physical Chemistry C	113	12719-12730	2009
.2.	P. Dash, R. W. J. Scott	1-Methylimidazole Stabilization of Gold Nanoparticles in Imidazolium Ionic Liquids	Chemical Communications	-	812-814	2009
1.	P. Dash, N. A. Dehm, R. W. J. Scott	Bimetallic PdAu Nanoparticles as Hydrogenation Catalysts in Imidazolium Ionic Liquids	Journal of Molecular Catalysis A: Chemical	286	114-119	2008

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13. Detail of patents.: NIL.

14. Books/Reports/Chapters/General articles etc.

### Book chapter:

5. S. J. Sahoo, B. Maji, **P. Dash\***(2022) Sensing and biosensing with optically active metal-oxide nanomaterials, In: Suban K. Sahoo, (eds) Micro and Nano Technologies, Sensing and Biosensing with Optically Active Nanomaterials, Elsevier.

4. B. Barik, B. Maji, D. Sarkar, A. K. Mishra, **P. Dash\*** (2022) Cellulose-based nanomaterials for textile applications. In: Mishra, A. K., Hussain S. (eds) Bio-Based Nanomaterials. Elsevier.

3. B. Maji, B. Barik, **P. Dash\***(2021) Methods for design and fabrication of nanosensors, In: Sabu Thomas, Tuan Anh Nguyen, Mazaher Ahmadi, Ali Farmani, Ghulam Yasin, (eds) In Micro and Nano Technologies, Nanosensors for Smart Manufacturing, Elsevier.

2. B. Barik, P. S. Nayak, **P. Dash\*** (2020) Nanomaterials in Wastewater Treatments. In: Amrane A., Rajendran S., Nguyen T. A., Ashraf A. A., Hussain S. (eds) Nanotechnology in the Beverage Industry. Elsevier.

1. L. S. K. Achary, B. Barik, **P. Dash\*** (2019) Graphene Oxide-Polymer Nanocomposites Towards Sensing and Photocatalytic Applications. In: Hussain C., Thomas S. (eds) Handbook of Polymer and Ceramic Nanotechnology. Springer, Cham.

### *Refereed Proceedings:*

S.No.	Title	Author's Name	Publisher	Year of Publication
8.	EDTA functionalized magnetic nanoparticle as a functional adsorbent for Congo red dye from contaminated water	J. K. Sahoo, J. Rath, <b>P. Dash</b> , H. Sahoo	AIP Proceedings	1832, 050087, 2017
7.	Design of binary SnO <sub>2</sub> -CuO nanocomposite for efficient photocatalytic degradation of malachite green dye	A. Kumar, L. Rout, S. L. Achary, A. Mohanty, J. Marpally, P. K. Chand, <b>P. Dash*</b>	AIP Proceedings	1724, 020027, 2016
6.	Removal of malachite green dye from aqueous solution using mesoporous silica synthesized from 1-octyl-3-methylimidazolium chloride ionic liquid	B. Ekka, S. K. Nayak, <b>P. Dash*</b> , R. K. Patel*	AIP Proceedings	1724, 020011, 2016
5.	Towards the Rational Design of Supported-Bimetallic Nanoparticle Catalysts	<b>P. Dash</b> , R. W. J. Scott	Materials Research Society (MRS) Proceedings	1217-Y01-07, 2010
4.	Characterization of Structured Bimetallic Nanoparticle Catalysts	R. W. J. Scott, <b>P. Dash</b> , C. Calver	Canadian Light Source (CLS) Report	98, 2010
3.	XAFS Studies of Structured	R. W. J. Scott, <b>P.</b>	Canadian Light	57, 2008

	Bimetallic Nanoparticle Catalysts at the CLS	<b>Dash</b>	Source (CLS) Report	
2.	Bimetallic Nanoparticles as Catalysts in Imidazolium Ionic Liquids	R. W. J. Scott, <b>P. Dash</b>	Materials Research Society (MRS) Proceedings	1082-Q04-02 , 2008
1.	Synthesis of Bioglass Ceramic Epoxy Composites	<b>P. Dash</b> , D. K. Pattanayak, R. C. Prasad, B. T. Rao, T. R. Rama Mohan	Transcations of Powder Metallurgy Association of India (PMAI)	30, 01, 2004

**a. PhD students guided : 09 completed (7 as PI and 2 as co-PI), 05 ongoing**

**Shital Jyotshna Sahoo, 2025** (just defended)

**Banalata Maji**, 2024 Current Position: Postdoctoral Fellow, IIT Hyderabad, India

**Pratap Sagar Nayak** 2023 Current Position: Government Lecturer, Odisha, India

**Bapun Barik**, 2021 Current Position: Postdoctoral Fellow, Chonnam National University, South Korea

**L. Satish K Achary**, 2020 Current Position: Assistant Professor, CV Raman Global University, Bhubaneswar, Odisha

**Aniket Kumar**, 2018, Current Position: Postdoctoral Fellow, Chonnam National University, South Korea

**Lipeeka Rout**, 2017, Current Position: Postdoctoral Fellow, Trinity University, Ireland

**Basanti Ekka** (co-PI), 2017, Current Position: Postdoctoral Fellow, Riga National Univesity, Latvia/Finland joint project

**Jitendra K Sahoo**, 2019 (co-PI), Current position: Lecturer, GIET, Gunupur, Odisha

**b. MSc student projects guided: 29**

**c. Sponsored Projects Handled: 05**

Sl.No.	Title of the Project	Funding Agency	Total Financial Outlay	Year of start & total period	Name of PI	Status
1.	Development of recoverable and reusable heterogenous cellulose nanocrystal (CNC) supported oganocatalysis	SERB-TARE	~18 lakhs	2022-2025	Priyabrat Dash, Mentor	Ongoing
2.	Towards the rational design of spinel ferrites-based nanocomposites for catalytic detoxification of organic wastes and detection of harmful gases in mines	Odisha S & T	~10 lakhs	2020-2024	Priyabrat Dash	Completed, One PhD student submitted her thesis.

3.	Synthesis and functionalization of hollow metal oxides in ionic liquids for catalysis and sensor application	DST-SERB	~ 26 lakhs	2012-2015	Priyabrat Dash	Completed, One PhD student graduated.
4.	Spatial Distribution of Uranium and Associated Water Quality Parameters in Groundwater/Drinking Water in Four Districts of Odisha (Balangir, Bargarh, Nuapada and Subarnapur)	BRNS	~ 23 lakhs	2016-2018	Priyabrat Dash	Ongoing, One PhD student ongoing.
5.	Spatial Distribution of Uranium and Associated Water Quality Parameters in Groundwater/Drinking Water in Four Districts of Odisha (Sundargarh, Jharsuguda, and Sambalpur)	BRNS	~ 24 lakhs	2014-2017	Priyabrat Dash, co-PI	Completed, One PhD student ongoing.

**d. Journals/Funding Agencies Refereed:**

- Reviewer of journal of international repute such as **ACS Catalysis, Langmuir, ACS Applied Materials & Interfaces, Chemical Communications, ACS Omega, Chemical Engineering Journal, Catalysis Today, ChemElectroChem, Applied Surface Science, RSC Advances, Beilstein journal of Nanotechnology, Current Organic Chemistry, catalysis letters, materials letters, chemosphere, and journal of molecular catalysis A, chemical, Journal of Water Process Engineering, Current Nanoscience**, etc.
- Reviewer of Government of India funding agencies like **DST and DBT**.
- Reviewer of International funding agencies like **Stanford Synchrotron Facility and American Petroleum Research Fund**.
- **Reviewer/Examiner of PhD thesis** of reputed institutes like NIT and IIT.
- **Expert for Interview promotion** in Institutes of Repute.
- **Question paper setter** for reputed institutes.

**e. Invited Talks/Guest Lectures Delivered: 29**

**f. Work Presented at conferences: 56**

**g. Conferences/Workshop Conducted:**

- Acted as **Chairman** in 31<sup>st</sup> CRSI-NSC meeting (largest Chemistry Conference in India) at NIT Rourkela from July 06-July 08, 2023.

- Acted as **Convener** in national conference on “Advanced Materials for Energy and Environmental Applications” (AMEEA 2018) sponsored by DST, BRNS, and DRDO, December 12-14, 2018 at NIT Rourkela, Odisha.
- Acted as **Treasurer** in national conference (in association with Indian Photobiology Society) on Biomolecular Dynamics (BDETP), December 18-20, 2017, NIT Rourkela, Odisha.

**h. Laboratories Developed:** Gas Sensor Laboratory, Water Analysis Laboratory, Nanochemistry Laboratory

**i. Administrative Positions Held:** Head of the Department (HOD) Chemistry, NIT Rourkela (2021-2024), Chairman of House Allotting Committee (2025-ongoing), Convener for Institute Convocation, NIT Rourkela (2018-2021), Asst. Warden (2017-2020), Departmental Convener for Curriculum Development, and Institute member for science Curriculum Development

**j. Outreach Activities Carried Out:**

- Popularizing science in various media like All India Radio, Rourkela Chapter.
- Giving scientific talks in various state level and private colleges and Universities.
- Presenting nanochemistry experiments to nearby school students.

**k. Professional Memberships:** Materials Research Society (MRS), India and Canadian Society for Chemistry (CSC), Odisha Chemical Society (OCS)

**l. Trainings Undertaken:**

- Laboratory Safety for Supervisors at U of Saskatchewan, Canada.
- Laboratory Safety and Management at U of Ottawa and Saskatchewan, Canada.
- Agilent's GC and LC Tips and Tricks training at Saskatoon, Canada.
- Canadian Light Source Synchrotron Summer School at CLS, Saskatoon, Canada.

**m. Workshops Attended:**

- Foundations of Project Management I workshop by MITACS Step at U of Ottawa, Canada.
- The art of Powerful Conversation workshop by MITACS Step at U of Ottawa, Canada.
- Using Technology to Assess Learning workshop at Centre for University Teaching, U of Ottawa, Canada.
- Time Management workshop at Graduate Studies Mentoring Centre, U of Ottawa, Canada.
- Innovative Ideas for Student Assignments workshop at Centre for University Teaching, U of Ottawa, Canada.

- Developing Exams and Supporting your Students in their Studies workshop at Centre for University Teaching, U of Ottawa, Canada.