

## Faculty Profile

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**Designation:** Assistant Professor

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**Address for Communication:** Dept. of Chemistry, NSM Udaipur, Gomati, Tripura.

**Date of Joining:** 14.02.2011

**Subject:** Chemistry

**Publication Details:**

**Seminar Proceedings/ Articles in Edited Books and Journals ( with ISBN/ISSN)**

Sl.No.	Titles	Publisher	Month and Year
<b>Books (full author)</b>			
1	“Oasis: A Far Cry”, ISBN-9788176258999	Sarup & Sons, India	2009
2	“Piquant Lines”, ISBN-9781512274592	Amazon, USA	2015
<b>Chapters (in edited books)</b>			
1	No instant solution possible for higher education crisis in India, ISBN: 9788181523310	Book Enclave, India	Jan, 2013
2	Water quality status of Indian major rivers with reference to agriculture and drinking purposes, ISBN: 9789385022739	A. K. Publications, India	Apr, 2016
3	Inhibition of mild steel corrosion in acidic media by phytochemicals, ISBN: 9781771887618	Apple Academic Press, USA	Dec, 2018
<b>Articles (in peer reviewed journals)</b>			
1	Economics education in north-east India: Inviting a second thought	International Journal of Pluralism and Economics Education	Jan, 2013
2	Supramolecular chemistry and its application	Prayas – An International Journal of Multidisciplinary Studies	Feb, 2014
3	Divergent customer preferences in urban and rural areas	International Journal of Business and Administration Research Review	Jun, 2015
4	Strategy vs. Technology—the line of assault defines the fate	Journal of Advanced Business Management	Dec, 2015
5	Ethanol electro-oxidation by Pt/r(GO-ZSM)/graphite foil	Advanced Materials Proceedings	Oct, 2016
6	Fuel cell applications of chemically synthesized zeolite modified electrode (ZME) as catalyst for alcohol electro-oxidation: A review	Journal of Electroanalytical Chemistry	Nov, 2016
7	Composites of graphene oxide and zeolite as a potential inhibitor for alkaline corrosion of aluminium	Indian Journal of Science and Technology	Jul, 2017
8	Electro-oxidation of methanol and ethanol catalyzed by Pt/ZSM-5/C	Electroanalysis	Aug, 2017
9	Electro-oxidation of ethanol onto Pt/rGO/C, Pt/rGO-G,	International Journal of	Dec, 2017

	Pt/rGO-CB/C and Pt/rGO-ZSM/C composite carbon-felt electrode for fuel cell application	ChemTech Research	
10	Electrochemical investigation of methanol electro-oxidation over GO and ZSM-5 composite in different ratios	International Journal of Advance Research in Science and Engineering	Dec, 2017
11	Comparison of catalysis of ethanol and methanol electro-oxidation by layered Pt/GO-ZSM-5 over graphite foil for fuel cell applications	International Journal of ChemTech Research	Dec, 2017
12	Catalytic ability of novel Pt/MCM-41 for fuel cells	Journal of Iranian Chemical Society	Jan, 2018
13	Layered Pt.ZSM-5-C by greener chemical reduction for catalysing fuel cell	Current Science	May, 2018

**Papers Presented at National/ International Seminars / Conferences:**

Sl.No.	Title of the Paper Presented	Seminars / Conferences Attended	Duration/ Date	Organised by
1	Bond strength & environment effect interpretation from spectroscopic studies	Recent Developments in Physical Sciences	2 days / 2005	Karimganj College, India
2	An 'uncared for' heritage of southern Assam	National Seminar - Intangible Cultural Heritage of Assam	1 day / 2005	Gauhati University, India
3	Synthesis of molybdenum incorporated MFI zeolite in flouride medium	19th National symposium - Catalysis for Sustainable Energy and Chemicals	2 days / 2009	Catalysis Society of India & National Chemical Laboratories, India
4	Is man competent enough to correctly predict the future?	First National Symposium - A Perceptual Account of Nature's Organization: Natural Philosophy to Natural Science	2 days / 2010	
5	Synthesis and characterization of heterogeneous porous acid catalysts for catalysing 'green' oxidation processes	National Seminar - Green Chemistry & Nanoscience: Theory & Applications	1 day / 2012	M. B. B. College, Indai & NIT, India
6	Electro-oxidation of Ethanol over Platinum Electrodeposited Reduced GO-ZSM-5 Composite Electrode	International Conference - Materials Science & Technology	2 days / 2016	VBRI Press, Sweden & University of Delhi, India
7	Bioenergy - A clean renewable energy source to combat climate change	1-Day National Seminar on Scientific, Socio-Economic, Political and Ethical Perspectives of Climate Change	1 day / 2017	B.B.M. College, India
8	An analysis of Economics curriculum & syllabi in N. E.	National Seminar on Quality Enhancement in Higher	1 day / 2017	Government Degree College

	India	Education in Northeast India: Challenges and Opportunities		Dharmanagar, India
9	Electrochemical investigation of methanol electro-oxidation over GO and ZSM-5 composite in different ratios	10th International Conference on Recent Development in Engineering Science, Humanities and Management	1 day / 2017	ICSSR North West Regional Centre, Punjab University Campus, Chandigarh, India
10	Inhibition of aluminium corrosion by soybean seed extract	e-Poster Conference on Current Outlook in Material Science and Engineering	2 days / 2020	Bodoland University, India, Tripura University, India, ADP College, India & MIT Aurangabad, India
11	Curry leaves: A potential inhibitor of aluminium corrosion	e-Poster Conference on Current Outlook in Material Science and Engineering	2 days / 2020	Bodoland University, India, Tripura University, India, ADP College, India & MIT Aurangabad, India

#### Delivered Invited Lectures at Symposiums/ Workshops/ Training Programmes:

Sl. No.	Programmes	Details
1	Himalayan Vigyan Chetana Jatha, Govt. of India	➤ Delivered lecture as Resource person
2	National Children's Science Congress, District Co-ordination Committee, India	➤ Delivered lecture as Resource person
3	Science and Technology for National Development, Indian Science Congress Association, India	➤ Delivered lecture as Resource person

#### Attended Faculty Development Programmes:

Sl. No.	Details
1	Refresher Course at Assam University, India with Grade 'A' in 2002.
2	Indian Academy of Sciences Orientation Programme - Chemical Theories and Applications at Gauhati University, India in 2005.
3	Regional Workshop on Lesson Planning & Teaching Practice at Gauhati University, India, 2005.
4	Workshop - Chemistry Education: Past, Present and Future at Gauhati University, India in 2006.
5	Career Counselling Workshop at Karimganj College, India in 2009.
6	UGC sponsored National Workshop - Policies & Problems of Higher Education in Assam at Handique Girls' College, India in 2010.
7	Career Counselling Workshop at Government Degree College Dharmanagar, India in 2011.
8	1-Day Awareness Programme - Chemical Weapons Convention at Tripura University, India in 2011.
9	3-Day Workshop on Solar Energy and its Applications at NIT Silchar, India in 2012.
10	3-Day Workshop - Creativity & Innovation Techniques and Patenting in India & Abroad at NIT Silchar, India in 2012.

11	Workshop - Creative Writing & Remembering Rabindranath Tagore at Balvant Parekh Centre for General Semantics and Human Sciences, India in 2012.
12	State Level Popular Science Seminar at Government Degree College Dharmanagar, India in 2013.
13	State Level Popular Science Seminar at Government Degree College Dharmanagar, India in 2014.
14	International Conference on Material Science & Technology at University of Delhi, India in Mar 2016.
15	21-Days Training program on capacity building in Geospatial Technologies at NIT Agartala, India in 2017.
16	10th International Conference on Recent Development in Engineering Science, Humanities and Management at ICSSR North West Regional Centre, Punjab University Campus, Chandigarh, India in Dec, 2017.
17	Refresher Programme at Tripura University, India with Grade 'A' in Sep, 2019.
18	Online refresher course in "Chemistry for higher education" under Swayam ARPIT with Grade 'A' in Mar, 2020.
19	Attended workshop on "Peer Review" by American Chemical Society in Apr, 2020.
20	1-Day eFDP Webinar on "ICT Enabled Higher Education in India: Challenges and Opportunities" in Apr, 2020.
21	1-Day eFDP Webinar on "Development of Higher Education in India: An Overview" in Apr, 2020.
22	2-Days e-Conference on "Current Outlook in Material Science and Engineering" in May, 2020.
23	7 Days eFDP Webinar on "Essentials for Good Research" by Assam Down Town University in May-Jun, 2020.
24	1-Day Webinar on "The Article Publishing Process" by Elsevier, Africa in Jun, 2020.
25	1-Day Webinar on "The Book Publishing Process" by Elsevier, Africa in Jun, 2020.
26	1-Day eFDP Webinar on "Living on the Edge with Covid-19" by Triveni Devi Bhalotia College, India in Jun, 2020.
27	1-Day FDP Webinar on "Chemicals, You and Covid-19" by Malda College, India in Jun, 2020.

#### **Membership/Positions in National/ International Academic Bodies/ Organisations:**

<b>Sl. No.</b>	<b>Details</b>
1	Life member, Society for Chemical Education, Assam, India.
2	Life member, Catalysis Society of India, IIT Madras, India.
3	Life member, Forum on Contemporary Theory, Vadodara, India.
4	Life member, Balvant Parekh Centre for General Semantics and Human Sciences, Vadodara, India.
5	Life member, Indian Science Congress Association, Kolkata, India.
6	Reviewer, Journal of Solid State Chemistry, Elsevier, US.
7	Reviewer, Global Nest J., Greece.
8	Reviewer, Journal of Saudi Chemical Society, Elsevier, Saudi Arabia.
9	Reviewer, Sustainable Energy & Fuels, Royal Society of Chemistry, UK.
10	Reviewer, ChemistrySelect, Wiley, Germany.
11	Associate Editor, AR Research Publication and Conference World, India.
12	Reviewer, Applied Organometallic Chemistry, Wiley, US.
13	Reviewer, Journal of Inorganic and Organometallic Polymers and Materials, Springer, Switzerland.
14	Reviewer, Current World Environment Journal, India.

15	Reviewer, Journal of Physical Chemistry, India/UK.
16	Reviewer, International Journal of Energy Research, Wiley, US.
17	Reviewer, International Journal of Hydrogen, UK.
18	Editor-in-Chief, Prayas – An International Journal of Multidisciplinary Studies (PIJMS) [eISSN 2348-618X], India in 2013-17.

#### Research Achievements:

##### Patent:

SI. No.	Details
1	"Design No. 320743-001" in Indian Patent Office Journal No. 40/2019 Dt. 04/10/2019.

##### Project:

SI. No.	Details
1	Analysed the enrolment and performance of Karimganj College, India under the affiliation of Gauhati University and Assam University in 2005.
2	Completed Minor Research Project "Synthesis, characterization and catalytic properties of mesoporous solids" of 20, 0000 INR sponsored by UGC in 2008-2010.

##### Award:

SI. No.	Details
1	Certificate of Outstanding Contribution in Reviewing - 2017, awarded by Journal of Solid State Chemistry, Elsevier, US.
2	Certificate of Outstanding Contribution in Reviewing - 2018, awarded by Journal of Saudi Chemical Society, Elsevier, Saudi Arabia.
3	Teacher Innovation Award - 2019-20, awarded by the Hon'ble Minister of Human Resource Development "Shri Ramesh Pokhriyal "Nishank" in Mar, 2020.

##### Reviews:

SI. No.	Details
1	"Indirect harnessing of crude attapulgite: efficient adsorption of H <sub>2</sub> S by 4A molecular sieve zeolite synthesized from crude attapulgite" for Global Nest Journal in Jan, 2016.
2	"One-pot strategy to Bi <sub>2</sub> S <sub>3</sub> /BiOCl heterojunction with enhanced photocatalytic performance" for Journal of Solid State Chemistry on Nov, 2016.
3	"Synthesis and photocatalysis of ordered mesoporous peony-like ZnIn <sub>2</sub> S <sub>4</sub> microspheres" for Journal of Solid State Chemistry in Jan 2017.
4	"Ferrocyanide ions-doped Nano resin Lewatit FO36 as a new redox probe for simultaneous voltammetric determination" for Journal of Saudi Chemical Society in Aug, 2017.
5	"Hybrid catalyst of Pt/CoNiO <sub>2</sub> on carbon nanotubes and its synergetic effect towards remarkable ethanol electro-oxidation in alkaline media" for Sustainable Energy & Fuels in Sep, 2017.
6	"Hybrid catalyst of Pt/CoNiO <sub>2</sub> on carbon nanotubes and its synergetic effect towards remarkable ethanol electro-oxidation in alkaline media" for Sustainable Energy & Fuels in Oct, 2017.
7	"Facile fabrication of Pt-Ru nanoparticles immobilized on reduced graphene oxide support for the electrooxidation of methanol and ethanol" for ChemistrySelect in Nov, 2017.
8	"Facile fabrication of Pt-Ru nanoparticles immobilized on reduced graphene oxide support for the electrooxidation of methanol and ethanol" for ChemistrySelect in Nov, 2017.
9	"Facile solid-state synthesis of highly dispersed Cu nanospheres anchored on coal-based activated carbons as an efficient heterogeneous catalyst for the reduction of 4-nitrophenol" for

	Journal of Solid State Chemistry in Dec, 2017.
10	"Effect of CTAB content and preparation method on mesoporous structure of Mg-AL-CO hydroxalcite like compound" for Journal of Solid State Chemistry in Dec, 2017.
11	Verified review of "Facile solid-state synthesis of highly dispersed Cu nanospheres anchored on coal-based activated carbons as an efficient heterogeneous catalyst for the reduction of 4-nitrophenol" for Journal of Solid State Chemistry in Jan, 2018.
12	"A novel ternary TiO <sub>2</sub> /CQDs/BiOX(X=Cl,Br,I) heterostructure as photocatalyst for water purification under solar irradiation" for Journal of Solid State Chemistry in Feb, 2018.
13	"A novel ternary TiO <sub>2</sub> /CQDs/BiOX(X=Cl,Br,I) heterostructure as photocatalyst for water purification under solar irradiation" for Journal of Solid State Chemistry in Apr, 2018.
14	"Composite nanostructured electrode material based on electrochemically reduced graphene oxide and gold nanoparticles for ascorbic acid determination" for Journal of Saudi Chemical Society in Apr, 2018.
15	"A novel ternary TiO <sub>2</sub> /CQDs/BiOX(X=Cl,Br,I) heterostructure as photocatalyst for water purification under solar irradiation" for Journal of Solid State Chemistry in May, 2018.
16	"Electrocatalytic oxidation of methanol on nickel doped metal-organic frameworks MIL-110 modified glassy carbon electrode in alkaline medium" for Journal of Solid State Chemistry in Jan, 2019.
17	"Enhanced anti-ablation and alkali corrosion resistance of graphene oxide modified urea-melamine-phenol formaldehyde composites reinforced by R-glass fiber" for Journal of Inorganic and Organometallic Polymers and Materials in Jan, 2019.
18	"Phyto-assisted preparation of Ag and Ag-CuO nanoparticles using aqueous extracts of Mimosa pigra and their catalytic activities in the degradation of some common pollutants" for Journal of Inorganic and Organometallic Polymers and Materials in Jan, 2019.
19	"Scaled-up, selective and green synthesis of sulfoxides under mild conditions using (CellI-MoVI)Ox/aniline hybrid rods as an efficient catalyst" for Applied Organometallic Chemistry in Feb, 2019.
20	"Enhanced anti-ablation and alkali corrosion resistance of graphene oxide modified urea-melamine-phenol formaldehyde composites reinforced by R-glass fiber" for Journal of Inorganic and Organometallic Polymers and Materials in Mar, 2019.
21	"Application of magnetized activated carbon prepared by oak shell biowaste and modified with nickel hexacyanoferrate for selective removal of cesium" for Journal of Inorganic and Organometallic Polymers and Materials in Mar, 2019.
22	"Thermodynamic and thermal properties of solvation for nano nickel ferrite and nano zinc ferrite prepared by the sol-gel method in different CH <sub>3</sub> COOH concentrations at different temperatures" for Journal of Inorganic and Organometallic Polymers and Materials in Apr, 2019.
23	"Preparation of carboxylated graphene oxide for enhanced adsorption of U(VI)" for Journal of Solid State Chemistry in Apr, 2019.
24	"TiO <sub>2</sub> nanostructures (TiO <sub>2</sub> -NSs): Synthesis, characterization and evaluation of their toxicity in the Swiss albino mouse" for Journal of Inorganic and Organometallic Polymers and Materials in May, 2019.
25	"Design of Prussian blue type core - silica shell nanoparticle" for Journal of Solid State Chemistry on 2019-05-27
26	"Theoretical examination of oxygen reduction reaction on boron doped carbon nanocone (B-CNC) for fuel cells" for Journal of Inorganic and Organometallic Polymers and Materials in Jun, 2019.
27	"Scaled-up, selective and green synthesis of sulfoxides under mild conditions using (CellI-MoVI)Ox/aniline hybrid rods as an efficient catalyst" for Applied Organometallic Chemistry in Jul,

	2019.
28	"Spatial Variability in Physico-Chemical Parameters of Water in Lake Baringo Catchment, Kenya" for Current World Environment in Aug, 2019.
29	"Mixed n-type electronic, oxide ion, and protonic conduction in in-doped SrTi <sub>1-x</sub> Ru <sub>x</sub> O <sub>3-x</sub> " for Journal of Solid State Chemistry in Aug, 2019.
30	"A luminescent Eu(III) coordination polymer: selective detection of p-nitroaniline and treatment effect on colon cancer by inhibiting TRIB3 mediated cell proliferation and migration" for Journal of Inorganic and Organometallic Polymers and Materials in Aug, 2019.
31	"Synthesis and characterization of biocompatible silver nanoparticles for anticancer application" for Journal of Inorganic and Organometallic Polymers and Materials in Sept, 2019.
32	"Multivariate QSAR study of 7-Hydroxy-1,3-dioxo-2,3-dihydro-1H-pyrrolo[3,4-c]pyridine-4-carboxylate derivatives as potent anti-HIV agents" for Physical Chemistry: An Indian Journal in Sept, 2019.
33	"Improved facile synthesis of mesoporous SBA-15-CTA using citric acid under mild conditions" for Journal of Solid State Chemistry in Oct, 2019.
34	"Synthesis and characterization of biocompatible silver nanoparticles for anticancer application" for Journal of Inorganic and Organometallic Polymers and Materials in Oct, 2019.
35	"Lanthanide Metal-Organic Frameworks as Luminescent Sensor for Toluene" for Journal of Inorganic and Organometallic Polymers and Materials in Nov, 2019.
36	"Synthesis and Characterization of Ag@Fe <sub>3</sub> O <sub>4</sub> Hetero Nanoparticles: A Highly Active Catalyst for Hydrogen Evolution Reactions" for Journal of Inorganic and Organometallic Polymers and Materials in Nov, 2019.
37	"Green synthesis, characterization and antifungal activity of silver nanoparticles using stems and flowers of Felty germander" for Journal of Inorganic and Organometallic Polymers and Materials in Nov, 2019.
38	"In-vitro antibacterial, antioxidant and cytotoxic potential of silver nanoparticles synthesized using novel Eucalyptus tereticornis leaves extract" for Journal of Inorganic and Organometallic Polymers and Materials in Dec, 2019.
39	"Kinetics of Catalytic Oxidation of Oxygenated Fuels over Pt/ZSM-5 Catalyst" for Energy & Fuels in Apr, 2020.
40	"Enhanced Performance of Methanol Oxidation Reaction in Direct Methanol Fuel Cell Via Green Synthesis of Platinum Electro-Catalyst From Sugar Cane Bagasse" for International Journal of Energy Research in May, 2020.
41	"Copper-loaded SBA-15 silica with improved electron mobility - Conductance and capacitance properties" for Journal of Inorganic and Organometallic Polymers and Materials in Jun, 2020.
42	"Swelling and d.c. conductivity behaviour of gelatin-based ferrogels" for Journal of Inorganic and Organometallic Polymers and Materials in Jun, 2020.
43	"Enhanced Hydrogen Ab/De-sorption of Mg(Zn) Solid Solution Alloy catalyzed by YH <sub>2</sub> /Y <sub>2</sub> O <sub>3</sub> Nanocomposite" for International Journal of Hydrogen in Jun, 2020.