Dr. S. C. Moi, M. Sc. Ph. D, FRSC (London)
Professor & Ex. HOD, Dept. of Chemistry
National Institute of Technology Durgapur;
West Bengal, India
Contact : Mobile: 91+9434788062
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1. Educational qualifications

	Degree	Year of passing	College/University
1.	B. Sc. (Hons. Chem.)	1990	Burdwan University
2.	M.Sc. (in Chem.)	1992	Burdwan University
3.	Ph. D. (Chemistry)	2005	Burdwan University
4.	GATE Qualified	1993	IIT & UGC
5.	NET	1999	UGC-CSIR

1. Experience

(a) Total Research Experience: 26 yrs including Ph. D work

Total Publications: 64

Journal Articles: 61, Conference publications: 23

Reviewer of Several International Journals

(b) Total Industrial Experience: 8 yrs+

(c)Total Teaching Experience: 28 yrs +

(i) B. Tech, and 5-yrs Int. M. Sc. in chemistry, 2 yrs M. Sc. Chemistry in chemistry, M. Tech. (Corrosion Science and Technology- 7 yrs)

Teaching interest: **B. Tech Classes**: Organic Reaction Mechanism; Polymer Chemistry and Engineering; Petroleum Chemistry and Engineering; Quantitative analysis of Inorganic samples, Qualitative analysis of Organic compounds; Application of Analytical Instruments in engineering sample analysis (Elective paper in 8th Sem. B. Tech.)

M. Tech in Corrosion Science and Technology: Material protectives and organic coating (Polymer including Rubber and plastic Science and technology, Composite and Laminates (1st Sem.). Industrial corrosion (Thermal power Plant and Pulp and paper Industry).

M. Sc. Chemistry: Stereochemistry, Uses of Special Reagents in Organic Synthesis, Important reaction in Organic Chemistry (Versatile uses of Hydroboration Reaction, Wittig reaction, Birch Reduction, Aldol condensation; Ylides chemistry etc); Asymmetric synthesis; Bio-molecules(Nucleic acid chemistry). Analysis of Organic Samples

2. Research Interest: *Synthesis of Pt(II) and Pd(II) complexes, analogous to cis-platin with comparable or better cytotoxic property on Cancer cell lines; special emphasis on kinetics and mechanism of biologically important Inorganic reactions. DNA/BSA binding property, cell culture and effect of Pt(II) and Pd(II) complexes (MTT and NBT assay) on cancer cell lines. Interfaces between theoretical investigation on kinetics & mechanism and their application in development and modification of cytotoxic agent.*

3. Patent filed by Prof Sankar Chandra Moi:

(1) Patent Application No. 202331055248 dated 17.08.2023 in India entitled "Less toxic and more effective anticancer activity of pyridine derivative along with few labile group based Pt(II) complexes" Sankar Chandra Moi and Rituparna Bhaduri.
(2) Patent Application No: 202531092324 dated on 25th September 2025 in India, the title of the patent is 'Anticancer Pent-1,3-diamine-Based Pt(II) Complexes: Their Enhanced Cytotoxicity Efficacy and Reduced Toxicity on Normal Human Cells' submitted by Sankar Chandra Moi and Angana Pan.

4. Current publications (Last five years)

(24) Breast cancer cell targeted Pt(II) complexes: their bio-physical interaction and molecular docking with bio-receptors & HER2 cancer protein; Sharmistha Chatterjee, Chandrika Das, Saikat Mandal, Angana Pan, Analava Bera, Deblina Basak, Arunima Biswas and **Sankar Ch. Moi***; J. Bio-organic Chemistry; 168 (2026) 109327.

(23) Anticancer activity of picolinamide and sulfur chelated Pt(II) complexes against breast cancer: in vitro interaction studies through molecular docking with bio-receptors; Sharmistha Chatterjee[‡], Saikat Mandal[‡], Chandrika Das, Rituparna Bhaduri, Arka Bagchi, Arunima Biswas, **Sankar Ch. Moi*** Chemistry: An Asian Journal; e70593; doi.org/10.1002/asia.70593, 2026

(22) *In vitro* bio-physical interaction of Pd(II) complexes with DNA and BSA: Their molecular docking and anticancer property; A. Pan, S. Kr. Tarai, A. Bagchi, T. Roy, R. Bhaduri, S. Mandal, K. Singh, M. Das, A. Biswas and S. C. Moi*; **J. Molecular Liquids** 437; 128468 (2025)

(21) Thiosemicarbazones as Ion Chelators: Unveiling Their Coordination and Multifaceted Applications; Dyes and Pigments; Arup Tarai,* Bhaskar Nath**, Swarup Kumar Tarai, **Sankar Ch Moi**,*** ; 246, 113419; DOI: 10.1016/j.dyepig.2025.113419 (Review Article-1) (2026).

(20) Exploring Polymorphism in Quinoline-4-Carbaldoxime: Experimental Validation and Computational Insights into Hydrogen Bonding and Structural Variations A. Tarai, S. Kr. Tarai, D. Sutradhar, S. Bhowmick, **S. C. Moi,*** and Bhaskar Nath*; ChemistrySelect; **2024**, *9*, e202403906. doi.org/10.1002/slct.202403906.
(19) Synthesis and structural characterization of picolinamide and thiol chelated Pt(II) complexes: Their kinetics & mechanism and theoretical approach; S. Mandal, S. Chatterjee 1, S. Kr. Tarai, A. Pan , R. Bhaduri, C. Das , **S. C. Moi*; Inorg. Chimica Acta 569 (2024) 122119**

(18) Bio-physical and theoretical investigations on Pt(II)-pyridine based complexes with relevant bio-molecules for the development of potent anticancer drug candidates, R. Bhaduri and **S. C. Moi***; **J. Molecular Structure;** 1309 (2024) 138261
(17) Anticancer Behavior of Pyrrolidine-Based Palladium(II) Complexes and Biophysical Approach on Their DNA, BSA Binding Activity, Molecular Docking, and DFT Study; S.

Kumar Tarai, A. Pan, P. Biswas, R. Bhaduri, S. Mandal, A. Paul, S. Baitalik, A. Bhattacharjee, and **S. C. Moi*; *Langmuir***; 39, 10947−10964; 2023.

(16) Pd(II) based anticancer drug candidates with 1,2-Aminoethyl piperidine scaffold and sulfur donor ancillary: Their in vitro bio-activity, molecular docking and DFT study; A. Pan, S. Kr. Tarai , R. Bhaduri , S. Mandal , **S. C. Moi * J. Molecular Liquids;** 386 (2023) 122421

(15) Biophysical study on DNA and BSA binding activity of Cu(II) complex: Synthesis, molecular docking, cytotoxic activity, and theoretical approach; S. Kr. Tarai, S. Mandal, A. Tarai, I. Som, A. Pan, A. Bagchi, A. Biswas, **S. C. Moi*;** https://doi.org/10.1002/aoc.7164; **Appl Organomet Chem.** 2023; 37: e716.,

(14) Cytotoxic behavior and DNA/BSA binding activity of thiosemicarbazone based Ni(II) complex: bio-physical, molecular docking and DFT study; S. Kr. Tarai, A. Tarai, S. Mandal, B. Nath, I. Som, R. Bhaduri, A. Bagchi, S. Sarkar, A. Biswas, **S. C. Moi,***; **J. Molecular Liquids**; 383 (2023) 121921.

(13) Photophysical study on DNA & BSA binding and cytotoxic behaviour of piperidine-Pt(II) complexes: Their kinetics & mechanism and molecular docking; A. Pan, R. Bhaduri, S. Mandal, S. Kr. Tarai, A. Bagchi, A. Biswas, **S. C. Moi***, **J. Photochem. Photobiol. A**, *441, 114740 (2023)*

(12) Bioactivity, molecular docking and anticancer behaviour of pyrrolidine based Pt(II) complexes: their kinetics, DNA and BSA binding study by spectroscopic methods **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy;** S. Kr. Tarai, S. Mandal, R. Bhaduri, A. Pan, P. Biswas, A. Bhattacharjee, **S. C. Moi*** 287, 1, 122059 (2023)

(11) Brief Research on the Biophysical Study and Anticancer Behavior of Pt(II) Complexes: Their DNA/BSA Binding, Molecular Docking, and Cytotoxic Property; S. Mandal,§ S. Kr. Tarai,§ P. Patra, P. Nandi, S. Sing, B. Rajak, and **S. C. Moi***, **Langmuir, 38, 44, 13613–13625 (2022)**

(10) In vitro anticancer activity of Pd(II) complexes with pyridine scaffold: Their bioactivity, role in cell cycle arrest, and computational study; R. Bhaduri, A. Pan, S. Kr. Tarai, S. Mandal, A Bagchi, A Biswas, **S. C. Moi***; **J. Molecular Liquids 367, 120540 (2022).**

(9) Anticancer property and normal cell toxicity profile of pyrrolidine-based platinum (II) complexes: Their DNA, BSA interaction, and molecular docking, S. Kr. Tarai, A. Pan, S. Das, R. Bhaduri, S. Mandal, S. Maitra and **S. C. Moi***, **Appl Organomet Chem.** e6859, https://doi.org/10.1002/aoc.6859; 2022.

(8) Theoretical investigation on hydrolysis mechanism of cis-platin analogous Pt(II)/Pd(II) complex by DFT calculation and molecular docking approach for their interaction with DNA & HSA, S. Mandal, A. Pan, R. Bhaduri, S. Kr. Tarai, B. Singh Kapoor, **S. C. Moi,*** doi.org/10.1016/j.jmgm.2022.108314, **J. Mol. Graphics and Modelling** 117, 108314 (2022)

(7) Cytotoxic effects of Pd(II) complexes on cancer and normal cells: Their DNA & BSA adduct formation and theoretical approaches, S. Mandal, S. Kr. Tarai, A. Pan, R. Bhaduri, P. Biswas, S. C. Moi,* doi.org/10.1016/j.bioorg.2022.106093; **Bioorganic Chemistry** 128, 106093 (2022).

(6) Cytotoxic activity of nitrogen, sulfur, and oxygen chelated Pt(II) complexes; their DNA/BSA binding by in vitro and in silico approaches; R. Bhaduri, S. Mandal, S. Kumar

Tarai, A. Pan, S. Mukherjee, A. Bagchi, A. Biswas, **S. C. Moi* , J. Mol Liquids;** 360 119529 (2022).

(5) Theoretical hydrolysis mechanism of anticancer Pt (II) and Pd (II) dichloro complexes with N, N bidentate chelator in aqueous medium and their molecular docking, S. Kr. Tarai, S. Mandal, R. Bhaduri, A. Pan, K. Misra, **S. C. Moi*, Chemical Physics**.553, 111390, (2022).

(4) Development of Anticancer Activity of the Pt(II) Complex with N-Heterocyclic Amine: Its In Vitro Pharmacokinetics with Thiol and Thio-Ethers, DNA and BSA Binding, and Cell Cycle Arrest**,** A. Pan, I. Mitra, S. Mukherjee, S. Ghosh, U. Chatterji, and S. C. Moi*, **ACS Appl. Bio Mater.** 4, 1, 853–868 (2021).

(3) Anticancer activity and cell death mechanism of Pt(II) complexes: Their in vitro bio-transformation to Pt(II)-DNA adduct formation and BSA binding study by spectroscopic method, R. Bhaduri, S. Mukherjee, I. Mitra, S. Ghosh, U. Chatterji, S. Reddy D., S. Ch. Moi*, ***Spectrochimica Acta Part* A: *Molecular and Biomolecular Spectroscopy***, 262, 120096 (2021).

(2) Anticancer activity and biomolecular interaction of Pt (II) complexes: Their synthesis, characterisation and DFT study, S. Mandal, V. P Reddy B, I. Mitra, S. Mukherjee, S. Kr. Tarai, R. Bhaduri, A. Pan, J. C Bose K, G. Kr Ghosh, **S. C. Moi***, **Appl Organomet Chem**., e6506 (2021).

(1) Drug reservoir mechanism of Pt (II)-sulfur chelates based on pharmacokinetics of Pt (II) complex with thiols &thio-ethers: An experimental and theoretical approach**,** S. K. Tarai, R. Bhaduri, S. Mukherjee, S. Mandal, **S. C. Moi***, **Inorg. Chimica Acta**,517, 120202 (2021).

5. Invited Lectures in seminar or Conferences

Sl No.	**Title**	**organized**	**Date**	**Venue**	**Sponsored by**
18	Pt(II) based anticancer drug design and Drug Development	Saldiha High School (H.S), Bankura	3rd January-2026	Lecture Hall of Saldiha High School	Govt. of WB sponsored program on 'students week'
17	Chemicals and drug toxicity and their remedial action	Raghunathpur Thermal Power Stion, Purulia	4th December'2025	Conference Hall in RTPS, Purulia	Ministry of power, Govt. of India
16.	A road map on the development of Pt(II) based chemotherapeutic drug in cancer treatment	Krishnagar Govt. College, Krishnagar, Nadia, WB	06-03-2025	Krishnanagar Government College, Nadia, WB	Govt. of West Bengal sponsored one day Seminar
15.	Delivered a student motivation talk the present scenario in cancer	Bhiringi T. N. School, Durgapur, Benachiti	**07-01-2025**	School Assembly Hall, Bhiringi T. N. School, Durgapur,	**'Meet the Icon'** West Bengal Govt. sponsored programme in

	research				School Level
14.	A route map on the development of Pt(II) based less toxic and more effective anticancer drug	Bridging the Gap between Academia & Industry for Sustainable Future	13th December 2024 (**12-14th December-2024**)	NAB-206, **National Institute of Technology, Durgapur**	International Conference on Sustainable Technologies (ICST-2024) **Invited Talk**
13.	**Session chaired:** In a National Conference on Green Technology and Sustainable Development (GTSD-2024	Dept. of Chemistry, NITP	30th May 2024	Dept. of Chemistry, NITP	Sponsored by: Bihar Council on Science & Technology (Science, Technology and Technical Education Department, Government of Bihar)
12.	A Road Map on Pt(II) Based Anticancer Drug Design and drug development	NIT Patna	30th May 2024	Dept. of Chemistry, NITP	**Invited talk** Sponsored by: Bihar Council on Science & Technology (Science, Technology and Technical Education Department, Government of Bihar)
11.	Invited talk on "An Avenue On The Development Of Pt(II) Based Less Toxic And More Effective Anticancer Drug"	8th International conference in World cancer congress	18th to 20th March 2024	AIIMS/JNU Delhi	ARJYOPA HEALTHCARE and Ministry of Ayush, Govt. of India
10.	Invited talk on "A Road Map on Pt(II) Based Anticancer Drug Designand drug development"	International Conference on Global Disease Biology: Perspective Biotechnology (ICGDB-2024)	15th – 17th March, 2024	University of Burdwan, Department of Biotechnology The University of Burdwan	UGC, Govt. of India
9.	"Pt(II) based anticancer drug design and drug	6th Regional DST-BT Science	9th - 10th January 2024	Durgapur Government College, WB	Government of West Bengal

	development" (Paper presentation)	Congress, organized by Government of West Bengal			
8.	Bio-physical study on soft and bio-materials like; BSA & DNA for Pt(II) based anticancer drug design and drug development	Royal Society of Chemistry, London UK	3rd - 5th April 2023	Sheffield University, Sheffield, UK	Faraday RSC Joint Interest Group Conference 2023
7.	Invited Lecture on "Pt(II) based anticancer drug design and drug development"	Department of Chemistry Bankura University	28th March 2023	Department of Chemistry, Bankura University	One day seminar
6.	"**Pt(II) based anticancer drug design and drug development**"	Indian Chemical Society and IIT (ISM) Dhanbad	16th to 18th December 2022.	IIT (ISM) Dhanbad;	Indian Chemical Society
5.	Invited Lecture on "**Pt(II) based anticancer drug design and drug development**"	Jawahar Navodaya Vidyalaya, Bidhananagar, Durgapur	8th March'2022	Regional Science Congress-2021-2022	One day Seminar
4.	"**Pt(II) based anticancer drug design and drug development**"	Department of Chemistry, NIT Durgapur	3rd to 5th March 2021	Department of Chemistry, NIT Durgapur	Three days International conference (RDC-2021)
3.	"**Pt(II) based anticancer drug design and drug development**"	Krishnanagar Govt. College, Nadia, West Bengal	18th September 2020		One Day State Level Webinar
2.	delivered an Invited on "Pt(II) based anticancer drug design and drug development"	Department of Applied Chemistry, (SVNIT), Gujarat, INDIA Surat, Gujarat	17-18th December 2020	Department of Applied Chemistry, (SVNIT), Gujarat, INDIA Surat, Gujarat	Two days International Conference on 'Molecules to Materials (MTM – 2020)"
1.	Better normal cell viability of newly Pt(II) complexes with N, N carrier	Sixth International Conference, Indian	6th -8th June 2019	Paris (France) and Brussels (Belgium)	Indian Council of Chemists

	ligands than *cis*platin: Synthesis, DNA binding, anticancer property, cell death mechanism and molecular docking,	Council of Chemists, Page-12-14			

6. One seminar / symposium Lecture/Poster (Last five years)

(1) One day seminar in Bankura University 28th March 2023 Invited Lecture on "**Pt(II) based anticancer drug design and drug development**"

(2) One day Seminar Regional Science Congress-2021-2022 Jawahar Navodaya Vidyalaya, Bidhananagar, Durgapur; 8th March'2022 Invited Lecture on "**Pt(II) based anticancer drug design and drug development**"

(3) Session chaired in Analytical chemistry Division on 17th December in Indian Chemical Society; IIT (ISM) Dhanbad; 16th to 18th December 2022.

(4) Delivered an Invited lecture in on "**Pt(II) based anticancer drug design and drug development**" Indian Chemical Society; IIT (ISM) Dhanbad; 16th to 18th December 2022.

(5) Poster presentation: Influence of steric and electronic effect of carrier ligand on kinetics & mechanism of Pt(II) complexes with cellular platinophiles : their synthesis, mechanism, bioactivity and theoretical study; Rituparna Bhaduri[1], Sujay Mahata[1], Subhajit Mukherjee[1], Sankar Ch. Moi*,

(6) One day State level seminar on 'ANTICANCER DRUG DESIGN & DRUG DEVELOPMENT AND CANCER BIOLOGY' Organized by Department of Chemistry Krishnagar Govt. College, *Pt(II) based anticancer drug design and drug developments, 18th September 2020***.**

(7) Two days International Conference on 'Molecules to Materials (MTM – 2020)" organized by Department of Applied Chemistry, Sardar Vallabhbhai National Institute of Technology (SVNIT), Gujarat, INDIA Surat, Gujarat on 17-18th December 2020 delivered an Invited on "Pt(II) based anticancer drug design and drug development"

(8) Poster presentation: Three days International conference (RDC-2021) In vitro kinetic based adduct formation mechanism of a cytotoxic Pt(II) complex: DNA/BSA binding, theoretical approach -Rituparna Bhaduri, Subhajit Mukherjee, Sankar Ch. Moi* organized by Department of Chemistry, National Institute of Technology Durgapur.

(9) Better normal cell viability of newly Pt(II) complexes with N, N carrier ligands than *cis*platin: Synthesis, DNA binding, anticancer property, cell death mechanism and molecular

docking, Sixth International Conference, Indian Council of Chemists, 6th -8th June 2020, Paris (France) and Brussels (Belgium) Page-12-14 (***Invited Lecture***)

7. Details of sponsored project handled in last five

SL No	Title of the project	Sponsoring agency and No:	Amount in Rs.	From-To
1.	Bio-transformation reactions of Pt(II)/Pd(II) and Pt(IV)-sulfur chelates to metal-DNA adduct with nucleobases: their kinetics, mechanistic pathway, bio-activity and theoretical aspects.	DST-SERB: EEQ/2017/000077	44,66,000	2018-2021 (completed)
2.	"Searching of less toxic and more effective Cis-platin based new Pt(II) anticancer agents: Kinetics, DNA binding, bio-activity and DFT study"	CSIR, Govt. of India No: 01(2946)/18/EMR-II	10,30,000	2018-2021 (completed)
3.	Synthesis and characterization of *Cis*-platin based Pt/Pd(II) complexes: Their kinetics, mechanism	DST-BT Govt. of West Bengal No: BT/ST/P/S&T/2G-44/2018	24,99,100	2019-2024 (completed)

8. Ph. D scholars supervised since joining in NIT Durgapur

Sl No	Name of Scholar	Reg. No/Roll No: NITD/Ph. D/CH/	Thesis title	Degree awarded/ongoing and by Supervised
1.	Dr. Goutam Kr. Ghosh	2008/00153	A brief survey of kinetics and mechanistic aspects of ligand substitution reaction on square planar Palladium(II) and Platinum complexes	Degree awarded in 2014 (Principle supervisor with Co-guide Dr. A. K. Patra)
2.	Dr. Koyel Misra	2011/00320	Kinetics and mechanism of substitution reaction on square planar Platinum and Palladium (II) complexes with sulfur containing ligands: their bio-activity in aqueous medium	Degree awarded in 2014 (sole guidance)

3.	Dr. Avradeep samanta	2011/00323	Ligand substitution reaction on Platinum and Palladium(II) complexes with bio-relevent thiols and thio-ethers: Their kinetics, mechanism and bioactivity in aqueous medium	Degree awarded in 2015 (sole guidance)
4.	Dr. Ishani Mitra	2014/00472	Cytotoxic Pt(II) and Pd(II) complexes with heterocyclic carrier ligands: synthesis, characterisation, biological evaluation, kinetics and DFT study	Degree awarded in 2018 (sole guidance)
5.	Dr. Subhajit Mukherjee	2015/00628	In vitro anticancer property of Pt(II) and Pd(II) complexes with (N,N) bidentate ligand: kinetics, bioactivity and theoretical study	Degree awarded in 2018 (sole guidance)
6.	Dr. Venkata Pera Reddy B.	2015/00631	An Experimental And Theoretical Investigation On Pt(Ii) And Pd(Ii) Complexes: Their Cytotoxic Activity, Kinetics, Mechanism And Dft Study	Degree awarded in 2019 (sole guidance)
7.	Dr. Sujoy Mahata	15/CY/1501	*Kinetics and mechanism of Pt(II) complexes and speciation study of Cu(II) & Ni(II) labile systems with bio relevant molecules: their bioactivity and theoretical investigation*	Degree awarded in 2021(sole guidance)
8.	Mr. Saikat Mandal	20RCY060	Bioactivity and anticancer property of Pt(II) & Pd(II) complexes of different bidentate chelates: their DNA/BSA binding, molecular docking and theoretical aspects	Thesis submitted in 2023 (sole guidance)
9.	Miss. Rituparna Bhaduri	20RCY009	Anticancer activity of Pt(II) and Pd(II) complexes with pyridine scaffold: their bio-molecular interaction, cell death mechanism and computational study	Thesis submitted in 2023 (sole guidance)
10.	Mr. Swarup Kr. Tarai	20RCY008	Synthesis and characterisation of Pt(II) & Pd(II) complexes as anticancer drug candidates:	ongoing (sole guidance)

			their bio-molecular interaction, and theoretical approach	
11.	Miss. Angana Pan	20RCY010	'Synthesis and characterization of Pt(II) & Pd(II) complexes with piperidine based carrier ligand: their bioactivity, anticancer property and theoretical insights'	ongoing(sole guidance)
12.	Miss. Chandrika Das	Registered	Pt(II) based anticancer drug design and drug development	ongoing(sole guidance)
13.	Miss. Sarmistha Chatterjee	Registered	Pd(II) based anticancer drug design and drug development	ongoing(sole guidance)
14.	Santanu Mandal	Admitted		ongoing(sole guidance)

9. M. Sc Project supervised since 2017 to till date

Sl No	Name of the students	Roll No	Title of the projects	Year
1.	Miss. Juheli Sadhukhan	15CY453	Study on the interaction of Diaqua Pt(II) complex with sulfur containing bio-molecules: In vitro kinetic, mechanism and DFT srudy	2015-2017
2.	Mr. Rakesh Kumar Maji	16CY457	Kinetics and mechanistic study for the anation reaction of Platinum(II) complex with Pyridine derivative	2016-2018
3.	Miss. Ritava Bhunia	18CY4511	Role of metal ions in drug design: Their syntheses, kinetics, mechanism and bioactivity study on Pt(II) complexes as excellent potential drug	2018-2020
4..	Mr. Soumit Datta	19CY4510	Kinetics and Mechanism of Pt (II) Complexes with Bio-molecules and their Anticancer Activity	2019-2021
5.	Miss. Koyel Bhattacharya	20CY4507	2-Aminomethylpyridine incorporated Pd(II) complexes: Their synthesis, bio-molecular interactions and bioactivity	2020-2022
6.	Miss. Payel Nandi	20CY4514	Bio-activity of substituted heterocyclic unsymmetrical n,n-amine based pt(ii) complexes :their syntheses, DNA & BSA binding and molecular docking	2020-2022
7.	Miss. Rituparna Saha	20CY4524	Bio-activity of 2-Pyridinemethanamine based Pd(II) complexes: their molecular docking and theoretical study	2020-2022
8.	Miss. Priya Patra	20CY4521	DNA/BSA Binding Property And	2020-2022

			Theoretical Study Of Pt(Ii) Complexes: Their Molecular Docking And Cytotoxic Activity	
9.	Miss. Karishma	21CY4517	Bio-Activity of 1,3-pantanediamine Based Pd(II) complexes : Their Molecular Docking and Theoretical Study	2021-2023
10.	Miss. Manimala Das	21CY4502	Synthesis and Characterization of Pd(II) complexes: Their DNA and BSA binding Property	2021-2023
11.	Miss. Swarnabha Ghosh	22CY4509	Bio-Activity of N-Benzyl-N-[2-(2-pyridinyl) ethyl] amine Based Pd(II) Complexes: Their Molecular Docking & Theoretical Study	2022-2024
12	Bhagyashree Mathan	22CY4515	Synthesis and characterization of Pd(II) complexes for Bio-molecular interaction: their Theoretical study and bio-molecular aspects	2022-2024
13.	Biswonath Swain	23CY4520		2023-2025
14.	Akshaya Kunar Rour	23CY4513		2023-2025

10. Board member of Faculty selection (last five years)

Sl. No.	Particulars	Date	Remarks
1	Board Member of Faculty Selection Board in NIT Jamshedpur	27-29th November 2023	
2.	Board Member of Faculty Selection Board in NIT Jamshedpur	18-19th December 2023	
3.	Board Member of Faculty Selection Board in IIIT Bhubaneswar Odissa	4th January 2024	

5. Collaboration:

(i) Prof. Wolfgang Linert, Dept of Applied synthetic Chemistry, Vienna University of Technology, Applied Synthetic Chemistry Dept. Vienna, Getreidmarkt 9/163, Vienna Austria, Europe.

(ii) Prof. Frank Kubel, Institute of Chemical Technologies and Analytics, Vienna University of Technology, Institute of Chemical Technologies and Analytics, Vienna University of Technology, Getreidemarkt, 9/4. 1060 Vienna, Austria, Europe.

(iii) Prof. Xavier Rocquefelte Institut des Matériaux Jean Rouxel, France, Institut des Matériaux Jean Rouxel, Université de Nantes, UMR CNRS 6502, 2 rue de la Houssinière, BP 32229, 44322 Nantes, France.
(iv) Prof. Urmi Chatterji, Professor, Department of Zoology, Calcutta University, Cancer research Laboratory,
(v) Prof. Sudipta Moitra, Professor, Zoology Department, Visva-Bharati University Santineketan, Bhirbhum
(vi) Dr. Arunima Biswas, Associate Professor, Department of Zoology, Kalyani University nadia West Bengal, India

6. Award, Honors and recognition

a. Best Speaker award with Gold Medal

20-22nd September'2017, Science City, Kolkata, India, **World Cancer Congress and Drug Discovery and Drug Delivery International conference** (**Invited Talk**).

b. Outstanding reviewer award in 2017-18 in International Journal (Elsevier).

c. Fellow member of Royal Society of Chemistry, London (FRSC)

d. Outstanding reviewer of American Chemical Society (ACS-2023)

(e) Outstanding reviewer of American Chemical Society (ACS-2025)

7. ***Membership in professional bodies***

(i) Indian Chemical Society *(F/7962- LM)*
(ii) *Indian Association for Cancer Research (LM-984)*
(iii) *Indian Council of Chemists (LM-1707)*
(iv) *NITDAA (Life Member)*
(v) *Royal Society of Chemistry (Membership No:717042)*

8. **Visited Countries for Academic and Research purpose:**

(a) North Dakota State University, Fargo, USA, 2009
(b) Vienna University of Technology, Vienna Austria, Europe, 2010
(c) Vienna University of Technology, Vienna Austria, Europe, 2011
(d) Vienna University of Technology, Vienna Austria, Europe, 2013
(e) Amsterdam, Netherlands, Europe, 2015
(f) Rome, Italy, Europe, 2016
(g) Canary Islands, Spain, Europe, 2017
(h) Paris, France, Europe, 2019
(i) Brussels, Belgium, Europe, 2019
(j) Amsterdam, Netherlands, Europe, 2019
(k) Germany, Europe, 2019
(l) Switzerland, Europe, 2019
(m) University of Sheffield, UK- 2023

9. Member of National committee OR Faculty selection committee

Sl No.	Name of the committee	Place of visit	from date	To date
1.	SC/ST nominee in Faculty selection committee of Basic	NIT Jamshedpur	19-11-2023	19-11-2023

	Science in NIT Jamshedpur			
2.	SC/ST nominee in Faculty selection committee of Basic Science in NIT Jamshedpur	NIT Jamshedpur	27-11-2023	27-11-2023
3.	SC/ST nominee in HSSM Faculty selection committee in NIT Jamshedpur	NIT Jamshedpur	29-11-2023	29-11-2023
4.	SC/ST nominee in HSSM Faculty selection committee in NIT Jamshedpur	NIT Jamshedpur	18-12-2023	18-12-2023
5.	Member of chemistry faculty selection in IIIT Bhubaneswar	III Bhubaneswar	04-01-2024	04-01-2024
6.	Faculty selection under CAS in Burdwan University	Burdwan University	19-02-2024	19-02-2024
7.	Faculty selection under CAS in Burdwan University	Office Building & Guest House of this University at EE-711, Sector II, Salt Lake City, Kolkata - 700 09r (Burdwan University)	20-06-2024	20-06-2024
8.	SC/ST nominee in HSSM Faculty selection committee in NIT Jamshedpur	NIT Jamshedpur	02-09-2024	03-09-2024
9.	SC/ST nominee in Mathmatics Faculty selection committee in NIT Jamshedpur	NIT Jamshedpur	09-09-2024	10-092024
10.	Member of chemistry faculty selection in IIIT Bhubaneswar	III Bhubaneswar	04-01-2024	04-01-2024
11.	Faculty selection under CAS in Burdwan University	Burdwan University	27-03-2025	27-03-2025
National Committee member				
11.	National committee for Syllabus and curriculum for Chemical Science in Technology (CST)	NIT Mizoram	22-08-2024	23-08-2024

10. Examiner of Ph. D thesis from India and abroad

Sl No.	Thesis title	Candidate Name and Reg. No:	Year	University/ Institute
1.	Synthesis and characterization of new	S. Poornima, supervised by Prof.	Dated 14/12/2014	Department of Inorganic

	macrocyclic, acyclic binuclear Copper(II), Nickel(II) and Zinc(II) complexes and their electrochemical, DNA, BSA, binding and DNA cleavage studies	(Supervised by Dr. M. Kandaswamy), NO: Ph. D. Eval./148/2014/11437		Chemistry, University of Madras
2.	"Oxidation Of Organic Compounds By N-Haloamines"	DIWYA (USN: 1EP08PGM01) Research Scholar, Supervisors: Dr. PUSHPA IYENGAR and Dr. RAMACHANDRAPPA East Point College of Engineering and Technology Bengaluru, Karnataka	13th April'2020	Visvesvaraya Technological University Belagavi, Karnataka, India
3.	Fabrication and Characterization of Iron Oxide Nanomaterials and Nanocomposites for the Advanced Device Applications	Ms. Debanjali Barman Roy ID No.: RSITS170069 Supervisor: Dr. Tapan Kumar Mandal	28-02-2022	The ICFAI University, Dehradun
4.	Fabrication of ZnO Nanostructures and its Nanocomposites for the Photocatalytic and Antimicrobial Applications	Satinder Pal Kaur Malhotra Id No. RSFST140034 Supervisor: Dr. Tapan Kr. Mandal	20th April 2020	The ICFAI University, Dehradun
5.	Synthesis, characterization, electrochemical, DNA and bsa binding properties, dna cleavage and cytotoxicic activity of the binuclear Cu(II), Ni(II) and Zn(II) complexes with various new unsymmetrical binucleating macrocyclic ligands	S. VEDAVALLI NO: Ph. D. Eval./470/2014/237 (Supervised by Prof. Dr. M. Kandaswamy, UGC Emeritus Professor)	09/01/2015	University of Madras Department of Inorganic Chemistry
6.	Synthesis of new cyclic and acyclic polydentate ligands and their mono and binuclear copper(ii) complexes: structural and	E. Sundarvadivel, (Supervised by Prof. Dr. M. Kandaswamy, UGC Emeritus Professor)	13-9-2016	Department of Inorganic Chemistry, University of Madras, Guindy

	electrochemical, dna binding, cleavage and BSA binding studies			Campus
7.	Anticancer activity of Palladium & Ruthenium complexes: Effect of steric hindrance on cytotoxicity and GSH resistance	Mr. Kallol Purkait 12RS040 (Supervised by Prof. A. Mukherjee)	February 2019	Indian Institute of Science Education and Research Kolkata
8.	Atomic level mechanism of SN2 reaction in small level molecules: A quantum mechanical study	Mrs. Lapamudra Satpathy 24/2016N/Chemistry (Supervised by Prof. B. K. Mishra and Prof. P. K. Behera)	21st April '2021	Sambalpur University Orissa
9.	Applications of easily recoverable polymeric reagents in solid phase organic synthesis (SPOS): A green approach.	Dr. Diparjun Das (Supervised by Samuel Lalthazuala Rokhum)	19-12-2018	NIT Silchar
10.	Plant-Derived Biosorbents for Pollutant Removal and Carbon Nanoparticle Synthesis	Mr. Partha Protim Bakal (Roll No. 156152010) (Supervised by: Prof. Gopal Das and Prof. Aiyagari Ramesh	07-08-2023	Indian Institute of Technology Guwahati Assam, India-781039, India
11.	Study of organotin complexes of some Schiff bases of hydrazone ligands and their effects as antioxidants, antimicrobials and antitumor	Mr. Hatem Mohamed Shehata Abd Alraziq (Supervised by: Prof. Dr. Mohamed Refaat Shehata ; Dr. Abeer Taha Ibrahim and Prof. Dr. Tayseer Abdelkhalek Abdallah)	13-11-2023	Chemistry Department Faculty of Science Cairo University Egypt
12.	Fabrication of some multifunctional nanomaterials for energy and environmental applications	Mr. Wesam Kamal Sayed	27-05-2024	**Faculty of Science, Beni-Suef University, Egypt**
13.	Design of Luminescent Polypyridyl-Imidazole Based Ruthenium Complexes and Implication of Machine	Mr. Anik Sahoo (Index No: 35/19/Chem./26), (Supervised by Prof. Sujoy Baitalik)	26-09-2024	Department of Chemistry, Jadavpur University

	Learning and Artificial Intelligent Tools to Analyse Their Stimuli-Responsive Behaviours			
14.	Development and Validation of Modified QuEChERS Method for Determination of Nitroimidazole Residues in Animal Origin Food	Mrs. Dina Rabea Abd Alaziz Ahmed (Supervised by Prof. Dr. Mohamed Refaat Shehata, Prof. Dr. Lamia Abdo Mohamed Ryad and Prof. Perihan Ahmed Khalaf-Alla,	06-11-2024	Chemistry Department, Faculty of Science, Cairo University Egypt
15.	Quantum Mechanical Approaches and Molecular Docking Studies of Platinum Metal-Based Anticancer Drugs	S. MADHAVI BDU2120212779363 (Supervised by Dr. S. MULLAINATHAN)	November 2024	Bharathidasan University, THIRUVARUR -610003. TAMIL NADU, INDIA
16.	"Synthesis, Micellization and Corrosion Inhibition Potential of Pyridinium Gemini Surfactants"	Yumnam Gyani Devi (Enrolment No. DS19CH001), NIT Mizoram	30th Decemver-2024; Viva-Voce-24-02-2025	NIT Mizoram; Department of BS & HSS (Chemistry)
17.	To study the photocatalytic Activity of some oxide Nanoparticales towards degradation of organic pollutants	Ms. Madhu Verma	12-02-2025	Lalit Narayan Mithila University, Bihar
18.	Exploring chemistry of multi-functional materials based on several new transition metal complexes and organic probes: spectroscopic studies on interaction with differentions and biomolecules	Mrs. Sudeshna Chatterjee	14-7-2025	Department of Chemistry, University of Burdwan, West Bengal
19	**'Computational approaches in drug design for tuberculous meningitis**'	Miss. Vummidi Varalakshmi (Reg. No.: 121960104501)	23th October-2025	Bio-Technology in *GITAM* (deemed to be University) Visakhapatnam, Department of Biotechnology, Gitam School of Technology

Seminars/Short Term Courses/Summer Schools/Winter Schools organized:

S. No.	From	To	Name of the	Sponsored /	Number of

			course/Program	Self-Financed	Participants
1.	12th September 2024	14th September 2024	Vigyan Jyoti Science Conclave 2024 –	NIT Durgapur & JNV Birbhum	144
2.	16th March 2024	18th March 2024	Impact of Indian Knowledge System	NIT Dirgapur & LokaPragya	132
3.	16th February 2024	16th February 2024	Educational Excursion	NIT Durgapur & KV, Chittaranjan	60
4.	9th January 2024	9th January 2024	Vigyan Jyoti Program	NIT Durgapur	60
5.	17th October 2023	17th October 2023	National Laboratory Visit	NIT Durgapur	65
6.	25th Nov.-25	27th Nov-25	*Training Program for JNV Teachers*	A program of Govt. of India	60