FACULTY ACADEMIC PROFILE

1. Full name of the faculty member: **Dr. Sanchita Goswami**

2. Designation: **Assistant Professor (Stage III)**

3. Specialization: **Inorganic Chemistry**

4. Passport size photograph:

5. Contact information:

Department of Chemistry
University of Calcutta
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Calcutta – 700009
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6. Details of Academic Qualifications:

Sl. No.	Degree	University	Year	Subjects	Class
1	B. Sc.	University of Calcutta	2000	Chemistry (Honours) Physics, Mathematics (Pass)	1st
2	M. Sc.	University of Calcutta	2002	Inorganic Chemistry Special	1st
3	CSIR-NET (JRF)	CSIR	2001	Chemical Sciences	
4	Ph. D (Sc.)	Indian Association for the Cultivation of Science	2007	"Synthesis, structure and properties of mono- and poly-nuclear manganese and iron complexes"	

7. Positions held/holding:

Lecturer	November 21, 2005 to February 01, 2010	Department of Chemistry, Seth Anandram Jaipuria College 10, Raja Nabakrishna Street Kolkata - 700005
Assistant Professor (Stage II)	February 02, 2010 to November 20, 2014	Department of Chemistry, University of Calcutta
Assistant Professor (Stage III)	November 21, 2014 to till date	Department of Chemistry, University of Calcutta

8. Research interests:

- Molecular magnetism
- Chemosensors

9. Research guidance:

Number of researchers awarded Ph.D. degree: **Four**

Number of researchers submitted Ph.D. thesis: -

Number of researchers pursuing Ph. D.: **Four**

10. Projects:

Completed project:

- **"Heterometallic Coordination polymers and clusters derived from chiral Schiff base ligands with potential catalytic, optical and magnetic properties - journey towards multifunctional materials"** DST, SERB (Fast Track project) (SR/FT/CS-2012) amounting Rs. 22,33,047/-. **Completed in October, 2015**.

Current projects:

- **"Developing Mn-Ca cluster chemistry relevant to Oxygen Evolving Complex (OEC)"** DST West Bengal, vide Memo No. 864(Sanc.)/ST/P/S&T/15G-3/2015 dated 15.01.2016) amounting 9,68,000 INR. **Ongoing**
- **"Studies on some new rhenium complexes of NS- donor ligands-their potential application in radiotherapy of breast cancer"** CSIR, Scheme number: 01(2869)/17/EMR-II, Dated 02.05.2017; Grant amount: 7,50,000 INR. **Ongoing**

List of publications (last 6 years)

Sr. No.	Author List	Year	Title of the Paper	Full Journal Name	Vol. No. Page No.
1	Senjuti Mandal Barnali Naskar Ritwik Modak Yeasin Sikdar Sudipta Chatterjee Sujan Biswas Tapan Kumar Mondal Debadrita Modak Sanchita Goswami*	2015	Syntheses, crystal structures, spectral study and DFT calculation of three new copper(II) complexes derived from pyridoxal hydrochloride, N,N dimethylethylenediamine and N,N-diethylethylenediamine	Journal of Molecular Structure	1088, 38 - 49
2	Senjuti Mandal Sushil Kumar Mandal Anisur Rahaman Khuda Bukhsh Sanchita Goswami*	2015	Pyridoxal Based Fluorescent Chemosensor for Detection of Copper(II) in Solution With Moderate Selectivity and Live Cell Imaging	Journal of Fluorescence	DOI 10.1007/s10895-015-1634-x
3	Yeasin Sikdar Ritwik Modak Dipayan Bose Saswati Banerjee Dariusz Bieńko Wiktor Zierkiewicz Alina Bieńko, Krishna Das Saha Sudipta Chatterjee Sujan Biswas Tapan Kumar Mondal Debadrita Modak Sanchita Goswami*	2015	Doubly chloro bridged dimeric copper(II) complex: magneto-structural correlation and anticancer activity	Dalton transactions	44, 8876 - 8888
4	Senjuti Mandal Yeasin Sikdar Dilip Kumar Maiti Guru Prasad Maiti Sushil Kumar Mandal Jayanta Kumar Biswas Sanchita Goswami*	2015	A new pyridoxal based fluorescence chemo-sensor for detection of Zn(II) and its application in bio imaging	RSC Advances	5, 72659–72669
5	Ritwik Modak Yeasin Sikdar Goulven Cosquer Sudipta Chatterjee Masahiro Yamashita Sanchita Goswami*	2016	Heterometallic Cu^{II}–Dy^{III} Clusters of Different Nuclearities with SlowMagnetic Relaxation	Inorganic Chemistry	55, 691 - 699

6	Ritwik Modak Yeasin Sikdar Annaliese E. Thuijs George Chritou Sanchita Goswami*	2016	Co^{II}_4, Co^{II}_7, and a Series of $Co^{II}_2Ln^{III}$ (Ln^{III} = $Nd^{III,}$ Sm^{III}, Gd^{III}, Tb^{III}, Dy^{III}) Coordination Clusters: Search for Single Molecule Magnets	Inorganic Chemistry	55, 10192−10202
7	Barnali Naskar Ritwik Modak Yeasin Sikdar Dilip K. Maiti Avishek Banik Tushar Kanti Dangar Subhrakanti Mukhopadhyay Debasish Mandal Sanchita Goswami*	2016	A simple Schiff base molecular logic gate for detection of Zn^{2+} in water and its bio-imaging application in plant system	Journal of Photochemistry and Photobiology A: Chemistry	321, 99 - 109
8	Ritwik Modak Yeasin Sikdar Alina Bienko Maciej Witwicki Maria Jerzykiewicz Sanchita Goswami*	2016	Family of Mn^{III}_4 Ln^{III}_2 (Ln^{III} = Sm^{III}, Gd^{III}, Dy^{III}) coordination clusters:Experimental and theoretical investigations	Polyhedron	119, 202 - 215
9	Barnali Naskar Ritwik Modak Dilip K. Maiti Sushil Kumar Mandal Jayanta Kumar Biswas Tapan Kumar Mondal Sanchita Goswami*	2016	Syntheses and non-covalent interactions of naphthalene-bearing Schiffbase complexes of Zn(II), Co(III), Cu(II) and V(IV): Selective detection of Zn(II)	Polyhedron	117, 834-846
10	Barnali Naskar Ritwik Modak Dilip K. Maiti Michael G. B. Drew Antonio Bauzá Antonio Frontera Chitrangada Das Mukhopadhyay Snehasis Mishra Krishna Das Saha Sanchita Goswami*	2017	A Schiff base platform: structures, sensing of Zn(II) and PPi in aqueous medium and anticancer activity	Dalton Transactions	46, 9498–9510
11	Senjuti Mandal Yeasin Sikdar Ria Sanyal Sanchita Goswami*	2017	Experimental and theoretical study on a new copper(II) complex derived from pyridoxal hydrochloride and 1,2-diaminocyclohexane	Journal of Molecular Structure	1128, 471 – 480
12	Senjuti Mandal Yeasin Sikdar Dilip K. Maiti Ria Sanyal Debasis Das Abhishek Mukherjee Sushil Kumar Mandal Jayanta Kumar Biswas	2017	New pyridoxal based chemosensor for selective detection of Zn^{2+}: Application in live cell imaging and phosphatase activity response	Journal of Photochemistry and Photobiology A: Chemistry	334, 86 - 100

	Antonio Bauzá Antonio Frontera Sanchita Goswami*				
13	Barnali Naskar Ritwik Modak Dilip K. Maiti Antonio Bauza Antonio Frontera Pulak Kumar Maiti Sukhendu Mandal Sanchita Goswami*	2017	A highly selective "ON–OFF" probe for colorimetric and fluorometric sensing of Cu^{2+} in water	RSC Advances	7, 11312–11321
14	Barnali Naskar Ritwik Modak Yeasin Sikdar Dilip K. Maiti Antonio Bauzá Antonio Frontera Atul Katarkar Keya Chaudhuri Sanchita Goswami*	2017	Fluorescent sensing of Al^{3+} by benzophenone based Schiff base chemosensor and live cell imaging applications: Impact of keto-enoltautomerism	Sensors and Actuators B: Chemical	239, 1194 - 1204
15	Pampa Maity Barnali Naskar Sanchita Goswami Chandraday Prodhan Tandrima Chaudhuri Keya Chaudhuri Chhanda Mukhopadhyay	2018	Pyrrolo[3,4-c]pyridine-Based Fluorescent Chemosensor for Fe^{3+}/Fe^{2+} Sensitivity and Their Application in Living HepG2 Cells	ACS Omega	3, 18646−18655
16	Barnali Naskar Antonio Bauzá, Antonio Frontera Dilip K. Maiti Chitrangada Das Mukhopadhyay Sanchita Goswami*	2018	A versatile chemosensor for the detection of Al^{3+} and picric acid (PA) in aqueous solution	Dalton Transactions	47, 15907–15916
17	Riya Bag Yeasin Sikdar Sutapa Sahu Dilip K. Maiti Antonio Frontera Antonio Bauzá Michael G. B. Drew Sanchita Goswami*	2018	A versatile quinoxaline derivative serves as a colorimetric sensor for strongly acidic pH	Dalton Transactions	47, 17077–17085
18	Barnali Naskar Kinsuk Das Ramij R. Mondal Dilip K. Maiti Alberto Requena Jose´ Pedro Cero´n-Carrasco Chandraday Prodhan Keya Chaudhuri Sanchita Goswami*	2018	A new fluorescence turn-on chemosensor for nanomolar detection of Al^{3+} constructed from a pyridine–pyrazole system	New Journal of Chemistry	42, 2933—2941
19	Yeasin Sikdar Ranadip Goswami Ritwik Modak Megha Basak	2018	Diazine based ligand supported Co^{II}_3 and Co^{II}_4 coordination complexes: role of anions	New Journal of Chemistry	42, 17587--

	Maria Jose´ Heras Ojea Mark Murrie Sanchita Goswami*				17596
20	Animesh Mondal Barnali Naskar Sanchita Goswami Chandraday Prodhan Keya Chaudhuri Chhanda Mukhopadhyay	2018	I_2 catalyzed access of spiro[indoline-3,4'-pyridine] appended amine dyad: new ON–OFF chemosensors for Cu^{2+} and imaging in living cells	Organic & Biomolecular Chemistry	16, 302 - 315
21	Kajal Mal Barnali Naskar Animesh Mondal Sanchita Goswami Chandraday Prodhan Keya Chaudhuri Chhanda Mukhopadhyay	2018	Dihydroindeno[1,2-b]pyrroles: new Al^{3+} selective off–on chemosensors for bio-imaging in living HepG2 cells	Organic & Biomolecular Chemistry	16, 5920–5931
22	Riya Bag Yeasin Sikdar Sutapa Sahu Pinaki Saha Jayanta Bag Kuntal Pal Sanchita Goswami*	2019	A quinoxaline–diaminomaleonitrile conjugate system for colorimetric detection of Cu^{2+} in 100% aqueous medium: observation of aldehyde to acid transformation	Dalton Transactions	48, 5656-5664
23	Sutapa Sahu Yeasin Sikdar Riya Bag Dilip K. Maiti José Pedro Cerón–Carrasco Sanchita Goswami*	2019	Visual detection of fluoride ion based on ICT mechanism	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	213, 354 - 360
24	Kuheli Das Sanchita Goswami Belete B. Beyene Amogne W. Yibeltal Eugenio Garribba Antonio Frontera Amitabha Datta	2019	EPR, DFT and Electrochemical Interpretation of a Cu(II) Derivative Incorporating a Schiff Base Precursor	Polyhedron	159, 323 - 329
25	Kuheli Das Sanchita Goswami Belete B. Beyene Amogne W. Yibeltal Chiara Massera Eugenio Garribba Antonio Frontera Zerrin Cantürk Tulin Askun Amitabha Datta	2019	Spectral, Electrochemical and DFT Studies of a Trimetallic CuII Derivative: Antimycobacterial and Cytotoxic Activity	Inorganica Chimica Acta	490, 155 – 162
26	Riya Bag, Yeasin Sikdar, Pinaki Saha, Prasanta Ghosh, Michael G. B. Drew, and Sanchita Goswami*	2020	Fascinating Structures of a Mixed Valence $[Mn^{III}]\cdot[Mn^{II}Mn^{III}]$ Cocrystal and a $Mn^{III}Na^{I}$ Complex: Slow Magnetic Relaxation and Theoretical Investigations	Crystal Growth & Design	20, 1849-1858

27	Ritwik Modak, Biswajit Mondal, Yeasin Sikdar, Jayisha Banerjee, Enrique Colacio, Itziar Oyarzabal, Joan Cano and Sanchita Goswami*	2020	Slow magnetic relaxation and water oxidation activity of dinuclear $Co^{II}Co^{III}$ and unique triangular $Co^{II}Co^{II}Co^{III}$ mixed-valence complexes	Dalton Transactions	49, 6328-6340

Highlights of academic activities

- **Poster presentation** in the 12th International Conference on Materials Chemistry (MC 12), July 20 – 23, 2015 at University of York, United Kingdom, entitled "A Series of Heterometallic Rhomb-like Mn_2Ni_2 Complexes".

- **Oral presentation** in the 42nd International Conference on Coordination Chemistry (ICCC 2016) July 03 – 08, 2016 at Université de Bretagne Occidentale, Brest, France entitled "Assessing the role of Ln^{III} (Nd^{III} , Sm^{III} , Gd^{III} , Tb^{III} , Dy^{III}) in $Co^{II}_2Ln^{III}$ systems: SMM behavior of Sm^{III} , Gd^{III} , Tb^{III} , Dy^{III} analogues".

- **Invited Lecture** in the Frontiers in Inorganic Chemistry-II (FIC-II) symposium held at the Department of Inorganic Chemistry, Indian Association for the Cultivation of Science (IACS), Kolkata during March 08 - 09, 2018.

- **Invited Lecture** in the 2nd International Conference on Modern Trends in Molecular Magnetism (MTMM) at the Department of Chemistry, IISER, Bhopal during November 27 – 30, 2019.

- **Invited Lecture** in the UGC-funded National seminar on "Recent Developments in Inorganic Chemistry " organized by Internal Quality Assurance Cell (IQAC) and Department of Chemistry, Barrackpore Rastraguru Surendranath College on January 04, 2020.

- **Invited Lecture** in the International Conference on Chemistry for Human Development (ICCHD-2020) organized by the Professor Asima Chatterjee Foundation, Kolkata in collaboration with Department of Chemistry, University of Calcutta and "Heritage Institute of Technology" at Heritage Institute of Technology during January 9-11, 2020.

- **Resource Person** in the Four Day National Webiner on Discipline Specific Elective (DSE) Topics of UG Chemistry Honours, CBCS Syllabus, University of Calcutta, Jointly organized by Department of Chemistry & IQAC, Maulana Azad College, Kolkata & Department of Chemistry & IQAC, Asutosh College, Kolkata in collaboration with UG Board of Studies, University of Calcutta