

## **BRIEF**

My research field of interest involves the development of innovative synthetic methodology for the synthesis of potentially bio-active heterocyclic compounds. I have also extended interest on Photophysical Study of heterocyclic molecules, their Biosensing applications and Solution Thermodyanamics.

## CONTACT

**DEPARTMENT: Chemistry** 

SCHOOL OF STUDIES: School of Sciences

DATE OF JOINING: 2nd March, 2015

ADDRESS: School of Sciences, Kalyani Regional Center, Ghoshpara Station Road, Kalyani, Nadia-741235, West Bengal, India,

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FMAII .

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# DR. SINTU GANAI

#### **ASSISTANT PROFESSOR OF CHEMISTRY**

## **ACADEMIC QUALIFICATION**

M.Sc., Ph.D.

#### **TEACHING EXPERIENCE**

- Netaji Subhas Open University, Assistant Professor of Chemistry: 2nd March 2015–Present
- Kalyani Mahavidyalaya College, University of Kalyani, Nadia; Guest Lecturer in Chemistry; November 2014- February 2015
- Global Environment Research Foundation, an Outreach Centre of 'University of Mysore, India; Faculty in the 'Department of Chemistry; August 2007- August 2008

## AWARD AND FELLOWSHIP

- CSIR Senior Research Fellowship (Extended)-2013
- CSIR Senior Research Fellowship (SRF)-2011
- Junior Research Fellowship through National Eligibility Test (CSIR)
  2009

#### **RESEARCH INTERESTS & EXPERIENCE**

- Development of innovative synthetic methodology
- Metal catalyzed cyclization, Pericyclic reaction, C-H activation, C-H amination etc.
- Photophysical Studies of heterocyclic molecules
- Biosensing applications
- Solution Thermodyanamics
- Ph.D. (2008- 2014) in Chemistry (Organic) under the Supervision of Prof. K. C. Majumdar, University of Kalyani, Nadia, West Bengal, India

Thesis Title: Synthesis of Nitrogen and Sulphur Heterocycles

#### **ADMINISTRATIVE EXPERIENCE**

- Member of Executive Council (EC), Netaji Subhas Open University, 15th March, 2017 - till date
- Member of Academic Council (AC) Netaji Subhas Open University,

- 23rd November, 2020 -till date
- Observer at NATIONAL ELIGIBILITY CUM ENTRANCE TEST-2016 (Ref No. N-1601753/2016, NEET-16)
- Observer at NATIONAL ELIGIBILITY CUM ENTRANCE TEST (Ref No.: NT-1504/2017, NEET-17)
- Observer at NATIONAL ELIGIBILITY CUM ENTRANCE TEST (Ref No N181191/2018, NEET-18)

## **UG & PG TEACHING ASSIGNMENTS**

- Reactivity and stability of organic molecules
- Substituted hydrocarbons
- Carbohydrate and amino acids
- Stereochemistry
- Organic Spectroscopy
- Practical Courses in B.Sc. Chemistry

## **MEMBERSHIP OF DIFFERENT COMMITTEES**

- Member of Under Graduate Board of Studies (UGBOS) in Chemistry, Netaji Subhas Open University, 2nd March, 2015 - till date
- Member of Under Graduate Board of Studies (UGBOS) in Application Oriented Course (AOC-02), Netaji Subhas Open University, 16th January 2016 - till date
- Member of Post Graduate Board of Studies (PGBOS) in Chemistry, Netaji Subhas Open University, 21st April 2022 - till date
- Member of Departmental Research Committee (DRC) for Ph.D in Chemistry, Netaji Subhas Open University, 22nd December 2021 - till date
- Member of Inspection team for opening the BDP Courses in Science Subjects at S.R. Fatepuria College Study Centre (K-09) Study Centre NSOU on June 26, 2022
- Member of Induction Meeting and LSC Inspection at Kanchrapara College(M-05) on 1st February, 2020
- Member of visit team for monitoring the quality of LCES-2016 programme at different examination centre under Netaji Subhas Open University
- Member of Induction Programme at Sree Gopal Banerjee College (J-04) on January 10, 2016
- Member of Induction Programme at Coochbehar College (F-03)
  College on October 01, 2016
- Member of visit team for monitoring the quality of LCES-2015 programme at different examination centre under Netaji Subhas Open University
- Member of Inspection team for opening the BDP Courses in Science Subjects at Bankura Christian College (B-01) Study Centre NSOU on March 20, 2015

## **ELIGIBILITY TEST CLEARED (NET/SET/GATE etc.):**

SI. No.	Details
1.	NET (CSIR): June 2008

#### **RESEARCH PROJECTS:**

SI. No.	Name of the Project	Funding Agency	Period	Grant Mobilized	Outcome
1	Development and Photophysical Study of Coumarin-Based Fluorescent Probes for Biosensing Applications		One year	Rs. 1,10,000/-	2022-Ongoing

2	2	Synthesis of potentially Bio-Active	UGC-DEB	2015-16	Rs. 50,000/-	Two
		Heterocycles: An				publications
		Opportunities and Challenges in				
		Chemistry Laboratory Works in				
		Open and Distance Praxis				

## **E-CONTENT DEVELOPED:**

SI.	Details	Quadrant I/II/III/IV	Link
No.			
1	Video lectures on Qualitative	Quadrant I	http://www.wbnsou.ac.in/student_zone/e-
	Analysis of Inorganic Compounds		resources/video_lecture/video_lecture.shtml
2	Video lectures on Qualitative	Quadrant I	http://www.wbnsou.ac.in/student_zone/e-
	Organic Analysis		resources/video_lecture/video_lecture.shtml

## DETAILS OF PUBLICATIONS (BOOKS/ EDITED VOLUME / RESEARCH PAPERS/REVIEW): [Last 10 Year]

SI. No.	Title of the paper vol. No., Issue No., Page No, Year	Publisher	Year of publication	ISSN/ ISBN
1	"Online Programme in Higher Education in India: Challenges and Opportunities", Sintu Ganai, <b>NSOU-OPEN JOURNAL</b> Vol.2 No.2 (July 2019),	NSOU	2019	ISSN: 2581-5415
2	"Opportunities and Challenges in Learning Chemistry Through ODL Mode: NSOU's Experience", Sintu Ganai, published in the Conference Proceedings of the International Conference on Developmental Interventions and Open Learning for Empowering and Transforming Societies, Published by K.K Handiqui State Open University, Page No: 14 (123-136),	K.K Handiqui State Open University	2017	ISBN: 978- 81- 934669-0- 2, 2017
3	"Binding interaction of phosphorus heterocycles with bovine serum albumin: A biochemical study"; Swarup Roy, Raj Kumar Nandi, Sintu Ganai, K.C. Majumdar, Tapan K. Das; <i>Journal of Pharmaceutical Analysis</i> , 2017, 7, 19–26	Xi'an Jiaotong University	2017	ISSN 2214- 0883 (Online)
4	"Report of Interaction Between Calf Thymus DNA and Pyrimidine- Annulated Spiro Dihydrofuran"; Swarup Roy, Sintu Ganai, Raj Kumar Nandi, K.C. Majundar and Tapan K. Das; <b>Biochem Anal Biochem</b> 2016, Vol 5, Issue 2	LONGDOM PUBLISHING SL	2016	2161-1009 (online)
5	"Studies of the interaction of bovine serum albumin with pyrimidine- annulated spirodihydrofuranand its biological activities"; Swarup Roy, Sintu Ganai, Raj Kumar Nandi, K. C. Majundar, Tapan K. Das; <b>Adv.</b> <b>Mater. Lett</b> .2015, 6, 1018-1024	International Association of Advanced Materials	2015	Print ISSN: 0976-3961
6	"Molecular iodine-mediated regioselective synthesis of pyranocoumarins and bis-fused benzo-2H-pyran derivatives"; K. C. Majumdar, B. Sinha, Inul Ansary, Sintu Ganai, Debankan Ghosh, B. Roy, B. Sridhar; <b>Synthesis</b> , 2014, 46, 1807–1814	Thieme	2014	ISSN: 0039-7881
7	"Synthesis of phosphorus containing medium ring heterocycles by sequential Claisen rearrangement and ring closing metathesis".; K. C. Majumdar, Raj Kumar Nandi, Sintu Ganai; <i>Tetrahedron Letters</i> , 2014, 55, 1247–1250	Elsevier (United Kingdom)	2014	ISSN: 0040-4039
8	"An efficient one-pot strategy to the synthesis of triazole-fused 1,4-benzodiazepinones from N-substituted 2-azido-benzamides"; K. C. Majumdar and Sintu Ganai; <b>Synthesis</b> , 2013, 2619-2625.	Thieme	2013	ISSN: 0039-7881
9	"Facile synthesis of benzothiadiazine 1,1-dioxides, a precursor of RSV inhibitors, by tandem amidation/intramolecular aza-Wittig reaction" K. C. Majumdar and Sintu Ganai; <b>Beilstein J. Org. Chem</b> . 2013, 9, 503-509.	Beilstein- Institute	2013	ISSN 1860- 5397 (Online)
10	"An one-pot approach to the synthesis of triazolobenzothiadiazepine 1,1-dioxide derivatives by basic alumina-supported azide-alkyne [3+2] cycloaddition"; K. C. Majumdar, Sintu Ganai and Biswajit Sinha; <b>Tetrahedron</b> 2012,68,7806-7811.	Elsevier (United Kingdom)	2012	ISSN: 0040-4020
11	"Catalyst-free synthesis of coumarin-, quinolone- and pyridine- annulatedoxazole derivatives"; K.C. Majumdar, Sintu Ganai, Raj Kumar Nandi and Krishanu Ray; <b>Tetrahedron Letter</b> , 2012, 53, 1553- 1557.	Elsevier (United Kingdom)	2012	ISSN: 0040-4039

12	Regioselective synthesis of pyrimidine-annulated spiro-dihydrofurans	Royal Society	2012	ISSN:
	by Silver-Catalyzed 5-endo-dig Cyclization			1144-0546
K. C. Majumdar, Sintu Ganai andRaj Kumar Nandi				(print)
	New Journal of Chemistry, 2011,35, 1355-1359.			

# PAPERS PRESENTED AT SEMINARS, CONFERENCES, WORKSHOPS, ETC.:[Last 10 Year]

SI. No.	Title of Paper/ Lecture	Organizing Institute	Conference, Seminar, workshop etc	Role (Paper presenter/ invited talk/ chairperson)	International (Within Country)/ International (Abroad)/ National
1	"Online Programme in Higher Eductaion in India: Challenges & Opportunities",	Netaji Subhas Open University	National Conference on "Future of Higher Education in India: Online Programme" held on 15.02.2019	Paper presenter	National
2	Biochemical applications of Gold Nanoparticles: An Overview	HRDC University of Burdwan	Presentation at 3 rd Refresher Course on Nano- Science and Nano- Technology from 14.09.2018 to 04.10.2018,	Paper presenter	National
3	"Opportunities and Challenges in Learning Chemistry Through ODL Mode: NSOU's Experience",	K.K. Handiqui State Open University	International Conference on "Developmental Interventions and Open Learning for Empowering and Transforming Societies" from December 16-17, 2017.	Paper presenter	International (Within Country)
4	Spectroscopic Studies on the interaction between BSA Protein and Pyrimidine annulated Spiro- dihydrofuran	Syamsundar College	International Science Seminar on "Science: Past, Present & Future" held on 12.12.17	Paper presenter	International (Within Country)
5	Condensed Triazoles : Importance & Synthesis	ASC-Calcutta University	Presentation at Orientation Programme- 116, Calcutta University19/12/2016 to 14/01/2017 (27 days)	Paper presenter	National
6	"Curricular Design of Teaching Chemistry through ODL: A Case Study of Netaji Subhas Open University",	Netaji Subhas Open University	International Conference on "Teaching-Learning Methodology under ODL System" held on 05.03.2016	Paper presenter	International (Within Country)

# PROGRAMMES COORDINATED/ ORGANISED AS CONVENER / ORGANISING SECRETARY AT NETAJI SUBHAS OPEN UNIVERSITY:

SI. No.	Progamme Name	Sponsored by	Period
1	Convener of One day Workshop on "A Capacity Building Approach to Laboratory Based Programmes in ODL Mode" organized by School of Sciences, NSOU on September 26, 2022	NSOU	2022
2	Convener of One Day Webinar on "Advance Level Study on Chemical Sciences" held on 23rd September, 2020 organized by Department of Chemistry, School of Sciences, Netaji Subhas Open University	NSOU	2020
3	Organizing Secretary of one day Workshop entitled 'Skill Development in Science Subject through ODL Mode: Advancement in Pedagogy' held on October 7, 2015, organized by School of Sciences, Netaji Subhas Open University	NSOU	2015

# TUTORIALS / PRACTICAL / PROJECT SUPERVISION & FIELD WORK: [Last 5 Year]

SI.	Type of Work	Related Programme	Year
No.			
1	Practical Supervision	LCES-2022 for UG Chemistry	2022
2	Practical Supervision	LCES-2019 for BDP Chemistry	2019
3	Practical Supervision	LCES-2018 for BDP Chemistry	2018
4	Practical Supervision	LCES-2017 for BDP Chemistry	2017

**Declaration**: I assert that the details furnished above are all true to the best of my knowledge.

Sentu Granai

Signature Date: 28.11.2022