Name of Faculty	Dr. RUPAM SINHA
Designation	Assistant Professor
Nature of Job/Appointment	Regular
Date of Joining	27 – 12 - 2022
E-mail	rupamsinha_chem@cbit.ac.in

Education Qualifications	**Name of the Degree**	**Class**
Ph. D	Doctor of Philosophy (Chemical Engineering)	Awarded
PG	M. Tech (Chemical Engineering)	Distinction
UG	B. Tech (Chemical Engineering)	Distinction

Work Experience	
Teaching	5 Months
Research	6 Months
Industry	--
Others	--
Area of Specialization	Nanoscience and nanotechnology, Sensing, Photodiodes, Supercapacitor, Photodetection, Carbon dots, Material science, ZnO synthesis and applications, Electrochemistry, CO_2 reduction.
Professional Memberships	---
Responsibilities held at Institution Level	--
Responsibilities held at Department Level	
Research Guidance	--
Awards Received	--
Courses Handled at Under Graduate / Post Graduate Level.	Transport Phenomena, Interfacial Science, Plant Design and Economics
No. of Papers Published	National Journals – -- International Journals – 07 National Conference – 02 International Conference – 05
Projects Carried out	--
Patents	**1 (Abstract Published)** **Rupam Sinha**, Nirmal Roy, and Tapas K. Mandal, Paper based flexible and self-powered UV photodetector. 202031051178 A. Date of application: 24/11/2020. Date of Abstract publication: 27/05/2022. **(Indian)**
Technology Transfer	--
Invited Speaker	**1.** Invited Speaker on " Growth of Carbon Dot-Decorated ZnO Nanorods on a Graphite-Coated Paper Substrate to Fabricate a Flexible and Self-Powered Schottky Diode for UV Detection" in Indo-UK Joint Webinar on Current Trends in Chemical Technology and Materials Development, jointly organized by Indian Institute of Technology Guwahati, Assam, India and University of Aberdeen, United Kingdom, 19-20 August, 2020. 2. Invited Speaker on "Carbon Dots: A new yet versatile member in the realm of Nanoscience and Nanotechnology" in a 6 days workshop on "Recent trends in Engineering and Emerging Technologies" organised by the Department of Chemical Engineering, National Institute of Technology Agartala, 17-22 October 2022.
No. of Books/Chapter Published with details	

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops.Other Trainings (**Attended and/or Organized**).

Details of Journal Publications/ Conferences (**National and International**)

International Journal

1. **Rupam Sinha**, Nirmal Roy, and Tapas K. Mandal, SWCNT/ZnO nanocomposite decorated with carbon dots for photoresponsive supercapacitor applications. Chem. Eng. J., 431, 133915, 2022. DOI: 10.1016/j.cej.2021.133915; I.F: 16.744
2. **Rupam Sinha**, Nirmal Roy, Ravula Rajasekhar, Aabhas Karnawat and Tapas K. Mandal, N-Doped Carbon Dot from Cigarette-Tobacco: Picric Acid Sensing in Real Water Sample and Synthesis of CD-MWCNT Nano-Composite for UV-Photodetection. J. Env. Chem. Eng., 9, 104971, 2021. DOI: 10.1016/j.jece.2020.104971; I.F: 7.968
3. **Rupam Sinha**, Nirmal Roy and Tapas K. Mandal, Growth of Carbon Dot-Decorated ZnO Nanorods on a Graphite-Coated Paper Substrate to Fabricate a Flexible and Self-Powered Schottky Diode for UV Detection. ACS Appl. Mater. Interfaces, 12, 33428-33438, 2020. DOI: 10.1021/acsami.0c10484; I.F: 10.383
4. Nirmal Roy, **Rupam Sinha**, Thomas T. Daniel, Harshal B. Nemade and Tapas K. Mandal, Highly sensitive room temperature CO gas sensor based on MWCNT-PDDA composite. IEEE Sens. J., 2020. DOI: 10.1109/JSEN.2020.3004994; I.F: 4.325
5. **Rupam Sinha**, Agam Bisht, Saptak Rarotra and Tapas K. Mandal, Continuous Semi-Micro Reactor Prototype for the Electrochemical Reduction of CO2 into Formic Acid. Ind. Eng. Chem. Res., 59, 1737–1745, 2020. DOI: 10.1021/acs.iecr.9b03304; I.F: 4.326
6. **Rupam Sinha**, Anil P. Bidkar, Ravula Rajasekhar, Siddhartha S. Ghosh and Tapas K. Mandal, A facile synthesis of nontoxic luminescent carbon dots for detection of chromium and iron in real water sample and bio-imaging. Can. J. Chem. Eng., 98, 194-204. DOI: 10.1002/cjce.23630; I.F: 2.5
7. Nirmal Roy, **Rupam Sinha**, Harshal B. Nemade and Tapas K. Mandal, Synthesis of MoS2-CuO nanocomposite for room temperature acetone sensing application. J. Alloy. Compd., 910, 164891. DOI: 10.1016/j.jallcom.2022.164891; I.F: 6.371

International /National Conferences

1. **Rupam Sinha**, Nirmal Roy and Tapas K Mandal, Paper based flexible and self-powered UV photodetector. Advances in Sustainable Research for Energy and Environmental Management (ASREEM 2021), 2021, SVNIT Surat, India.
2. **Rupam Sinha**, Nirmal Roy, Ravula Rajasekhar and Tapas K Mandal, Cigarette: A source of photoluminescent N-doped carbon dots showing potential in photo- responsive application and explosive material sensing, International Conference on Advances in Chemical Engineering- 2020 (AdChE-2020).
3. **Rupam Sinha**, Ravula Rajasekhar and Tapas K. Mandal, Carbon dots photoluminescence technique to detect total Chromium in industrial wastewater, The International Nanotech & nanoscience Conference and Exhibition Nanotech France 2019. DOI: https://doi.org/10.26799/cp- nanotechfrance2019.
4. **Rupam Sinha**, Nirmal Roy, Ravula Rajasekhar and Tapas K Mandal, Synthesis of N-doped carbon dots from cigarette and its applications in picric acid and UV detection, 6th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2019), IIT Guwahati, Guwahati, India, 2019.
5. **Rupam Sinha**, Ravula Rajasekhar and Tapas K. Mandal, A Facile Synthesis of Nontoxic Luminescent Carbon Dots for Simultaneous Detection of Cr6+ and Fe3+ Ions, TEQIP III Sponsored 1st National Student Conference on Advances in Chemical Engineering 2019, AEC, India.
6. **Rupam Sinha**, Ravula Rajasekhar and Tapas K. Mandal, Utilization of photoluminescent carbon dots for detecting Cr6+ ions. 12th International Conference on Complex Fluids and Soft Matter (COMPFLU -2018), December 6 – 9, 2018, IIT Roorkee, India.
7. **Rupam Sinha**, Agam Bisht and Tapas K. Mandal, Electrochemical reduction of CO2 into formic acid using Sn electrocatalyst as a cathode: A study on pH effect. Research Conclave 2018, March 8 – 11, 2018, IIT Guwahati, India.