Curriculum Vitae



Brief Profile: Rupam Sinha is associated with the Department of Chemical Engineering at NIT Trichy as an Assistant Professor. He obtained his Ph.D. from IIT Guwahati (Chemical Engineering Department) in the year 2022.

His research bridges the concepts of science with technology in the domain of **photorechargable energy storage systems** especially supercapacitors. He has extensively worked on the synthesis of **organic and inorganic semiconductor materials** (**from carbon dots to ZnO**) and their applications in **optoelectronics and sensing**. A key aspect of his research is the understanding of the sensing mechanism at the quantum level. Additionally, he has experience in **electrochemistry**, with work interests extending to **electrochemical CO₂ reduction and photoelectrochemical hydrogen production**. Recently, he has also begun working on **solar cell simulations**.

1. Name: Dr. Rupam Sinha

2. Designation: Assistant Professor

3. Office Address:

4. Telephone (Direct) (Optional):

Telephone: Extn (Optional):

Mobile (Optional): 8473935154

5. Email (Primary): rupam@nitt.edu Email (Secondary) :

rupamsinha97@gmail.com

6. Field(s) of Specialization: Nanoscience and nanotechnology, Sensing, Photodiodes, Supercapacitor, Photodetection, Carbon dots, Material science, ZnO synthesis and applications, Electrochemistry, CO₂ reduction, Solar cells

7. Employment Profile

Job Title	Employer	From	То
Assistant Professor	NIT Tiruchirappalli	04-04-2024	Till Date
Assistant Professor	CBIT Hyderabad	27-12-2022	30-03-2024

Ad-hoc Faculty	NIT Andhra Pradesh	22-08-2022	15-12-2022
----------------	-----------------------	------------	------------

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	IIT Guwahati	2022	-	Chemical Engineering
M.Tech	NIT Agartala	2015	9.24	Chemical Engineering
B.Tech	NIT Agartala	2009	8.10	Chemical Engineering

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	То

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	То

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2021	Best Oral Presentation Award	SVNIT Surat
2019	Best Presentation Award	Assam Engineering College

12. Fellowships

Year of Award	Name of the Fellowship	Awarding	From	To
	_	Organization	(Month/Year)	(Month/Year)

- 13. Details of Academic Work
 - (i) Curriculum Development
 - (ii) Courses taught at Postgraduate and Undergraduate levels
 - (iii)Projects guided at Postgraduate level
 - (iv)Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Aganay	Dura	ation	Status
Title of Project	Funding Agency	From To		Ongoing/ Completed

15. Number of PhDs guided

Name of the PhD	Title of PhD	Role(Supervisor/ Co-	Year of
Scholar	Thesis	Supervisor)	Award

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of	Role	Event	Venue
		Event	(Participant/	Organized by	
		(International/	Speaker/		
		National/	Chairperson,		
		Local)	Paper		
			presenter,		
			Any other)		
06/08/2021	Advances in	International	Paper	SVNIT Surat	Online
to	Sustainable		presenter		
08/08/2021	Research for				
	Energy and				
	Environmental				
	Management				
	(ASREEM				
	2021)				
05/02/2020	International	International	Paper	UPES	UPES
to	Conference on		presenter	University	University
07/02/2020	Advances in			Dehradun	Dehradun
	Chemical				

	Engineering- 2020 (AdChE- 2020)				
18/12/2019 to 21/12/2019	6 th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2019)	International	Poster presenter	IIT Guwahati	IIT Guwahati
06/12/2018 to 09/12/2018	12th International Conference on Complex Fluids and Soft Matter (COMPFLU - 2018)	International	Poster presenter	IIT Roorkee	IIT Roorkee
30/08/2019	TEQIP III Sponsored 1st National Student Conference on Advances in Chemical Engineering 2019	National	Paper presenter	Assam Engineering College	Assam Engineering College

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event	Date (s)	Role	Venue
	(International/			
	National/ Local)			
Eight-week online	National	04/10/2023	Coordinator	Online
training program on Data		to		
Science for Engineers		02/12/2023		

18. Invited Talks delivered

Topic	Date	Inviting Organization		
Growth of Carbon Dot-	19/08/2020 to 20/08/2020	Indian Institute of Technology		
Decorated ZnO Nanorods		Guwahati, and University of		
on a Graphite-Coated		Aberdeen		
Paper Substrate to				
Fabricate a Flexible and				
Self-Powered Schottky				

Diode for UV Detection		
Carbon Dot: A new yet	17/10/2022 to 22/10/2022	Department of Chemical
versatile member in the		Engineering, National Institute of
realm of Nano Science and		Technology Agartala
Nanotechnology		
Carbon Dot as an emerging	29/01/2024 to 02/02/2024	Department of Bioscience and
member in the realm of		Biotechnology, Chaitanya
Nanoscience and		Bharathi Institute of Technology
Nanotechnology		

19. Membership of Learned Societies

Type of Membership (Ordinary	Organization	Membership No. with
Member/ Honorary Member / Life		date
Member)		

20. Academic Foreign Visits

Country	Duration of Visit	Programme

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume	Page	Year	Impact
			(No.)	numbers		Factor of
						the Journal
						(Optional)
Rupam	Design of	Langmuir	40	7114–	2024	3.9
Sinha	Aluminum Doped			7126		
	ZnO/Phenyl-C-					
	Butyric Acid					
	Methyl					
	Ester/Tungsten					
	Disulfide					
	$(AZO/PCBM/WS_2)$					

	,				•	
	Heterojunction- Based Device for					
	Applications in					
	Solar Cells and					
	Broadband Self-					
	Powered					
	Photodetectors					
Rupam	N-Doped Carbon	Langmuir	39	4518-	2023	3.9
Sinha , Nirmal	Dots and ZnO Conglomerated			4529		
Roy, and	Electrodes for					
Tapas K.	Optically					
Mandal	Responsive					
	Supercapacitor					
	Applications					
Rupam	SWCNT/ZnO	Chemical	431	133915	2022	15.1
Sinha,	nanocomposite	Engineering				
Nirmal	decorated with	Journal				
Roy, and Tapas K.	carbon dots for photoresponsive					
Mandal	supercapacitor					
TVIGITGET	applications					
Nirmal	Synthesis of MoS ₂ -	Journal of	910	164891	2022	6.2
Roy,	CuO	Alloys and				
Rupam	nanocomposite for	Compounds				
Sinha,	room temperature					
Harshal B. Nemade	acetone sensing					
and Tapas	application					
K. Mandal						
Rupam	N-Doped Carbon	Journal of	9	104971	2021	7.7
Sinha,	Dot from	Environmental				
Nirmal	Cigarette-Tobacco:	Chemical				
Roy,	Picric Acid	Engineering				
Ravula	Sensing in Real					
Rajasekhar, Aabhas	Water Sample and Synthesis of CD-					
Karnawat	MWCNT Nano-					
and Tapas	Composite for UV-					
K. Mandal	Photodetection					
Rupam	Growth of Carbon	ACS applied	12	33428-	2020	9.5
Sinha,	Dot-Decorated	materials &		33438		
Nirmal Roy	ZnO Nanorods on	interfaces				
and Tapas	a Graphite-Coated					
K. Mandal	Paper Substrate to Fabricate a					
	Flexible and Self-					
I		1		1	1	ı

	T	Г		1	1	
	Powered Schottky					
	Diode for UV					
	Detection					
Nirmal	Highly sensitive	IEEE Sensors	20	13245-	2020	4.3
Roy,	room temperature	Journal		13252		
Rupam	CO gas sensor					
Sinha,	based on					
Thomas T.	MWCNT-PDDA					
Daniel,	composite					
Harshal B.						
Nemade						
and Tapas						
K. Mandal						
Rupam	Continuous Semi-	Industrial &	59	1737-	2020	4.2
Sinha,	Micro Reactor	Engineering		1745		
Agam	Prototype for the	Chemistry				
Bisht,	Electrochemical	Research				
Saptak	Reduction of CO2					
Rarotra and	into Formic Acid					
Tapas K.						
Mandal						
Rupam	A facile synthesis	Canadian	98	194-204	2019	2.5
Sinha, Anil	of nontoxic	Journal of				
P. Bidkar,	luminescent carbon	Chemical				
Ravula	dots for detection	Engineering				
Rajasekhar,	of chromium and					
Siddhartha	iron in real water					
S. Ghosh	sample and					
and Tapas	bio-imaging					
K. Mandal						

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
Rupam	Carbon dots	The	1-8		France	2019
Sinha,	photoluminescence	International				
Ravula	technique to detect	Nanotech &				
Rajasekhar,	total Chromium in	Nanoscience				
Tapas	industrial	Conference				
Mandal, K	wastewater	and				
		Exhibition				
		Nanotech				
		France 2019				

(C) Books & Monographs

(c) Zoons et monographs					
Author(s)	Title of Book/Monograph	Name of	Year of	ISSN/ISBN	
	!	Publishers	Publication	Number	