

Faculty Profile Format



1. Personal Details:

- a. Name of the Faculty: **Dr. Sudip Kumar Saha**
- b. Academic Degrees: **Bachelor of Science (Physics) 2008 (Jadavpur University)**
Master of Science (Physics) 2010 (Jadavpur University)
Ph.D 2015 (Indian Association for the Cultivation of Science/ Jadavpur University)
Postdoctoral Research Associate (January 2016-January 2017) Université de Limoges, France
- c. Department: **Physics**
- d. Designation: **Assistant Professor**
- e. Email id: sudipsaha.dhwu@gmail.com
- f. Courses Taught: **General Electronics, Condensed Matter Physics, Nuclear Physics, Elements of Condensed matter and Nano Physics, Advance Electronics, Advance Condensed Matter Physics**
- g. Area of Research Interests: **Optoelectronic applications of various semiconducting nanostructures**
- h. Teaching Experience [substantive post only]: **16.01.2017 to present**
- i. Administrative Experience: **Convenor of the Ph. D Cell of Diamond Harbour Women's University from 19.03.2019-20.03.2021**

2. Research Publications [Last 5 Years]:

Serial No.	Title of the Research Paper	Level [international/national/state]	ISBN/ISSN	Name of the Publishing Agency	Year of Publication
1.	In-situ fabricated poly (vinylidene fluoride)- Incorporated perovskite nanocrystals with better Schottky performance and enhanced stability, Monisha Nayak, Riya Nag, Abhijit Bera, Puja Samanta, Abu Jahid Akhtar and Sudip K. Saha	International	Online ISSN: 1873-1252 Print ISSN: 0925-3467	Optical Materials, Elsevier	2023
2.	An insight into the electrochemical performance of cobalt-doped ZnO quantum dot for supercapacitor applications, Arpita Dutta, Karabi Chatterjee, Shubhankar Mishra, Sudip K Saha, Abu Jahid Akhtar	International	Electronic ISSN 2044-5326 Print ISSN 0884-2914	Journal of Materials Research, Springer	2022
3.	Schottky analysis of formamidinium	International	Electronic ISSN 2190-	Applied Nanoscience, Springer	2022

	lead halide perovskite nanocrystals' devices with enhanced stability, Monisha Nayak, Riya Nag, Abhijit Bera, Abu Jahid Akhtar, Sudip K. Saha		5517		
4.	Sn doping enhanced current rectification in MAPbBr ₃ nanocrystal-metal junction for photodetection, Karabi Chatterjee, Monisha Nayak, Abu Jahid Akhtar, Sudip K. Saha	International	Online ISSN: 2214-7853	Materials Today: Proceedings, Elsevier	2022
5.	In-situ synthesis of porous ZnO nanosphere/reduced graphene oxide (ZnO@rGO) composite for structural, optical and electrochemical properties, Arpita Dutta, Sudip K. Saha, Abu Jahid Akhtar	International	Online ISSN: 2214-7853	Materials Today: Proceedings, Elsevier	2022
6.	Boosting the Supercapacitive Performance of ZnO by 3-	International	Electronic ISSN 1574-1451	Journal of Inorganic and Organometal	2022

	Dimensional Conductive Wrapping with Graphene Sheet, Arpita Dutta, Shubhankar Mishra, Sudip Kumar Saha, Sanjit Sarkar, Asim Guchhait, Abu Jahid Akhtar		Print ISSN 1574-1443	lic Polymers and Materials, Springer	
7.	A roadmap towards stable perovskite solar cells: prospective on substitution of organic (A) & inorganic (B) cations, Monisha Nayak, Abu Jahid Akthar, Asim Guchhait, Sudip K. Saha	International	Electronic ISSN 1573-482X Print ISSN 0957-4522	Journal of Materials Science: Materials in Electronics, Springer	2021
8.	A Perspective on Perovskite Solar Cells Saikat Bhaumik, Sudip K. Saha, Arup K. Rath,	International	ISBN: 978-981-16-0594-9	New Research Directions in Solar Energy Technologies pp 55-151, Energy, Environment, and Sustainability. Springer,	2021
9.	Charge transport mechanism in reduced graphene oxide/polypyrrole based ultrahigh energy density supercapacitor,	International	Electronic ISSN 1573-482X Print ISSN 0957-4522	Journal of Materials Science: Materials in Electronics, Springer	2020

	A. J. Akhtar, S. Mishra, Sudip. K. Saha				
Full Publication: https://scholar.google.com/citations?hl=en&user=WOgoEGUAAAAJ					

3. Research papers presented in conferences/seminars [Last 5 years]:

Serial No	Title of the Paper Presented	Title of the seminar/conference	Level [international/national/state]	Name of the organiser	Date

4. Research Projects:

Serial No.	Title of the Research Project(s)	Funding Agency	Date of Award	Duration of the Project	Research Grants Amount	Status of the Project
1.	Development of stable lead-free perovskite material for solar cell application	Science and Engineering Research Board, Department of Science & Technology, Government of India	14.03.2019	36 Months	45,49,877 INR	Completed
2.	Enhanced opto-electronic performance of Halide Perovskite Nanomaterials using dual oxide transporting layers	UGC-DAE-CSR	(Yet to release)	36 Months	1,95,000 INR	Yet to release

5. E-learning material, if any:

Course Details	Name of the Institution	Date/year of uploading	Quadrant I, II, III, IV	Link
-	-	-	-	-

6. Research Supervision (Ph.D./M.Phil.)

Serial No.	Name of the student	Research Topic	Name of the institution	Date of Registration	Year of Award of the Degree
1.	Monisha Nayak, (DST Inspire Fellow)	Developing stable and low-toxic perovskite devices for photovoltaic and other optoelectronic applications	Diamond Harbour Women's University	06.12.2021	-
2.	Arpita Dutta (Swami Vivekananda Merit cum Means Scholarship)	Development of Two Dimensional (2D) Nanomaterials for Energy Harvesting and Storage Applications	Diamond Harbour Women's University	06.12.2021	-
3.	Karabi Chatterjee (UGC Single Child Fellow)		Diamond Harbour Women's University	29.06.2022	-

7. Programmes Conducted / Organised as Convenor / Organising Secretary at DHWU [Last Five Years]

Serial No.	Date	Name of the Programme	Sponsored By	
1.	20.11.2020	International Webinar on Perovskites as an efficient optoelectronic material	-	Convenor of this Webinar

8. Other Relevant Information, if any:

Serial No.	Achievements / Awards	Assignment Details [Membership of Professional Bodies/Editorial Board/BOS/BORS etc.]
1.	Selected visiting scholar (SERIUS-MAGEEP fellowship) to visit National Renewable Energy Laboratory, USA January 2014-March 2014	Visiting Scholar
2.	Selected Young Scientist to represent India in 3rd BRICS Young Scientist Conclave at Durban from 25-29 June 2018	Young Scientist
3.	Membership of Professional Bodies	BOS, BORS

Date: