

## Curriculum Vitae

### Personal Details:

Name: **Mr. Utpal Sarkar**

Gender: Male

Date of Birth: 09-11-1977

Social Category: SC

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Date of Joining as P.G.T.: 10-08-2006

& as Assistant Professor: 11-02-2014

Subject: Physics (Specialization Electronics)



### Academic Qualification Details:

Degree	Year	Institution
NET (CSIR-UGC)	2012	Council of Scientific & Industrial Research Human Resource Development Group, Examination Unit CSIR Complex, Library Avenue Road, Pusa, New Delhi-110012
B.Ed.	2005	IASE, Kunjaban, Agartala, Tripura, India
M.Sc. (Physics)	2001	Tripura University, Tripura, India
B.Sc. (Honours in Physics)	1999	M.B.B. College, Agartala, Tripura, India

**Present Designation:** Assistant Professor (from 11-02-2014)

### Working Experience:

Name of Institution/Organization	Designation	Date	
		From	To
Belonia College, Belonia, South Tripura	Part Time Contract Teacher	29-09-2004	09-08-2006
Birendranagar H. S. School Jirania, West Tripura	Post Graduate Teacher	10-08-2006	30-06-2012
Sabroom H. S. School Sabroom, South Tripura	Post Graduate Teacher	01-07-2012	10-02-2014
I.C.V. College Belonia, South Tripura	Assistant Professor	11-02-2014	26-11-2016
Govt. Degree College, Kamalpur, Dhalai, Tripura	Assistant Professor	28-11-2016	22-07-2022
Ramthakur College Agartala, West Tripura	Assistant Professor	25-07-2022	Till Date

### Publication Details:

Sl. No	Title with page nos	Journal	ISSN/ISB N No	Whether peer reviewed. Impact factor	Number of co-authors	Whether you are the main author
1.	Tuning of electronic band gaps and optoelectronic properties of binary strontium chalcogenides by means of doping of magnesium atom(s) - a first principles based theoretical initiative with mBJ, B3LYP and WC-GGA functionals. 530 (2018) 53–68	<i>Physica B: Physics of Condensed Matter</i> [ELSEVIER]	ISSN No. 0921-4526	Peer reviewed; Impact Factor 2.436	03	No
2.	Modification of band gaps and optoelectronic properties of binary calcium chalcogenides by means of doping of magnesium atom(s) in rock-salt phase- a first principle based theoretical initiative. 258 (2018) 358–375	<i>Journal of Solid State Chemistry</i> [ELSEVIER]	ISSN No. 0022-4596	Peer reviewed; Impact Factor 3.49	03	No
3.	Effects of doping of mercury atom(s) on optoelectronic properties of binary zinc chalcogenides - A first principle based theoretical investigation. 748 (2018) 446-463	<i>Journal of Alloys and Compounds</i> [ELSEVIER]	ISSN No. 0925-8388	Peer reviewed; Impact Factor 6.371	05	No

4.	Influence of doping of mercury atom(s) on optoelectronic properties of binary cadmium chalcogenides - A density functional theory based investigation with different exchange-correlation functionals and including spin-orbit coupling. 18 (2018) 698–716	<i>Current Applied Physics</i> [ELSEVIER]	ISSN No. 1567-1739	Peer reviewed; Impact Factor 2.48	05	No
5.	Density functional calculations of structural, elastic and optoelectronic features of $Mg_xZn_{1-x}S$ , $Mg_xZn_{1-x}Se$ and $Mg_xZn_{1-x}Te$ alloys. 230 (2019) 54-77	<i>Materials Chemistry and Physics</i> [ELSEVIER]	ISSN No. 0254-0584	Peer reviewed; Impact Factor 4.094	05	Yes
6.	Density functional study of structural, elastic, electronic and optical properties of $Be_xCd_{1-x}S$ , $Be_xCd_{1-x}Se$ and $Be_xCd_{1-x}Te$ alloys using FP-LAPW approach. 563 (2019) 1-22	<i>Physica B: Condensed Matter</i> [ELSEVIER]	ISSN No. 0921-4526	Peer reviewed; Impact Factor 2.436	05	Yes
7.	Structural, elastic and optoelectronic characteristics of $Be_xZn_{1-x}S$ , $Be_xZn_{1-x}Se$ and $Be_xZn_{1-x}Te$ alloys-a density functional based FP-LAPW study. 20 (2019) e00384	<i>Coputational Condensed Matter</i> [ELSEVIER]	ISSN No. 2352-2143	Peer reviewed; Impact Factor 1.93	05	Yes
8.	Structural. Mechanical and optoelectronic features of cubic $Mg_xCd_{1-x}S$ , $Mg_xCd_{1-x}Se$ and $Mg_xCd_{1-x}Te$ semiconductor ternary alloys: Theoretical investigations using density functional FP-LAPW approach. 22(2020) e00448	<i>Coputational Condensed Matter</i> [ELSEVIER]	ISSN No. 2352-2143	Peer reviewed; Impact Factor 1.93	05	Yes

## Papers Presented at National/ International Seminars / Conferences:

Title of the Paper Presented	Seminars / Conferences Attended	Duration/ Date	Organised by
1. Paper entitled "Analysis of structural properties and band gap of binary cadmium chalcogenides as well as ternary alloys by means of doping of beryllium atoms using DFT based FP-LAPW approach"	UGC & INSA Sponsored National Seminar on Frontiers of Research in Physical Sciences	January 19-21, 2018.	Department of Physics, Karimganj College, Assam-788710
2. Paper entitled "Theoretical study of structural properties and band gaps of binary zinc chalcogenides and its ternary alloys by means of doping of magnesium atom(s) using DFT based FP-LAPW approach"	ICSSR Sponsored National Seminar on Policy issues for Economic Development with Special Reference to North East India	16-17 <sup>th</sup> March, 2018	Department of Economics, Govt. Degree College, Kamalpur, Dhalai, Tripura
3. Paper entitled "Modification of optoelectronic properties of binary zinc chalcogenides by means of doping of magnesium atom(s)- a density functional theory based investigation"	International Conference on Recent Trends in Mathematical Sciences (ICRTMS 2018)	March 24-25, 2018	Department of Applied Mathematics, Maharaja Bir Bikram University and Tripura Mathematical Society
4. Paper entitled "First principle investigation of structural, electronic and optical properties of $Mg_xZn_{1-x}S$ hexagonal wurtzite ternary alloys "	International Conference on Material Science (ICMS 2020)	04-06 March, 2020	Department of Physics, Tripura University (A Central University), Suryamaninagar-799022, Tripura, India
5. Paper entitled "Theoretical study of electronic properties of cadmium chalcogenides and its ternary alloys by means of doping of beryllium atoms using DFT based FP-LAPW approach"	International e-Conference on Advanced Functional Materials and Optoelectronic Devices (ICAFMOD-2020)	June 13-15, 2020	Centre for Renewable Energy Prof. Rajendra Singh (Rajju Bhaiya) Institute of Physical Sciences for Study and Research, Veer Bahadur Singh Purvanchal University, Jaunpur-222003, U.P., India
6. Paper entitled "Structural, electronic and optical features of $Be_xZn_{1-x}S$ , $Be_xZn_{1-x}Se$ and $Be_xZn_{1-x}Te$ alloys- a density functional based FP-LAPW study"	International e-Conference on Recent Advances in Physics & Materials Science-2020 (IC-RAPMS-2020)	July 09-10, 2020	Kurseong College, Darjeeling, West Bengal, India-734203 In collaboration with St. Joseph's College, Darjeeling, West Bengal, India-734104

**Attended Seminar/Symposium/Workshop:**

Sl No	Title and Date of Seminar/Workshop	University/Institution/College organizing the Seminar/Workshop	Level (National/ State/ Regional)	Sponsoring Institution
1	National Conference on Recent Trends of Research in Physics (NCRPT-2015) 23 <sup>rd</sup> and 24 <sup>th</sup> July, 2015	Organized by Department of Physics, Women's College, Agartala, Tripura, India.	National Seminar	UGC-NERO, Govt. of India; DST, Govt. of India; TSCST, Govt. of Tripura
2	National Seminar on Frontiers of Research in Physical Sciences January 19 -21, 2018	Organised by Department of Physics, Karimganj College, Karimganj, Assam -788710.	National Seminar	UGC & INSA
3	National Seminar on Policy Issues for Economic Development with Special Reference to North East India 16-17 <sup>th</sup> March, 2018	Organised by Department of Economics, Govt. Degree College, Kamalpur, Dhalai, Tripura.	National Seminar	ICSSR in Collaboration with ESSOT and NEEA
4	International Conference on Recent Trends in Mathematical Sciences ICRTMS 2018 March 24- 25, 2018	Organized by Department of Applied Mathematics, Maharaja Bir Bikram University and Tripura Mathematical Society	International Seminar	Maharaja Bir Bikram University and Tripura Mathematical Society
5	Science Academies' Workshop on Thin Films & Nanomaterials: Principals and Applications 26-28 March, 2018	Dept. of Physics, Tripura University(A Central University) Suryamaninagar-799022; Tripura, India	National Workshop	Indian Academy of Sciences, Bangalore; Indian National Science Academy, New Delhi; The National Academy of Sciences, India, Allahabad.
6	The Course on Financial Management for DDO's of Higher Education Department 29.5.2019 to 30.5.2019	State Institute of Public Administration and Rural Development, A.D. Nagar, Agartala, Tripura-799003	State Workshop	RUSA, TRIPURA
7	5 Days National Workshop on Data Science and Data Mining 10-14 February, 2020	Department of Information Technology, Tripura University(A Central University) Suryamaninagar	National Workshop	All India Council for Technical Education(AICTE) & AICTE Training & Learning Academy(ATAL)
8	International Conference on Material Science (ICMS2020) 04-06 March, 2020	Dept. of Physics, Tripura University(A Central University) Suryamaninagar-799022; Tripura, India	International Seminar	UGC-SAP, SERB, DRDO, INSA
9	XII <sup>th</sup> Biennial National Conference of Physics Academy of North East (PANE), 2021 from 15-17 Dec'2021 (Hybrid Mode)	Department of Physics, Tripura University(A Central University) Suryamaninagar-799022, Tripura, India	National	Physics Academy of North East

### Attended Faculty Development Programmes:

Programmes	Details
Refresher Courses	<ul style="list-style-type: none"><li>➤ Participated in the Science Academies' Two-Week Refresher Course on Designing Experimental Projects in Physics at Dept. of Physics Midnapore College, Midnapore organised by IAS, Bangalore, INSA, New Delhi &amp; NAS, Allahabad during 8-21 October 2014.</li><li>➤ Participated in the Refresher Course on Experimental Physics at Tripura University organised by IAS, Bangalore, INSA, New Delhi &amp; NAS, Allahabad during March 8 to 23, 2016.</li></ul>
Faculty Development Programmes	<ul style="list-style-type: none"><li>➤ Participated National Level Faculty Development Programme on "Research Methodology", organized by Internal Quality Assurance Cell, Padm. Dr. V. B. Kolte College of Engineering, Malkapur (M.S.), India from 26th May to 30th May 2020</li><li>➤ Participated 14-days Online Faculty Development Programme on "MATERIALS SCIENCE &amp; NANO-TECHNOLOGY (FDP-MSNT-2020)" organized by Department of Chemistry, B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Chennai-48, during the period 03<sup>rd</sup> August to 17<sup>th</sup> August 2020</li><li>➤ Participated AICTE Training and Learning (ATAL) Academy Online FDP on "Sensors Technology" from 2020-9-21 to 2020-9-25 at Tripura University.</li><li>➤ Participated online 5 Days interactive FDP on Web Apps and E- Content Development for Digital Learning at IASE, Agartala, Tripura from 25-29 May'2021</li><li>➤ Participated AICTE Training and Learning (ATAL) Academy online elementary FDP on fundamentals of Novel Materials" from 24/08/2021 to 28/08/2021 at Tripura University.</li><li>➤ participated AICTE Training and Learning (ATAL) Academy Online Advanced FDP on "AICTE Training and Learning (ATAL) Academy Faculty Development Program (FDP) on fundamentals of Novel Materials" from 04/10/2021 to 08/10/2021 at Tripura University.</li></ul>



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