



TEACHER'S PROFILE

BOLPUR COLLEGE, BOLPUR, BIRBHUM, PIN: 731204, W.B., INDIA

DEPARTMENT OF PHYSICS



- Name** : SUDIN SINGH
- Nationality** : INDIAN
- Present & Permanent Address** : Panchanantala (East), Bolpur, P.O.: Bolpur,
Dist.: Birbhum, Pin: 731204, W.B..
- Official Address** : Department of Physics, Bolpur College, Bolpur, P.O.: Bolpur,
Dist.: Birbhum, Pin: 731204, W.B..
- Current Academic Position** : Assistant Professor in Physics, since March 2015 to till date.
- Email ID** : skyalpha731204@gmail.com
- ORCID ID** : <https://orcid.org/0000-0003-2816-6865>
- Academic Qualifications** : (i) Currently pursuing Ph.D. in Physics at Visva-Bharati University,
Santiniketan, Pin: 731235, W.B., India.
- (ii) Joint CSIR-UGC NET (LS) held in June, 2011.
- (iii) B.Ed. (2007), M.Sc. in Physics (2006), B.Sc. (Honours) in
Physics (2003), Pre-Degree Examination in Science (2000),
Visva-Bharati University, Santiniketan, Pin: 731235, W.B., India.
- (iv) Madhyamik Pariksha (1998), Bolpur High School, W.B.B.S.E.
- Research and Teaching Experience** : Seven (07) years of Research Experience & Eight and Half
years (08 year & 06 months) of Teaching Experience.
- Research Area** : Area of research includes Theoretical Works in Physics (Wave
Packet Dynamics and Information Theory: Basic formulation(s)
on Shannon information entropy, Fisher information entropy
etc. & Quantum Mechanics).
- Number of papers published** : Seven (07) research articles in several reputed journals.

Number of chapter published in edited volume of a book: One (01)

Number of Books published : Two (02)

Research Experience:

Doctoral:

Degree	Name of University/ Institution	Subject	Year of award	Proposed Title of the Thesis
Ph.D. (Pursuing)	Visva-Bharati University	Physics	---	Wave Packet Dynamics Using Information Theory

Participation in Refresher Course, Orientation Programme, Workshop, Short-Term Course

Sl. No.	Name of the Programme	Duration with Date	Venue
1	85 th ORIENTATION PROGRAMME	27 days 16.05.2016 to 12.06.2016	UGC-HRDC, RANCHI UNIVERSITY, RANCHI
2	Refresher Course in Renewable Energy	21 days 01.03.2018 to 01.03.2018	UGC-HRDC (Erstwhile UGC Academic Staff College), University of North Bengal
3	Refresher Course on Recent Advancement of Materials Science & Technology	15days 09.11. 2022 to 23.11. 2022	UGC-HRDC, University of North Bengal, RAJARAMMOHUNPUR, DARJEELING
4	ONE DAY WORKSHOP ON VISHAKHA ACT AWARENESS PROGRAMME	One Day 28.01.2016	Bolpur College, Bolpur, Birbhum, Pin:731204
5	Participation in the FKSP on 'MODERN TEACHING TECHNIQUE'	01 Day 18.08.2017	ICFAI Business School (IBS Business School) held at BOLPUR COLLEGE
6	Five-day Workshop on the syllabus (Semester with CBCS) of Physics (Hons.) Course of Studies.	05 Days 30.10.2017 to 03.11.2017	Department of Physics, The University of Burdwan, Golapbag, Burdwan.
7	Short Duration Lecture Workshop on Recent Trends in Interdisciplinary Sciences	03 Days 12.02.2018 to 14.02.2018	Integrated Science Education and Research Centre(ISERC), Siksha-Bhavana, Visva-Bharati, Santiniketan-731235
8	Workshop on SCILAB	02 Days 17.08.2018 to 18.08.2018	Department of Physics of The University of Burdwan, Golapbag campus
9	Telescope Making and Science Popularization Workshop A public outreach programme for promotion of Science	03 Days 18.03.2019 to 20.03.2019	Department of Physics, Siksha- Bhavana(Institute of Science), Visva- Bharati, Santiniketan in association with Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune
10	Workshop on some	02 Days	Department of Physics of The University of

	advanced topics in undergraduate studies under CBCS system	06.09.2019 to 07.09.2019	Burdwan, Golapbag campus
11	Online Short Term Course on "Quality in Research"	07 Days 21.09.2022 to 27.09.2022	UGC Human Resource Development Centre, Aligarh Muslim University, Aligarh

Detailed List of publication(s):

a) Research papers and Articles:

Sl. No.	Name of Journal	Title of Research Paper	ISSN/ ISBN No	Whether peer reviewed. Impact Factor, if any	Recognition in UGC enlistment of the journal
1	Journal of Emerging Technologies and Innovative Research	Studying the Effect of Correlation on Two Electron Systems and Measurement of Information Entropies. [Volume: 8, Issue: 10, Page No: e44-e50, October, 2021]	ISSN: 2349-5162	Yes. (Peer Reviewed & Refereed)	N.A. https://www.jetir.org/
2	Asian Journal of Research and Reviews in Physics	A Theoretical Study on the Information Theoretic Inequalities and Fisher-Shannon Product of a Free Particle [Vol. 6(3), Page: 25-32, 17 Oct. 2022]	ISSN: 2582-5992	Yes.	N.A. https://journalajr2p.com/
3	International Journal of Physics and Mathematical Sciences	A THEORETICAL STUDY ON THE CONFLUENT HYPER-GEOMETRIC TYPE ANALYTICAL SOLUTION OF THE YUKAWA POTENTIAL [Vol. 12, Page:1-5, December, 2022]	ISSN: 2277-2111 (Online)	Yes.	N.A. http://www.cibtech.org/jpms.htm

4	International Journal of Physics and Mathematical Sciences	A THEORETICAL RETRACING ON THE STUDY OF WAVE PACKET DYNAMICS [Vol. 12, Page:21-34, December, 2022]	ISSN: 2277-2111 (Online)	Yes.	N.A. http://www.cibtech.org/jpms.htm
5	Journal of Scientific Research	Shannon Information Entropy Sum of a Free Particle in Three Dimensions Using Cubical and Spherical Symmetry [Vol. 15(1), Page:71-84; January,2023]	ISSN: 2070-0237 (Print); 2070-0245 (Online)	Yes. UGC CARE JOURNAL	Yes. www.banglajol.info/index.php/JSR
6	Jñānābha (Jnanabha)	FISHER-SHANNON ENTROPIC UNCERTAINTY RELATIONS AND THEIR POWER-PRODUCTS AS A MEASURE OF ELECTRONIC CORRELATION [Vol. 53(1), Page:253-262; June, 2023]	ISSN 0304-9892 (Print) ISSN 2455-7463 (Online)	Yes. UGC CARE JOURNAL	Yes. https://www.vijnanaparishadofindia.org/jnanabha/jnanabha_online
7	Journal of Scientific Research	A Theoretical Study on Wave Packet Dynamics Using Information Theory [Vol. 15(3), Page:651-656; 16-08-2023]	ISSN: 2070-0237 (Print); 2070-0245 (Online)	Yes. UGC CARE JOURNAL	Yes. www.banglajol.info/index.php/JSR

b) Book(s):

Sl. No.	Title of the book/chapter published	National/ International	Year of publication	ISSN/ ISBN No.	Name of the publisher
1	RIGID ROTOR	National	July, 2022	ISBN NO.: 978-93-94689-05-3	KOLKATA PRESS BOOKS
2	HYDROGEN ATOM	National	December, 2023	ISBN NO.: 978-93-94689-33-6	KOLKATA PRESS BOOKS

c) Chapter(s) Contributed in Edited Volume in a Book

Sl. No.	Title of the book/chapter published	National/ International	Year of publication	ISSN/ ISBN No.	Name of the publisher
1	Essentials of the Entropic Uncertainty Relations and Measurement of Fisher-Shannon Product of a Free Particle in Three Dimensions	International	April, 2023	978-81-19102-83-9 (Print) & 978-81-19102-89-1 (eBook)	B P International

List of Papers presented in Seminar/ Conference

Sl. No.	Topic	Organized by	Date	Title of the paper
1	International Conference on Recent Issues in Nuclear and Particle Physics	Department of Physics, Visva-Bharati University, Santiniketan 731235, India Sponsored by DST-SERB, DAE-BRNS, CSIR, INSA, AERB	03.02.2019 to 05.02.2019	Correlation as a measure of Information Entropy
2	International Seminar on <i>Correlative Advancement on Analytical and Applied Physics</i>	Department of Physics in collaboration with IQAC St. Joseph's College, Darjeeling, Northpoint, Darjeeling	21.10.2019 to 22.10.2019	Single particle charge density in context of Correlation and Information Entropy.
3	3 RD NATIONAL SEMINAR ON NONLINEAR AND COMPLEX PHENOMENA (NCP-2020)	Centre for Plasma Studies, Jadavpur University, Kolkata-700032 & Advanced Centre for Nonlinear and Complex Phenomena (ACNCP), Kolkata	18.02.2020 to 19.02.2020	Entropy as a tool for studying information dynamics.

Details of International/National/State/University Level Webinar(s) attended

Sl. No.	Title of the Webinar	Organized by	Whether International/ National/State Or University level	Date(s)
1	A Two Day National Webinar on “Strategies of Survival: An overview of Healthcare during Present Pandemic Situation”.	Aghorekamini Prakashchandra Mahavidyalaya, Bengai, Hooghly	National	11.08.2020 to 12.08.2020
2	Three Day International Webinar on “E-Learning-Door to the Future.	IQAC, Katwa College, Purba Bardhaman	International	18.08.2020 to 20.08.2020
3	“International Webinar on Basic and Advanced Physics-2020”	Department of Physics, Bankura University	International	24.08.2020 to 27.08.2020
4	One-Day National Level Webinar on Thin-film solar cells; Basic Principles and Recent Trends”.	Department of Physics In Association with IQAC, Hooghly Mohsin College, Chinsurah	National	28.08.2020
5	One Day National E-Conference on “Recent Progress in Physical Science”.	Department of Physical Education & IQAC, Tarakeswar Degree College, Tarakeswar, Hooghly	National	31.08.2020
6	One Day National Webinar on ‘National Education Policy 2020-Impact on Higher Education’	IQAC, Katwa College in Collaboration with Centre for Educational and Social Studies (CESS), Bengaluru	National	22.09.2020
7	One day International Webinar on Nano Science and its application	Department of Physics, Bankura Christian College, Bankura, W.B.	International	19.10.2020
8	One Day State Level Webinar on Virtual Learning: Virtual Lab and Skill Development Organized by held on	Department of Science in association with IQAC, Shree Agrasen Mahavidyalaya, Dalkhola, Uttar Dinajpur, West Bengal	State Level	14.06.2022
9	Webinar on ‘Changing Trajectories of Indian Education Policies: National and Regional Perspectives’	Department of Education, University of North Bengal in collaboration with UGC-HRDC, University of North Bengal	National	15.12.2022

Performed duty as Paper Setter/Moderator/Head Examiner:

Acted as Paper Setter & Head Examiner in Physics for the UG CBCS, Semester: IV Examinations, 2023.

Sl. No.	Course	University/Board	Subject	Paper
1	UG CBCS Semester-IV Examinations, 2023	The University of Burdwan	Physics (Honours)	CC-9

Membership of Organizations: Life Member of ‘Vijñāna Parishad of India’ since 28.03.2022.

Additional duties performed at the College/Department as Co-coordinator/Bursar/ IQAC/ Governing Body member etc.:

(i) Acted as **H.O.D., Physics, Bolpur College** from **10.03.2015 to 30.06.2019**.

(ii) Acted as one of the members of **Admission Committee, Examination Committee, Purchase Committee, Building Committee, Disciplinary Committee and RUSA Monitoring Committee etc.** during different academic sessions of the College.

Teaching and Research Statement:

Subject contents (Year/Semester): Relates to Mathematical Physics (I, II, III), Mechanics, Electricity & Magnetism, Waves & Optics, Thermal Physics, Elements of Modern Physics, Quantum Physics, Electromagnetic Theory, and Statistical Mechanics.

Method of Preference in Teaching: Preference is given in disseminating the classes by using the **ICT or Computer-aided methods**. Encourage the students to actively take part in the Discipline related and other Co-curricular activities such as **Group Discussions, Student Seminar Presentation, Model and Chart Preparation, Cultural and Environment related Programmes, Sports, NSS and NCC** etc. in attaining overall and all round development of the students both mentally and physically.

Research and Teaching Experience: Seven years (07 yrs.) of Research Experience in Theoretical Works in Physics and overall eight years and six months (08 yrs. and 06 months) Teaching Experience.

Area of Research Interest: Area of research interest includes **Wave Packet Dynamics and Information Theory: Basic formulation(s) on Shannon information entropy, Fisher information entropy & Quantum Mechanics**.
