

Curriculum vitae

Shri. GOURISHANKAR SAHOO, M Sc., Ph D

Personal Details

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Citizenship India

Professional Qualifications (Relevant)

Sl No.	Degree/Diploma	School/College/University	Division
1.	Ph D	Ravenshaw University, Cuttack	1 st
2.	M Sc	Ravenshaw College, Cuttack	1 st
3.	B Sc (Honours with distinction)	Ravenshaw College, Cuttack	1 st
4.	Higher Secondary	Ravenshaw College, Cuttack	1 st
5.	High School	Bapujee Memorial High School, Bangura, Dhenkanal	1 st

Employment History (Recent)

1. Assistant Professor, Department of Physics & Astronomical Science, Central University of Himachal Pradesh, Dharamshala, HP
2. Odisha Civil Services (2015 Batch)

Personal Distinctions

1. Column Literature Samman – 2023 for writing columns in reputed vernacular newspapers and magazines.
2. Received the certificate of Merit award for outstanding poster, presented at 27th PSSI (Plasma Science Society of India) National Symposium (PLASMA – 2012) held at Pondichery University from 10-13 December 2012.

Seminars, Conference AND FDP Presentations (Oral/Poster/Invited) (Recent)

1. Seminar on the eve of 100th year of Quantum Statistics held at Brahmanjharilo Mahavidyalaya, Brahmanjharilo, Cuttack on 15th May 2025. (Title: A door to quantum physics & modern science).
2. One week FACULTY DEVELOPMENT PROGRAM (FDP) (Innovative course design aligning with NEP-2020: Outcome based education & AI integration) held at GIET University, Gunupur,

- Rayagada, Odisha -AADC held from 12th – 16th May 2025. (Title: Machine Learning with artificial neural networks: Basic concepts & scope of its integration in teaching & learning)
3. One week FACULTY DEVELOPMENT PROGRAM (FDP) (NEP 2020- POEE -2025) held at Haldia Institute of Technology, Haldia, WB held from 24th – 28th March 2025. (Title: Machine Learning with artificial neural networks: Basic concepts & scope of its integration in teaching & learning)
 4. Seminar on the eve of 100th year of Quantum Statistics held at Dhenkanal Mahila Mahavidyalaya, Dhenkanal held on 17th March 2025. (Title: Bose statistics: Groundbreaking scientific work of modern times).
 5. 39th Annual Convention of Orissa Physical Society & International Conference on Emerging Trends in Physics (ICETP – 2025) held at KIIT University, Bhubaneswar held from 8th – 10th February 2025. (Title: Physics of sound & musical instruments: Contribution of Sir C. V. Raman)
 6. 1st International workshop on Cold Plasma & Pulse Power Technologies for Food, Health & Agriculture (COFHA -2024) held at IIT Jodhpur, Rajasthan held from 21st – 22nd December 2024 (Title: Improvement of seed water uptake & surface hydrophilicity of Odia traditional rice seed (Kalā Jeerā) upon cold plasma treatment)
 7. 39th National Symposium on Plasma Science & Technology (PLASMA – 2024) held at PDEU, Gandhinagar, Gujarat held from 17th -20th December 2024. (Title: On the diagnosis of pulsed washer gun plasma by triple probe & Faraday cup)
 8. National Seminar on Emerging Trends in Traditional Knowledge & Practice (TKP – 2024) held at VSSUT, Burla on 28th February 2024. (Title: Surface modification of rice (*Oryza sativa*) seed by plasma treatment)

Professional Contributions (last 5 years)

- Editor, Orissa Journal of Physics (Journal of Orissa Physical Society)
- Member, National Executive Committee, Power Beam Society of India (PSI), Anushakti nagar, Mumbai, Maharashtra
- Member, National Executive Committee, Plasma Science Society of India, Bhat, Gandhinagar, Gujarat

Teaching

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| 1. Plasma Physics (Special Paper) | (PAS 1018) |
| 2. Accelerator & Reactor Physics | (PAS 528) |
| 3. Quantum Mechanics & Application | (PAS 7101) |
| 4. Mathematical Techniques | (PAS 8103) |
| 5. Mathematical Physics | (PAS 402) |
| 6. Mathematical Physics – II | (PAS 5202) |
| 7. Digital Electronics | (PAS 7203A) |
| 8. Research Methodology | (PAS 1001) |
| 9. Indian Knowledge System & Practice | (PAS 1003) |
| 10. Indian Astronomy & Kala Ganana | (PAS 8207) |
| 11. Community Connect | (PAS 6105) |
| 12. Theory of Equation & Analytic Geometry | (MTH 103) |
| 13. Lab Courses | |

Doctoral Thesis Supervision

In Progress (01 student)

Shri. Suryakanta Swain (CUHP21RDPHY18)

University Administration

- Member, Teacher's Grievance Redressal Committee (Ref: File No. 1-4/CUHP/Academics/2010/Part-III –

Research Projects and Income

Year	Source of funds	Project	Amount
2025	ANRF	Partnerships for Accelerated Innovation and Research (PAIR)	Rs 10,00,00,000/-

Publications

Edited Books

1. Sahoo, G. (eds) 2017. The Vision of NEP-2020, *Integrating Indian Knowledge System in Physics Text Books*, Published by VBUSS & Pathak Publishers and Distributors, New Delhi (Supported by Ministry of Education, AICTE, Govt of India. ISBN-978-93-91952-28-0.
2. Mishra, H., Sahoo, G., Jena, J. R. (eds) 2023. *Ācharya Jagdish Chandra Bose (Odia) (1/e)*. Utkalika Publication, Cuttack. ISBN 978-93-85463-18-1.
3. Mishra, H., Triptahy, P. R., Sahoo, G. (eds) 2021. *Nobel-2021*, Maa Printers, Cuttack. ISBN 978-93-94963-05-4.
4. Mishra, H., Sahoo, G., Mishra, S. (eds) 2010. *Dictionary of Science and Technology (5/e)*, A. K. Mishra Publishers Pvt. Ltd., Bhubaneswar ISBN 978-93-85342-66-0.

Refereed Journal Articles (Most Recent)

5. Mishra, D., Sahoo, G., 2025. Graha Chakra Jasti and Traditional Indian Astronomical Model of Solar System, *Orissa Journal of Physics (Journal of Orissa Physical Society)* 32(1), 87-92.
6. Swain, S., Sahoo, G., Nayak, B. 2024 Unveiling the evolution of rotating black holes in loop quantum cosmology, **Scientific Reports** (Springer Nature, Berlin, Germany) 14(1), 16928. DOI: <https://doi.org/10.1038/s41598-024-68000-x>
7. Sethy, B. K., Samantaray, S., Paikaray, Das, P., Samantaray, S., Sasini, N. C., Mohanty, B., Sahoo, G., Sanyasi, A. K., Ghosh, J. 2024 On the measurement of electron temperature of a pulsed washer gun argon plasma by triple Langmuir probe diagnostic technique, **Journal of Scientific and Industrial Research**. (CSIR-NISCPR Publication) 83(4), 375-380. <https://or.niscpr.res.in/index.php/JSIR/article/view/2407>
8. Sethy, B. K., Paikaray, R., Heera, P., Sahoo, G., 2024 Plasma discharge process in a gun type plasma device, **AIP Conf. Proc.** (American Institute of Physics Publishing) 3149 (1). DOI: <https://doi.org/10.1063/5.0224584>
9. Pradhan, S. K., Mohanty, B., Tripathy, P. R., Swain, S., Sahoo, G. 2024, Thermo-acoustic study of niacin in an alcohol-water medium and comparison of the results with that in ethylene glycol medium, . **AIP Conf. Proc.** (American Institute of Physics Publishing) 3196 (1). DOI: <https://doi.org/10.1063/5.0228163>
10. Swain, S., Sahu, D., Dwivedee, D., Sahoo, G., Nayak, B. 2022. Generalized interacting dark energy model and loop quantum cosmology, **Astrophysics and Space Science** (Springer, Netherland) 367 (6), 57 : 2-6. DOI: [10.1007/s10509-022-04084-z](https://doi.org/10.1007/s10509-022-04084-z)

Book Chapters

11. Sahoo, G. et al.. 2018. On the effect of Base Pressure upon plasma containment. Plasma and Fusion Science, From Fundamental Research to Technological Apple Academic Press, New Jersey, USA ISBN 978-81-77188-45-32.

Refereed Conference Publications

12. Swain, S., Sahu, D., Sahoo, G., Nayak, B. Helium Abundance Constraint on Black Hole, Proceedings of the DAE Symp. On Nucl. Phys 2024 68, 815- 816.

Orientation Program Completed: (Last Five Years)

Four week orientation/induction program from 16th April to 15th May 2021 organised by Ramanujan College, University of Delhi.

Refresher Course Completed: (Last Five Years)

1. Refresher Course on Research, Writing and Analysis organised by UGC-Malaviya Mission of Teacher Training Centre, IIT-ISM, Dhanbad, Jharkhand held from 11th – 22nd November 2024.
2. UGC Sponsored refresher course on Climate Change, Life and Livelihood organised by UGC-Malaviya Mission of Teacher Training Centre, Utkal University, Bhubaneswar, Odisha held from 1st – 14th November 2023.

Faculty Development Program Completed: (Last Five Years)

1. AICTE Training and Learning (ATAL) Academy Online FDP on "Research Methodology" from 07.12.2020 to 11.12.2020 held at Indian Institute of Information Technology, Dharwad.
2. AICTE Training and Learning (ATAL) Academy Online FDP on "Research Methodology" from 01.12.2020 to 05.12.2020 held at Indian Institute of Information Technology, NAGPUR.

Organising seminars/ conferences/ workshops, other college/university activities.

- i. Co-Convener, 13th International Conference on Plasma Science & Application (ICPSA-2020) held from 26-28 December 2020.
- ii. Theme Co-ordinator, India International Science Festival (IISF-2020) held from 22-24 December 2020.
- iii. Co-ordinator, National Seminar-cum-Workshop on Content Development of Physics Curriculum in Indian Perspectives in the light of NEP -2020 held from 29-30 June 2022.
- iv. Co-ordinator, International Symposium PSS-2020 held from 03-04 July 2023.
- v. Co-ordinator, Five Day Workshop on Plasma held from 09-13 October 2023.

Other Literary Contributions: letters, reviews, editorials, notes and commentaries

- 1) **Sahoo G.**, “*Ganjana Na Pāu Ganjer*” (Odia), (On the Medicinal use of Hemp) **The Dharitri**, pg 06, 28 May 2023.
<https://dharitripaper.in/edition/13255/bhubaneswar/page/6>
- 2) **Sahoo G.**, “*Dr. Bhabha: Mu Nuhen Āme*”(Odia), (On the eve of National Technology Day – 2023), **The Prameya**, pg 08, 11 May 2023.
<https://www.prameyaepaper.com/edition/1971/BHUBANESWAR>
- 3) **Sahoo G.**, “*Bhāratīya nka Pain Kalpita Sikhyā Ra Swarup*” (Odia), (Vivekananda on Indian Education System), **Prabodhana**, pg 2-3, May 2023.
- 4) **Sahoo G.**, P. R. Triptahy, “*Parāga O Pāka*” (On Eclipse and its effect on food and atmosphere) (Odia), **The Dharitri**, pg 06, 20 April 2023.
<https://dharitripaper.in/edition/12982/bhubaneswar/page/6>
- 5) **Sahoo G.**, “*Vijnana Aur Takniki Sikshya Matrubhasha Mein Padhane Ki Avasyakata*” (Hindi), (On the Need to Teach Science and Technology in Mother Tongue), **Chhātra Udghosh**, pg 23-25, March -April 2023.
- 6) **Sahoo G.**, “*Jnāna Vijnāna O Parampara*” (Odia), (On IKS in School and College Curriculum), **The Prameya**, pg 10, 22 March 2023.
<https://www.prameyaepaper.com/edition/1213/BHUBANESWAR>
- 7) **Sahoo G.**, “*Kāla Ra kashtire Āgusāra Raman*” (Odia), (On the eve of National Science Day – 2023), **The Dharitri**, pg 06, 28 February 2023.
<https://dharitripaper.in/edition/12631/bhubaneswar/page/6>
- 8) **Sahoo G.**, “*Entanglement – Sukhma Jagatare Satya ra Swarup*” (Odia) **Digbalaya** (The Magazine of Orissa Physical Society) February 2023.
- 9) **Sahoo G.**, “*Entanglement: the peculiar quantum nature of reality*” (English) (Nobel 2022: Physics), **Science Horizon** (The Magazine of Odisha Bigyan Academy), 8 (1), pg 29 – 34, January 2023.
<http://odishabigyanacademy.in/science-horizon-2/>
- 10) **Sahoo G.**, “*Ucha Sikshyā Re Vandha Vāndhivara Vela*” (Odia) (On Research University), **The Samaj**, pg 6, 26 September 2022.
- 11) **Sahoo G.**, “*Pātha Saha Sātha*” (Odia) (On Vocational Education), **The Samaj**, pg 6, 26 August 2022.

Special Lecture Organized in the Department:

1. Extramural Lecture by Prof. (Dr.) Prasanta K. Panigrahi, Director, Centre for Quantum Science and Technology, SoA University, Bhubaneswar, Odisha on, "Bose statistics: A journey from classical to quantum through light" on 16th April 2025 at Seminar Hall, Shahpur Parishar, CUHP on the eve of 100th Anniversary of Discovery of Bose Statistics.

2. Special lecture by Dr. Debi Prasad Das, Senior Principal Scientist and Department Head, CSIR-Institute of Mineral and Material Technology, Bhubaneswar Odisha on "Principle of Prototype for Atma Nirbhar Bharat" on 01.07.2022 at Seminar Hall, Shahpur Parishar, CUHP.

3. Special Lecture by Dr. Ram Prasad Prajapati, JNU, New Delhi, on "Waves, instabilities and structure formation in astrophysical Plasmas" on 11.04.2022 at 11 AM at Seminar Hall, Shahpur Parishar, CUHP.

4. Special Lecture series by Shri. Sudam Charan Sahu, Department of Library and Information Science, Central University of HP on Data Analysis and R- Software, Reference management System 04.04.2022 and 05.04.2022 at Seminar Hall, Shahpur Parishar, CUHP.

* Organised the Lectures/Seminars as Faculty-in-Charge, Alumni Cell, DoPAS/Faculty and Convenor/Co-ordinator of the Organizing committee

Special/Extramural Lecture Organized in the University: (Last Five Years)

1. Extramural Lecture by Shri. Indresh Kumar Ji, Eminent Scholar on International Affairs and Patron, Bharat Tibet Sahyog Manch, Rashtriya Surakhya Jagaran Manch on 08th August 2024 at Auditorium, Dharmashala, organised in collaboration with Department of Hindi and CUHPTA, Central University of Himachal Pradesh.

2. Extramural Lecture by Prof. Ven. Samdhong Rinpoche, Honourable Chancellor, Sanchi University of Buddhist-Indic Studies and Mr. Penpa Tsering, Sikyong (Honourable Prime Minister), CTA under, "Tibet Dialogue" on 26 Nov 2022 at Seminar Hall, Dhauladhara Parishar-I, Central University of Himachal Pradesh.

3. National Science Day - 2022 Lecture by Dr. Trilochan Mohapatra, Honourable Director General, Indian Council of Agricultural Research (ICAR), New Delhi and Secretary to the Department of Agricultural Research and Education under, "Brahmarshi Basistha Smriti Vyakhyamala" on 28 February 2022 at Seminar Hall, Shahpur Parishar, Central University of Himachal Pradesh. (Topic – Traditional Agriculture and Future of India)

4. Central University of Himachal Pradesh Foundation Week Lecture - III by Dr. Gitanjali Batmanabane, Honourable Director, All India Institute of Medical Science (AIIMS), Bhubaneswar and Dr. Patitapaban Mohanty, Honourable Director, SVNIRTAR (Ministry of Social Justice), Cuttack on 29 January 2022 at Seminar Hall, Shahpur Parishar, Central University of Himachal Pradesh. (Topic – Leadership and Institution Building: Opportunities and Challenges)

5. Central University of Himachal Pradesh Foundation Week Lecture - II by Shri. Indresh Kumar Ji, Eminent Scholar on International Affairs and Patron, Bharat Tibet Sahyog Manch and Mrs. Dolma Gyari, Kalon (Honourable Cabinet Minister) of Department of Security, CTA on 27 January 2022 at Seminar Hall, Shahpur Parishar, Central University of Himachal Pradesh. (Topic – Identity of Tibet as a Sovereign Republic and a New Social Order)

6. Central University of Himachal Pradesh Foundation Week Lecture - I by Prof. Prafulla Kumar Mishra, Honourable Chancellor, Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar and Honourable Vice President, Maharshi Sandeepani Rastriya Veda Vidya Pratisthan, Ujjain and Prof. Rajneesh Arora, Former Vice Chancellor, Inder Singh Gujral Punjab Technical University, Jalandhar on 25 January 2022 at Seminar Hall, Shahpur Parishar, Central University of Himachal Pradesh. (Topic – Contribution of Teachers in Nation Building)

*Organised the Lectures/Seminars as Secretary, Central University of Himachal Pradesh Teachers Association and Convenor of the Organizing committee

Affiliation in Academic Bodies/Societies:

Sl. No.	Name of the Body/ Society	Nature of Affiliation
1.	Power Beam Society of India (PSI)	Member, National Executive Committee and Life Member (LM-90)
2.	Plasma Science Society of India (PSSI)	Member, National executive Committee, Life Member (LM-769)
3.	Indian Association of Physics Teachers	Life Member (13583L8596)
4.	Odisha Bigyan Academy	Life Member (63)
5.	Orissa Physical Society	Patron Member (99)
6.	Utkal Sahitya Samaj	Life Member (2619/15)