

Faculty Profile

1. Name: Dr. Sudipta Das
2. Designation: Assistant Professor (Stage III)
3. Email(s): sudipta.das@visva-bharati.ac.in
4. Date of Birth: 25.02.1977
5. Contact number(s):
6. Address: Room No: M1 05, Department of Physics, Siksha-Bhavana, Visva-Bharati
7. Research ID (Google Scholar, ORCID ID, Scopus ID, WOS ID, Vidyan ID, Research Gate):
 Google Scholar: <https://scholar.google.com/citations?user=ITQb0E0AAAAJ&hl=en>
 Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=57213459516>
 ORCID ID: <https://orcid.org/0000-0002-0578-1710>
 Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/162620>
 Research Gate: <https://www.researchgate.net/profile/Sudipta-Das-7>
8. Membership of Learned Societies:
 - (i) Life member of Indian Physical Society, Kolkata, India.
 - (ii) Life member of Indian Association of General Relativity and Gravitation (IAGRG), Pune, India.
 - (iii) Life member of Astronomical Society of India (ASI).
 - (iv) Individual member of International Astronomical Union (IAU)
 - (v) Life member of Indian Physics Association (IPA)
9. Homepage (If any): <https://sites.google.com/visva-bharati.ac.in/sudipta-das/>
10. Publication Summary:
 - (a) No. of Research papers - 29
 - (b) No. of Book Chapters - 1
 - (c) No. of Conference papers - 2
 - (d) h-index - 16
 - (e) i-10 index - 20
11. Date of Joining Visva-Bharati Service: 10.08.2009
12. Education:

Degree	Year	University/Institution
Ph. D.	2008	Jadavpur University
M. Sc. / M. Tech.	2000	Jadavpur University
B. Sc.	1997	Gauhati University

13. Academic Positions held (in reverse chronological order)

Sl. No.	Positions held	Institution	Period
1	Assistant Professor in Physics	Visva-Bharati	2009 till date

14. Areas of Research: Gravitation and Cosmology

15. Subject Specialization: Cosmology

16. Courses Teach / Taught:

Undergraduate Courses	Classical Mechanics, Quantum Mechanics, Mathematical Methods in Physics
Postgraduate Courses	Quantum Mechanics I, Cosmology (Special Paper)
Ph.D. Course-work	Astrophysics and Cosmology

17. Research Guidance:

(a) No. of Postdoctoral students (Completed / Ongoing): Nil

(b) No. of Doctoral students (Completed / Ongoing): Completed: 3; Ongoing: 2

(c) No. of M.Sc. Dissertations: 30

18. Research Collaboration (National / International):

19. Research Grants/Projects

Sl. No.	Project Title	PI/Co-PI	Funding Agency	Amount	Completed/Ongoing
1	Study of scalar perturbations in cosmological models of Dark Energy	PI	SERB	1754060	Completed
2	Effect of nonzero curvature on cosmological models of Dark Energy	PI	ANRF	2390682	Ongoing

20. Professional Recognition/ Award/ Prize/Fellowship

Sl. No.	Name of Award	Awarding Agency	Year
1	Third prize in Young Physicists' Colloquium	Indian Physical Society	2007
2	V V Narlikar Best Thesis Award	Indian Association for General Relativity and Gravitation (IAGRG)	2009
3	IUCAA Associateship	Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune	2014, 2017, 2020, 2023
4	Co-ordinator, ICARD, Department of Physics, Visva-Bharati	Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune	2025

21. Books / Book Chapters

Sl. No.	Title	Name of Author(s)	Publisher	Year of Publication
1	The Astronomical Endeavours of Sawai Jai Singh (Translated in Bengali)	Bengali translation by Sudipta Das	Astronomical Society of India (ASI)	2024

22. Detail of Patent received (if any)

Sl. No.	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country

23. Talks Delivered at International / National Conferences/Seminars/Symposium:

- i. Acceleration of the universe with a simple trigonometric potential – delivered in the 23rd IAGRG conference held at University of Rajasthan, Jaipur (December 2004).
- ii. A late time acceleration of the universe with two scalar fields : Many possibilities – Delivered in the Young Astronomers' meet 2005 held at IUCAA, Pune (November 2005).
- iii. Acceleration of the universe : a utopia or a reality? – delivered at the 24th IAGRG conference held at Jamia Milia Islamia, New Delhi (February 2007).
- iv. Acceleration of the universe : a utopia or a reality? – delivered at the 25th YPC Colloquium held at Saha Institute of Nuclear Physics, Kolkata (August 2007).
- v. Presented a paper at International conference on Gravitation and Cosmology (ICGC 2007) held at IUCAA, Pune (December 2007).
- vi. Presented a paper at Invisible Universe International Conference held at Palais de l'UNESCO, Paris, France (June 2009).
- vii. Presented a paper at the Twelfth Marcel Grossmann Meeting on General Relativity held at Palais de l'UNESCO, Paris, France (July 2009).
- viii. Presented a paper at the International Conference on Modern Perspectives of Cosmology and Gravitation held at Indian Statistical Institute, Kolkata (February 2012).
- ix. Presented a paper at the 27th Meeting of Indian Association for General Relativity and Gravitation held at H N Bahuguna Garhwal University, Srinagar, Garhwal (March, 2013)
- x. Presented a paper at the Saha Theory Workshop : Cosmology at the Interface held at Saha Institute of Nuclear Physics, Kolkata (28 – 30 January, 2015)
- xi. International conference 29th IAGRG meeting held at IIT Guwahati during 18th-20th May, 2017.
- xii. Delivered an invited talk at National Level Workshop Entitled "Celebrating the Centenary of Einstein's General Relativity : Hundred Years with 'Λ' (CCEGR-2017)" held at University of Burdwan on 26th July, 2017.
- xiii. Delivered an invited talk at Department of Physics, Maulana Azad College, Kolkata on 12th September, 2017.
- xiv. Presented a paper at the 30th Meeting of Indian Association for General Relativity and Gravitation held at BITS-Pilani Hyderabad Campus during January 3-5, 2019
- xv. Presented a paper at the 5th Tah Poe School on Cosmology held at Naresuan University, Pitsanulok, Thailand during July 22-29, 2019
- xvi. Presented a paper at the International Conference on Gravitation & Cosmology 2019 held at IISER Mohali during December 10-13, 2019
- xvii. Presented a paper at the International Conference on Emergent Issues in Cosmology and Particle Physics (EICP2) held at Visva-Bharati, Santiniketan during January 12-14, 2020
- xviii. Delivered an invited talk at the National Webinar on “Dark energy and dark matter: Mysteries of the Universe”, organized by Department of Physics, Seth Phoolchand Agrawal Smriti Mahavidyalaya, Nawapara- Rajim, Raipur on 23rd July, 2020
- xix. Delivered an invited talk at the National Webinar on “Recent Advances In Physics Research”, jointly Organized by

Department of Physics, GDC, Dharmanagar, North Tripura and Women's College, Agartala, West Tripura on 12th August 2020

- xx. Presented a paper at the National Seminar on Recent Advances in Astrophysics and Cosmology held at North Bengal University during March 24-25, 2021
- xxi. Presented a paper at the International Conference "Cosmology from Home 2022" held in online mode during July 4-15, 2022
- xxii. Delivered an invited talk at the Cosmology Group Meet at Department of Physics, IIT Madras on October 22, 2022.
- xxiii.

24. List of Scientific Publications:

- (i) Acceleration of the universe with a simple trigonometric potential.
Narayan Banerjee, Sudipta Das;
Gen. Relativ. Gravit., **37**, 1695 (2005).
arxiv : astro-ph/0505121
- (ii) An interacting scalar field and recent cosmic acceleration.
Sudipta Das, Narayan Banerjee;
Gen. Relativ. Gravit, **38**, 785 (2006).
arxiv : gr-qc/0507115.
- (iii) Curvature driven acceleration: a utopia or a reality?
Sudipta Das, Narayan Banerjee, Naresh Dadhich;
Class. Quantum Grav., **23**, 4159 (2006).
arxiv : astro-ph/0505096.
- (iv) Spintessence: a possible candidate as a driver of the late time cosmic acceleration.
Narayan Banerjee, Sudipta Das;
Astrophys. Space Sci., **305**, 25 (2006).
arxiv : gr-qc/0512036.
- (v) A late time acceleration of the universe with two scalar fields: many possibilities.
Narayan Banerjee, Sudipta Das
Mod. Phys. Letts. A , **35**, 2663 (2006).
arxiv : gr-qc/0605110.
- (vi) Brans Dicke Scalar Field as a Chameleon.
Sudipta Das, Narayan Banerjee
Phys.Rev.D, **78**, 043512 (2008) .
- (vii) **Non-minimal quintessence with nearly flat potential** .Anjan Ananda Sen, Gavesha Gupta, Sudipta Das
JCAP, **09**, 027 (2009).
- (viii) **Chameleon field and the late time acceleration of the universe.**
Narayan Banerjee, Sudipta Das, Koyel Ganguly
Pramana, **74**, L481 (2010).
- (ix) **Can Neutrino Viscosity Drive the Late Time Cosmic Acceleration?**
Sudipta Das · Narayan Banerjee
Int. J. Theor. Phys. **51** , 2771 (2012).

- (x) **An Interacting model of Dark Energy in Brans-Dicke theory**
Sudipta Das, Abdulla Al Mamon
Astrophys. Space Sci., **351**, 651(2014).
- (xi) **Cosmic acceleration in non-canonical scalar field model: an interacting scenario**
Sudipta Das, Abdulla Al Mamon
Astrophys. Space Sci., **355**, 371 (2015).
- (xii) **Study of non-canonical scalar field model using various parametrizations of dark energy equation of state**
Abdulla Al Mamon, Sudipta Das
The European Physical Journal C, **75**, 244 (2015).
- (xiii) **Generalized Second Law of Thermodynamics for Non-canonical Scalar Field Model with Corrected-Entropy**
Sudipta Das, Ujjal Debnath, Abdulla Al Mamon
The European Physical Journal C, **75**, 504 (2015).
- (xiv) **Study of parametrized dark energy models with a general non-canonical scalar field**
Abdulla Al Mamon, Sudipta Das
The European Physical Journal C, **76**, 135 (2016).
- (xv) **A divergence free parametrization of deceleration parameter for scalar field dark energy**
Abdulla Al Mamon, Sudipta Das
Int. Journal of Modern Physics D, **25**, 1650032 (2016).
- (xvi) **Constraints on reconstructed dark energy model from SN Ia and BAO/CMB observations**
Abdulla Al Mamon, Kazuharu Bamba, Sudipta Das
The European Physical Journal C **77**, No.1, 29 (2017).
- (xvii) **A parametric reconstruction of the deceleration parameter**
Abdulla Al Mamon, Sudipta Das
The European Physical Journal C, **77**, No. 7, 495 (2017).
- (xviii) **A new parametrization of dark energy equation of state leading to double exponential potential**
Sudipta Das, Abdulla Al Mamon and Manisha Banerjee
Research in Astronomy and Astrophysics (RAA), no.11, **131**, 18 (2018)
- (xix) **Dynamical System Analysis for Steep Potentials**
Sudipta Das, Manisha Banerjee, Nandan Roy
JCAP, **024**, 1908 (2019)
- (xx) **Growth of Perturbations using Lambert W Equation of State**
Manisha Banerjee, Sudipta Das, Abdulla Al Mamon, Subhajit Saha, Kazuharu Bamba
International Journal of Geometric Methods in Modern Physics, 2150139 (2021)
- (xxi) **Barrow holographic dark energy in a nonflat universe**
Priyanka Adhikary, Sudipta Das, Spyros Basilakos and Emmanuel N. Saridakis
PHYSICAL REVIEW D **104**, 123519 (2021)
- (xxii) **Quintessence or phantom: Study of scalar field dark energy models through a general parametrization of the Hubble parameter**
Nandan Roy, Sangita Goswami and Sudipta Das
Physics of the Dark Universe **36**, 101037 (2022)
- (xxiii) **A Parametric View of Hubble Parameter for Scalar Field Dark Energy Model**
Sangita Goswami, Sudipta Das

Current Indian Science, **1**, 2210, 2023

(xxiv) Perturbation in an interacting dark universe

Srijita Sinha, Manisha Banerjee, Sudipta Das
Physics of the Dark Universe, **42**, 101273 (2023)

(xxv) Study of pressure parametric dark energy model in the framework of $f(Q)$ gravity

Sangita Goswami, Sudipta Das
International Journal of Modern Physics D, **33**, 2450031 (2024)

(xxvi) Interacting Barrow holographic dark energy in non-flat universe

Priyanka Adhikary and Sudipta Das
Journal of Cosmology and Astroparticle Physics, **04**, 027 (2025)

(xxvii) Exploring parametrized dark energy models in interacting scenario

Sangita Goswami, Sudipta Das
Physics of the Dark Universe, **48**, 101951 (2025)

(xxviii) Dark energy era with a resolution of Hubble tension in generalized entropic cosmology

Priyanka Adhikary, Sudipta Das, Sergei D. Odintsov, Tanmoy Paul
Physics of the Dark Universe, **49**, 102037 (2025)

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