

: FACULTY DETAILED RESEARCH DATA:

Name of the Faculty: Dr. Soumya Chakraborty

Designation: Assistant Professor

Department: Mathematics

School: Basic Science

Research Area: Nonlinear dynamics in Cosmology

Details of research portfolio of faculty:

A. Researcher's ID details:

Google Scholar ID:

<https://scholar.google.com/citations?user=aABNxzwAAAAJ&hl=en>

Orchid ID: 0000-0002-1551-7526

Scopus ID: 57219000406

Vidwan ID: 594345

B. Publication details:

1. Conference proceedings/ Conference paper:

Sl. No.	Name of the Conference	Title of the paper	Month & Year of Publication	Author(s) Name	National/ International	doi number (if any)	ISSN/ISBN no.

2. Publications in SCI/Scopus indexed Journals:

Sl. No	Name of the Journal (mention SCI/scopus)	Title of the paper	Month & Year of Publication	Author(s) Name (Highlight the corresponding and 1 st author in every article)	doi number	Issue No. & Volume No.	Page no.	ISSN of the journal
1.	European Physical Journal C	Dynamical system analysis of three-form field dark energy model with baryonic matter	September, 2020	Soumya Chakraborty , Sudip Mishra, Subenoy Chakraborty	10.1140/epjc/s10052-020-8427-3	80(9):852	852	1434-6052
2.	International Journal of Modern Physics D	A dynamical system analysis of cosmic evolution with coupled phantom dark energy with dark matter	January, 2022	Soumya Chakraborty , Sudip Mishra, Subenoy Chakraborty	10.1142/S0218271821501297	31(01):2150129	2150129	1793-6594
3.	European Physical Journal C	Dynamical system analysis of self-interacting three-form field cosmological model: stability and bifurcation	May, 2021	Soumya Chakraborty , Sudip Mishra, Subenoy Chakraborty	10.1140/epjc/s10052-021-09221-6	81(5):439	439	1434-6052
4.	Physics of the Dark Universe	A study of interacting scalar field model from the perspective of the dynamical systems theory	May, 2023	Gautam Mandal, Soumya Chakraborty , Sudip Mishra, Sujay Kr. Biswas	10.1016/j.dark.2023.101210	40(10)1210	101210	2212-6864
5.	International Journal of Geometric Methods in Modern Physics	Dynamical system analysis of quintessence dark energy model	January, 2025	Soumya Chakraborty , Sudip Mishra, Subenoy Chakraborty	10.1142/S0219887824502505	22(01):2450250	2450250	1793-6977
6.	General Relativity and Gravitation	A dynamical system analysis of bouncing cosmology with spatial curvature	July, 2024	Soumya Chakraborty , Sudip Mishra, Subenoy Chakraborty	10.1007/s10714-024-03265-1	56(7):83	83	1572-9532
7.	Modern Physics Letter A	A dynamical system analysis of non-interacting cold	September, 2024	Soumya Chakraborty , Sudip Mishra,	10.1142/S021773232450145	39(29n30):2450145	2450145	0145-6180

		dark matter and dark energy at perturbative level		Subenoy Chakraborty	1451			
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3. Book chapter:

Sl. No.	Title of the book	Publishers	Author(s) Name (Highlight the corresponding and 1 st author in every article)	Year	ISBN No.	doi no. (if applicable)
1.	Interdisciplinary Research Horizons in Science and Technology	AkiNik Publications	Soumya Chakraborty	2025	978-93 6135-225 6	10.22271/ed.book.3288
2.	Multidisciplinary Perspectives in Mechanical and Applied Sciences	S SHARDA GLOBAL RESEARCH PUBLICATIONS	Soumya Chakraborty	2025	97881975 03719	10.62823/SSGRP/2025/9788197503719
3.	Progress in Materials Manufacturing, and Energy Systems	Inspira, Jaipur	Soumya Chakraborty	2025	97881974 42711	10.62823/Inspira/2025/9788197442711
4.	Insights in Applied Science and Engineering	Ideal Publication	Soumya Chakraborty	2025	97881988 18706	10.71431/978-81-988187-0-6

4. Text/Reference book published from reputed national/international publishers:

Sl. No.	Title of the Text/Reference book	Publishers	Author(s) Name (Highlight the corresponding and 1 st author in every article)	Year	ISBN No.	doi no. (if applicable)

5. Project granted:

Sl. No	Sponsoring Agency	Name of the project	Duration		Amount in Lakhs	PI/ CO-PI
			Starting Month & Year	Ending month & Year		
1.	Swami Vivekananda University	Study of some cosmological inflationary models	June, 2025	June, 2026	One	PI

		from the perspective of dynamical system analysis				
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6. Consultancy Project Grant:

Sl No.	Project title	Funding Agency	Duration	Completed (yes/no)	Sanctioned amount (in Rs.)	PI and CO-PI (if any)

7. Patent/IPR granted:

Sl. No.	Name of the patent	Name of the applicant	Name of the inventor	Date of File	Date of Publication	Whether Granted (yes/no); If yes, Date of Grant	Application No.