

: FACULTY DETAILED RESEARCH DATA:

Name of the Faculty: Dr. Piu Samui

Designation: Assistant Professor

Department: Mathematics

School: School of Basic Sciences

Research Area: Mathematical Biology (Bio-Mathematics)

Details of research portfolio of faculty:

A. Researcher's ID details:

Google Scholar ID:
<https://scholar.google.com/citations?user=tXeyGjQAAAAJ&hl=en>

Orchid ID: 0009-0007-3992-463X

Scopus ID: 57218530580

Vidwan ID: 525679

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.	Chaos, Solitons & Fractals	A mathematical model for	August, 2020	Samui, Piu, Mondal, Jayanta, Khajanchi,	https://doi.org/10.1	140	110-173.	0960-0779

		COVID-19 transmission dynamics with a case study of India		Subhas*	016/j.chaos.2020.110173			
2.	Journal of Interdisciplinary Mathematics	Optimal control strategies of non-pharmaceutical and pharmaceutical interventions for COVID-19 control	November, 2020	Mondal, Jayanta ¹ , Samui, Piu, Chatterjee, Amar Nath*	https://doi.org/10.1080/09720502.2020.1833459	24(1)	125 - 153	0972-0502
3.	Letters in Biomathematics	Effect of SOF/VEL antiviral therapy for HCV treatment: A control theoretic approach	August, 2021	Mondal, Jayanta ¹ , Samui, Piu, Chatterjee, Amar Nath*	https://doi.org/10.30707/LiB.8.1.1682013528.144161	8(1)	191-213	2373-7867
4.	The European Physical Journal Special Topics	Dynamical demeanour of SARS-CoV-2 virus undergoing immune response mechanism in COVID-19 pandemic	January, 2022	Mondal, Jayanta ¹ , Samui, Piu, Chatterjee, Amar Nath*	https://doi.org/10.1140/epjs/s11734-022-00437-5	231(18-20)	3357-3370	1951-6355
5.	The European Physical Journal Special Topics	Effect of an Antiviral Drug Control and its Variable Order	February, 2022	Wang Bo ¹ , Mondal, Jayanta, Samui, Piu, Chatterjee, Amar Nath, Yusuf, Abdullahi*	https://doi.org/10.1140/epjs/s11734-022-00437-5	231(10)	1915 – 1929	1951-6355

		Fractional Network in Host COVID-19 Kinetics			022-00476-y			
6.	Chaos, Solitons & Fractals	Modelling of contact tracing in determining critical community size for infectious diseases	May, 2022	Mondal, Jayanta ¹ , Samui, Piu , Chatterjee, Amar Nath*	https://doi.org/10.1016/j.chaos.2022.112141	159	112141.	0960-0779
7.	The European Physical Journal Plus	Impact of media awareness in mitigating the spread of an infectious disease with application to optimal control	August, 2022	Mondal, Jayanta ¹ , Khajanchi, Subhas*, Samui, Piu	https://doi.org/10.1140/epjp/s13360-022-03156-x	137(8)	1 –18	2190-5444
8.	Journal of Biological Physics	Clinical effects of 2-DG drug restraining SARS-CoV-2 infection: A fractional order optimal control study	December, 2022	Samui, Piu¹ , Mondal, Jayanta, Ahmad, Bashir, Chatterjee, Amar Nath*	https://doi.org/10.1007/s10867-022-09617-9	48(4)	415 - 438	0092-0606
9.	Results in Control and Optimization	Simulation and forecasting CTLs response effectiveness against global	October, 2023	Mondal, Jayanta ¹ , Mondal, Samapti, Samui, Piu*	https://doi.org/10.1016/j.rico.2023.100323	13(2023)	100323	2666-7207

		dynamics of SARS-CoV-2/HIV coinfection						
10.	Applied Mathematical Modelling	Modeling hepatocyte apoptosis in chronic HCV infection with impulsive drug control	August, 2024	Mondal, Jayanta ¹ , Samui, Piu , Chatterjee, Amar Nath, Ahmad, Bashir*	https://doi.org/10.1016/j.apm.2024.07.032	136 (2024)	11562-5.	0307-904X
11.	Results in Control and Optimization	Impact of awareness in self-monitoring of COVID-19: an optimal control approach with cost-effective strategy	January, 2025	Samui, Piu¹ , Mondal, Jayanta, Chatterjee, Amar Nath, Basir, Fahad Al*	https://doi.org/10.1016/j.rico.2024.100513	18(2025)	100513	2666-7207
12.	International Journal of Nonlinear Analysis and Applications	A delay differential equation model of SEIV in presence of media coverage	February, 2025	Samui, Piu¹ , Mondal, Jayanta, Chatterjee, Amar Nath*	https://doi.org/10.22075/IJNAA.2023.23412.2535	16 (6)	47-58	2008 - 6822
13.	Journal of Applied Nonlinear Dynamics	Impact of vaccination and awareness campaign in reducing Mpox transmission: A fractional mathematical study	2025	Mondal, Jayanta ¹ , Mondal Samapti, Samui, Piu*	https://doi.org/10.5890/JAND.2025.12.007	14(4) (2025)	847-857	2164-6457,

14.	Mathematical Medicine and Biology	Effect of biosecurity and immunological memory in ratio-dependent transmission of anthrax disease in livestock	2025	Mondal, Jayanta ¹ , Mandal, Sima, Samui, Piu*	https://doi.org/10.1093/immunmb/dqaf006	00	1 - 23	1477-8602
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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.	“Determining pathogenic behaviors of chronic HCV infection in presence of incubation delay” Mathematical Analysis and Applications in Biological Phenomena through Modelling , 478(13), 173 - 202	Springer	Samui, Piu ¹ , Mondal, Jayanta*	2025	978-981-97-9194-1	https://doi.org/10.1007/978-981-97-9194-1_13

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:

			Duration		
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Sl. No	Sponsoring Agency	Name of the project	Starting Month & Year	Ending month & Year	Amount in Lakhs	PI/ CO-PI

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.