

: FACULTY DETAILED RESEARCH DATA:

Name of the Faculty: Dr. Subhabrata Mondal

Designation: Assistant Professor

Department: Mathematics

School: Basic Sciences

Research Area: Mathematical Modelling, Integral Equation

Details of research portfolio of faculty:

A. Researcher's ID details:

Google Scholar ID:
<https://scholar.google.com/citations?user=fJ-80H0AAAAAJ&hl=en>

Orchid ID:
0009-0005-7205-7481

Scopus ID
57201676422

Vidwan ID
525898

B.

B. Publication details:

1. Conference proceedings/ Conference paper:

	Name of the Conference	Title of the paper	Month & Year of Publication	Author(s) Name	National/ International	doi number (if any)	ISSN/ISBN no.
	ICMMCS 2023	Study of a Fuzzy Prey-Predator Harvested Model: Generalised Hukuhara Derivative	August, 2023	Dr. Subhabrata Mondal	International	https://doi.org/10.1007/978-981-	2194-5357

		Approach				99-3611-3_31	
2	ICMMCS 2023	Application of Differential Transform Method for Solving Some Classes of Singular Integral Equations	August, 2023	Dr. Subhabrata Mondal	International	https://doi.org/10.1007/978-99-3611-3_17	2194-5357
3	ICMMCS 2023	Wave Scattering by Thin Multiple Bottom Standing Vertical Porous Walls in Water of Uniform Finite Depth	August, 2023	Dr. Subhabrata Mondal	International	https://doi.org/10.1007/978-99-3611-3_17	2194-5357
4	ICMC 2018	Application of the fractional differential transform method to the first kind Abel Integral Equation	March 2019	Dr. Subhabrata Mondal	International	https://doi.org/10.1007/978-99-3611-3_17	1865-0929

						3_24	
	ICMC 2019	Approximate Solution of Hypersingular Integral Equation by Using Differential Transform Method	February 2021	Dr. Subhabrata Mondal	International	https://doi.org/10.1007/978-981-15-5411-7_13	2194-5357
	ICCIDE 2023	An Ideal Technique For Solving Linear and Non-Linear Goursat Problems	February 2025	Dr. Subhabrata Mondal	International	https://doi.org/10.1201/9781003596745	9781003596745

2.

2. Publications in SCI/Scopus indexed Journals:

S l . N o	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
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1	Global Journal of Pure and Applied Mathematics (Scopus)	A Note on the solution of a Simple Hypersingular integral equations	February, 2017	Mondal, S. & Mandal, B. N.		13 (6)	1959-1964	0973-1768
2	Journal of Advances in Mathematics (Scopus)	Solution of Abel Integral Equation Using Differential Transform Method	March, 2018	Mondal, S. & Mandal, B. N.	http://doi.org/10.24297/jam.v14i1.7172	14 (1)	7521-7532	2347-1921
3	Communications in Advanced Mathematical Sciences (Scopus)	Solution of Singular Integral Equations of the First Kind With Cauchy Kernel	March, 2019	Mondal, S. & Mandal, B. N.	http://doi.org/10.33434/cams.454740	2 (1)	69-74	2651-4001
4	Pacific Journal of Applied Mathematics (Scopus)	Application of Differential Transform Method For Solving A Class Of Singular Integral Equation of Second Kind	November, 2019	Mondal, S. & Mandal, B. N.		9 (1)	263-270	1941-3963

5	Journal of Mines, Metals and Fuels (Scopus)	Solution of Lane-Emden Type Differential Equations by Using Differential Transform Method	October, 2023	Asim Biswas, Subhabrata Mondal and Ayan Chatterjee	https://doi.org/10.18311/jmmf/2023/34173	71 (5)	698-702	0022-2755
6	Journal of Mines, Metals and Fuels (Scopus)	Generalized Differential Transform Method – Application to Integral Equations of Fractional Order	October, 2023	Subhabrata Mondal, Asim Biswas and Ayan Chatterjee	https://doi.org/10.18311/jmmf/2023/34153	71(5)	578-582	0022-2755

7	Int. J. Hydrology Science and Technology (SCI)	Investigation of groundwater contamination in physical systems mathematically using differential transform method	September, 2024	Asim Biswas, Subhabrata Mondal and Ayan Chatterjee	http://doi.org/10.1504/IJHS.2024.140920	18 (3)	267-284	2042-7808
8	Neutrosophic Optimisation and Intelligent Systems	Results and Discussion of the Food Chain Model with Different Fear Effects under Uncertain Environment	October, 2024	Pramodh Bharati, Balaram Manna, Ashish Acharya, Subrata Paul, Animesh Mahata, Subhabrata Mondal, Supriya Mukherjee, Banamali Roy	http://doi.org/10.61356/j.nois.2024.4342	4	1-12	2997-0105
9	Int. J. Applied and Computational Mathematics (Scopus)	A New MCGDM Technique to Detect Best Solar Panel Installation Provider Using Hybrid Aggregation Operator Under Triangular Neutrosophic Arena.	December, 2024	Tanmoy Chatterjee, Subhabrata Mondal & Avishek Chakraborty	http://doi.org/10.1007/s40819-024-01811-8	11	Article No. 20	2199-5796

10	SciNexuses (Scopus)	Results and Discussion of Dengue Model with Temperature Effects in Interval Environment	September, 2024	Balaram Manna, Pramodh Bharati, Subrata Paul, Animesh Mahata, Subhabrata Mondal, Supriya Mukherjee, Amit Kumar Dutta, Banamali Roy	http://doi.org/10.61356/j.scin.2024.1372	1	75-81	2998-7008
11	Results in Control and Optimization (SCI)	Effect of Fear in a Fractional Order Prey-Predator Model With Time Delayed Carrying Capacity	April, 2025	Pramodh Bharati, Subrata Paul, Animesh Mahata, Supriya Mukherjee, Subhabrata Mondal, Banamali Roy	http://doi.org/10.1016/j.rico.2025.100567	19		2666-7207

3.

3. Book chapter:

Sl. No.	Title of the Book Chapter	Publishers	Author(s) Name (Highlight the corresponding and 1 st author in every article)	Year	ISBN No.	doi no. (if applicable)
	Plasticity and Free Swell Characteristics of Soil and Stone Dust	Integrated Publications	Subhabrata Mondal	2024	978-93-5834-191-1	https://doi.org/10.62778/int.book.478

	Revisited Study on Advection Dominated Accretion Flow Around Black Hole	Integrated Publications	Subhabrata Mondal	2024	978-93-5834-625-1	https://doi.org/10.62778/int.book.478
	Retailer's Inventory Decisions for Deteriorating Items with Exchange Scheme Under the Effort of Advertisement Efforts with Shortages	Integrated Publications	Subhabrata Mondal	2024	978-93-5834-625-1	https://doi.org/10.22271/ed.book.2938
	Impact of Carbon Emission on EPQ Model in the Context of Rhino Bricks Production	Integrated Publications	Subhabrata Mondal	2024	978-93-5834-625-1	https://doi.org/10.22271/ed.book.2938
	Impact of nonlinear dispersion and velocity in the aquifer close to the large water-bodies: Three-dimensional time-fractional model	AkiNik Publications	Subhabrata Mondal	2024	9789361354298	https://doi.org/10.22271/ed.book.2938

	Solute transport through porous media: A Time dependent approach	AkiNik Publications	Subhabrata Mondal	2024	9789361354298	https://doi.org/10.22271/ed.book.2938
	An ideal technique for solving linear and nonlinear Goursat problems	AkiNik Publications	Subhabrata Mondal	2024	9789361354298	https://doi.org/10.22271/ed.book.2938
	The Emergence of Periodic and Chaotic Patterns in a Simple Predator -Prey System in Presence of Self-Diffusion	AkiNik Publications	Subhabrata Mondal	2024	9789361354298	https://doi.org/10.22271/ed.book.2938
	Solution of Riccati Differential Equation using Differential Transform	Bright Sky Publications	Subhabrata Mondal	2024	978-10-3294-682-5	https://doi.org/10.62778/int.book.478
	Solution of Advection Dispersion Equation Along with Boundary Value using Differential Transform Method	Bright Sky Publications	Subhabrata Mondal	2024	978-10-3294-682-5	https://doi.org/10.62778/int.book.478
	A Novel Approach: Differential Transform Method in Solving Volterra Integral Equation	Bright Sky Publications	Subhabrata Mondal	2024	978-10-3294-682-5	https://doi.org/10.62778/int.book.478
	Effect of fear in a fractional order prey predator model with time delayed carrying capacity	Bright Sky Publications	Subhabrata Mondal	2024	978-10-3294-682-5	https://doi.org/10.62778/int.book.478

	Study of dynamical behaviors of tri-tropic food chain model with two fear effects under interval uncertainty	Bright Sky Publications	Subhabrata Mondal	2024	978-10-3294-682-5	https://doi.org/10.62778/int.book.478
	Study of Fractional order SI model with Stability analysis.	Bright Sky Publications	Subhabrata Mondal	2024	978-10-3294-682-5	https://doi.org/10.62778/int.book.478

4.

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

S l . N o .	Title of the Text / Refer ence book	Publishers	Author(s) Name (Highlight the corresponding and 1st author in every article)	Year	I S B N No.	doi no. (if applicable)

5.

5. Project granted:

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

6.

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.

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.

8.