

GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator **Dr. SANTANU CHAKRABARTI**

Department **PRINCIPAL & DEPT. OF ZOOLOGY**

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
SCREENING OF PHYTOCHEMICALS AGAINST SHIGELLA INVASION PROTEINS FOR IDENTIFYING POTENTIAL LEADS FOR DRUG DESIGN	SCIENCE & TECHNOLOGY & BIOTECHNOLOGY DEPT, GOVT. OF WEST BENGAL	10TH JULY, 2019	9TH JULY, 2022 (Extended due to late sanction of funds by the sponsors DUE TO COVID)	YES SARMISHTA MUKHOPADHYAY, MSc

Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned
1st Year	1st Year Rs.	2nd Year	2nd Year Rs.	3rd Year	3rd Year Rs.
210(Sanc.)-ST/P/S&T/5G-11/2018 20/02/2019	3,92,000/-	1223(Sanc.)/STBT-11012(15)/18/2021-ST SEC 28/02/2022	3,93,400/-	781(Sanc.)/STBT-11012(15)/18/2021-ST SEC 17/10/2022	3,25,000/-

Utilization & Project Report Submitted	Utilization & Project Report Submitted	Utilization & Project Report Submitted	Project Final Clearance Received	
1st Year	2nd Year	3rd Year	YES	NO ✓
YES 07.01.2021	YES 23.8.2022	NO	YES	NO ✓

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC CARE listed
<i>Shigella</i> pathogenesis: molecular and computational insights	Mukhopadhyay S, Ganguli S, Chakrabarti SANTANU	Aims Molecular Science http://www.aimspress.com/journal/Molecular (USA)	ISSN 2372-0301	2020	7(2): 99–121	WoS INDEXED
Functional Annotation of Pathogenesis Proteins in <i>Shigella flexneri</i> Using Comparative Genomics	Mukhopadhyay S, Ganguli S, Chakrabarti SANTANU	J. Environ. & Sociobiol. SOCIAL, ENVIRONMENTAL AND BIOLOGICAL ASSOCIATION (SEBA), INDIA	ISSN 0973-0834	2020	17(1): 107-122	WoS INDEXED
Exploring the functions and interactions of undeciphered proteins from <i>Shigella flexneri</i>	Mukhopadhyay S, Ganguli S, Chakrabarti SANTANU	International Journal of Computational Biology and Drug Design <u>Inderscience Enterprises Ltd, UK</u>	ISSN 1756-0764	2022	15(1):60-75	SCOPUS INDEXED

Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
Functional Annotation of Pathogenesis Proteins in <i>Shigella flexneri</i> using Comparative Genomics	Mukhopadhyay S, Ganguli S, Chakrabarti SANTANU	National Seminar on Water Conservation and Harvesting Focusing Biodiversity Issues and Management	8th February, 2020	Social Environmental and Biological Association (Seba), Kolkata	NATIONAL	S. MUKHOPADHYAYA (SCHOLAR)
Comparative Genomics to Identify Potential Drug Targets in <i>Shigella</i>	Mukhopadhyay S, Ganguli S, Chakrabarti SANTANU	Frontiers in Biological Sciences: Chapter III 2019	21st and 22nd September, 2019	Department of Microbiology, St. Xavier's College, Kolkata	NATIONAL	S. MUKHOPADHYAYA (SCHOLAR)
Impact of Global Climate Change on Shigellosis and New Horizons for Treatment	Mukhopadhyay S, Ganguli S, Chakrabarti SANTANU	International Symposium on Environment and Climate Crisis	20 th December, 2019	Dept. of Environmental Studies, St.Xaviers College, Kolkata	INTERNATIONAL	S. MUKHOPADHYAYA (SCHOLAR)

GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator: DR. SUSANTA NATH

Department: ZOOLOGY

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
Nonbiting midges farming and its applications potential nutritious food in fish cultivation tool for ecorestoration as well as use of byproducts in agriculture.	Department of Science and Technology	24.03.2017	ongoing	1. Mr. Rahul Podder 2. Ms. Shreya Samanta

Project Sanction Number & Date 1 st Year	Amount Sanctioned 1 st Year Rs.	Project Sanction Number & Date 2 nd Year	Amount Sanctioned 2 nd Year Rs.	Project Sanction Number & Date 3 rd Year	Amount Sanctioned 3 rd Year Rs.
1242(Sanc)/ST/P/S&T/1G-2014 Date :24.03.2017.	5,29,800/-	928(Sanc)/ST/P/S&T/1G-13/2014 Date: 18.07.2019.	4,56,603/-	690(Sanc)/STBT-11012(27)/13/2021-ST-SEC. Date: 07.10.2021.	3,19,860/-

Utilization & Project Report Submitted 1 st Year	Utilization & Project Report Submitted 2 nd Year	Utilization & Project Report Submitted 3 rd Year	Project Final Clearance Received	
YES	YES	ON-GOING		NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC CARE listed
Seasonal trend of body protein and growth of	R, Podder, Susanta Nath & B K Modak	Proceedings of the Zoological Society,	0373-5893	2017	70(1) 88-91.	WoS, Scopus

Chironoid larvae.		Kolkata.				
A study on the growth and biomass of Chironomus larvae in different food media.	R. Podder, Susanta Nath, C. Faggio, & B. P. Modak	Uttarpradesh Journal of Zoology	0256-971X	2018	38(1) 20-25.	WoS
An approach to measure the biomass of bloodworm (Diptera:chironomidae), cultured in different nutrients.	R Podder, Susanta Nath & B. K. Modak	Proceedings of the Zoological Society, Kolkata.	0373-5893	2020	73(1) 95-98.	WoS, Scopus
Effectiveness of Chironomid larvae in compare to other fish foods on growth parameters and body protein of two economically important fishes.	Susanta Nath, S. Samanta, R. Podder.	Alinteri Journal of Agriculture Sciences	2564-7814	2021	36(2) 147-155.	WoS (06.07.2021)
Ex-situ evaluation of Chironomid larvae as a potentialsupplementary food in aquaculture.	Susanta Nath, S. Samanta, R. Podder, L. Weltje & B. K. Modak	Proceedings of the National Academy of Sciences, India Section B-Biological Sciences	0369-8211	2022	92(4) 801-806.	Scopus
Tube length of chironomid larvae as an indicator for dissolved oxygen in water bodies.	R. Podder, Susanta Nath, B.K.Modak, L.Weltje & B.Malakar.	Scientific Reports	2045-2322	2022	12:19971	Scopus

Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
Survivability of tube dwelling Chironomid larvae exposed to Heavy	R. Podder, Susanta Nath & B.K.Modak.	UGC Sponsored National Level Seminar on "Spare the Nature; Make	5-6 , January, 2017	Sonamukhi College, Bankura, WB	National	Poster Presentation: R. Podder, Susanta Nath & B.K.Modak.

metal.		the Earth Green.”				
Role of tubes in Survivability of Chironomid larvae exposed to heavy metal.	R. Podder, Susanta Nath & B.K.Modak.	West Bengal Biodiversity Board Sponsored National Level Seminar “Exploring the Modern Approach in Biological Science: From Genome to Organism (Chapter – II)”.	21-22 February 2017	Sidho-Kanho-Birsha University, Purulia, WB.	National	Poster Presentation: R. Podder, Susanta Nath & B.K.Modak.
A cost effective approach to yield high biomass and growth of chironomid larvae.	R. Podder, Susanta Nath & B.K.Modak.	3 rd Regional Science Congress, Government of West Bengal	20-21 December, 2018	Sidho-Kanho-Birsha University, Purulia, WB.	National	Oral presentation: R. Podder
Nutrients Enrichment of Fish and Habitat Restoration by using Chironomid Larvae	S. Samanta, R. Podder & Susanta Nath	7 th India Biodiversity Meet 2019	19-21 Nov 2019	Indian Statistical Institute, Kolkata	International Conference	Poster Presentation: S. Samanta, R. Podder & Susanta Nath

GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator: Dr. BHASKAR GUPTA

Department: ZOOLOGY

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
Molecular analysis of polyamine mediated hyper-osmotic stress tolerance in salt sensitive indica rice	WB-DST	11.01.2016	01.092022	Atreyee Sengupta

Project Sanction Number & Date 1 st Year	Amount Sanctioned 1 st Year Rs.	Project Sanction Number & Date 2 nd Year	Amount Sanctioned 2 nd Year Rs.	Project Sanction Number & Date 3 rd Year	Amount Sanctioned 3 rd Year Rs.
G.O. No. 167 (Sanc)/ST/P/S&T/1G-12/2011 dt 06.05.2013	871998	846(Sanc.)/ST/P/S&T/1G-12/2011 dt. 11/01/2016	727310	50(Sanc.)/ST/P/S&T/1G-12/2011 dt. 08/06/2017	669246

Utilization & Project Report Submitted 1 st Year	Utilization & Project Report Submitted 2 nd Year	Utilization & Project Report Submitted 3 rd Year	Project Final Clearance Received	
Yes	Yes	Yes	YES	NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC CARE listed
Genome-wide analysis and evolutionary study of sucrose non-fermenting 1-related protein kinase 2 (SnRK2) gene family	Saha J, Chatterjee C, Sengupta A,	Computational Biology and Chemistry (Elsevier)	ISSN: 1476-9271	2014	49:59–70	Scopus, WoS indexed and UGC CARE listed

members in Arabidopsis and Oryza.	Gupta K, Gupta B					
Mechanism of Salinity Tolerance in Plants: Physiological, Biochemical, and Molecular Characterization. International Journal of Genomics	Gupta B and Huang B	International Journal of Genomics (Hindawi Publishing Corporation)	ISSN: 2314-436X (Print) ISSN: 2314-4378 (Online)	2014	Volume 2014, Article ID 701596	Scopus, WoS indexed and UGC CARE listed
Molecular phylogenetic study and expression analysis of ATP-binding cassette transporter gene family in Oryza sativa in response to salt stress.	Saha J, Sengupta A, Gupta K, Gupta B	Computational Biology and Chemistry (Elsevier)	ISSN: 1476-9271	2015	54:18-32	Scopus, WoS indexed and UGC CARE listed
Polyamines as redox homeostasis regulators during salt stress in plants	Saha J, Brauer EK, Sengupta A, Popescu SC, Gupta K and Gupta B	Frontiers in Environmental Science	ISSN: 2296-665X	2015	Volume 3, Issue 21	Scopus, WoS indexed and UGC CARE listed
Hydrogen peroxide and polyamines act as double edged swords in plant abiotic stress responses	Kamala Gupta, Atreyee Sengupta, Mayukh Chakraborty, Bhaskar Gupta	Frontiers in Plant Science	ISSN: 1664-462X	2016	Volume 7, Issue 1343	Scopus, WoS indexed and UGC CARE listed
Commentary: Conservation of AtTZF1, AtTZF2 and AtTZF3 homolog gene regulation by salt stress in evolutionarily distant plant species	Bhaskar Gupta, Atreyee Sengupta, Kamala Gupta	Frontiers in Plant Science	ISSN: 1664-462X	2016	Volume 7, Issue 254	Scopus, WoS indexed and UGC CARE listed

Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter

GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator: Dr. Supratim Mukherjee

Department: Zoology

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
Assessment of the Status, density and diversity of migratory and resident marine birds over the West Bengal Coast and to report for future planning	Department of Science and Technology and Biotechnology, Govt, of West Bengal	10.05.2021	Not yet completed	No

Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned
1st Year	1st Year Rs.	2nd Year	2nd Year Rs.	3rd Year	3rd Year Rs.
855(Sanc)/STBT-11012(27)/3/2020-ST SEC dated 18.02.2021	5,92,628/- (one year project)				

Utilization & Project Report Submitted	Utilization & Project Report Submitted	Utilization & Project Report Submitted	Project Final Clearance Received	
1st Year	2nd Year	3rd Year		
No				NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC CARE listed
No						

Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
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GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator: Dr. Amrit Krishna Mitra

Department: Chemistry

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
Synthetic engineering of multitasking small-molecule heterocyclic fluorophores that juggle environmental sensitivity and biological significance	West Bengal State Council of Science & Technology and Biotechnology	28.08.2020	28.08.2023	NA

Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned
1st Year	1st Year Rs.	2nd Year	2nd Year Rs.	3rd Year	3rd Year Rs.
1855(Sanc.)/ST/P/S&T /15G-5/2019 Date: 14/02/2020	Rs. 1,10,000/- [Rupees One Lakh Ten Thousand Only]	100(Sanc.)/STBT-11012(25)/5/2019-ST SEC Date: 28/04/2022	Rs. 56,000/- [Rupees Fifty six Thousand only]	NA	NA

Utilization & Project Report Submitted 1st Year	Utilization & Project Report Submitted 2nd Year	Utilization & Project Report Submitted 3rd Year	Project Final Clearance Received	
YES	NA [Ongoing]	NA	YES	NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC

						CARE listed
Synthesis, biological activity and photophysical studies of ellipticine and its derivatives: state of the art	Amrit Krishna Mitra	Chemistry of Heterocyclic Compounds	ISSN: 00093122, 15738353	2022	Volume: 58 Page Number: 178–192	1. Scopus indexed 2. UGC CARE listed
Chemistry and Biomedical Applications of Cumin and Turmeric: A Review, Challenge and Perspective	Amrit Krishna Mitra	Chemistry Africa	ISSN: 25225766, 25225758	2022	Volume: 5 Page Number: 1191–1213	1. Scopus indexed 2. UGC CARE listed
The Journey of 1-Keto-1,2,3,4-Tetrahydrocarbazole Based Fluorophores: From Inception to Implementation	Amrit Krishna Mitra	Journal of Fluorescence	ISSN: 15734994, 10530509	2022	Volume: 32 , Page Number: 2023–2052	1. Scopus indexed 2. UGC CARE listed
Sesquicentennial birth anniversary of carbazole, a multifaceted wonder molecule: a revisit to its synthesis, photophysical and biological studies.	Amrit Krishna Mitra	Journal of the Iranian Chemical Society	ISSN (Online): 1735-2428 ISSN: 1735-207X	2021	Volume: 19 Page Number: 2075–2113	1. Scopus indexed 2. UGC CARE listed
Oxytocin and vasopressin: the social networking buttons of the body.	Amrit Krishna Mitra	AIMS Molecular Science	ISSN: 1422-0067	2021	Volume: 8 Page Number: 32–50	1. Web of Science indexed 2. UGC CARE listed
Asima Chatterjee, one of the brightest stars in the galaxy of organic chemistry	Amrit Krishna Mitra	Current Science	ISSN 0011-3891	2021	Volume: 121 Page Number: 974–983	1. Web of Science indexed 2. Scopus indexed 3. UGC CARE listed
Introducing a New Family of	Amrit Krishna Mitra	Modern Approaches in	ISBN-10 : 9671679870	2020	Volume: 1 Page Number: 18-30	NA

Fluorophores: Keto-tetrahydrocarbazole. ,		Chemical and Biological Sciences Published by : LINCOLN UNIVERSITY COLLEGE, Malaysia	ISBN-13 : 978-9671679876			
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Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
SUSTAINABLE DEVELOPMENT GOALS AND THEIR EVALUATION	Amrit Krishna Mitra	SUSTAINABLE DEVELOPMENT GOALS AND THEIR EVALUATION	06.06.2022	Government General Degree College, Singur jointly organised by Association of Chemistry teachers (ACT), Mumbai, India and IQAC Government General Degree College, Singur in collaboration with Rani Rashmoni Green University	National	Amrit Krishna Mitra
KETOTETRAHYDROCARBAZOLE: AN OFFSHOOT OF FLUOROPHORES	Amrit Krishna Mitra	14th National Symposium on Radiation & Photochemistry, (NSRP-2021)	26.06.2021	Virtual Venue (ZOOM) Host: IIT Gandhinagar Organized by Indian Society for Radiation and Photochemical Sciences(ISRAPs)	National	Amrit Krishna Mitra

INTRODUCING A NEW FAMILY OF FLUOROPHORES	Amrit Krishna Mitra	Emerging Research Trends in Chemical Sciences (ERTCS-2020)	25.07.2021	Virtual Venue (ZOOM) Department of Chemistry, Government Post Graduate College, Rajouri, University of Jammu	International	Amrit Krishna Mitra
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EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator: **Dr. JAYSHREE SADHUKHAN**

Department **CHEMISTRY**

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
A comparative study of the excited state hydrogen transfer dynamics in fluorophenols and their complexes with ammonia: $1\pi\pi^* - 1\pi\sigma^*$ energy gap effect	WBDST	21.03.2022	21.03.2025	N.A

Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned	Project Sanction Number & Date	Amount Sanctioned
1 st Year	1 st Year Rs.	2 nd Year	2 nd Year Rs.	3 rd Year	3 rd Year Rs.
Memo No: 1358(Sanc.)/STBT-11012(25)/47/2021-ST SEC dated 21.03.22	1,35,000/-	N.A	N.A	N.A	N.A

Utilization & Project Report Submitted 1 st Year	Utilization & Project Report Submitted 2 nd Year	Utilization & Project Report Submitted 3 rd Year	Project Final Clearance Received	
NO	NO	NO	YES	NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC CARE
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Nil						

Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
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Nil

GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator : Dr. JAYANTA SEN

Department : MATHEMATICS

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
Applications of Fuzzy Logics on Affine Classical Linear Algebra and Extended Many-Valued Algebra	Department of Higher Education, Science & Technology and Bio-Technology, Government of West Bengal, India.	02 nd July, 2018	01 st July, 2021	Arundhati Sanyal (J.R.F.)

Project Sanction Number & Date 1st Year	Amount Sanctioned 1st Year Rs.	Project Sanction Number & Date 2nd Year	Amount Sanctioned 2nd Year Rs.	Project Sanction Number & Date 3rd Year	Amount Sanctioned 3rd Year Rs.
257(Sanc.)/ST/P/S&T/16G-45/17 dated 25.03.2018	237790	1619(Sanc.)/STBT-11012(26)/13/2019-ST SEC dated 02.01.2020	237790	1370(Sanc.)/STBT-11012(26)/13/2019-ST SEC dated 21.03.2022	265596

Utilization & Project Report Submitted 1st Year	Utilization & Project Report Submitted 2nd Year	Utilization & Project Report Submitted 3rd Year	Project Final Clearance Received
YES	YES	NO	NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the	ISSN/ISBN	Year of Publication	Volume, Page Number	Whether
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		Journal / Book	No.			Scopus/WoS indexed or UGC CARE listed
Topological IL-algebras	Safiqul Islam, Arundhati Sanyal, Jayanta Sen	Soft Computing	1432-7643	2022	26, pages 8335–8349	Scopus
Fuzzy filters of IL-algebras	Safiqul Islam, Arundhati Sanyal, Jayanta Sen	Soft Computing	1432-7643	2022	26, pages 7017–7027	Scopus
Filter theory of IL-algebras	Safiqul Islam, Arundhati Sanyal, Jayanta Sen	Journal of the Calcutta Mathematical Society	2231-5314	2020	16, pages 113–126	UGC CARE listed
An implication based study on Łukasiewicz (Monteiro) 3-valued algebra and pre-rough algebra	Anirban Saha, Jayanta Sen	Information Sciences	0020-0255	2020	518, pages 157-167	Scopus

Seminars Attended from the Research Project : NIL

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
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GOVERNMENT GENERAL DEGREE COLLEGE SINGUR

EXTRAMURAL RESEARCH PROJECT REPORT (July, 2017- June, 2022)

Name of the Principal Investigator : DR. PIYALI BHAR

Department: MATHEMATICS

Project Title	Project Sponsoring Agency	Project Start Date	Project Completion Date	If Research scholar with fellowship involved his/her name
Comparative study between general relativity and modified gravity by modelling compact objects and wormhole	WBDST	21/03/2022	Ongoing	NO

Project Sanction Number & Date 1 st Year	Amount Sanctioned 1 st Year Rs.	Project Sanction Number & Date 2 nd Year	Amount Sanctioned 2 nd Year Rs.	Project Sanction Number & Date 3 rd Year	Amount Sanctioned 3 rd Year Rs.
649(Sanc.)/STBT-11012(26)/23/2019-ST SEC	Rs. 1,10,000/-	----	----	----	-----

Utilization & Project Report Submitted 1 st Year	Utilization & Project Report Submitted 2 nd Year	Utilization & Project Report Submitted 3 rd Year	Project Final Clearance Received	
No	No	No	YES	NO

PUBLICATIONS FROM THE RESEARCH PROJECT

Title of the Paper	Authors	Name of the Journal / Book	ISSN/ISBN No.	Year of Publication	Volume, Page Number	Whether Scopus/WoS indexed or UGC CARE listed
Compact stellar model in Tolman spacetime in the presence of pressure	Piyali Bhar, Shyam Das and Bikram	International Journal of Geometric Methods in Modern Physics	0219-8878 (print); 1793-6977 (web)	30/03/2022	Vol. 19, No. 06, 2250095	Scopus

anisotropy	Keshari Parida					
Model of hybrid star with baryonic and strange quark matter in Tolman–Kuchowicz spacetime	Pramit Rej and Piyali Bhar	International Journal of Geometric Methods in Modern Physics	0219-8878 (print); 1793-6977 (web)	30/03/2022	Vol. 19, No. 07, 2250104	Scopus

Seminars Attended from the Research Project

Title of the Paper Presented	Authors	Name of the Conference/seminar	Date	Venue	Whether National/International	Name of the Presenter
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No