



GOA STATE RESEARCH FOUNDATION

(established by Government of Goa through Act 8 of 2022)

Porvorim, Goa

SANCTION ORDER

On the basis of the approval of the Governing Council of GSRF, sanction is hereby accorded as follows, for the purpose of release of grants:

Scheme: MINOR RESEARCH GRANT (2023-2024)

Name of Applicant: Dr. Niyati Kalangutkar

Application No.: GSRF-MIN-2023-037

Title of Project/Study: Physiochemical characterisation of Banded Iron formations (BIF) for sustainable economic prospects for trace and REE

Institution: School of Earth Ocean Atmospheric Sciences Goa University, Taleigao Plateau, Goa

Heads*	Total amount sanctioned (Rs)			First instalment (Rs)			Final instalment# (Rs)	Remarks
	Non-Recur.	Recur.	TOTAL	Non-Recur.	Recur.	TOTAL	[Recur.] TOTAL	
Minor Equipment	---	---	---	---	---	---	---	
Books & Journals	---	---		---	---		---	
Hiring Services	---	185,000	250,000	---	92,500	125,000	92,500	
Contingency	---	25,000		---	12,500		12,500	
Chemicals/Consumables	---	20,000		---	10,000		10,000	
Travel / Field work	---	20,000		---	10,000		10,000	
Specific Needs	---	---		---	---		---	
TOTAL			250,000			125,000	125,000	

*All heads/items of expenditure have to be as per guidelines available on GSRF website / Gazette Notification / Sanction Letter.

Will be released only after all necessary submissions (including UC and Progress Report) on the completion of the first year.

Note: All guidelines of the Scheme are to be followed, including those related to expenditure heads and timely submissions.

07 / 03 / 2024

Copy: (i) Principal/Registrar
(ii) Accounts File
(iii) Office File
(iv) Guard File



07.03.2024

Prof. Savio P. Falleiro
Managing Director

Goa State Research Foundation

Market Complex, Goa Housing Board

Alto-Porvorim, Goa

**FORMAT FOR THE ANNUAL REPORT OF THE GSRF MINOR RESEARCH
GRANT /
START-UP RESEARCH GRANT 2023-24**

1. Name of the Principal Investigator: Dr. Niyati Kalangutkar
2. Contact Number and Email of the Principal Investigator: 9765989687 and niyati@unigoa.ac.in
3. Department/ Discipline/School where project is being implemented:
Applied Geology,
School of Earth Ocean Atmospheric Sciences

4. Name and Address of the Institution: Goa University
5. Contact Number and Email of the Institution:

6. GS RF Sanction Letter Reference No. and Date: GS RF/MIN/2023/037 DATE: 07/03/2023

7. Total Grant Sanctioned: Rs 250000/-

8. Total Grant Received as 1st Instalment: Rs125000/-

9. Expenditure incurred: Rs. 113694/-

10. Balance amount, if any: Rs 11306/-

11. Title of the Project work: Physiochemical characterisation of Banded Iron Formations (BIF)
for stainable economic prospects for trace and REE.

12. Objectives of the Project work:

- Perform geochemical characterization of Banded Iron Formations (BIFs) and associated cherts to gain insights into their composition and geochemical properties.
- To understand the metal sequestration processes in depositional environments during the Archean and Proterozoic times which lead to ore formations.
- To study the concentration of elements like gold, PGE and REE associated with the BIFs and iron ores.

13. Whether Objectives were achieved (give details): Fieldwork and sampling of BIFs in Goa is carried out. More samples will be obtained. 20 BIF Sample powders will be sent to NGRI for ICPMS analysis where trace and REE will be analysed.

14. Summary of the findings (in 500 words): The samples collected are powdered and the analysis of first batch of samples will be carried out at NGRI, Hyderabad for ICPMS analysis where trace and REE will be analysed to study the geochemical composition of the BIFs.

15. Achievements from the work:--Sampling is carried out within Goa and Sindhudurga, area of Maharashtra.

16. Contribution to the society if any (give details): -- Upon analysis of samples the occurrence of trace and REEs if of economic value will be known.

17. No. of publications out of the Ph. D. work (please attach re-prints):--

Dr. Niyati Kalangutkar
Registrar

(PRINCIPAL INVESTIGATOR)

Dr. M. S. Pillay
30/11/2025

(REGISTRAR, GOA UNIVERSITY)

Registrar
Goa University
Taleigao Plateau,
Goa - 403 206

GFR 12-B
FORM OF UTILIZATION CERTIFICATE

For the period from 07-03-2024 to 31-01-2025

- (1) Certified that out of the Grants of Rs 1,25,000/- SANCTIONED as 1st Instalment under GSRRF minor project scheme dated 07-03-2024, in favour of Dr Niyati Kalangutkar, SEOAS, Goa University, during the year 2023-2024, an amount of Rs. 1,13,694/- has been utilized for the purpose for which it was sanctioned, and that the balance of Rs. 11,306/- remaining unutilized during this period will be adjusted towards the Grants payable during the next financial year.
- (2) Certified that I have satisfied myself that the conditions on which the Grants was sanctioned have been duly fulfilled and that I have exercised the checks to see that the money was actually spent for the purpose for which the Grants was made.

Dr Niyati Kalangutkar
Project Investigator
Signature
Designation Assistant Prof
Date 24/1/25

Finance Officer
Signature
Designation
Date
Goa University
Taleigao Plateau,
Goa - 403 206

Registrar, Goa University
Signature
Designation
Date
Registrar
Goa University
Taleigao Plateau,
Goa - 403 206

STATEMENT OF UTILIZATION

For the period from 07-03-2024 to 31-01-2025

	Sanctioned amount	Bills on 31-12-2024	Bills on 31-01-2025	Utilised amount	Balance
B-46 (11) (1) Minor Equipment	0	0	0	0	0
B-46 (11) (2) Books & Journals	0	0	0	0	0
B-46 (11) (3) Hiring Services	92500	87320	4000	92500	1180
B-46 (11) (4) Contingency	12500	12,487	0	12500	13
B-46 (11) (5) Chemicals /Consumables	10000	9887	0	10000	113
B-46 (11) (6) Travel /Field Work	10000	0	0	10000	10,000
B-46 (11) (7) Specific Needs	0	0	0	0	0
	125000	109694	4000	1,13,694	
				Utilised amount 1,13,694	Balance amount 11,306

Dr Nityati Kalangutkar

Project Investigator

Signature
Designation Assistant Professor
Date 24/1/25

Finance Officer

Signature
Designation
Date

Registrar, Goa University

Signature
Designation
Date

Finance Officer
Goa University
Taleigao Plateau

Registrar
Goa University
Taleigao Plateau,
Goa - 403 206