GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

KUMBAKONAM - 612 001





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CRITERION III - RESEARCH, INNOVATIONS AND EXTENSION

3.1 PROMOTION OF RESEARCH AND FACILITIES

3.1.1 Research Policy Document to Promote Research

List of Teachers who had Applied for Sponsored Projects



NONLINEAR EXCITATIONS AND THEIR STABILITY IN POLARITON BOSE-EINSTEIN CONDENSATES

File Number: CRG/2023/008153

Submitted By: Dr. Radha Ramaswamy

[SERB Qualified Unique Identification Document: SQUID-1966-RR-4288]

Submission Date: 20-Mar-2023

File No.: CRG/2023/008153/PHY | Page 1 of 60

STR-NOW

FORM-C

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH Human Resource Development Group CSIR-A Special Call for Research Grants for Women Scientists (CSIR-ASPIRE) CSIR Complex, Library Avenue, Pusa, NewDelhi-110012

(This application for financial support by CSIR to the research proposal should be typed; Twenty copies are to be submitted /forwarded to the Head, HRDG at the above address)

PART-A

1. Institute to administer the grant : The Principal,

Government College for Women (Autonomous)

Kumbakonam-612001, Tamil Nadu

2. Project Title : Dynamics of Quantum Droplets and Superfluidity

of Bose -Einstein Condensates

3. General area of the proposed research : **Physical Sciences**

4. Name of the sponsoring CSIR Laboratory : **Not Applicable**

5. Principal Investigator (PI)

(a) Title : **Dr. R.Radha** Sex : **F**

(b) Address : Centre for Nonlinear Science,

PG & Research Department of Physics,

Government College for Women (Autonomous)

Kumbakonam-612001, Tamil Nadu.

Telephone : +91 9843821479

Fax :--

E-mail : vittal.cnls@gmail.com

radha_ramaswamy@gcwk.ac.in

 $radha_ramaswamy@yahoo.com$

(c) Position : **Associate Professor**

(d) Date of Birth : **28.04.1966**

(e) Highest Degree : **Ph.D**

University/ Institute : Bharathidasan University

Date : **25.7.1997**

(f) Total time to be devoted to project : **36 Months**

6. Other Participants (Co-Investigator)

: Dr.T.Thilagavathi

Assistant Professor

PG & Research Department of Physics,

Government College for Women (Autonomous)

Kumbakonam-612001, Tamil Nadu.

7. Names and addresses of four research scientists actively engaged in the general area of proposed Research:

- (a) Dr. P. Muruganandam, Bharathidasan University, Tiruchirappalli, E-mail: anand@bdu.ac.in.
- (b) Dr. Prasanta Panigrahi, IISER, Kolkata, E-mail: pprasanta@iiserkol.ac.in.
- (c) Dr. Utpal Roy, IIT, Patna, E-mail: uroy@iitp.ac.in.
- (d) Dr. Angom D. K. Singh, Manipur University, Manipur, E-mail: dilip.angom@manipuruniv.ac.in.

8. Research support availed/being availed/applied for by the PI from different sources, including CSIR, During the last Six years:

Agency	Title of the Project	Ref.No	Duration	Time	Amount In Lakhs
CSIR	Ultra cold atoms dynamics through a versatile analytical and Numerical approach	03(1323)/14/ EMR-II	2015-2018	36 Months	11.5
CSIR	Exploring the ultra-cold atom dynamics through <i>PT</i> -symmetry	03(1456)/19/ EMR-II dated 5 th August 2019	01.11.2019 to 31.10.2022	36 Months	53
NBHM	Investigation of PT- symmetric and non PT- symmetric variable coefficient nonlinear Schrodiner type equation	02011/3/20/2020 NBHM (R.P) R&D II 3 rd August 2020	2021-2024	36 months	15.87
DST-CURIE	DST-CURIE Instrumentation Facility (D-CIF)	DST/CURIE- PG/2022/54	2022-2025	36 months	40.9

9.Proposed Budget:

Amount requested (in Rupees)

Budget Items	I Year	II Year	III Year	Total
(a) Staff RA *	5,64,000	5,64,000	5 64 000	16,92,000
(b) Contingency	1,00,000	1,00,000	1,00,000	3,00,000
(i) Travel	50,000	50,000	50,000	1,50,000
(c) Equipment Apple Macbook	1,50,000			1,50,000
Overhead Costs (@5%)	43,200	35,700	35,700	1,14,600
(d) Total	9,07,200	7,49,700	7,49,700	24,06,600

^{*}Fellowship @ Rs. 47,000/-p.m

10. Available Institutional Facilities:

	Item	Yes	No	NA*	Item	Yes	No	NA*
1.	Workshop			/	7. Transportation			/
2.	Water Facility &				8. Admin., Secretarial	/		
	Electricity				Support	V ,		
3.	Laboratory space /				9. Library Facility			
	Furniture	•			10. Computational	. /		
4.	Standby Power	\checkmark			Facility	V		,
5.	A/C Room/ equipment	/			11. Animal / Glass house			\
	Furniture	/			12. Any other			
6.	Telecommunication	/						

^{*} Not Applicable

11. Declaration and Attestation:

We certify that all the details declared here are correct and complete.

1. Signature of Principal Investigator with date

2. Signature of the Co-Investigator

· A P 5/04/23

12. Certificate of the Heads of the Department and Institution:

We have read the terms and conditions of the CSIR Extramural Research Grant scheme. The necessary institutional facilities are available and will be provided for implementation of this research proposal being submitted to the CSIR for funding. Full account of expenditure will be rendered by the institution yearly.

Dr R. RADHA

Name of the Head of the Department

Signature with Date

D. J. SUGANTHI

Name of the Head of the Institution

Signature with Date

PRINCIPAL
Government College for Women (Autonomous)
KUNBAKONAM

Dr.R.RADHA, M.Sc., M.Phil., Ph.D., FASCh., Associate Professor & Head, Centre for Nonlinear Science (CeNSc) P.G. & Research Department of Physics, Govt. College for Women (Autonomous), Kumbakonam- 612 001. TN, India.





Standardising the application of Gir (Bos indicus) urine distillate on the growth, survival, quality and quantity of bee proiducts, disease resistance and stimulation of immune responses in Indian bee Apis Cerana indica

File Number: SPG/2022/001960

Submitted By: Dr. Venkatalakshmi Sournamanickam
[SERB Qualified Unique Identification Document: SQUID-1972-VS-1955]

Submission Date: 18-Oct-2022

UGC Research grant for in-service faculty members

2022

Development of multifunctional carboxymethyl chitosan/
CaO nanocomposite for biological and insecticidal applications: Sustainable waste management and industrialization approach

Dr.M.Govindarajan

Assistant Professor of Zoology Government College for Women (A) Kumbakonam, Tamilnadu.