



icmr | NIRT
INDIAN COUNCIL OF
MEDICAL RESEARCH
NATIONAL INSTITUTE FOR
RESEARCH IN TUBERCULOSIS



सार्थ सी एम आर - राष्ट्रीय चिकित्सा अनुसंधान संस्थान
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार
कल्याण मंत्रालय, भारत सरकार
ICMR - National Institute for Research in Tuberculosis
Department of Health Research, Ministry of Health
and Family Welfare, Government of India

Ref.No.:NIRT/DIR/RRMCH/BCG/2020

Date: 27/08/2020

To
Dr. Praveen Kumar/Dr. Vidya GS,
RajaRajeswari Medical College and Hospital
202, Mysore Rd,
Kengeri Satellite Town,
Kambipura,
Bengaluru-560074.

Re: Study to evaluate the effectiveness of BCG vaccine in reducing the morbidity and mortality in elderly individuals in covid-19 hotspots in India-reg.

Dear Drs. Praveen/Vidya,

Thank you for showing interest in the research study titled "To evaluate the effectiveness of BCG vaccine in reducing the morbidity and mortality in elderly individuals in COVID-19 hotspots in India". On behalf of ICMR-National Institute for Research in Tuberculosis, we are pleased to inform you that your site is selected and being invited to participate in the above mentioned "BCG in COVID for Elderly" Study. We look forward to working with you and your site staff on this exciting study. Dr. C. Padmapriyadarsini, Scientist 'F' (Mob. No.9498022949) of this institute will be the contact person for this study.

With regards,

Yours sincerely,

Manoj V. Murhekar

Dr. MANOJ V. MURHEKAR
SCIENTIST 'G' & DIRECTOR (ADDL CHARGE)

C. B. Palanivelu

REGISTRAR
Dr MGR Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Maduravoyal Chennai-95

नं. १, मेयर साथियमोर्थी रोड, चेट्ज़ेट, चेन्नई - ६०० ०३१, भारत
No.1, Mayor Sathiyamoorthy Road, Chetpet, Chennai - 600 031, India

Tel: +91-44-28369500
Fax: +91-44-28362528, 28262529
www.nirt.res.in

Tel : 2300 7507
Fax: 23007867

ARMREB/ADMB/2020/229
Defence R&D Organization (HQ)
Armament Research Board
DRDO Bhawan, Rajaji Marg
New Delhi – 110 011
24 Nov 2020

To

Registrar
Dr M.G.R Educational and Research Institute
Maduravoyal, Chennai -600095

SANCTION OF PROJCT UNDER GRANT-IN-AID SCHEME OF ARMREB

Under the power vested in the ARMREB vide Government of India, Ministry of Defence letter No. ARM (RD-17)/2035/1008/D (R&D) dated 18/21 Mar 1997 & in terms of power delegated vide Sl. No. 3.1 of DRDO/DFMM/PL/83226/M/01/1174/D(R&D) dated 18 Dec 2019, I am directed to convey the sanction of the CFA i.e. DS & DG (TM) for the following project:-

Project Number : ARMREB/ADMB/2020/229
Title of the Project : Feasibility Study for Design, Manufacturing & Testing of CRDi Fuel Injection System (FIS) of Diesel Engine for Armoured Fighting Vehicles
Name of the PI : Dr. M. Ganesan, Professor, Dr. MGR Educational and Research Institute, Maduravoyal, Chennai
Name of the Co-PI : Dr. P. A Lakshminarayanan, Senior Consultant ARI
Shri R. Venugopal, Senior Advisor ARI
Shri D. Pandurengan, Director Defence Projects
Name of the Co-ordinating : DRDO Scientist : Dr. S. Dhanalakshmi, Sc F, CVRD, Chennai

2. **COST:** - The total cost of the project is Rs Rs 35,68,175/-. Break-up of the project cost is given under: (in Rs)

Heads	Milestone I(*) (08 Months)	Milestone II(**) (04 Months)	Row total
(a) Research Staff {(1 JRF @ 31,000/-), (01 SRF @ 35000/-), (01 RA @ 54000/-)}	9,60,000	4,80,000	14,40,000
(b) Special Equipment	4,75,000	0	4,75,000
i. Pump Fuel			
ii. Injector			
iii. Manifold Fuel			
(c) Consumable Stores, Chemical, etc	0	0	0
(d) TA/DA	0	96,312	96,312
(e) Contingencies (3% of a+b+c+d)	0	60,340	60,340
(f) Institute Overheads (10% of a+b+c+d)	0	2,01,131	2,01,131
(g) Other(Outsourcing Cost)	7,77,235	5,18,157	12,95,392
Column Total	22,12,235	13,55,940	35,68,175
Total Cost	Rs 35,68,175/-		

* **Milestone I** : Preliminary Design Report of Design & development of CRDi fuel system of 600hp diesel engine

** **Milestone II** : Detailed feasibility report

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Maduravoyal, Chennai - 600 095

3. **PDC:** 1 year from the date of start of the project.

4. **Aim of the Project:**

The main aim of this project is to carry out a feasibility study for indigenous CRDi technology for the CRDi system of high-power heavy-duty diesel engines for Armoured fighting vehicles. After completion of this project, indigenous technology and capability will be available for the CRDi system used in the high-power density diesel engine of Armoured fighting vehicles. On completion of the project, CVRDE can design & develop the CRDi fuel injection system for all their future requirements. By obtaining the Indigenous CRDi technology, CVRDE can also design and modify CRDi Engines whenever upgraded engine are required for more power. The country can save a considerable amount of foreign exchange and not depend on foreign countries for this critical technology.

5. **Objective of the Proposed Work:** To carry out a feasibility study for the Design, Manufacture, testing & Development of the CRDi fuel injection system (fuel pump, Injector system and rail system) for 600hp Engine for Armoured Fighting vehicles

6. **Deliverable :** Supply of three sets of the Feasibility study report consisting of the following details for the Design & Development of CRDi fuel System of 600hp Diesel engine:

- i. Specification & requirement of various modules of CRDi system such as Injector, Rail and High-pressure pump.
- ii. Design methodology document
- iii. 3-D Models & drawings
- iv. Design analysis results
- v. Acceptance & Qualification Test requirement
- vi. Requirement of Test facilities
- vii. Processes and Procedure for Manufacturing
- viii. Potential Manufacturing agencies
- ix. Estimated cost for Tooling, Manufacturing and Testing

7. **Procedure for Release of Funds:** - The grantee institute will prepare Contingent Bill (in triplicate in the enclosed format) duly completed, signed on revenue stamp with official seal by the competent financial authority of the institute and submit to the Member Secretary, ARMREB, Room No. 507, 5th Floor DRDO Bhawan, Rajaji Marg, New Delhi-110 011 for countersignature and submission to the PCDA(R&D) for release of installment. The following documents may be submitted to comply the requirement of G.F.R 2017 and release of first installment: -

- (i) ECS mandate form (In the enclosed format)
- (ii) Certificate from the Grantee institution that grants has not been obtained or applied for the same purpose/ task to be carried out under the MOC with ARMREB or activity from any other Ministry/Department of Government of India or State Government.
- (iii) Documents as per rule 230 (1) of GFR 2017 for private institutes

8. **Commencement date of the Project:** - The date of receipt of the grant would be reckoned as the **commencement date** of the project, which is intimated to the undersigned as well as the PCDA (R&D), DRDO HQ Cell, 'West Block '5', R K Puram, New Delhi - 110 066 without any ambiguity.

9. **Accounting and Audit of Grant: -**

- (i) As per GFR 2017 Rule 230(8) All interests or other earnings against Grants in aid or advances (other than reimbursement) released to any Grantee Institution should be mandatorily remitted to the consolidated Fund of India immediately after finalization of the accounts. Such advances should not be allowed to be adjusted against future releases.

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Deemed to be University
Pondicherry

As per

- (ii) In case of common bank account held by the institute, the institute can reflect the accrued interest separately and refund the same to ARMREB. **Interest earned to be refunded to ARMREB through a Demand Draft in favour of PCDA (R&D) drawn at New Delhi at the end of financial year.**
- (iii) Funds for subsequent year(s) will be released on satisfactory progress and submission of annual progress report by PI to the Panel and ARMREB secretariat and based on panel recommendation with due approval of competent authority. As per SOP, issued by ER&IPR vide MOD letter No ERIP/ER/2017001/M/01/SOP/160/D(R&D) dated 06.02.2018, PI to submit audited Statement of account and utilization certificate along with interest accrued at the end of financial year. PI also to submit audited Statement of account and utilization certificate at the time of release of next year grant.
- (iv) Excess expenditure, beyond the yearly sanction, unless authorized by ARMREB in writing, shall be the responsibility of the grantee institution.
- (v) On completion of the project, the grantee institution should send the unspent amount to Member Secretary, ARMREB through a Demand Draft / an eMRO in favor of PCDA (R&D) drawn at New Delhi.

10. **Special Equipment: -**

- (i) Under the special equipment head procurement of laptop is not permitted and subsequently any request for regularization of the same would not be considered by ARMREB.
- (ii) The equipment purchased from the project fund would be taken on the ledger charge of the institution and details of the same may kindly be submitted to this office yearly alongwith G.F.R 19 duly certified by the auditors of the institution that necessary check has been applied and the inventory acquired under the project has been found in order.
- (iii) On completion of the project the grantee institution would forward the consolidated list of equipment along with formal request for retention of equipment and an undertaking by the institute for another project / in house R&D.

11. **Policy on Ownership of Intellectual Properties: -**

- (i) All foreground information and foreground intellectual property created during the performance of the Project, whether or not legally protected, shall be owned jointly by DRDO and Grantee Institution. DRDO and Grantee institution shall be deemed to have a royalty-free license to use such joint information and foreground intellectual property for their own R&D purposes.
- (ii) Grantee Institution shall not publish any research paper covering foreground information generated during the performance of the Project before seeking written consent from DRDO to ensure that no proprietary information is released and no legal rights covering foreground information are jeopardized. Normally, such decision for publication shall be provided by DRDO within 30 days of receipt of such request from Grantee Institution.
- (iii) Grantee Institute shall promptly report to DRDO about any Intellectual Property generated during the performance of the project. DRDO and Grantee Institution shall confer and consult each other regarding preparation, filing, and prosecution maintenance of Intellectual property Rights applications including patent applications covering foreground information, generated during the performance of the project. DRDO shall be responsible for filing, prosecution, grant and maintenance of such Intellectual Property Applications including patent application and Grantee Institute shall render all possible help to DRDO regarding the same. DRDO shall also bear all expenses related to filing.

prosecution, grant and maintenance of such Intellectual Property Application including patent applications.

- (iv) Grantee Institution may commercially exploit any foreground information and foreground Intellectual Property, generated during the course of the Project whether or not legally protected, for purposes other than Government Application only after conclusion of separate agreements to be negotiated between Grantee Institution and DRDO. Grantee Institution shall maintain an account of its incomes arising out of such commercial use and any royalty income shall be shared equally between DRDO and Grantee Institution.
- (v) Notwithstanding any provisions mentioned above or any future licensing agreements, DRDO shall be deemed to have all rights including a nonexclusive, irrevocable, royalty-free, perpetual license for the unlimited commercial development, series production, continuing engineering support, product improvement, or have developed, any Foreground Information and Foreground Intellectual Property, generated during the performance of the Project, whether or not legally protected, for the purposes of Government Applications including armed forces and paramilitary forces.
- (vi) Whenever DRDO informs Grantee Institution that the interest of national security requires Grantee Institution to refrain from commercially exploiting the product/process based upon any foreground information and foreground Intellectual Property, generated during the performance of project, whether or not legally protected, or stipulate conditions in such commercial sale, Grantee Institution shall abide by DRDO requirements.
- (vii) DRDO shall not be responsible and shall not accept any liability for infringement, innocent or otherwise, by PI or the Grantee Institute of the Intellectual Property Rights of third parties.
- (viii) The term of the above provisions shall survive the term of the Project.
- (ix) The Grantee Institution shall maintain an account of its incomes arising out of commercial use and any royalty income shall be equally between DRDO and grantee institution.

12. RTI Act, 2005:-

- (i) The grantee institution shall not disclose any information under RTI Act, 2005 as DRDO is placed under Second Schedule and is exempted from disclosure of information under Section 24 (1) of the Act except information pertaining to the allegations of corruption and human rights violations.
- (ii) In case any application is received by the grantee institution for seeking information pertaining to DRDO Projects under RTI Act, 2005, it may not be replied to directly and the same shall be transferred to CPIO, DRDO HQ for necessary action and reply under Section 6(3) of the RTI Act at the following address:-
314 A, 'B' Block, RTI Cell, DRDO Bhawan, Rajaji Marg, New Delhi - 011

13. Publication of Technical Papers: - The PI will seek prior permission from DRDO for the publication of the technical papers, if any, related to the project work, in Indian/foreign journals including thesis of the research students. PI will submit a formal request along with copy of the paper to the Secretary, ARMREB for further necessary action in this regard. The assistance rendered by the ARMREB will be acknowledged in the paper. Three copies of reprint of published paper will sent to the secretary ARMREB. The PI should also consider - submitting one or two papers, out of the research work carried out under the project, to the Defence Science Journal (DSJ), being published by Defence Scientific Information & Documentation Centre (DESIDOC/DRDO), Metcalfe House, Delhi - 110054.

14. **Progress Review Mechanism: -**

- (i) Review of progress would be carried out by the respective panel.
- (ii) The PI will give a presentation to the user lab after completion of the project for dissemination of the work done. Panel coordinator will organize.

15. **Closure Report: -** Closure report containing hard and soft copies of the technical report, critical data and know how along with the information required will be submitted by PI to ARMREB with a copy to Panel Coordinator within **90 days** after completion of the project PDC to verify the report contents and for formal closure of project.

16. The PCDA(R&D), DRDO HQ Cell, 'West Block '5', R K Puram, New Delhi - 110 066 will make disbursement of money year wise as sanctioned in para 2 above on submission of contingent bill by the Institute. The expenditure will be debited from the major head 2080, Defence Services R&D, minor head-004, Research & Development and code head 852/04 of the Defence Services Estimates.

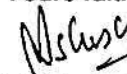
17. It is requested that documents given above at Para 7 may be submitted to this office at the earliest for further necessary action.

18. Sanction Code is DGTM/TM/ARMREB/GIA/20-21/0185 dated 18.11. 2020.

19. This has issued with concurrence of IFA (R&D), New Delhi vide their U.O. No.IFA/R&D/0031/ARMREB/0669 dated 13.11. 2020.

Encl : As above.

Yours faithfully,



(Ashish Jauhari)

Member Secretary ARMREB

Copy to: -

1. Dr Satish Kumar, Chairman ARMREB, Director NIT, Kurukshetra
2. DG (ACE), DRDO Bhawan, Rajaji Marg, New Delhi - 110 011
3. DG (TM), DRDO Bhawan, Rajaji Marg, New Delhi - 110 011
4. Shri Surendra Kumar, OS and Former Director ARDE, 25 Laxmi Gyatri Enclave, Near MNR PG College HMT Hills, Kukkat Palli, Hyderabad - 500085
5. Dr KD Dhote, Sc. 'F', ADMB Panel Co-ordinator, ARDE Pune-411021
6. IFA (R&D), DRDO HQ, New Delhi - 110 011
7. Director General Audit (Defence Services), 'L' Block, Church Road, New Delhi - 110 001.
8. The Commandar, HQ TG (EME), Delhi Cantt - 110 010
9. Dr. M. Ganesan, Professor, Dr. MGR Educational & Research Institute, Maduravoyal, Chennai
10. Dr. P. A Lakshminarayanan, Senior Consultant ARI, Dr. MGR Educational & Research Institute, Maduravoyal, Chennai - 600095
11. Shri R. Venugopal, Senior Advisor ARI, Dr. MGR Educational & Research Institute, Maduravoyal, Chennai - 600095
12. Shri D. Pandurengan Director Defence Projects, Dr. MGR Educational & Research Institute, Maduravoyal, Chennai - 600095
13. The Director, Dte of ER& IPR, 3rd Floor, DRDO Bhawan, New Delhi - 110 011
14. The Director, HEMRL, Sutarwadi, Pune - 411 021
15. The Director, ARDE, Pashan, Pune - 411 021
16. The Director, TBRL, Sector - 30, Chandigarh - 160 030
17. The Director, CFEES, Brig SK Mazumdar Road, Delhi - 110 054
18. The Director, PXE, Chandipore - 756 025
19. Dr. S. Dhanalakshmi, Sc F, CVRD, Chennai

Copy signed in ink to:

1. PCDA (R&D), DRDO HQ Cell, West Block '5', R K Puram, New Delhi - 66

C. B. Palanivel
REGISTRAR
Dr MGR Educational and Research Institute
Deemed to be University
Pethur E V R High Road
Maduravoyal, Chennai-95

No. BT/PR40266/COD/139/2/2020
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003
Dated: 24.11.2020

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "**Non-Invasive, Rapid, Specific and Sensitive Electrochemical Biosensor for COVID-19 Infection**" for a period of 1 Year 0 Month at a total cost of Rs.3917540 (Rupees Thirty Nine Lakhs Seventeen Thousand Five Hundred and Fourty Only) on the terms and conditions detailed here under:-

2 The Project :

2.1 Title : Non-Invasive, Rapid, Specific and Sensitive Electrochemical Biosensor for COVID-19 Infection

2.2 Details of the Investigators:

Project Coordinators

Dr. MURUGAN VEERAPANDIAN

SCIENTIST & ASSISTANT PROFESSOR

Electrodics and Electrocatalysis-Biosensors

Central Electrochemical Research Institute

CSIR-Central Electrochemical Research Institute

Electrodics & Electrocatalysis Division,

BioMedical Nanotechnology

Research, Karaikudi, Tamilnadu, 630003

Principal Investigators:

Dr. MURUGAN VEERAPANDIAN

SCIENTIST & ASSISTANT PROFESSOR

Electrodics and Electrocatalysis-Biosensors

Central Electrochemical Research Institute

CSIR-Central Electrochemical Research Institute

Electrodics & Electrocatalysis Division,

Dr. Anand Babu K

Research Scientist and Assistant Professor

Dr. APJ Abdul Kalam Centre of Excellence in Innova

Dr.M.G.R educational and research institute university

E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai, Tamilnadu, 600095

Dr. Sudhakar Natarajan

Scientist B

Department of HIV AIDS

National Institute for Research in Tuberculosis

ICMR - National Institute for Research in Tuberculosis (NIRT),

No.1, Mayor Sathyamoorthy Road, Chetpet, Chennai., Chennai, Tamilnadu,

600031

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Deemed to be University
Peryar EVR High Road
Maduravoyal Chennai-95

Mentor:**Dr. Rama Valdyanathan**

Director Research and Development

Biotechnology

DR. M. G. R. Educational & Research Institute

E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamilnadu

2.3 Objectives:**Overall Objectives:**

1. Design and develop non-invasive electrochemical biosensor platform for selective tracing of SARS-CoV-2 protein, antigenic region, without complex sample pre-treatment at affordable cost convenient for decentralized hospital zone utility

Institute wise Objectives:**Central Electrochemical Research Institute**

1. To design the electrode material redox-active carbon nanostructure, optimization of sensor platform and testing of bio-recognition element on sensor platform
2. To demonstrate the affinity of the oligopeptide in the low microMolar range and validate the biosensor platform to SARS-CoV-2 selectivity

Dr.M.G.R educational and research institute university

1. To identify the short peptide sequence of ACE-2 with high binding affinity to SARS-CoV-2 and design & synthesis the receptor binding domain of SARS-CoV-2

National Institute for Research in Tuberculosis

1. To validate the electrochemical biosensor in detection of SARS CoV-2 infection in clinical specimens and detecting the sensitivity and specificity of biosensor.

2.4 Time Schedule:

The duration of the project is 1 Year 0 Month from the date of this sanction order.

2.5 Project Cost:

The total cost of the project is Rs. **3917540/-**(Rupees Thirty Nine Lakhs Seventeen Thousand Five Hundred and Fourty Only) as per details given below:

Institute	1 st Release (6 MONTHS)	2 nd Release (6 MONTHS)	Total Cost(Rs.)
1. Central Electrochemical Research Institute	1089720	789260	1878980
2. Dr.M.G.R educational and research institute university	601640.00	601640	1203280
3. National Institute for Research in Tuberculosis	417640.00	417640.00	835280
Total (Rs.)	2109000	1808540	3917540

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Maduravoyal, Chennai-95

Institute wise details are:

Budget Head	1 st Release (6 MONTHS)	2 nd Release (6 MONTHS)	Total(Rs.)
1. Central Electrochemical Research Institute			
Equipment	300460.00	0.00	300460.00
Manpower	401760.00	401760.00	803520.00
Overhead	37500.00	37500.00	75000.00
Travel	25000.00	25000.00	50000.00
Consumables	300000.00	300000.00	600000.00
Contingency	25000.00	25000.00	50000.00
Total (Rs.)	1089720	789260	1878980.00
2. Dr.M.G.R educational and research institute university			
Manpower	230640.00	230640.00	461280.00
Overhead	28500.00	28500.00	57000.00
Travel	25000.00	25000.00	50000.00
Consumables	300000.00	300000.00	600000.00
Contingency	17500.00	17500.00	35000.00
Total (Rs.)	601640.00	601640	1203280.00
3. National Institute for Research in Tuberculosis			
Manpower	230640.00	230640.00	461280.00
Overhead	19500.00	19500.00	39000.00
Travel	12500.00	12500.00	25000.00
Consumables	150000.00	150000.00	300000.00
Contingency	5000.00	5000.00	10000.00
Total (Rs.)	417640.00	417640.00	835280.00

2.6 Equipment

The details of the equipment sanctioned for the implementation of the project at
Annexure-I

2.7 Manpower:

The details of the manpower sanctioned for the implementation of the project at
Annexure-II

C. B. Palanisvelu
REGISTRAR
Dr MGR Educational and Research Institute
Deemed to be University
Periyar E V R High Road
Maduravoyal, Chennai-65

3. Head of Account:

The **Non-Recurring** expenditure involved is debitable to:

Demand No. 88	Department of Biotechnology
3425	Other Scientific Research 2020-2021
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

The **Recurring** expenditure involved is debitable to:

Demand No. 88	Department of Biotechnology
3425	Other Scientific Research 2020-2021
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

4. Terms & Conditions:

- 4.1 a) Project Coordinator/Investigator has to submit quarterly deliverables of the project within one month from the date of sanction of the project (Annexure- III).
b) The other terms and conditions governing this sanction are attached at Annexure- IV.
- 4.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA between the grantee institutions and DBT. In case of NGO's and Private Institution's, execution of MOA is mandatory before first release. A format of the MoA is enclosed in Annexure-V
- 4.3 The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
5. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
6. The Director, Central Electrochemical Research Institute, Karaikudi, Tamilnadu and The Director, National Institute for Research in Tuberculosis, Chennai, Tamilnadu and The Registrar, Dr.M.G.R educational and research institute university, Chennai, Tamilnadu would be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
7. PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. A.SR/S9/Z-05/2019 dated 30 Jan 2019. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.

C. B. Palanivelu

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Dr. MGR Educational and Research Institute
Dromedary University
Pervay E.V.R. High Road
MADHURAVOOR, CHENNAI-600 096

8. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organizations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG (DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organizations is called upon to do so.
9. If the Research Project involves biological resources, the obligations under the Biological Diversity Act 2002 as applicable shall be complied with by the Project Investigator, the details of such obligations can be accessed at www.nbaindia.org
10. If this project works requires any Statutory Clearance (such as Ethical Committee Clearance, Informed Consent, Animal Ethics Committee Clearance, Institutional Bio-safety Committee Clearance, National Biodiversity Authority approval etc.), Project investigator(s) and Host Institution(s) shall compulsorily comply the same before undertaking such activities.
11. This issues, under the power delegated to this Department and with the concurrence of IFD vide their SAN No. **102/IFD/SAN/1487/2020-2021** dated **November, 20 2020**.
12. This sanction order has been noted at serial no. 117 in the Register of Grants.

(Dr. Kalaivani Ganesan)
Scientist 'E'

डॉ. कलैवाणी गणेशन / Dr. Kalaivani Ganesan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 MuruganVeerapandian(Project Co-ordinator), CSIR-CECRI Campus, Karaikudi 630 003, Sivaganga District, Tamil Nadu, India
- 3 The Director, Central Electrochemical Research Institute, Karaikudi - 630006, Tamilnadu
- 4 The Director, National Institute for Research in Tuberculosis, Mayor V. R. Ramanathan Road, Chetpet, Chennai - 600031, Tamilnadu
- 5 The Registrar, Dr.M.G.R educational and research institute university, Maduravoyal, Chennai - 600095, Tamilnadu
- 6 Dr. Anand Babu K, Research Scientist and Assistant Professor, Dr. APJ Abdul Kalam Centre of Excellence in Innova, Dr.M.G.R educational and research institute university, E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamilnadu
- 7 Dr. MURUGAN VEERAPANDIAN, SCIENTIST & ASSISTANT PROFESSOR, Electrodes and Electrocatalysis-Biosensors, Central Electrochemical Research Institute, CSIR-Central Electrochemical Research Institute, Electrodes & Electrocatalysis Division, BioMedical Nanotechnology Research, Karaikudi - 630003, Tamilnadu
- 8 Dr. Rama Vaidyanathan, Director Research and Development, Biotechnology, DR. M. G. R. Educational & Research Institute, E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamilnadu
- 9 Dr. Sudhakar Natarajan, Scientist B, Department of HIV AIDS, National Institute for Research in Tuberculosis, ICMR - National Institute for Research in Tuberculosis (NIRT), No.1, Mayor Sathyamoorthy Road, Chetpet, Chennai., Chennai - 600031, Tamilnadu
- 10 Cash Section, DBT (2 copies).
- 11 Sanction Folder.
- 12 File Copy.

डॉ. कलैवाणी (Dr. Kalaivani Ganesan)
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

C. B. Palanivelu

REGISTRAR of
Educational and Research Institute
M.G.R. Educational and Research Institute
University

Annexure -I

Details of the Equipment sanctioned for the implementation of the project entitled "**Non-Invasive, Rapid, Specific and Sensitive Electrochemical Biosensor for COVID-19 Infection**":

Central Electrochemical Research Institute			
SNo.	Name of Equipment	No.	Cost(Rs.)
1.	Autoclave	1	249900.00
2.	Multichannel Potentiostat (Open Source) Portable	1	50560.00
Total			300460.00


(Dr. Kalaivani Ganesan)
Scientist 'E'

डॉ. कलैवानी गणेशन/Dr. Kalaivani Ganesan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योग. मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi


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Dr. MGR Educational and Research Institute
Deemed to be University
Perryar E.V.R. High Road
Madhavoyar, Chennai-68

Annexure -II

Details of the manpower sanctioned for the implementation of the project entitled "**Non-Invasive, Rapid, Specific and Sensitive Electrochemical Biosensor for COVID-19 Infection**":

Head	No. of Position	Year I	Total (Rs.)
1. Central Electrochemical Research Institute			
Project Assistant 20000+8% HRA	1	259200	259200
Project Associate 42000 +8% HRA	1	544320	544320
Total(Rs.)		803520	803520
2. Dr.M.G.R educational and research institute university			
Junior Research Fellow Rs. 31000 + 24% HRA	1	461280	461280
Total(Rs.)		461280	461280
3. National Institute for Research in Tuberculosis			
Junior Research Fellow 31000+24% HRA	1	461280	461280
Total(Rs.)		461280	461280

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST

OM No. SR/S9/Z-05/2019 dated 10.07.2020.


(Dr. Kalaivani Ganesan)
Scientist 'E'

डॉ. कलैवानी गणेशन / Dr. Kalaivani Ganesan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी, मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

C. B. Palanivelu

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Dr M G R Educational and Research Institute
Deemed to be University
Periyar E V R High Road
Madhavoyal Chennai-95

Annexure-III

Quarterly deliverables

S.No	Quarter
1	1 st Quarter
2	2 nd Quarter
3	3 rd Quarter
4	4 th Quarter

- The deliverables of the above quarters will be obtain from the PI as in 4.1a and attached

C. B. Palaniswami
REGISTRAR
Dr. MGR Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Madhavoyai, Chennai-95

No. BT/PR40266/COD/139/2/2020
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, (6-8th Floors)
CGO Complex, Lodhi Road,
New Delhi- 110 003
Date: 24.11.2020

RELEASE ORDER

In continuation of this Department's sanction order of even number dated Nov 24, 2020 sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rule, 1978, for the release of Rs. **1808540.00** (Rupees Eighteen Lakhs Eight Thousand Five Hundred and Fourty Only) being the first year release for the project entitled "**Non-Invasive, Rapid, Specific and Sensitive Electrochemical Biosensor for COVID-19 Infection**", being implemented by

1. Dr. MURUGAN VEERAPANDIAN, Central Electrochemical Research Institute, CSIR-Central Electrochemical Research Institute, Electrode & Electrocatalysis Division, BioMedical Nanotechnology Research, Karaikudi - 630003, Tamil Nadu,
2. Dr. Anand Babu K, Dr.M.G.R Educational and Research Institute university, E.V.R Periyar Salai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamil Nadu,
3. Dr. Sudhakar Natarajan, National Institute for Research in Tuberculosis, ICMR - National Institute for Research in Tuberculosis (NIRT), No.1, Mayor Sathyamoorthy Road, Chetpet, Chennai - 600031, Tamil Nadu,

The detailed break-up is as given below:

S.No.	Institute Name	Recurring						Total Release Amount (Rs)
		Manpower	Consumable	Travel	Contingency	Others	Overhead	
1	Central Electrochemical Research Institute	401760.00	300000.00	25000.00	25000.00	0.00	37500.00	789260.00
2	Dr.M.G.R educational and research institute university	230640.00	300000.00	25000.00	17500.00	0.00	28500.00	601640.00
3	National Institute for Research in Tuberculosis	230640.00	150000.00	12500.00	5000.00	0.00	19500.00	417640.00

C. B. Palanivelu

REGISTRAR
Dr MGR Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Maduravoyal, Chennai-600095

2. The amount of Rs.1808540.00 /-(Rupees Eighteen Lakhs Eight Thousand Five Hundred and FortyOnly) will be directly credited by the Pay & Accounts Officer, DBT in the account as detailed below:

1. Rs.601640.00/- (Rupees Six Lakhs One Thousand Six Hundred and FortyOnly) to The Registrar, Dr.M.G.R educational and research institute university, Maduravoyal,Chennai - 600095, Tamil Nadu

Bank Name : Canara Bank
Branch : Dr. MGR Engineering College
Name
A/c No. : 8453101006078
IFSC Code : CNRB0008453
MICR Code : 600015103

2. Rs.789260.00/- (Rupees Seven Lakhs Eighty Nine Thousand Two Hundred and Sixty Only) to The Director, Central Electrochemical Research Institute, Karaikudi - 630006, Tamil Nadu

Bank Name : INDIAN BANK
Branch : Alagappa College Campus
Name
A/c No. : 737253625
IFSC Code : IDIB000A008
MICR Code : 630019203

3. Rs.417640.00/- (Rupees Four Lakhs Seventeen Thousand Six Hundred and FortyOnly) to The Director, National Institute for Research in Tuberculosis, Mayor V. R. Ramanathan Road, Chetpet, Chennai - 600031, Tamil Nadu

Bank Name : Canara Bank
Branch : Egmore Chennai
Name
A/c No. : 0932101506394
IFSC Code : CNRB0000932
MICR Code : 600015012

3. The expenditure involved is debitable to:

Demand No. 88	Department of Biotechnology
3425	Other Scientific Research 2020-2021
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants -in-Aid General

4. The Registrar, Dr.M.G.R educational and research institute university, Chennai, Tamil Nadu and The Director, National Institute for Research in Tuberculosis, Chennai, Tamil Nadu and The Director, Central Electrochemical Research Institute, Karaikudi, Tamil Nadu will submit audited utilization certificates and statements of expenditure in respect of the above-mentioned amount.

5. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organisation is called upon to do so.

6. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.

Dr M G R Educational and Research Institute
Dr. M.G.R. Educational and Research Institute
Periyar E.V.R. High Road
Maduravoyal, Chennai-95

7. The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilisation Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the Institute/Agency and shall be adjusted towards further instalment of the grant and or at the time of Final Settlement of Accounts.
8. The other terms and conditions governing the financial sanction will remain unaltered.
9. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their SAN No. **102/IFD/SAN/1488/2020-2021** dated **November, 20 2020**.
10. This sanction order has been noted at serial no. 114 in the Register of Grants.


(Dr. Kalaivani Ganesan)
Scientist 'E'

डॉ. कलैयाणी गणेशन/Dr. Kalaivani Ganesan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी, मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

To,

The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 MuruganVeerapandian(Project Co-ordinator), CSIR-CECRI Campus, Karaikudi 630003, Sivaganga District, Tamil Nadu, India
- 3 The Director, Central Electrochemical Research Institute, Karaikudi - 630006, Tamil Nadu
- 4 The Director, National Institute for Research in Tuberculosis, Mayor V. R. Ramanathan Road, Chetpet, Chennai - 600031, Tamil Nadu
- 5 The Registrar, Dr.M.G.R.Educational and Research Institute university, Maduravoyal, Chennai - 600095, Tamil Nadu
- 6 Dr. Anand BabuK, Research Scientist and Assistant Professor, Dr. APJ Abdul Kalam Centre of Excellence in Innova, Dr.M.G.R educational and research institute university, E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamil Nadu
- 7 Dr. MURUGANVEERAPANDIAN, SCIENTIST & ASSISTANT PROFESSOR, Electrodeics and Electrocatalysis-Biosensors, Central Electrochemical Research Institute, CSIR-Central Electrochemical Research Institute Electrodeics& Electrocatalysis Division,BioMedical Nanotechnology Research, Karaikudi - 630003, Tamil Nadu
- 8 Dr. RamaVaidyanathan, Director Research and Development, Biotechnology, DR. M. G. R. Educational & Research Institute, E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamil Nadu
- 9 Dr. Sudhakar Natarajan, Scientist B, Department of HIV AIDS, National Institute for Research in Tuberculosis, ICMR - National Institute for Research in Tuberculosis (NIRT), No.1, Mayor Sathyamoorthy Road, Chetpet, Chennai - 600031, Tamil Nadu
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(Dr. Kalaivani Ganesan)
Scientist 'E'

डॉ. कलैयाणी गणेशन/Dr. Kalaivani Ganesan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी, मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

REGISTRAR
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Deemed to be University
Periyar E.V.R. High Road
Maduravoyal-Chennai-600095

No. BT/PR40266/COD/139/2/2020
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY

Block 2, (6-8th Floors)
CGO Complex, Lodhi Road,
New Delhi- 110 003
Date: 24.11.2020

RELEASE ORDER

In continuation of this Department's sanction order of even number dated Nov 24, 2020 sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rule, 1978, for the release of Rs. **300460.00** (Rupees Three Lakhs Four Hundred and Sixty Only) being the first year release for the project entitled "**Non-Invasive, Rapid, Specific and Sensitive Electrochemical Biosensor for COVID-19 Infection**", being implemented by

Dr. MURUGAN VEERAPANDIAN, Central Electrochemical Research Institute, CSIR-Central Electrochemical Research Institute, Electrode & Electrocatalysis Division, BioMedical Nanotechnology Research, Karaikudi - 630003, Tamil Nadu,

The detailed break-up is as given below:

SNo	Institute Name	Non-Recurring		Total Release Amount (Rs)
		Equipment	Other	
1	Central Electrochemical Research Institute	300460.00	0.00	300460.00

2. The amount of Rs. **300460.00** /-(Rupees Three Lakhs Four Hundred and Sixty Only) will be directly credited by the Pay & Accounts Officer, DBT in the account as detailed below:

The Director, Central Electrochemical Research Institute, Karaikudi - 630006, Tamil Nadu

Bank Name : INDIAN BANK
Branch Name : Alagappa College Campus
A/c No. : 737253625
IFSC Code : IDIB000A008
MICR Code : 630019203

3. The expenditure involved is debitable to:

Demand No. 88	Department of Biotechnology
3425	Other Scientific Research 2020-2021
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

4. The Director, Central Electrochemical Research Institute, Karaikudi, Tamil Nadu will submit audited utilization certificates and statements of expenditure in respect of the above-mentioned amount.

C. B. Palaniswami
REGISTRAR
Dr. MGR Educational and Research Institute
Deemed to be University
Periyar E. V. R. High Road
Madhavayal Chennai-95

5. As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organisation is called upon to do so.
6. No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
7. The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilisation Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further instalment of the grant and or at the time of Final Settlement of Accounts.
8. The other terms and conditions governing the financial sanction will remain unaltered.
9. This issues under the powers delegated to this Department and with the concurrence of IFD, DBT, vide their SAN No. **102/IFD/SAN/1489/2020-2021** dated **November, 20 2020**.
10. This sanction order has been noted at serial no. 113 in the Register of Grants.

(Dr. Kalaivani Ganesan)
Scientist 'E'

To,

The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110 003.

डॉ. कलैवानी गणेशन / Dr. Kalaivani Ganesan
वैज्ञानिक 'ई' / Scientist 'E'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी, मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi

Copy to:

- 1 The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 MuruganVeerapandian(Project Co-ordinator), CSIR-CECRI Campus, Karaikudi 630 003, Sivaganga District, Tamil Nadu, India
- 3 The Director, Central Electrochemical Research Institute, Karaikudi - 630006, Tamilnadu
- 4 The Director, National Institute for Research in Tuberculosis, Mayor V. R. Ramanathan Road, Chetpet, Chennai - 600031, Tamil Nadu
- 5 The Registrar, Dr.M.G.REducational and Research institute university, Maduravoyal, Chennai - 600095, Tamil Nadu
- 6 Dr. Anand Babu K, Research Scientist and Assistant Professor, Dr. APJ Abdul Kalam Centre of Excellence in Innova, Dr.M.G.REducational and Research Institute university, E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamil Nadu
- 7 Dr. MURUGAN VEERAPANDIAN, SCIENTIST & ASSISTANT PROFESSOR, Electroducts and Electrocatalysis-Biosensors, Central Electrochemical Research Institute, CSIR-Central Electrochemical Research Institute, Electroducts& Electrocatalysis Division,BioMedical Nanotechnology Research, Karaikudi - 630003, Tamil Nadu
- 8 Dr. Rama Vaidyanathan, Director Research and Development, Biotechnology, DR. M. G. R. Educational & Research Institute, E.V.R PeriyarSalai (NH4 Highway), Maduravoyal, Chennai - 600095, Tamil Nadu
- 9 Dr. Sudhakar Natarajan, Scientist B, Department of HIV AIDS, National Institute for Research in Tuberculosis, ICMR - National Institute for Research in Tuberculosis (NIRT), No.1, Mayor Sathyamoorthy Road, Chetpet, Chennai - 600031, Tamil Nadu
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C. B. Palanivelu

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डॉ. कलैवानी गणेशन / Dr. Kalaivani Ganesan
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विज्ञान और प्रौद्योगिकी, मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi



Scheme for Transformational and Advanced Research in Sciences
Ministry of Human Resource Development
Implemented by Indian Institute of Science, Bangalore

MHRD-STARS, Room No. 5,
Old Biochemistry building,
IISc Campus,
CV Raman road,
Bangalore - 560012

File. No: STARS/APR2019/BS/127/FS

Date: 31.12.2019

FINANCIAL SANCTION ORDER

Subject: Financial sanction of the research project (ID: 127) in the domain Biological Sciences entitled 'Mosquito biodiversity and insecticide resistance documentation using phenotypic, barcoding and metabarcoding methods' under the guidance of Dr. Rama Vaidyanathan, Dr. M.G.R. Educational and Research Institute, Chennai - Release of first instalment

1. Sanction is hereby accorded to the above-mentioned project at a total cost of ₹. 5376000/- with break-up as given below for a project duration of three years.

Amount in Rupees (₹)

S. No.	Head	Year I	Year II	Year III	Total
	A. Non-recurring items				
1	Equipment	1500000	0	0	1500000
	Total A	1500000	0	0	1500000
	B. Recurring items				
2	Manpower	396000	396000	396000	1188000
3	Consumables	400000	300000	300000	1000000
4	Contingency	100000	100000	100000	300000
5	Facility charges	200000	200000	200000	600000
6	Travel	100000	100000	100000	300000
7	Overhead	161000	161000	166000	488000
	Total B	1357000	1257000	1262000	3876000
	C. Total cost (A + B)	2857000	1257000	1262000	5376000

C. B. Vaidyanathan
REGISTRAR
Dr MGR Educational and Research Institute
Deemed to be University
Ponneri EVR High Road
Maduravoyal Chennai-95

Scheme for Transformational and Advanced Research in Sciences (STARS)

2. The approved research team is (Name, Gender, Institute):

Principal Investigator: Dr. Rama Vaidyanathan (F) (Dr. M.G.R. Educational and Research Institute, Chennai)

Co-Principal Investigator: Nalini(F)(Poompuhar College), Christina Mary Paul (F)(Dr.MGR Educational and Research Institute), Prithika(F)(Dr.MGR Educational and Research Institute)

3. The approved objectives under the project are:

1. Mosquito abundance and diversity sampling at 4 rural and 4 urban areas; phenotypic identification and storing specimens
2. Use of molecular barcoding and ngs methods to document the species of mosquitoes. In case of conflict in identification use ITS1 for differentiation. In case of certain Genera, parasite detection to be done. The amplicon sequence to be identified by BLAST analysis and in CBOLD database
3. Analyse incidences of Insecticide Resistance by CDC bottle methods and molecular methods
4. Develop a metabarcoding methods for species identification using NGS technology
5. Track incidences of fever in the local community and analyse the impact of the vector diversity database in treatment outcome and control measures.
6. Data Analysis: Diversity and abundance of mosquito species and the effect of habitat, climate change and occurrence of vector borne infections will be analysed.
7. Development of policies to augment public health and vector control measures

4. The PI will obtain the necessary permissions (such as ethical clearance) to implement the sanctioned project.
5. Sanction is also accorded to the payment of ₹. 1500000/- under 'Grants for creation of capital assets' and ₹. 1357000/- under 'Grants-in-aid General' to the Dr. M.G.R. Educational and Research Institute, Chennai being the first instalment of the grant for the year 2019-2020 for implementation of the said research project.
6. The expenditure involved is debitable to Fund for STARS (PFMS scheme code: 3668).
7. The Sanction has been issued to Dr. M.G.R. Educational and Research Institute, Chennai with the approval of the competent authority under delegated powers.
8. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.
9. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.
10. The sanctioned equipment would be procured as per GFR and its disposal would be done with prior approval of STARS.
11. The release amount of ₹. 2857000/- will be disbursed by means of RTGS transaction as per the Bank details given below:

PFMS unique code	MGRERI
Account Name	The Registrar, Dr. MGR Educational Research Institute
Account Number	8453101006078
Bank Name & Branch	Canara Bank, Dr.MGR Engineering College Branch
IFSC/RTGS Code	CNRB0008453

C. B. Palanivelu
REGISTRAR
Dr. MGR Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Madhavoyal, Chennai-65

Scheme for Transformational and Advanced Research in Sciences (STARS)

12. Quotations for non-recurring budget should be submitted to the STARS office at the earliest to enable release of funds.
13.
 - a. The fund will be released to the PI institution. It is the responsibility of the PI to distribute the funds to the co-PI(s) as mentioned in the proposal. Change of research team is not permitted.
 - b. The institute/University/Entity will furnish separate Utilization Certificate (UC) financial year wise to the STARS for Recurring (Grants-in-aid General) and Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year. While furnishing UC, the expenditure incurred by the co-PI shall be included.
14. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to STARS office. The interest thus earned will be treated as credit to the institute to be adjusted towards further instalment of the grant.
15. The project File no. should be mentioned invariably in all research communications arising from the above project with due acknowledgement of STARS.
16. The manpower sanctioned in the project, if any is co-terminus with the duration of the project and STARS will have no liability to meet the fellowship and salary of supporting staff if any beyond the duration of the project
17. As this is the first grant being released for the project, no previous UC is required.
18. The institute may refund any unspent balance to STARS.
19. The Project Investigator should submit the progress/completion reports as required by the STARS office in a publishable form.
20. In email communications, proposal ID should be prefixed in the subject line (Example: [123] Submission of UC).

All queries may be addressed highlighting kind attention to:

Finance related: Sh. S. R. Lakshiminarasimhan

Technical related: Dr. Thulasiraman Natarajan

Contact details:

STARS Office, Email: bgopal.stars@iisc.ac.in; Phone: 080-2293-3697

Copy to:

1. Principal Investigator
2. STARS FILE COPY

C. B. Palanivelu
REGISTRAR
Dr M G R Educational and Research Institute
Deemed to be University
Periyar E V R High Road
Maduravoyal, Chennai-65

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Nelson Mandela Marg, Vasant Kunj, New Delhi - 110 070

Grant-in-Aid Bill

1	Name and address of the beneficiary University / Institution	DR.M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE, PERIYAR E.V.R HIGH ROAD, (NH 4 HIGHWAY), MADURAVOYAL, CHENNAI - 600 055 600055 1-3714748411
2	Permanent ID of Institute	Deemed University/Private
3	Institute type	
4	Scheme under which grant is to be released	Modernization and Removal of Obsolescence (MODROB)
5	Name of Coordinator	Dr. FELIX THOMAS
6	Sanction No. and date	P.No.9-52/NDU/MODROB/Policy-1/2019-20 Dated: 20.07.2020
7	Amount sanctioned	Rs.1352941/- (Rupees Thirteen Lakh FiftyTwo Thousand Nine Hundred FortyOne Only)
8	Amount to be released Govt./Govt. Aided Institute-100% grant of sanctioned amount. Self financing Institute-80% in advance and 20% on reimbursement on submission of LC and other related documents)	Rs.1082353/- (Rupees Ten Lakh EightyTwo Thousand Three Hundred FiftyThree Only)
9	Head of account	Major head 601.10(a) Gen. (Plan Head)
10	The authorized official in whose favour Cheque/ Demand Draft/ RTGS is to be made	REGISTRAR / DIRECTOR / PRINCIPAL
11	Title of the Project	Upgrading the Structural Engineering Laboratory

A sum of Rs.1082353/- (Rupees Ten Lakh EightyTwo Thousand Three Hundred FiftyThree Only), being the first instalment of the total grant of Rs.1352941/- to be released under MODROB, as sanctioned vide Sanction Order No.1 No. 9-52/NDU/MODROB/Policy-1/2019-20 dated 20.07.2020 (Copy enclosed) during the financial year 2020-21. The disbursement shall be made in favour of REGISTRAR / DIRECTOR / PRINCIPAL, DR.M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE, Tamil Nadu as per the bank account details given below:-

Bank Account / RTGS Details							
Institute PAN No.	Bank Name	Bank Branch Name	Bank Branch Address	Account Holder Name	Account Type	Account Number	IFSC Code
WADTM5372L	CANARA BANK	Dr. M.G.R. Engineering College	Dr. M.G.R. Educational and Research Institute, Periyar E.V.R High Road, Chennai-55	The Registrar, Dr. M.G.R. Educational and Research Institute	Saving Accoun t	8463107000078	CHEN0200843

Certified that

- The terms & conditions of the grant have been accepted by the institute.
- The Institute is approved for academic year 2019-20. Grant to be released in the financial year 2020-21.
- The scheme proposal is approved on Policy P.No.9-52/NDU/MODROB/Policy-1/2019-20 dated 20.07.2020 and the name of above institute is at SI No.52 on page 6th. The entry of this bill has been made in the Grant-in-aid Bill Register at SI No. 52.
- The Public Financial Management System (PFMS) details entered in institute are enclosed.

RA (DC)

Assistant Director (DC)

Advisor (UDC)

(For use by Finance Bureau, AICTE)

Passed for payment of Rs.1082353/- (Rupees Ten Lakh EightyTwo Thousand Three Hundred FiftyThree Only), on account of 1st instalment under the Plan Head of MODROB Scheme.

Accounts Officer (DDO)
AICTE, New Delhi

P.No.9-52/NDU/MODROB/Policy-1/2019-20

C. B. Palanivelu

REGISTRAR

Dr. M.G.R. Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Maduravoyal, Chennai-95

Institute PAN No.	Bank Name	Bank Branch Name	Bank Branch Address	Account Holder Name	Account Type	Account Number	IFSC Code
AADT5807221	CANARA BANK	Dr. M.G.R. Engineering College	Dr. M.G.R. Educational and Research Institute, Periyar E.V.R. High Road, Chennai-95	The Registrar, Dr. M.G.R. Educational and Research Institute	Saving Account	BA54101026018	CSNR00H001457

In case of any omission the same should be reported to AICTE immediately

- The sanction is issued in exercise of the powers delegated to the council and other terms & conditions laid down in the guidelines of the scheme.
- 100% grant of the sanctioned amount is being released to Government/Govt. Aided institutions. Utilization Certificate (UC) and other requisite documents are to be submitted within one month of the completion of the project.
- To self-financing/Private Institutions 80% of the sanctioned amount is being released as first installment followed by 20% as reimbursement after receipt of UC and other requisite documents as specified in terms & Conditions of MGOOROB Scheme.

II. Maintenance of accounts

- The Institute shall strictly follow the provisions laid down in the scheme document and sanction order No. [No.9-52/BJC/MGOOROB/Policy-1/2014-20 dated 20.07.2019 issued by this office. All correspondence related to the project must contain this number along with year of sanction of the project, failing which correspondence will not be entertained.
- Funds covered by this grant shall be kept separately and would not be mixed up with other funds, so as to know the amount of interest accrued on the grant AICTE.
- The University/College/Institute shall maintain proper accounts of the expenditure out of the grant, which shall be utilized only on approved items of expenditure (list enclosed).
- The Council or its nominee shall have the right to check/verify the account to satisfy that the fund has been utilized for the purpose for it was sanctioned.
- The date of release of the grant by AICTE shall be taken as the date of commencement of the project. The Principal / Director / Registrar shall intimate about the receipt of the grant to AICTE. Any expenditure incurred prior to the issuance of the approval letter will not be allowed to be adjusted in the grant and if the Institution/University do not take the project work within one month of the receipt of the grant, the approval shall ipso facto lapse.
- After receipt of the grant from AICTE, the Institute shall send a confirmation to AICTE within 2 months of receipt of grant that the sanctioned project has been started/is in progress.

III. Refund of grant by way of a demand draft in favour of Member Secretary, AICTE, New Delhi

- If the college/institute does not have the Letter of Approval (LOA) or Extension of Approval issued by AICTE for the academic year 2020-21, the fund released should be immediately refunded to AICTE with interest accrued thereon.
- If project is not started within six months of the issuance of this Offer Letter, the released amount, along with interest accrued thereon, has to be necessarily returned to AICTE.
- In any case, if the institute is required to refund the grant or interest accrued thereon or balance amount, the amount will be refunded to AICTE.
- It may be ensured that the project is completed within the stipulated time. If the project is not completed in time, no further extension will be granted in any case and institute has to refund the entire amount to AICTE.

EN.No.9-52/BJC/MGOOROB/Policy-1/2014-20

C. B. Palanivelu

REGISTRAR
Dr. M.G.R. Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Maduravoyal, Chennai-95

As AICTE needs adequate time for depositing the Demand Draft on the bank, the same be immediately dispatched to avoid any lapse of the validity period.

Submission of documents by college/institution after completion of Project/Subsequent years.

The following mandatory relevant documents are required to be submitted by the college/institution within one month of the completion of the project:-

- a. Feedback form in the prescribed proforma.
- b. The Annual Progress Report (APR) in the prescribed format along with the original Statement of actual Expenditure in the prescribed proforma duly signed by the Head of the institution and shall be submitted to AICTE not later than one month after completion.
- c. The Utilization Certificate (UC) supported by Audited Statement of Expenditure to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the AICTE immediately after completion of the project. It should contain the head-wise break up of expenditure made from the grant-in-aid provided by the Council. Audited Statement of Expenditure indicating expenditure incurred in the total duration of the project in the prescribed format and GFR-19 shall be submitted to the Council.
- d. In case of self-financing/private institutions, Statement of actual Expenditure & Utilization Certificate are required to be audited & signed by a Chartered Accountant (with membership no., full address & stamp). Photocopies of formats are enclosed.
- e. Program Evaluation Committee (PEC) is required to be constituted at Institutional level. The constitution of the PEC shall be as under:
 - (i) Principal/Director/Registrar of the Institution (Chairperson)
 - (ii) Coordinator of the project (Member Secretary),
 - (iii) Two UICDs and one subject expert (Members)

The members of the said PEC shall not be below the rank of Associate Professor. The minutes of the meetings are to be submitted to the Council at end of the project along with other mandatory documents.

- f. Project completion report project indicating the activities undertaken, number of students benefited, laboratory works, photographs of students, together with their views is to be submitted.
- g. Attested photocopies of supporting vouchers/bills of expenditure incurred for the completion of Project.
- h. Photographs of equipment's purchased.
- i. The balance amount of the grant will be reimbursed to the university/institution only on submission of the above documents. On receipt of these documents, the total amount of balance of financial assistance, admissible as per the norms, shall be worked out and grant-in-aid shall be released, as second installment, in favour of the beneficiary institution.

V. General instructions

- a. The amount of interest accrued on the grant should be treated as part of the grant to be utilized for that particular project. However, the interest amount accrued along with grant disbursed should not exceed the total grant sanctioned for the project. The Institute receiving the grant should reflect the same in the audited statement of accounts/ utilization certificate and may either refund the interest amount to AICTE or AICTE shall adjust the same in the next installment of grant before its release.
- b. Any unavoidable circumstantial change in the project with respect to name of Project Coordinator for the MCOBQIB project would mandatorily require prior approval of the Council. All such requests should be addressed to AICTE, in advance, recording the specific reasons for proposed changes, failing which the offer for the grant already issued would be treated as automatically withdrawn and the financial assistance released in favour of the beneficiary institution shall be refunded immediately to the Council. Kindly mention the File No. 9-18/10/MCOBQIB Policy-1/2019-20 in your future correspondence.
- c. The grantee shall maintain an audited record of assets acquired wholly or substantially out of the Grant-in-Aid and a register of assets shall be maintained by the Institute in the prescribed form i.e GFR-19.

F.No.9-52/10-CMBP-Palakkad-2019-20

REGISTRAR

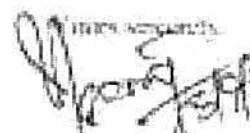
Dr. M.G.R. Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Madhavoyal, Chennai-05

The College / Institute receiving grant under MODROB is expected to put up a plaque at the main entrance of the Lab/Department, which has been modernized using the grant. All the equipment procured through the project should be super scribed with AICTE project file number.

- a. The assets acquired wholly or substantially out of grant shall not be disposed or encumbered or utilized for the purpose other than those for which the Grant was given without proper sanction of the AICTE and should at any time the institution cease to function, such assets shall revert to the AICTE.
1. The grantee Institution shall observe all financial norms and guidelines as prescribed by the AICTE/ Government of India from time to time. GOI GFR rules ([@https://doi.gov.in/order-circular/general-financial-rules2017-0](https://doi.gov.in/order-circular/general-financial-rules2017-0)) should be followed during utilization of grant.

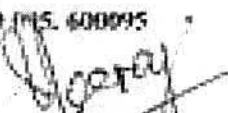
List of Equipment's approved:

Name of Equipments
Corrosion Incubator
Accelerated Carbonation Chamber


Dr. Naveen Sharma
Advisor - II (IDC)

Copy forwarded for information and necessary action to:

1. Name and Address of the Coordinator,
Dr. FELIX THOMAS
DR.M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE,
PERIYAR E.V.R. HIGH ROAD, (NH 4 HIGHWAY) MADURAVOYAL, CHENNAI - 600 095. 600095
2. The Registrar / Director / Principal,
Dr. FELIX THOMAS
DR.M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE
PERIYAR E.V.R. HIGH ROAD, (NH 4 HIGHWAY) MADURAVOYAL, CHENNAI - 600 095. 600095
3. Guard File


Dr. Naveen Sharma
Advisor - II (IDC)

C. B. Palanivelu

REGISTRAR
Dr. M.G.R. Educational and Research Institute
Deemed to be University
Periyar E.V.R. High Road
Maduravoyal Chennai-95
F.No.9-5216-AD-IVB-Digital-1-2019-20



StartupTN

TAMIL NADU STARTUP AND INNOVATION MISSION

(A Section 8 Company under the MSME Department, Government of Tamil Nadu)

Letter No: PMO-06/12/2020-EDII-TANSIM-EDII

Dated: 28.07.2021

To,

Dr APJ Abdul Kalam COE in Innovation and Entrepreneurship,
Dr MGR Educational and Research Institute
College Road, Adayalampattu, Chennai 95

Sir/ Madam,

**Sub: Letter of sanction of Rs.3.5 Lakhs towards upgradation support for
AIC-Great Lakes Balachandran Foundation**

**Ref: ScaleUP - Incubator Capacity Building Programme - organized by
StartupTN and Headstart**

Greetings from StartupTN,

TamilNadu Startup & Innovation Mission, being branded as "StartupTN", is glad to inform you that **Dr APJ Abdul Kalam COE in Innovation and Entrepreneurship** has been selected as one of the winners of "ScaleUp" program - a 12 week capacity building program to support selected incubators in Tamil Nadu. Congratulations! We are proud of your achievement.

As a token of appreciation for completing the 12 week program and winning the pitch session, an amount of Rs.3.5 Lakhs will be awarded towards upgradation support / start-up acceleration support to **Dr APJ Abdul Kalam COE in Innovation and Entrepreneurship**. Utilization report for the same needs to be provided to TANSIM by **20th December 2021**

StartupTN will continue to provide support and access to entrepreneurial networks to enable a world class incubation program.

With regards,

C. B. Palanivelu

REGISTRAR
Dr. M.G.R. Educational and Research Institute
Deemed to be University
Marudurai High Road
Marudurai, Chennai-95

Grace Pitchay, IAS
Mission Director, TANSIM



भारत सरकार - रक्षा मंत्रालय
Government of India - Ministry of Defence
रक्षा अनुसंधान तथा विकास संगठन
Defence Research & Development Organisation
वायुवाहित प्रणाली केंद्र
CENTRE FOR AIRBORNE SYSTEMS
एएस 9100 डी & आईएस ओ 9001:2015 प्रमाणित संस्थान
AS 9100D & ISO 9001:2015 Certified Establishment
बेलूर, येमलूर तपोन, बेंगलूरु - 560037, भारत
Belur, Yemlur Post, Bengaluru - 560 037, INDIA

CABS/CARS/46/HR&MIS

05 Jul 2021

The REGISTRAR
Dr. MGR Educational & Research Institute
Maduravoyal
Chennai- 600095

Fax: 044-23783165

(Kind Attn: Dr. T Godhavar, Professor & HoD Dept of ECE)

CONTRACT FOR ACQUISITION OF RESEARCH SERVICES (CARS) FOR "DESIGN OF ANTENNA ARRAY WITH COMPATIBLE RADOME FOR POLLUTION DETECTION" AT CABS

1. Refer to the CARS proposal on the above subject submitted vide your letter No. Dr.MGRDU/CABS/2020-2021/25061433 dated 26 Jun 2021.
2. An original ink signed copy of CARS Contract duly signed by competent authority, bearing no. CABS/CARS/01/2021-23 dated 02 Jul 2021 and terms and conditions as per CARS guidelines issued by DRDO Hqs are enclosed herewith for your information and retention. The contract is valid for 18 months at a total cost of Rs. 21.84 Lakhs.
3. It is requested to forward a copy of PAN Card and ECS Mandate form, Contract's bill in DRDO SM 33, and invoice for initial advance at the earliest for forwarding to our payment authorities to process further.

[Handwritten signature]
05/07/2021

(डॉ सुरेश श्रीवास्तव) / (Dr. Suresh Srivastava)

वैज्ञानिक / Scientist 'G'

समूह निदेशक एवं एम आर, क्यू एम एस

Group Director & MR, QMS

प्रमुख - मानव संसाधन / Head HR

Encl : As stated

[Handwritten signature]
सर्व शिक्षा अभियान
सर्व शिक्षा अभियान

Office Telephone: 91-80-2504 9000, 2522 5121, Fax: 91-80-2522 2326, 2522 3748 E-mail: director@cabs.drdo.in



Contract for Acquisition of Research Services (CARS)

By signature of authority identified at (11) below, DRDO hereby contracts on the Research Service Provider identified at (3), the provision of the Research Services described at (6), within the time stated at (8), for payments at (9.2), and subject to other conditions overleaf, as follows:

1. Short title of Research Service to be provided: DESIGN OF ANTENNA ARRAY WITH COMPATIBLE RADOME FOR MARINE POLLUTION DETECTION in response to: / 'Make in India' Initiative		CABS/CARS/01/2021-23 Contract Number: Date: 02 July 2021	
2. RSQR Document Ref. No.:	Date of issue YY MM DD	Issuing DRDO Lab/Est/Project: CABS	Dates of CARS Amendments: -
3. Name and address of Research Service Provider (RSP): Dr. T. Godhvari Designation: Professor and Head, Department of ECE Dr. M.G.R. Educational & Research Institute, Madhavayal, Chennai-600095.		4. RSP's Offer Ref. Dr. M.G.R. DU/CARS/2020-21 Date: 25/6/2021	
5. a) This contract will require a formal amendment if the following key professionals are not available to RSP: Accepted b) RSP is authorized to engage these professionals as research consultants (names, institutions, companies) (b) RSP is authorized to engage these professionals as research consultants (names, institutes/companies): APPENDIX A			
6. Principal technical features of Research Service to be provided (Detailed in Attachment A): PL. Refer Page no.3 ✓ Design of indigenous antenna array considering environmental condition. ✓ Replace the existing stacked array antenna available at CABS (DRDO) with indigenously developed antenna along with radome. ✓ The key design parameters are development of state of the art antenna and radome which will be compact and light weight			
7. DRDO will make available the following DRDO-owned equipment to RSP (Detailed in Attachment B): None			
8. The technical performance of this contract shall be complete when RSP submits the Final Report before (date): (T ₀ = Date of Initial Advance Receipt)			T ₀ +18 Months
9.1 Expenditure on items below shall not exceed sums shown against each			Rs. in lakhs
a) Personnel (RESEARCH ASSISTANT 18 * 28000) (PROJECT ASSISTANT 6 * 20000)			6.24
b) Equipment (APPENDIX B)			9.75
c) Others (APPENDIX C)			2.52
Total: (18.51 lakhs + 18% GST=3.33 lakhs)			21.84
9.2 Required schedule of payments (Rs. in lakhs)			Date Payment (including 18% GST)
a) Initial advance (T ₀ = Date of Initial Advance Receipt)			T ₀ 8.46
b) at Performance Milestone I of RSQR (PL. Refer APPENDIX D) Only Review			T ₀ +6 months -
c) at Performance Milestone II of RSQR - (Approval of Simulation result and Fund Release)			T ₀ +12 months 11.41
d) at Performance Milestone III of RSQR - (Testing of Prototype with CABS Facility and delivery)			T ₀ +17 months -
e) On submission of Final Report - (Fund Release)			T ₀ +18 months 1.97
Total: /			21.84
① Payments will be made within 45 days of receipt by L/E/P of Contingent Bill			
10. DRDO will deem this contract, including amendments thereto, to have been consummated when signed below by the authority of the academic institution (e.g. Registrar) competent to enter into this contract: Name: C. B. Palanivelu Designation: REGISTRAR		11. Signature of L/E/P contract administrator: Name: Dr. S. S. Srinivasan Designation: Director Address: Centre for Air Borne Systems, Dr. M.G.R. Educational & Research Institute, Madhavayal, Chennai-600095	

REGISTRAR
Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
(Deemed to be University)
Periyar E.V.R. High Road,
Madhavayal, Chennai-600095



C. B. Palanivelu

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