

FILE NO. CRG/2018/002854

SCIENCE & ENGINEERING RESEARCH BOARD

5 & 5A, Lower Ground Floor
Vasant Square Mall
Plot No. A, Community Centre
Sector-B, Pocket-5, Vasant Kunj
New Delhi-110070

Dated: 31-May-2019

ORDER

Subject: Financial Sanction of the research project titled “**Design and development of acoustic methods for early detection of stem and root borer *Plocaederus spp* infestation in cashew**” under the guidance of Dr. **Maruthadurai R**, Crop Science, ICAR-Central Coastal Agricultural Research Institute , Ella, old goa, north goa dist., goa, Ela, Goa-403402 and by Dr. Veerakumar Thangaraj, Associate Professor, Electronics And Communication Engineering, National Institute Of Technology, Goa - Release of 1st grant.

Sanction of **Science and Engineering Research Board (SERB)** is hereby accorded to the above mentioned project at a total cost of **Rs. 4070178/- (Rs. Forty Lakh Seventy Thousand One Hundred and Seventy Eight Only)** with break-up of **Rs. 450000/- under Capital (Non-recurring) head** and **Rs.3620178/- under General (Recurring) head** for a duration of **36** months. The items of expenditure for which the total allocation of **Rs. 4070178/-** has been approved are given below:

The following budget may be considered for **ICAR-Central Coastal Agricultural Research Institute, Ella, Old Goa, North Goa Dist., Goa**

S. No	Head	Total (in Rs.)
A	Non-recurring	
1	Equipment -> Sensors -> Thermal Camera	450000
A'	Total (Non-Recurring)	450000
B	Recurring Items	
1	Recurring - I : (Manpower) Recurring - II : (Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility	1257120 450000 60000
2	Recurring - IV : (Overhead Charges)	177369
B'	Total (Recurring)	1944489
C	Total cost of the project (A' + B')	2394489

The following budget may be considered for **National Institute Of Technology, Goa, Farmagudi, Ponda , Goa**

S. No	Head	Total (in Rs.)
A	Non-recurring	
1	Equipment	0
A'	Total (Non-Recurring)	0
B	Recurring Items	
1	Recurring - I : (Manpower) Recurring - II : Recurring - III : Scientific Social Responsibility	1257120 350000 0
2	Recurring - IV : (Overhead Charges)	128569
B'	Total (Recurring)	1735689
C	Total cost of the project (A' + B')	1735689

2. Sanction of the **SERB** is also accorded to the payment of
Rs. 450000/- (Rupees Four Lakh Fifty Thousand only) under 'Grants for creation of capital assets' and **Rs. 688160/-** (Rupees Six Lakh Eighty Eight Thousand One Hundred and Sixty only) under 'Grants-in-aid General' to **Director, ICAR-Central Coastal Agricultural Research Institute, Ella, Old Goa, North Goa Dist., Goa** and **Rs. 578550/-** (Rupees Five Lakh Seventy Eight Thousand Five Hundred and Fifty only) under 'Grants-in-aid General' to **Director, National Institute Of Technology, Goa, Farmagudi, Ponda , Goa** being the first installment of the grant for the year 2019-2020 for implementation of the said research project.
3. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).
4. 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.
5. While providing operational flexibility among various subheads under head Recurring-A, it should be ensured that not more than Rs. 1.5 lakh each should be spent for travel and contingency.
6. 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.
7. The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & 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.

8. The manpower sanctioned in the project, if any is co-terminus with the duration of the project and SERB will have no liability to meet the fellowship and salary of supporting staff if any. beyond the duration of the project
9. 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 SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.
10. The sanctioned equipments and consumables would be produced as per GFR 2005 and its disposal would be done with prior approval of SERB.
11. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "FUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.

(Dr. Shilpi Paul)

Scientist E

ms_ps@serbonline.in

To,
Under Secretary
SERB, New Delhi

Copy forwarded for information and necessary action to: -

1.	The Principal Director of Audit, A.G.C.R.Building, IIIrd Floor I.P. Estate, Delhi-110002
2.	Sanction Folder, SERB , New Delhi.
3.	File Copy
4.	Dr. Maruthadurai R Crop Science ICAR-Central Coastal Agricultural Research Institute , Ella, old goa, north goa dist., goa, Ela, Goa-403402 Email: duraiento@gmail.com Mobile: 919503476675 Dr. Veerakumar Thangaraj Electronics And Communication Engineering National Institute Of Technology, Goa (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit www.serb.gov.in.)
5.	Director, ICAR-Central Coastal Agricultural Research Institute, Ella, Old Goa, North Goa Dist., Goa Director, National Institute Of Technology, Goa, Farmagudi, Ponda , Goa (Receipt of Grant may be intimated by name to the undersigned)

(Dr. Shilpi Paul)

Scientist E

ms_ps@serbonline.in

Dated: 31-May-2019

ORDER

Subject: Financial Sanction of the research project titled "**Design and development of acoustic methods for early detection of stem and root borer *Plocaederus spp* infestation in cashew**" under the guidance of Dr. Maruthadurai R, Crop Science, ICAR-Central Coastal Agricultural Research Institute, Ella, old goa, north goa dist., goa, Ela, Goa-403402 and by Dr. Veerakumar Thangaraj, Associate Professor, Electronics And Communication Engineering, National Institute Of Technology, Goa - Release of 1st grant.

Sanction of **Science and Engineering Research Board (SERB)** is hereby accorded to the above mentioned project at a total cost of **Rs. 2394489/- (Rs. Twenty Three Lakh Ninety Four Thousand Four Hundred and Eighty Nine Only)** with break-up of **Rs. 450000/- under Capital (Non-recurring) head** and **Rs.1944489/- under General (Recurring) head** for a duration of 36 months. The items of expenditure for which the total allocation of **Rs. 2394489/-** has been approved are given below:

S. No	Head	Total (in Rs.)
A	Non-recurring	
1	Equipment -> Sensors -> Thermal Camera	450000
A'	Total (Non-Recurring)	450000
B	Recurring Items	
1	Recurring - I : (Manpower) Recurring - II : (Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility	1257120 450000 60000
2	Recurring - IV : (Overhead Charges)	177369
B'	Total (Recurring)	1944489
C	Total cost of the project (A' + B')	2394489

2. Sanction of the **SERB** is also accorded to the payment of **Rs. 450000/-** (Rupees Four Lakh Fifty Thousand only) under 'Grants for creation of capital assets' and **Rs. 688160/-** (Rupees Six Lakh Eighty Eight Thousand One Hundred and Sixty only) under 'Grants-in-aid General' to **Director, ICAR-Central Coastal Agricultural Research Institute, Ella, Old Goa, North Goa Dist., Goa** being the first installment of the grant for the year 2019-2020 for implementation of the said research project.

3. The expenditure involved is debitable to **Fund for Science & Engineering Research (FSER)**
This release is being made under Core Research Grant. (PAC Plant Sciences)

4. The Sanction has been issued to ICAR-Central Coastal Agricultural Research Institute, Ella, Old Goa, North Goa Dist., Goa with the approval of the competent authority under delegated powers on **29 May, 2019** and vide Diary No. **SERB/F/1026/2019-2020** dated **31 May, 2019**

5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).

6. 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.

7. While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Rs. 1.5 lakh each should be spent for travel and contingency.

8. 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.

9. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.

10. The release amount of **Rs. 1138160/-** (Rupees Eleven Lakh Thirty Eight Thousand One Hundred and Sixty only) will be drawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

Account Name	ICAR RESEARCH COMPLEX
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Account Number	0321201000277
Bank Name & Branch	CANARA BANK Old Goa, Old Goa, Goa- 403402
IFSC/RTGS Code	CNRB0000321
Email id of A/C Holder	fao.ccari@icar.gov.in
Email id of PI	duraiento@gmail.com

11. The institute will furnish to the SERB, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & 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.

12. 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 SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. CRG/2018/002854 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

14. The manpower sanctioned in the project, if any is co-terminus with the duration of the project and SERB will have no liability to meet the fellowship and salary of supporting staff if any. beyond the duration of the project

15. As this is the first grant being released for the project, no previous U/C is required.

16. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "FUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board.

Dr. Shilpi Paul
3.6.19

(Dr. Shilpi Paul)

Scientist E

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To,
Under Secretary
SERB, New Delhi

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5.	Director, ICAR-Central Coastal Agricultural Research Institute, Ella, Old Goa, North Goa Dist., Goa (Receipt of Grant may be intimated by name to the undersigned)

Dr. Shilpi Paul
3.6.19

(Dr. Shilpi Paul)

Scientist E

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SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

(A statutory body of the Department of Science & Technology, Government of India)

5 & 5A, Lower Ground Floor
Vasant Square Mall
Plot No. A, Community Centre
Sector-B, Pocket-5, Vasant Kunj
New Delhi-110070

Dated: 31-May-2019

ORDER

Subject: Financial Sanction of the research project titled "**Design and development of acoustic methods for early detection of stem and root borer *Placaederus spp* infestation in cashew**" under the guidance of Dr. Veerakumar Thangaraj, Electronics and Communication Engineering, National Institute of Technology, Goa, National Institute of Technology, Goa and by Dr. Veerakumar Thangaraj, Associate Professor, Electronics And Communication Engineering, National Institute Of Technology, Goa - Release of 1st grant.

Sanction of **Science and Engineering Research Board (SERB)** is hereby accorded to the above mentioned project at a total cost of **Rs. 1735689/-** (Rs. Seventeen Lakh Thirty Five Thousand Six Hundred and Eighty Nine Only) with break-up of **Rs. 0/- under Capital (Non-recurring) head** and **Rs.1735689/- under General (Recurring) head** for a duration of 36 months. The items of expenditure for which the total allocation of **Rs. 1735689/-** has been approved are given below:

S. No	Head	Total (in Rs.)
A	Non-recurring	
1	Equipment	0
A'	Total (Non-Recurring)	0
B	Recurring Items	
1	Recurring - I : (Manpower)	1257120
	Recurring - II :	350000
	Recurring - III : Scientific Social Responsibility	0
2	Recurring - IV : (Overhead Charges)	128569
B'	Total (Recurring)	1735689
C	Total cost of the project (A' + B')	1735689

2. Sanction of the **SERB** is also accorded to the payment of **Rs. 578550/-** (Rupees Five Lakh Seventy Eight Thousand Five Hundred and Fifty only) under 'Grants-in-aid General' to **Director, National Institute Of Technology, Goa, Farmagudi, Ponda, Goa** being the first installment of the grant for the year 2019-2020 for implementation of the said research project.

3. The expenditure involved is debitable to **Fund for Science & Engineering Research (FSER)**
This release is being made under Core Research Grant. (PAC Plant Sciences)

4. The Sanction has been issued to National Institute Of Technology, Goa, Farmagudi, Ponda, Goa with the approval of the competent authority under delegated powers on **29 May, 2019** and vide Diary No. **SERB/F/1028/2019-2020** dated **31 May, 2019**

5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).

6. 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.

7. While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Rs. 1.5 lakh each should be spent for travel and contingency.

8. 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.

9. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.

10. The release amount of **Rs. 578550/-** (Rupees Five Lakh Seventy Eight Thousand Five Hundred and Fifty only) will be drawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

Account Name	NIT GOA PROJECTS
Account Number	520101026780557
Bank Name & Branch	Corporation Bank Farmagudi, Goa College of Engineering, Farmagudi, Ponda, Goa -403401

IFSC/RTGS Code	CORP0001328
Email id of A/C Holder	registrar@nitgoa.ac.in
Email id of PI	duraiento@gmail.com

11. The institute will furnish to the SERB, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & 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.

12. 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 SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. CRG/2018/002854 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

14. The manpower sanctioned in the project, if any is co-terminus with the duration of the project and SERB will have no liability to meet the fellowship and salary of supporting staff if any. beyond the duration of the project

15. As this is the first grant being released for the project, no previous U/C is required.

16. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "FUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board.

शिल्पी
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Under Secretary
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4.	Dr. Veerakumar Thangaraj Electronics and Communication Engineering National Institute of Technology, Goa , National Institute of Technology, Goa Email: tveerakumar@nitgoa.ac.in Mobile: 918275681742 Dr. Veerakumar Thangaraj Electronics And Communication Engineering National Institute Of Technology, Goa (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit www.serb.gov.in.)
5.	Director, National Institute Of Technology, Goa, Farmagudi, Ponda , Goa (Receipt of Grant may be intimated by name to the undersigned)

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3.6.19

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