FILE NO. CRG/2022/001866 SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

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

Science and Engineering Research Board 3rd & 4th Floor, Block II Technology Bhavan, New Mehrauli Road New Delhi - 110016

Dated: 30 January, 2023

ORDER

Subject: Financial Sanction of the research project titled Design and Development of Noble C-Band Parametric Optical Frequency Comb Generator to Realize Backbone Optical Transport Network for 6G Communication under the guidance of Prof. Surinder Singh, Electronics and Communication Engineering, Sant Longowal Institute of Engineering and Technology (SLIET), Longowal distt. sangrur, Sangrur, Punjab-148106 and by Prof. Jagpal Singh Ubhi, Professor, Electronics And Communication Engineering, Sant Longowal Institute Of Engineering And Technology (SLIET) - 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. 2322609/- (Rs. Twenty Three Lakh Twenty Two Thousand Six Hundred and Nine Only) with break-up of Rs. 732463/- under Capital (Non-recurring) head and Rs.1590146/- under General (Recurring) head for a duration of 36 months. The items of expenditure for which the total allocation of Rs. 2322609/- has been approved are given below:

The following budget may be considered for Sant Longowal Institute Of Engineering And Technology (SLIET), Longowal Distt. Sangrur

| S. No | Head | Total (in Rs.) |
|-------|---|----------------------------|
| A | Non-recurring | |
| 1 | Equipment -> Erbium-Doped Fiber Amplifiers (EDFA) -> 1x8 Single Mode Fiber Optic Splitters -> Benchtop, Fiber-Coupled Booster & Semiconductor Optical Amplifier | 732463 |
| A' | Total (Non-Recurring) | 732463 |
| В | Recurring Items | |
| 1 | Recurring - I : (Research Personnel) Recurring - II : (Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility | 1164000 195000 20000 |
| 2 | Recurring - IV . (Overhead Charges) | 211146 |
| В' | Total (Recurring) | 1590146 |
| С | Total cost of the project (A' + B') | 2322609 |

- 2. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).
- 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.
- 4. 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.
- 5. Budget sanctioned under Scientific Social Responsibility (SSR) is meant only for activities enlisted under SSR norms and under no circumstances it can be reappropriated.
- 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 sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERB.

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8. 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.

- 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 research personnel 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
- 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.
- 12. The project File no. CRG/2022/001866 should be mentioned in all communications arising from the above project. The organization/institute/university should ensure that the technical support/financial assistance provided to them by SERB should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.
- 13. 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 SERB.
- 14. Sanction order for release of funds under a) Non-recurring and b) Recurring will be issued separately depending on the availability of funds. The project become operational from the day the first release of grant received by the implementing Institute.

(Dr. Anima Johari) Scientist D anima.johari@serb.gov.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. | Prof. Surinder Singh Electronics and Communication Engineering Sant Longowal Institute of Engineering and Technology (SLIET), Longowal distt. sangrur, Sangrur, Punjab-148106 Email: surinder_sodhi@rediffmail.com Mobile: 919501022632 |
| | Prof. Jagpal Singh Ubhi Electronics And Communication Engineering Sant Longowal Institute Of Engineering And Technology (SLIET) (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, Sant Longowal Institute Of Engineering And Technology (SLIET), Longowal Distt. Sangrur (Receipt of Grant may be intimated by name to the undersigned) |

anima.johari@serb.gov.in

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FILE NO. CRG/2022/001866-G

SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

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

Science and Engineering Research Board 3rd & 4th Floor, Block II Technology Bhavan, New Mehrauli Road New Delhi - 110016

Dated: 30 January, 2023

ORDER

Subject: Research project entitled Design and Development of Noble C-Band Parametric Optical Frequency Comb Generator to Realize Backbone Optical Transport Network for 6G Communication under the guidance of Prof. Surinder Singh, Electronics and Communication Engineering, Sant Longowal Institute of Engineering and Technology (SLIET), Longowal distt. sangrur, Sangrur, Punjab-148106 and by Prof. Jagpal Singh Ubhi, Professor, Electronics And Communication Engineering, Sant Longowal Institute Of Engineering And Technology (SLIET).

- 1. In continuation of SERB's sanction order No. CRG/2022/001866 dated 30 January, 2023, sanction of the competent authority is hereby accorded to the payment of a sum of Rs.543537/- under 'Grants-in-aid General' to Sant Longowal Institute Of Engineering And Technology (SLIET), Longowal Distt. Sangrur, Sangrur, Punjab-148106 being the grant for the financial year 2022-2023 for implementation of the above said project.
- 2. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at the website (www.serb.gov.in) and as mentioned in the sanction order of even number dated 30 January, 2023.
- 3. As this is the first grant being released under 'Grants-in-aid General' for the project, no previous U/C is required.
- 4. The expenditure involved is debitable to Fund for Science & Engineering Research (FSER) This release is being made under Core Research Grant (PAC Electrical Electronics & Computer Engineering) (General).
- 5. The Sanction has been issued with the approval of the competent authority on 23 January, 2023 and vide Diary No. SERB/F/9648/2022-2023 dated 25 January, 2023.
- 6. The release amount of Rs. 543537/- (Rupees Five Lakh Forty Three Thousand Five Hundred and Thirty Seven 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:

| PFMS Unique Code | SLIET |
|------------------------|---|
| Account Name | Director SLIET Longowal |
| Account Number | 1688335346 |
| Bank Name & Branch | Centeral Bank of India Central Bank of India, SLIET, campus, Longowal, Sangrur, Punjab, India |
| IFSC/RTGS Code | CBIN0283105 |
| Email id of A/C Holder | draccts@sliet.ac.in |
| Email id of PI | surinder_sodhi@rediffmail.com |

(Dr. Anima Johari)

Scientist D

anima.johari@serb.gov.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. | Prof. Surinder Singh Electronics and Communication Engineering |
|----|---|
| | Sant Longowal Institute of Engineering and Technology (SLIET) , Longowal distt. sangrur, Sangrur, |
| | Punjab-148106 |
| | Email: surinder_sodhi@rediffmail.com |
| | Mobile: 919501022632 |
| | Prof. Jagpal Singh Ubhí |
| | Electronics And Communication Engineering |
| | Sant Longowal Institute Of Engineering And Technology (SLIET) |
| | (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, Sant Longowal Institute Of Engineering And Technology (SLIET), Longowal Distt. Sangrur |
| | (Receipt of Grant may be intimated by name to the undersigned) |

(Dr. Anima Johari) Scientist D

anima.johari@serb.gov.in

FILE NO. CRG/2022/001866-C

SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

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

Science and Engineering Research Board 3rd & 4th Floor, Block II Technology Bhavan, New Mehrauli Road New Delhi - 110016

Dated. 30 January, 2023

ORDER

Subject: Research project entitled Design and Development of Noble C-Band Parametric Optical Frequency Comb
Generator to Realize Backbone Optical Transport Network for 6G Communication under the guidance of Prof. Surinder
Singh, Electronics and Communication Engineering, Sant Longowal Institute of Engineering and Technology (SLIET).
Longowal distt. sangrur, Sangrur, Punjab-148106 and by Prof. Jagpal Singh Ubhi, Professor, Electronics And
Communication Engineering, Sant Longowal Institute Of Engineering And Technology (SLIET).

- 1. In continuation of SERB's sanction order No. CRG/2022/001866 dated 30 January, 2023, sanction of the competent authority is hereby accorded to the payment of a sum of Rs.732463/- under 'Grants-in-aid Capital' to Sant Longowal Institute Of Engineering And Technology (SLIET), Longowal Distt. Sangrur, Sangrur, Punjab-148106 being the grant for the financial year 2022-2023 for implementation of the above said project.
- Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at the website (www.serb.gov.in) and as mentioned in the sanction order of even number dated 30 January, 2023.
- 3. As this is the first grant being released under 'Grants-in-aid Capital' for the project, no previous U/C is required.
- 4. The expenditure involved is debitable to Fund for Science & Engineering Research (FSER) This release is being made under Core Research Grant (PAC Electrical Electronics & Computer Engineering) (Capital).
- 5. The Sanction has been issued with the approval of the competent authority on 23 January, 2023 and vide Diary No. SERB/F/9647/2022-2023 dated 25 January, 2023.
- 6. The release amount of Rs. 732463/- (Rupees Seven Lakh Thirty Two Thousand Four Hundred and Sixty Three 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:

| PFMS Unique Code | SLIET |
|------------------------|---|
| Account Name | Director SLIET Longowal |
| Account Number | 1688335346 |
| Bank Name & Branch | Centeral Bank of India Central Bank of India, SLIET, campus, Longowal, Sangrur, Punjab, India |
| IFSC/RTGS Code | CBIN0283105 |
| Email id of A/C Holder | draccts@sliet.ac.in |
| Email id of PI | surinder_sodhi@rediffmail.com |

(Dr. Anima Johari)

Scientist D

anima.johari@serb.gov.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. | Prof. Surinder Singh Electronics and Communication Engineering Sant Longowal Institute of Engineering and Technology (SLIET), Longowal distt. sangrur, Sangrur, Punjab-148106 Email: surinder_sodhi@rediffmail.com Mobile: 919501022632 |
|---------------------------------------|---|
| onië jos of presir Distribu | Prof. Jagpal Singh Ubhi Electronics And Communication Engineering Sant Longowal Institute Of Engineering And Technology (SLIET) (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. fineC timensill timensill | Director, Sant Longowal Institute Of Engineering And Technology (SLIET), Longowal Distt. Sangrur (Receipt of Grant may be intimated by name to the undersigned) |

(Dr. Anima Johari) Scientist D

anima.johari@serb.gov.in