

FILE NO. SUR/2022/003804  
**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: 25 October, 2023

**ORDER**

Subject: Financial Sanction of the research project titled **Investigation of fusion enhancement and shell effects on fusion for neutron-rich systems near the fusion barrier** under the guidance of Dr. Varinderjit Singh, Physical Sciences, I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603 - 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. 2920760/-** (Rs. Twenty Nine Lakh Twenty Thousand Seven Hundred and Sixty Only) with break-up of **Rs. 1065000/- under Capital (Non-recurring) head** and **Rs. 1855760/- under General (Recurring) head** for a duration of 36 months. The items of expenditure for which the total allocation of **Rs. 2920760/-** has been approved are given below:

The following budget may be considered for **I.K. Gujral Punjab Technical University, Jalandhar - Kapurthala Highway, VPO - Ibban**

S. No	Head	Total (in Rs.)
<b>A</b>	<b>Non-recurring</b>	
1	Equipment -> Ca-40, 44 enriched target material -> Printer -> Laptop	1065000
A'	Total (Non-Recurring)	1065000
<b>B</b>	<b>Recurring Items</b>	
1	Recurring - I : (Research Personnel -> Junior Research Fellow) Recurring - II : ( Consumables, Travel, Contingencies) Recurring - III : Scientific Social Responsibility	1350240 240000 0
2	Recurring - IV : (Overhead Charges)	265520
B'	Total (Recurring)	1855760
<b>C</b>	<b>Total cost of the project (A' + B')</b>	<b>2920760</b>

2. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website ( [www.serb.gov.in](http://www.serb.gov.in)).

3. 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. 90,000 each should be spent for travel and contingency.

5. 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.

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

Head of Department  
Department of Physics  
I.K. Gujral Punjab Technical University Jalandhar,  
Kapurthala, Punjab-144603

7. 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.

8. 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.

9. 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

10. 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.

11. The project File no. SUR/2022/003804 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. 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.

12. 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.

*Ramesh*

(Dr. V Ramesh)

ms\_pac\_sure@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.	<b>Dr. Varinderjit Singh</b> <b>Physical Sciences</b> <b>I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603</b> <b>Email: vickymangat3@gmail.com</b> <b>Mobile: 919914100789</b> (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit <a href="http://www.serb.gov.in">www.serb.gov.in</a> .)
5.	<b>Registrar,</b> <b>I.K. Gujral Punjab Technical University, Jalandhar - Kapurthala Highway, VPO - Ibban</b> (Receipt of Grant may be intimated by name to the undersigned)

Head of Department  
Department of Physics

*Ramesh*  
I.K. Gujral Punjab Technical University Jalandhar  
Kapurthala, Punjab-144603

(Dr. V Ramesh)

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FILE NO. SUR/2022/003804-G

**SCIENCE & ENGINEERING RESEARCH BOARD(SERB)**

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

Dated: 25 October, 2023

**ORDER**

Subject: Research project entitled **Investigation of fusion enhancement and shell effects on fusion for neutron-rich systems near the fusion barrier** under the guidance of Dr. Varinderjit Singh, Physical Sciences, I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603.

1. In continuation of SERB's sanction order No. SUR/2022/003804 dated 25 October, 2023, sanction of the competent authority is hereby accorded to the payment of a sum of **Rs. 618000/-** under 'Grants-in-aid General' to I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603 being the grant for the financial year 2023-2024 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](http://www.serb.gov.in)) and as mentioned in the sanction order of even number dated 25 October, 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 **State University Research Excellence (SERB SURE)** (General) (PAC SERB SURE).
5. The Sanction has been issued with the approval of the competent authority on **19 October, 2023** and vide Diary No. **SERB/F/7909/2023-2024** dated 23 October, 2023.
6. The release amount of **Rs. 618000/-** (Rupees Six Lakh Eighteen Thousand 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	PTUJAL
Account Name	PTU-GRANT-IN-AID
Account Number	00461450000276
Bank Name & Branch	HDFC Bank Ltd HDFC Bank Ltd, Plot No 911 GT Road, Jalandhar 144001
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	fo@ptu.ac.in
Email id of PI	vickymangat3@gmail.com

*Ramesh*

(Dr. V Ramesh)

ms\_pac\_sure@serbonline.in

To,  
Under Secretary  
SERB, New Delhi  
Copy forwarded for information and necessary action to: -

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Head of Department  
Department of Physics  
I.K. Gujral Punjab Technical University Jalandhar,  
Kapurthala, Punjab-144603

3.	File Copy
4.	<p><b>Dr. Varinderjit Singh</b>  <b>Physical Sciences</b>  <b>I.K. Gujral Punjab Technical University , I.K. Gujral Punjab Technicial University,. Near Pushpa Gujral Science City,. Ibban, Kapurthala-144603, PUNJAB-144603</b>  <b>Email: vickymangat3@gmail.com</b>  <b>Mobile: 919914100789</b></p> <p>(Start date of the project may be intimated by name to the undersigned. For guidance, terms &amp; Conditions etc. Please visit <a href="http://www.serb.gov.in">www.serb.gov.in</a>.)</p>
5.	<p><b>Registrar,</b>  <b>I.K. Gujral Punjab Technical University, Jalandhar - Kapurthala Highway, VPO - Ibban</b>  (Receipt of Grant may be intimated by name to the undersigned)</p>

*Ramesh*

(Dr. V Ramesh)  
ms\_pac\_sure@serbonline.in

*Dr*  
Head of Department  
Department of Physics  
I.K. Gujral Punjab Technical University Jalandhar,  
Kapurthala, Punjab-144603

FILE NO. SUR/2022/003804-C

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Science and Engineering Research Board  
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1. In continuation of SERB's sanction order No. SUR/2022/003804 dated 25 October, 2023, sanction of the competent authority is hereby accorded to the payment of a sum of **Rs.1065000/-** under 'Grants-in-aid Capital' to I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603 being the grant for the financial year 2023-2024 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](http://www.serb.gov.in)) and as mentioned in the sanction order of even number dated 25 October, 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 **State University Research Excellence (SERB SURE) (Capital) (PAC SERB SURE)**.

5. The Sanction has been issued with the approval of the competent authority on **19 October, 2023** and vide Diary No. **SERB/F/7908/2023-2024** dated **23 October, 2023**.

6. The release amount of **Rs. 1065000/-** (Rupees Ten Lakh Sixty Five Thousand 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	PTUJAL
Account Name	PTU-GRANT-IN-AID
Account Number	00461450000276
Bank Name & Branch	HDFC Bank Ltd HDFC Bank Ltd, Plot No 911 GT Road, Jalandhar 144001
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	fo@ptu.ac.in
Email id of PI	vickymangat3@gmail.com

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5.	<p><b>Registrar,</b> <b>I.K. Gujral Punjab Technical University, Jalandhar - Kapurthala Highway, VPO - Ibban</b> (Receipt of Grant may be intimated by name to the undersigned)</p>

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Kapurthala, Punjab-144603