Supporting Documents

3.2.2

Grants for Research Projects Sponsored by Government Agencies

Sl. No.	Documents Attached	
1.	List of Project Titles	
2.	E-copies of the Grant Award Letters for Research	



List of Project Titles

Sr.	Department	Principal	Project Title	Grant	Sanctioning
No.		Investigator		Amount	Agency
1	Chemical Sciences	Dr. Roopa	Fluorescence detection of activity and inhibition of his tone deacetylases	29.12	DST-Sciences and Engineering Research Board (SERB), New Delhi
2	Physical Sciences	Dr. Neetika	Diffractive vector meson production at HERA using a Ads/QCD holographic	18.91	DST-Sciences and Engineering Research Board (SERB), New Delhi
3	Physical Sciences	Dr. Rabia Pandit/ Dr.Hitesh Sharma	Study of interface magnetic interactions in La0.7Sr0.3MnO3/A2L nRuO6	34.72	DST-Sciences and Engineering Research Board (SERB), New Delhi
4	Mechanical Engineering	Dr. Amit Bansal	Development and mechanical characterization of the microwave assisted biomedical coating on stainless steel	29.79	DST-Sciences and Engineering Research Board (SERB), New Delhi
5	Mechanical Engineering	Dr. Amoljit Singh Gill	Fabrication of bio compatible graded porous metallic implants for facilitating drug delivery	18.30	DST-Sciences and Engineering Research Board (SERB), New Delhi
6	Electronics and Communicatio n Engineering	Dr Amit Gupta/ Dr Surinder Singh	Design of High-speed Multichannel Optical wireless communication system based on hybrid WDM FSO Transmission link	5.75	DST-Sciences and Engineering Research Board (SERB), New Delhi
7	Hoshiarpur Campus	Dr. Kulwinder Singh	Mathematical Modelling of the atmospheric air pollution over severely polluted coal mines region in India using time series, wavelet analysis and soft computing techniques	6.6	DST-Sciences and Engineering Research Board (SERB), New Delhi

E-copies of the Grant Award Letters for Research



FILE NO EE LO. 2010/0003.25
SCIENCE & ENG INEE RIN G RESEARCH BOARD(SERB)
(a sta tuto i y body o t the De par time int o! fic ie nee & Technology, 9ove inm e tit of Ind i a)

5.8.5A. Lower Ground Floor Vasan t Square Mall Plof No A, Comm unity Centre SCc to 1 B, Poc ket 5, Vasan I K unj New Delhi 110.070

Dated. 14-Nov-2019

ORDER

Subject: financial Sanction of the research project titled "Fluorescence detection of activity and inhibition of his tone deacetylases" under the 9u idance of Dr. ROOPA. Department of Chemical Sciences, I.K. Gu jr al Punjab Technical University, Kapu r thala, 1. k qujral punjab technical university, near pushpa 9u jr al science city, ibba n, kapur thala 144603, Kapu r thala, Pun jab 14460.3 - Release of 1st 9rant.

Sanction of Science and Engineering Research Board (SERB) is lie re by accorded lot lie above mentioned project at a total cost of Rs. 2912000/- (Rs. Twenty N me Lakh Twel ve Thousand Only) with breok up of Rs. 5800001- under Capital (Non-recurring) head and Rs.2.33£000/- under Ceneral (Recurring) head for a duration of 3G niont hs. The items of expenditure toi which the total allocation of Rs. 2912000/- has been appioved are 9 iven below

S. No	Head	Total (in Rs.)
A	Non -recurring	
	Equipment> Ultra Low Temperature Freezer -80 Degree Celcius	580000
A	Total (Non-Recurring)	E80000
В	Recurring Items	
Ri .	Recurring - I : (Ma II) wer) Recurring - II : (Consumables, Travel, Contingencies) Recurring III : Screw tifte Social Respons ibility	648000 1400000 20000
2	Rec ur ring - IV . (Overhead Charges)	264000
В	Total (Pecuraing)	2332000
C	Total cost of the project $(\Lambda^* + B^*)$	2912000

- 2 Sanction of the SERB is also accorded to the payment of Rs. 580000/- (Rupees Five Lakh Ei gis iy Thousand on Iy) under G rants for creation of capital assets' and Rs. 790500/- (Rupees Seven Lakh Ninety Thousand Five Hundred only) under 'G rants in-aid General' to REGISTRAR, I.K. Gujral Punjab Technical University, Kapur thala, I.K. Gujral Punjab Technical University, Near Pushpa Gu jral Science City, Ibban, Kapur thala -144603 beinQt lie farst in stall mem of the q rant for the year 2019 2020 for inn plementation of the said research procel
- 3 The expend ii u re in vol ved is debi table to Fund for Science & Engineering Research (FSER)
 This release is being made under Empowerment and Equity Opportunities for Excellence in Science. (Task force Committee) (SC)
- 4. The Sanction has been issued to I.K. Gujral Punjab Techrncal University, Kapu r thala, I.K. Gujral Punjab Techncial University, Near Pushpa Guy rat Scie nee City, Ibban, Kapurthala-144G03 with the approval of the competent authority under delegated powers on 11 November, 2019 and vide Diary No. SERB/F/6604/2019-2020 dated 13 November, 2019
- 5. Sanc1ion of the 9 i ant is subject to the condit ions as deta iled in Terms 8 Condi t ions available at website
- 6. Overhead expenses a re rue ant to r the host Institute towards the cost for providing in Ir as true tur al lacil it res and general administrative support e to including benefit to the staff employed in the project.
- 7. While prov iding operational flexib ili I y among various subheads under head Rec urrin9 II, it shou Id be ensured that not more than Rs 1.5 lak li each should be spenl for travel and con lin9ency
- 8 Bud/jet sanctioned under Screntific Social Responsibility SSR) is meant only for activites enlisted urlder SSR norms and under no circlinis tances i' r:on lae res(opiopriateat
- 9 As per rule 211 of GFE, the accoursts of oil oect slyall be oil en to ms pection by san itoning authority/audil whenevei the institute is called u pon to do so
- The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior approval of SERD.
- 11 The release amount of Rs. 1370500/- (R u pees Th ir teen Lakh Seven ty Thousand Five Hund red only) will be d rawn by the Under Secretary of the SERB and will be disbursed by means of RTGS transaction as per their Bank details q iven tielow

Head Some Manager Mana

PFMS Unique Code	PTU JAL
Account Name	PTU CRANT IN AID
Account Number	00461450000276
Bank Name 8 Branch	HDFC BANK LTD Kapurthala IBBANHDFC BANK LTD
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	registrar@ptu.ac.in
Email id of Pl	roopa_noel@yahoo.co.in

- The institute will furnish to the SERB, New Delhi, sep a i at e U1th zation cer tifle al e(UCs) financial yeur wise lo the SERB for Recurring (G rants in aid Ge we ral) 8 Non-Recurring (G ran ts for creat ion of cap ital assets) and an audited statement of accounts per taining to the q ran I immediately after the end of each financial year
- The institute will maint a in separate audited a counts for the project. A part or whole of the grant must be kept in an in ter est earning bank account wit icli is I o be reported to SER 13 The in t. i est thus earned vrill be treated as credit to the institute to be adjusted towards further install meiat of ! lae 9 i (an)
- The project File no EEO/2019/UU0J25 la fay also I c na it it iecli it all lese a reli cominuni cations arising Iroin the above project with due acknowled 9emen I of S F. HE
- The manpower sanctioned in the project, if any is co te r m in us w it h I he d urat i on of the project and SERB will have no liability to meet the fe flows h i 3 and salar y of support in 9 sta If i I any beyond the d urat ion of the project
- As this is the first g rant bein g released for the project, no previous U/C is required.
- The institute may refund any uns pen t balance to SERB by means of a Demand D raft f avo rin9 "PU ND FOR SCIENCE AND ENCINEERING R ESEAHCIF" payable at New Delhi
- If The organization/institute/university should ensure that I how technical support/financial assistance provided to them by the Science 8 Engineering Research Board, as tatutoily body of the Department of Science 8 Technology (DST), Covernment of India should invariably be highlighted/ackitowledQed in their media releases as well as in bold letters in the opening paragraphs of their Anniual Report
- In addition, the in vestigator/host in stitu te mms talso ack no wledge the support provided to them in all publications, patents and any other outprit emanating out of the project/pi ciraor funded by the Science & EnQineering Research Boald, a statutory body of Department of Science 6 Technology f DST i love it are ent of India

(Dr. Prainod Kumar Prasad) Scientist C pk.prasad@serb.9ov.in

To, Under Secretary SERB, New **Delhi**

Zopy forwarded for information and necessary action to:

opv forw	arded for information and necessary action to: -
1.	The Principal Director of Au dit, A.G.C. R Building, Illid Floor I.P. Estate, Delhi-110002
2.	Sanction Fol der, SERB, New Del h
3.	File Copy
4.	Dr. ROOPA Department of Chemical Sciences LK. Gujral Punjab Technical University, Kapurthala, Lk. gujral punjab technical university, near pushpa gujral science city, ibban, kapurthala-144603, Kapurthala, Punjab-144603 Email: roopa_noel@yahoo.co.in Mobile: 918427777344 (S tart date of the project may be int inn ated b & ma me to the unders i9 ned. For guidance, terms 8 Conditions etc. Please visit
5.	REGISTRAR, I.K. Gujral Punjab Technical University, Kapur thala, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala -14460 3 (Receipt or Grant may be intimated by na me to t he under signed)

(Dr. Pramod Kumar Prasad) Scientist C pk prasadJserb. qov.in

-nz

FILE NO. ECR/2017/001905

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-S, Vasant Kunj New Delhi-110070

Dated 06-Jan-2020

ORDER

Subject Research project entitled "Diffractive vector meson production at HERA using a holographic AdS/QCD approach" under the guidance of Dr. Neetika, Department of Physical Sciences, I.K. Gujral Punjab Technical University Kapurthala, I.k. gujral punjab technical university, near pushpa gujral science city, ibban, kapurthala-144603, distt. kapurthala, india, Kapurthala, Punjab-144603.

- 1. This is in continuation of SERB's sanction order No. "ECR/2017/001905" dated "20 September, 2018" of Science and Engineering Research Board (SERB).
- 2. Sanction of the competent authority is hereby accorded to the payment of a sum of Rs. 130000/(Rupees One Lakh Thirty Thousand only) under 'Grants-in-aid General' to Deputy Controller Finance and Accounts, I.K. Gujral Punjab Technical University Kapurthala, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, Distt. Kapurthala, India being the 2nd grant for the financial year 2019-2020 for implementation of the above said project.
- 3. Sanction of the competent authority is also accorded to the carry forward of unspent balance of Rs. 200702/- (Rupees Seven Lakh Seven Hundred and Two only) (Recurring Rs. 400702 and Non-Recurring Rs. 300000) to LK Gujral Punjab Technical University Kapurthala, LK. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, Distr. Kapurthala, India from FY 2018-2019 to FY 2019-2020 for the same purpose for which it was sanctioned.
- Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at the website (www.serb.gov.in).
- 5. It is certified that provision of GFR 212 relating to Utilization Certificates (Ucs) for the funds released under the grant have been satisfied and the UC/s is/are enclosed herewith
- 6. The expenditure involved is debitable to Fund for Science & Engineering Research (FSER)
 This release is being made under Early Career Research Award. (EC Physical & Mathematical Sciences)
 (GEN).
- 7. The Sanction has been issued to I.K. Gujral Punjab Technical University Kapurthala, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, Distt. Kapurthala, India with the approval of the competent authority under delegated powers on 31 December, 2019 and vide Diary No SERE/F/8442/2019-2020 dated 02 January, 2020

8. The release amount of Rs. 130000/- (Rupees One Lakh Thirty Thousand only) (Recurring Rs. 130000 and Non-Recurring Rs. 0) 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	NA .
Account Name	PTU-GRANT-IN-AID
Account Number	00461450000276
Bank Name & Branch	HDFC BANK HDFC BANK LTD. PLOT No. 911, G T ROAD, NEAR NARINDER CINEMA, JALANDHAR
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	nitya@ptu.ac.im
Email id of PI	neetikaphy@gmail.com

9. The institute will maintain separate audited accounts for the project. A part of whole of the grant must be kept in an interest earning bank account which is to be reported to SESB. The interest thus must be kept in an interest earning bank account which is to be reported to SESB. The interest thus must be kept in an interest earning bank account which is to be reported to SESB. The interest thus

Head of Department
Department of Physics

I.K.Gujik Punjab Technical University Jalandhar,
Kapurthala, Punjab-144603

earned will be treated as credit to the institute to be adjusted lowerds further installment of the grant

- 10. As per rule 2H of GFR the accounts of Grantee Institution shall be open to inspection by the sanctioning authority / audit whenever the institute is called upon to do so.
- II. The institute will furnish to the SERB, Utilization certificate(separate for Recurring & Non-Recurring) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.
- 12. After completion of the project unspent balance if any should be returned as Demand Draft drawn in layour of "Fund for Science and Engineering Research" payable at New Delhi
- 13. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.
- 14. 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, a statutory body of Department of Science & Technology (DST). Government of India.

ms_pm@serbonline in

To, Under Secretary SERB, New Delhi

	Copy forwarded for information and necessary action to: -
II.	The Principal Director of Audit, A.G.C.R. Building, Illrd Floor I.P. Estate, Delhi-110002
2.	Sanction Folder, SERB, New Delhi.
3	File Copy
4.	Dr. Neetika Department of Physical Sciences I.K. Gujral Punjab Technical University Kapurthala , I.k. gujral punjab technical university, near pushpa gujral science city, ibban, kapurthala-144603, distt. kapurthala, india, Kapurthala, Punjab-144603 Email: neetikaphy@gmail.com Mobile: 917837667980
	Deputy Controller Finance and Accounts, I.K. Gujral Punjab Technical University Kapurthala, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, Distt. Kapurthala, India

Head of Deprint unt Lepartment of Physics LK.Guji & Punjab fechnical University Jalandhar, Kapurthala, Punjab-144603 K. K. Heshilley (Dr. Magesh K K) Scientist

pepartment of Physical Science & Guiral Punjab Technical University ms_pm@serbonline in Bepartment of Science & Technology

KIRAN DIVISION

Technology Bhawan New Mehrauli Road New Delhi-110016 Dated 04.02.2021

ORDER

Sub: Financial approval of the project under Women Scientist Scheme A (N.O.S.A.) entitled
Study of Interior approval interactions in Lab 75rd 2000 AVI. Ru06 heterostructures for
spintromes approach

Pt: For Plable Por Department of Physics Science IKG, Punjab Lechnical University, Jalandhar-144603 Pun

Sanction of the Processor of the Repeat of the approval of the above defending a total cost of Rs 34,71,717/2 (Rupees Thirty Four Lakh Seventy One Thousand Seven Hundred Sevents only) for a firstion of 3 years. The detailed preakup of the grant for General (Rs. Sevents only) for a firstion of 3 years. The detailed preakup of the grant for General (Rs.

29,71 St. No.	9177-)as well as Capital (Rs 4,99,800/-	Ocimicon ents	2 Year	3" Year	Total
A	Non-Recurring (Capital Items) Equipments High Temperature Furnace	A 95 800/-			4,99,890/-
8	Recurring(General)	7:65.600/-	7.65,600/	7,65,600	22.96,800/
	@ Rs. 55 000/pm- HRA@16% Consumables Consumables	90 000/- 25 (000/- 25 000/- 85 722/-	89,000/- 25,000/- 25,000 85,722/-	88,953/- 25,000/- 25,000/- 85,720/-	2,67,953/ 75,000/ MSE75,000/ 64/ ₁
o.	Total of Recurring Grant (B+C)	14,91,122/	9,90,322/-	Alaga Ja	24,71,917 34,71,717

Sanction of the grant is subject to the convicus as detailed in website www.online-wosa gov.in

The sanction of the President is also accorded to the release of Rs 9,66,322/- (Rupces Nine Sixty Six Thousand Three Hundred Liverty Two only) (excluding travel) order (General Component) Registrar, Punjab Technical University, Jalandhar-144603, Punjab being the first neleasent of the grant for the year 2020 2021 for implementation of the above mentioned project

This sanction is subject to the condition that the grantee organization will furnish to the Department of Science & technology, financial year wise Utilization Certificate (UC) in the proformal prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to cate progress prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to cate progress prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to cate progress prescribed as per GFR 2017 and audited statement of expenditure of each of each financial year duty reflecting the interest earned / accrued on the grants report at the end of each financial year duty reflecting the interest earned / accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of received under the project. This is also subject to the condition of submission of the final statement of received under the project. This is also subject to the condition of submission of the final statement of received under the project. This is also subject to the condition of submission of the final statement of received under the project. This is also subject to the condition of submission of the final statement of received under the project. This is also subject to the condition of submission of the final statement of received under the project.

of completion of the project.

The grantee organization will have to enter 8 upload the Utilization Certificate in the PFMS ported basides sending it in physical form to this Division. The subsequenting at instalment will be celeased only after confirmation of the acceptance of the UC by the Division and entry of previous this permitted in the PFMS.

penfor Physical Sciences Comto /2

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

6. If the grant has been released under capital head through separate sanction order under the same project for purchase of equipment(s), separate SE/UC has to be furnished for the released Capital head grant

The grant-in-aid being released is subject to the condition that.

(a) A transparent procurement procedure in line with the Provisions of General Financial Rules 2017 will be followed by the Institute/ Organization under the appropriate rules of the grantee organization while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organization immediately on receipt of the grant.

(b) Unite submitting Utilization Certificate/Statement of Expenditure, the organization has to ensure submission of supporting documentary evidences with regard to purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grant under the project shall be considered.

only on receipt of the said documents.

8. The Grantee Institute (GI) will maintain separate audited as per GFR 2017 Rule 230 (8) account for the project and the entire amount of grant will be kept in an interest bearing bank account. For Grants released during F/Y 2020-2021 and onwards interest and other earnings, against released Grant shall be remitted to Consolidated Fund of India, (through Non-Tax Receipt Portal (NTRP), i.e. www.bharatkosh.gov.in), immediately after finalization of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with statement of expenditure/utilization certificate for considering subsequent release of grant/closure of project accounts. GI should also follow Rule 230 (17) of GFR 2017concerning to reservation of SC/ST/OBC, if applicable.

DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GFR 2017), shall not be disposed of without

obtaining the prior approval of DST

10. The Principal Investigator under Women Scientist Scheme is not permitted to withdraw any emoluments/ salary/fellowship from any other project either supported by DST or by any other funding

agency.

11. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit (both by C& AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.

12. Due acknowledgement of technical support / financial assistance resulting from this project grant should mandatorily be highlighted by the grantee organization in bold letters in all publications / media releases as well as in the opening paragraphs of their Annual Reports during and after the completion of the project

3. Failure to comply with the terms and conditions of the Bond will entail full refund with interest in

terms of Rule 231 (2) of GFR 2017.

14. The expenditure involved is debitable to Demand No.87. Department of Science & Technology for the year 2020-21:

3425 Other Scientific Research (Major Head)

60 Others (Sub-Major Head)

60.200 Assistance to other Scientific Bodies (Minor Head)

68 Science and Technology Institutional and Human Capacity Building (Sub Head)

01 DishaProgramme for Women in Science

68.01.31 Grants-in-aid General for the year 2020-2021(Voted)

(Previous: DishaProgramme for Women in Science 3425 60 200 55.01.31)

The amount of Rs 9,66,322/- (Rupees Nine Lakh Sixty Six Thousand Three Hundred Twenty Two only) will be drawn by the Drawing and Disbursing Officer. DST and will be disbursed The Registrar, Punjab Technical University, Jalandhar-144603, Punjab. The bank details for electronic transfer of funds through RTGS are given below.

Institute name Bank Name Account Number Branch

IFSC code

Punjab Technical University, Jalandhar

HDFC Bank Ltd. 00461450000276 Kapurthala, BBAN HDFC00000046 Contd./3

hisad of trop consent

Department of Physics

I.K.Guji V Punjob Technical University Jalandhar,

Kapurthala, Punjab-144603

- Goods (consumables/equipment) available in GeM portal are to be procured mandatorily online 16 through GeM and PI will also follow DoE's guidelines for incurring expenditure under the different sub-head.
- The project continuation beyond 31.03.2021 will be subject to appraisal and approval of the 17: continuation of the Scheme under which these projects are funded as approved by DoE vide their OM No.42(02)/PF-II/2014, dated 06.08.2020.
- The Grantee Institution is advised to start using EAT module and next release will be made only 19. after mapping and following EAT modules by the grantee institution.

As per Rule 234 of GFR 2017, this sanction has been entered at S. No. 898 in the register of 20. grants maintained in the KIRAN Division for scheme (WOS-A)

This issues with the concurrence of IFD vice their Concurrence Dy.No)/4525/2020-21 dated 21 08.01.2021.

> (Vandana Singh) Scientist-E

Copy for information and necessary action to:-

The Director of Audit (CW & M-II) AGCR Building, IP Estate, New Delhi-110 002

Copy with two spare copies of the sanction to the Drawing & Disbursing Officer, DST, Cash Section

The Registrar, Punjab Technical University, Jalandhar-144603, Punjab.

- Dr. Hitesh Sharma, Department of Physical Science, LK G. Punjab Technical University, Jalandhar-144603, Punjab.
- Dr Rabia Pandit, Department of Physical Science, I.K.G. Punjab Technical University, 5 Jalandhar-144603, Punjab.
- Pay & Accounts Officer, DST, New Delhi.
- IFD, DST, New Delhi.
- Sanction Folder

(Vandana Singh) Scientist-E

Caura Punias Technical Units

LK.GujrN Punich Technical University Jalandhar, Kapurthala, Punjab-144603

hiead of Department Department of Physics No. SR/WOS-A/PM-46/2018 (C)

Government of India

Ministry of Science & Technology

Department of Science & Technology

KIRAN DIVISION

New Mehrauli Road
New Delhi-110016
Dated 04.02.2021

ORDER

Sub: Financial approval of the project under Women Scientist Scheme A (WOS-A) entitled "
Study of Interface magnetic interactions in La0.7Sr0.3MnO3/ A2LnRuO6 heterostructures for

PI: Dr. Rabia Pandit Department of Physical Science, I.K.G. Punjab Technical University.

Jalandhar-144603, Punjab

In continuation of the Sanction Order No.SR/WOS-A/PM-46/2018(G) dated 04.02.2021 Sanction of the President is hereby accorded to the payment of Rs 4,99,800/-(Rupees Four Lakh Ninety Nine Thousand Eight Hundred only) as the Grant for "creation of capital assets" in the above mentioned project. The details of the equipments to be procured are given below.

SI, No.	Heads	1 st Year	2 nd Year	3 rd Year	Total
A.	Non-Recurring (Capital Items)	and the second			
on order	Equipments	4,99,800/-			4 99 800/-
1	High Temperature Furnace				
	TOTAL	4,99,800/-			4,99 800/-

The grantee organization will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing bank account. The interest earned / accrued should be reported to DST (financial year wise) while submitting the Statement of Expenditure/Utilization Certificate. The interest thus earned will be treated as a credit to the grantee organization, which will be adjusted towards future release of grant.

This sanction is subject to the condition that the grantee organization will furnish to the Department of Science & technology, financial year wise Utilization Certificate (UC) in the proformal prescribed as per GFR 2017 and audited statement of expenditure (SE) along with up to date progress report at the end of each financial year duly reflecting the interest earned / accrued on the grants received under the project. This is also subject to the condition of submission of the final statement of expenditure, utilization certificate and project completion report within one year from the scheduled date of completion of the project.

4. The grantee organization will have to enter & upload the Utilization Certificate in the PFMS portal besides sending it in physical form to this Division. The subsequent/final instalment will be released only after confirmation of the acceptance of the UC by the Division and entry of previous Utilization Certificate in the PFMS.

5. If the grant has been released under capital head through separate sanction order under the

Capital head grant

6. The account of the grantee organization shall be open to inspection by the sanctioning authority and audit (both by C& AG of India and Internal Audit by the Principal Accounts Office of the DST), whenever the organization is called upon to do so, as laid down under Rule 236(1) of General Financial Rules 2017.

Contd./2

and Punish Teeth

Department of Physics

I.K.Guji V Punjab Technical University Jalandhar,

Kapurthala, Punjab-144603

The grant-in-aid being released is subject to the condition that.

A transparent procurement procedure in line with the Provisions of General Financial Rules 2017 will be followed by the Institute/ Organization under the appropriate rules of the grantee organization while procuring capital assets sanctioned for the above mentioned project and a certificate to this effect will be submitted by the Grantee organization immediately on receipt of the grant.

(b) While submitting Utilization Certificate/Statement of Expenditure, the organization has to ensure submission of supporting documentary evidences with regard to purchase of equipment/capital assets as per the provisions of GFR 2017. Subsequent release of grant under the project shall be considered

only on receipt of the said document.

DST reserves sole rights on the assets created out of grants. Assets acquired wholly or substantially out of government grants (except those declared as obsolete and unserviceable or condemned in accordance with the procedure laid down in GFR 2017), shall not be disposed of without

octaining the prior approval of DST

The Grantee Institute (GI) will maintain separate audited as per GFR 2017 Rule 230 (8) account. for the project and the entire amount of grant will be kept in an interest bearing bank account. For Grants released during F/Y 2020-2021 and onwards interest and other earnings, against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP). i.e. www. pridiaterosti. gov.anj, immediately after library of accounts, as it shan flot be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with statement of expenditure/utilization certificate for considering subsequent release of grant/closure of

project accounts.GI should also follow Rule 230 (17) of GFR 2017concerning to reservation of SC/ST/OBC, if applicable

Failure to comply with the terms and conditions of the Bond will entail full refund with interest in terms of Rule 231 (2) of GFR 2017.

The expenditure involved is debitable to Demand No.87. Department of Science & Technology for the year 2020-21:

3425 Other Scientific Research (Major Head)

60 Others (Sub-Major Head)

60.200 Assistance to other Scientific Bodies (Minor Head)

68 Science and Technology Institutional and Human Capacity Building (Sub Head)

01 DishaProgramme for Women in Science

Grant for creation of capital assets for the year 2020-2021 (Voted) (Previous: DishaProgramme for Women in Science 3425 60 200.55.01.35)

The amount of Rs 4,99,800/-(Rupees Four Lakh Ninety Nine Thousand Eight Hundred only) 12

will be drawn by the Drawing and Disbursing Officer DST and will be disbursed

Registrar, Punjab Technical University, Jalandhar-144603, Punjab. The bank details for electronic transfer of funds through RTGS are given below:-

Institute name Punjab Technical University, Jalandhar

Bank Name HDFC Bank Ltd. Account Number 00461450000276 Branch Kapurthala, IBBAN IFSC code HDFC0000046

13. Goods (consumables/equipment) available in GeM portal are to be procured mandatorily online through GeM and PI will also follow DoE's guidelines for incurring expenditure under the different sub-head.

14. The project continuation beyond 31 03 2021 will be subject to appraisal and approval of the continuation of the Scheme under which these projects are funded as approved by DoE vide their OM No.42(02)/PF-II/2014, dated 06.08.2020.

15 The Grantee Institution is advised to start using EAT module and next release will be made only

after mapping and following EA1 modules by the grantee institution.

Contd./3

sical Science

Head of Department Department of Physics I.K.Gujn Punjab fechnical University Jalandhar, Kapurthala, Punjab-144603

- 16. Capital grant should be utilized within two financial years from the date of project sanction.
- 17. As per Rule 234 of GFR 2017, this sanction has been entered at S. No. 898 in the register of grants maintained in the KIRAN Division for scheme (WOS-A).

18. This issues with the concurrence of IFD Vide their Concurrence Dy.No)/4526/2020-21 dated 08:01.2021.

(Vandana Singh) Scientist-E

Copy for information and necessary action to - . IP

- 1. The Director of Audit (CW & M-II), AGCR Building Estate, New Delhi-110 002.
- Copy with two spare copies of the sanction to the Drawing & Disbursing Officer, DST,
 Cash Section
- The Registrar, Punjab Technical University, Jalandhar-144603, Punjab.
- Dr. Hitesh Sharma, Department of Physical Science, I.K.G. Punjab Technical University,
 Jalandhar 144603, Punjab
- Dr Rabia Pandit, Department of Physical Science, I K.G. Punjab Technical University,
 Jalandhar-144603, Punjab
- 6 Pay & Accounts Officer, DST, New Delhi.
- 7. IFD, DST, New Delhi.
- 8. Sanction Folder.

(Vandana Singh) Scientist-E

Head of Department

Department of Physics I.K.Gujn Punjab fechnical University Jalandhar, Kapurthala, Punjab-144603



FILE NO SPIG/2014/001182 SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

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

5 & SA, Lower Ground Floor Vasant Square Mall Plot No. A. Community Centre Sector-B, Pocket-S, Vasant Kur., New Delhi-110073

ORDER

Subject: Financial Sanction of the research project filled "Development and mechanical characterization of the microwave assisted biomedical coatings on stainless steel" under the guidance of Dr. Sanct Banson Mechanical Engineering, Inder Kumar Gural Punjab Technical University Main Campus Rapurthala 1.8, Qural punjab technical university, Jalandhar - Rapurthala highway, vpc - ibban, Rapurthala-144603, distr. Rapurthala phone +91-1822-282833,38,83 email registrar@ptu-ac.it, Kapurthala, 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 \$8. 2379900/ (Rs. Twenty Nine Lakh Seventy Nine Thousand Nine Hundred Only) with break-up of Rs. 1873900/ under Capital (Non-recurring) head and Rs. 1106400/ under General (Recurring) head for a duration of 24 months. The items of expenditure for which the total allocation of Rs. 2979900/- has been approved are given below.

S. No	Bead	Total (in Rs.)
A	Non-recurring	1873800
3	Equipment -> Microwave furnace -> Microwaves tester -> Vertimet Pro Metallurgical Microscope with Envision 6.0 - Metallography Image Analysis Software	
A	Total (Non-Recurring)	1873500
В	Recurring Items	744000
1	Recurring - I. (Manpower) Recurring - II. (Consumables, Travel, Contingencies) Recurring - III. Scientific Social Responsibility	81500 10000
72		270900
2	Recurring - IV (Overhead Charges)	1195400
8	Total (Recurring)	2979900
C	Total cost of the project (A + B')	2013000

- 2. Sanction of the SERB is also accorded to the payment of Rs. 1873800*- (Rupees Eighteen Lakh Seventy Three Thousand-Five Hundred only) under Trants for creation of capital assets and Rs. 588200*- (Rupees Five Lakh Fifty Eight Thousand Two Hundred only) under Grants-in-aid General to Registrar, Index Kunnar Gajral Lakh Fifty Eight Thousand Two Hundred only) under Grants-in-aid General to Registrar, Index Kunnar Gajral Punjab Technical University, Blandhar Punjab Technical Uni
- 3. The expenditure involved is debitable to Fund for Science & Engineering Research (FSER) This release is being made under Start-up Research Grant (EC Engineering Sciences)
- 4. The Sanction has been issued to Inder Kumar Gujral Punjab Technical University Main Campus Kapurthala LK. Gujral Punjab Technical University, Jalandhar Kapurthala Highway, VPO Ibban, Kapurthala-144693. Distr. Kapurthala Phone: +91-1822-282593.95.95 Enail: Registrat@ptu.ac.in with the approval of the competent authority under delegated powers on 26 December, 2019 and vide Diary No. SERR/F/8107/2019-2020 dated 28 December, 2019.
- S. 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 erc. including benefits to the staff employed in the project.
- While providing operational flexibility among various subheads under head Recurring-II, it should be ensured that not more than Ro. 1 lake each should be spent for travel and contingency.
- 8. Budget sanctioned under Scientific Social Responsibility (SSR) is meant only for activities enligh SSR norms and under no circumstances it can be reappropriated. of under

As per rule 233 of GPR, the accounty of project shall be open to inspection by sanctioning authority whenever the institute is called upon to do so.

asted upon to do so.

OSportment of Machinical Engineering dut. LK, Gujral Punjab Technical Unitspecifical services in the Control of the Control

JIEME TY 1893

(Main Campus) Kapusthala

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

11. The release amount of Re. 2431700/- (Rupees Twenty Four Lakh Thirty One Thousand Seven Hundred 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 Cod	PTUJAL
Account Name	PTU-GRANT-IN-AID
Account Number	00461450000278
Bank Name & Branch	HDFC BANK LTD HDFC BANK, IBBAN, IKG PTU, Jalandhar-Kapurthala Highway, Kapurthala 144603
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	registrar@ptu.ec.in
Email id of Pi	amit bancal978@qmaji.com

12. The institute will furnish to the SERB, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) 5 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.

- 13. 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.
- 14. The project File no. SRG/2019/001182 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.
- 15. 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 followship and salary of supporting staff if any, beyond the duration of the project.
- 16. As this is the first grant being released for the project, no previous U/C is required.
- 17. 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.
- 18. 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 teleases as well as in bold letters in the opening paragraphs of their Annual Report.

19. 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. Ramesh Vijayan) SCIEWTIST-C drvramesh@serb.gov.in

To, Under Secretary SERB, New Delhi

warded for information and necessary action to:

1	The Principal Director of Audit, A.G.C.R.Building, Hird Floor L.P. Estate, Delhi-110002
2.	Sanction Folder, SERB , New Delhi
3.	File Copy
4	Dr. Amit Bansal Mechanical Engineering Inder Kumar Gujrel Punjab Technical University Main Campus Kapurthala , I.S. quirel punjab Inder Kumar Gujrel Punjab Technical University Main Campus Kapurthala , I.S. quirel punjab technical university, jalandhar - kapurthala highway, vpo - ibban, kapurthala-144603, distt. kapurthala phone +91-1822-282533,35,83 email: registrar@ptn.ac.in, Kapurthala, Punjab- 144603 Email: amit.bansai978@gmail.com Mobile: 918289000931 (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit www.serb.cov.in.)
5.	Registrat, Inder Kumas Gujral Puojab Technical University Main Campus Espurthala , I.K. Gujral Punjab Technical University, Jolsonthar - Kapurthala Highway, VPO - Ibban, Kapurthala-144603, Disti Kapurthala Phone: +91-1822-282533,35,83 Email: Registrat@ptu.ac.in

(Receipt of Grant may be intimated by name to the undersigned)

(Dr. Ramesh Vijayan) SCIENTIST-C

Department of Mechinical Engineering
LK Zang Punjab Technical University
Carrier Carriers Kepurthala

Continue of National Inc. Engineering

FILE NO. TAR/2019/000225 SCIENCE & ENGINEERING RESEARCH BOARD(SERB) (A statutory body of the Department of Science & Technology, government of India)

S & SA, Lower Ground Floor Plot No. A, Commenty Centre Sector B, Pocket S, Vasant Kunj New Delhi-110070

Subject Financial Sanction under Teachers Associateship for Research Excellence (TARE) to Dr. Amelija Singk Singk

Sanction of Science and Engineering Rasearch Board (SERB) is hereby accorded to the above mentioned grant at a total cost of Rs. 18.30,0000; (Rs. Eighteen Lakh Thirty Thousand Only) for a duration of 36 months.

The date of start of the project will be 68 November, 2019. The items of expenditure for which the total allocations

o: ns. 10,30,000;- nss been approved are given below:
The following budget is proposed for
I.K. Gujral Punjab Technical University Jalandhar, I.k. Gujral Punjab Technical University Jalandhar,
I.K. Gujral Punjab Technical University Jalandhar, I.k. Gujral Punjab Technical University Jalandhar,
Main Campus Jalandhar-kapurthala Highway, Near Pushpa Gujral Science City, Ibban, Districtkapurthala, Pin-144603, Punjab, India, Kapurthala, Punjab-144603 (Parent)

SI. No.		India, Kapurthala, Punjab-144603 (Parent)	
1.	Fellowship		
2,	Research Grant	Rs. 0 (@0/- per month (consolidated))	-
3.	Overheads	Rs. 2,50,000/- per annum	
		Rs. 25,000/- per annum	AND SHOULD BE

Indian Institute of Technology, Ropar Nangal Road, Rupnagar - 140001 (Host)

d. INO. 13	Budget Head	Amount
	Fellowship	Rs. 60,000 (on completion of 90 4
	Research Grant	Rs. 60,000 (on completion of 90 days mandatory attendance in the host institute every year) Rs. 2,50,000/- per annum
Jo	Overheads	Rs. 25,000/- per annum

- 2. Sanction of the SERB is also accorded to the payment of Rs. 2,75,000/- (Rupees Two Lakh Seventy Five Thousand only) to LK. Gujral Punjab Technical University Jalandhar, Main Campus Jalandhar, Kapurthala Highway, Near Pushpa Gujral Science City, IBBAN, District-Kapurthala, Pin-144603, Punjab, INDIA., Rs. 3,35,000/- (Rupees Three Lakh Thirty Five Thousand only) to Indian Institute of Technology. Repar Nangel Road, Rupnagar 140001 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 Teachers Associateship For Research Excellence (TARE). (Mechanical & Munufacturing Engineering &

- 4. The Sanction has been issued to with the approval of the competent authority vide Diary No. SERB/F/6815/2019-2020 dated 20
- 5. Senction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.scrb.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.
- As per rule 211 of GPR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is
- 8. The release amount of Ra. 2,75,000/- (Rupees Two Lakh Seventy 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.
- I.K. Gujral Punjab Technical University Jalandhar , I.k. gujral punjab technical university jalandhar, main campus jalandhar-kapurthala highway, nsar pushpa gujral science city, ibban, district-kapurthala, pin-144803, punjab, india., Kapurthala, Punjab-144803 (Parent

PFMS Unique Code Account Name	PTUJAL
Account Number	PTU-GRANT-IN-AID
Bauk Name & Branch	00461450000276
	HDFC Bank Ltd HDFC Sank #Ban, Ibban, Kapurthala, Punjah
IPSC/RTGS Code	HDFC0000046 Rapurthala, Punjah
Email address of Pi	
Email id of A/C Holder	amol gill@rediffmsil.com
Email address of concerned officer	registrar@phi.sc in
	ms_tare@serbonline_m
	LCG PICK ST Grant of Mechical Engines
	Kas urhair Main Campus) Kasurthala

The release amount of Rs. 3,35,000/- (Rupees Three Lakh Thirty 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:

indian Institute of Technology, Ropar Nangal Road, Rupmagar - 140001 (Host Institute):

PFMS Unique Code Account Name	IITPUN
Account Number	IST Roper ICSN Account
Bank Name & Branch	38592953395
IFSC/RTGS Code Email address of PI	State Bank of India IIT Ropas, Rupnagas, Punjab-140001 SB:N0013181
Email id of A/C Holder	awol_gill@rediffmail.com
mail address of concerned officer	erices@iitrpr.ec.in
errica otticat	ms_tare@serbonhise.in

9.Both the institutes will furnish Utilization certificate(UCs) financial year wise to the SERB and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

- 10. The institute will maintain separate audited accounts for the fellowship. 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.
- The File no TAR/2019/000225 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.
- 12. As this is the first grant for the fellowship, no previous $\ensuremath{\text{U/C}}$ is required.
- 13. The institute may refund any unspent balance to SERB by means of a Demand Draft favoring "PUND FOR SCIENCE AND ENGINEERING RESEARCH" payable at New Delhi.
- 14. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/acknowledged in their media releases as well as in hold letters in the opening paragraphs of their Annual Report.
- 15. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any of science & Technology (DST), Government of India.

(Dr. 7 Thangaradjou)
Scientist E
ms_tare@serbonline.in

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

I.	The Principal Director of Audio a C.C. o. p. 144
2.	The Principal Director of Audit, A.G.C.P. Building, Illrd Floor I.P. Estate, Delhi-110002 Sanction Folder, SERB, New Delhi,
3.	File Copy
4.	(i) Dr. Amoijit Singh Gill Mechanical Engineering LK. Gujral Punjab Technical University Jalandhar, Lk. gujral punjab technical university jalandhar, main campus jalandhar kapurthala highway, near pushpa gujral science city, ibban, district-kapurthala, pin-144603, punjab, india. Email: amol. gill@rediffmail.com Mobile: 919988700421
	(ii) Dr. Anupam Agrawal Indian Institute of Technology, Ropar Nangal Road, Rupnagar - 140001 (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions (C. Please visit www.seth.gov.in.)
	(i) Vice Chancellor, LE. Gujzal Punjab Technical University Jalandhar, LE. Gujzal Punjab Technical University Jalandhar, Main Campus Jalandhar-Kapurthala Highway, Near Puchpa Gujzal Science City, IEBAN, District-Kapurthala, Pin-144603, Punjab,
	(ii)Director Indian Institute of Technology, Roper Nangal Road, Supnegar - 140001
411-2210	(Receipt of Grant may be intimated by name to the undersigned)

Department of Mechnical Engineering LK. Guiral Punjab Technical University New Hole

(Main Campus) Kapurthaia

(Dr. T Thangaradjon) Scientist F ms_tare@serbonline in

FILE NO. SRG/2019/001182

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: 14-Mar-2022

ORDER

Subject: Research project entitled "Development and mechanical characterization of the microwave assisted biomedical coatings on stainless steel" under the guidance of Dr. Amit Bansal, Mechanical Engineering , l.K. Gujral Punjab Technical University, Kapurthala , l.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603.

- This is in continuation of SERB's sanction order No. "SRG/2019/001182" dated "30 December, 2019 " of Science and Engineering Research Board (SERB).
- 2. Sanction of the competent authority is hereby accorded to the payment of a sum of Rs. 273950/- (Rupees Two Lakh Seventy Three Thousand Nine Hundred and Fifty only) under 'Grants-in-aid General' to Registrar, I.K. Gujral Punjab Technical University, Dear Pushpa Gujral Science City, Ibban, Kapurthala-144603 being the 2nd grant for the financial year 2021-2022 for implementation of the above said project.
- 3. Sanction of the competent authority is also accorded to the carry forward of unspent balance of Rs. 1037753/- (Rupees Ten Lakh Thirty Seven Thousand Seven Hundred and Fifty Three only) (Recurring Rs. 160545 and Non-Recurring Rs. 877208) to I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603 from FY 2020-2021 to FY 2021-2022 for the same purpose for which it was sanctioned.
- 4. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at the website (www.serb.gov.in).
- 5. It is certified that provision of GFR 212 relating to Utilization Certificates (Ucs) for the funds released under the grant have been satisfied and the UC/s is/are enclosed herewith.
- 6. The expenditure involved is debitable to Fund for Science & Engineering Research (FSER) This release is being made under Start-up Research Grant. (EC Engineering Sciences) (GEN).
- 7. The Sanction has been issued to I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603 with the approval of the competent authority under delegated powers on 11 March, 2022 and vide Diary No. SERB/F/10253/2021-2022 dated 12 March, 2022

8. The release amount of Rs. 273950/- (Rupees Two Lakh Seventy Three Thousand Nine Hundred and Fifty only) (Recurring Rs. 273950 and Non-Recurring Rs. 0) 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:

disbursed by means	of Rios transaction as per their bank detains given below.
PFMS Unique Code	PTUJAL
Account Name	PTU-GRANT-IN-AID
Account Number	00451450000276
Bank Name & Branch	HDFC BANK LTD HDFC BANK, IBBAN, IKG PTU, Jalandhar- Kapurthala Highway, Kapurthala 144603
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	registrar@ptu.ac.in
Email id of PI	amit.bansal978@gmail.com

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.

Department of Mechanical Engineering

LK Guiral Punjab Technical University
(Main Campus) Kapurthaia

- 10. As per rule 211 of GFR the accounts of Grantee Institution shall be open to inspection by the sanctioning authority / audit whenever the institute is called upon to do so.
- 11. The institute will furnish to the SERB, Utilization certificate(separate for Recurring & Non-Recurring) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.
- 12. After completion of the project unspent balance if any should be returned as Demand Draft drawn in favour of "Fund for Science and Engineering Research" payable at New Delhi.
- 13. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.
- 14. 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, a statutory body of Department of Science & Technology (DST), Government of

(Dr. Ramesh Vijayan) Scientist - D drvramesh@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.	Dr. Amit Bansal Mechanical Engineering I.K. Gujral Punjab Technical University, Kapurthala , I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603, PUNJAB-144603 Email: amit bansal978@gmail.com Mobile: 918289000931
5.	Registrar, I.K. Gujral Punjab Technical University, I.K. Gujral Punjab Technical University, Near Pushpa Gujral Science City, Ibban, Kapurthala-144603

(Dr. Ramesh Vijayan)

Scientist - D drvramesh@serb.gov.in

Department of Mechnical Engineering LK. Gujral Punjab Technical University

(Main Campus) Kapurthala

The updated RTGS details of the Punjab Technical University, Jalandhar, Jalandhar, Punjab-144011 is as below:

PFMS Unique Code	PTUJAL
Account Name	PTU-GRANT-IN-AID
Account Number	00461450000276
Bank Name & Branch	HDFC BANK LTD G.T. ROAD JALANDHAR PLOT NO 911, G.T. ROAD JALANDHAR
IFSC/RTGS Code	HDFC0000046
Email id of A/C Holder	registrar@ptu.ac.in

डॉ. टी. थंगाराजू वैज्ञानिक 'एफ'

CAMIT GUPTAS

Head

Department of Electronics & Communication Engineer

Department of Electronics & Communication Engineer

Department of Electronics & Communication Engineer

Main Campus, Kapurthala (Punjab)-14.

FILE NO. TAR/2021/000274 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: 10-Feb-2022

Subject: Financial Sanction under Teachers Associateship for Research Excellence (TARE) to Dr. Amit Gupta, Punjab Technical University , Jalandhar, Jalandhar, Punjab-144011 - under the mentorship of Dr Surinder Singh, at Sant Longowal Institute of Engineering and Technology (SLIET) Longowal Distt. Sangrur - 148106- Release of 1st grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned grant at a total cost of Rs. 18,30,000/- (Rs. Rupees Eighteen Lakh Thirty Thousand only Only) for a duration of 36 months. The date of start of the project will be 08 December, 2021 .The items of expenditure for which the total allocation of Rs. 18,30,000/- has been approved are given below: The following budget is proposed for

Punjab Technical University , Jalandhar, Jalandhar, Punjab-144011 (Parent)

Budget Head	Amount Amount
Fellowship	
Research Grant	Rs. 0 (@0/- per month (consolidated))
Overheads	Rs. 2,50,000/- per annum Rs. 25,000/- per annum
	Fellowship Research Grant

Sant Longowal Inscitute of Engineering and Technology (SLIET) Longowal Distt. Sangrur - 148106 (Host)

Sl. No.	Budget Head	Amount Amount
1.	Fellowship	Rs. 60,000 (on completion of 90 down
2.	Research Grant	Rs. 60,000 (on completion of 90 days mandatory attendance in the host institute every year) Rs. 2,50,000/- per annum
3.		Rs. 25,000/- per annum

- 2. Sanction of the SERB is also accorded to the payment of Rs. 2,75,000/- (Rupees Two Lakh Seventy Five Thousand only) to Punjab Technical University, Jalandhar, Rs. 3,35,000/- (Rupees Three Lakh Thirty Five Thousand only) to Sant Longowal Institute of Engineering and Technology (SLIET) Longowal Distt. Sangrur - 148106 being the first installment of the grant for the year 2021-2022 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 Teachers Associateship For Research Excellence (TARE). (Electrical Electronics & Computer

- 4. The Sanction has been issued to with the approval of the competent authority vide Diary No. SERB/F/8247/2021-2022 dated 10 February, 2022
- 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. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is
- 8. The release amount of Rs. 2,75,000/- (Rupees Two Lakh Seventy 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:

Punjab Technical University , Jalandhar, Jalandhar, Punjab-144011 (Parent) :

PFMS Unique Code	PTUJAL
Account Name	PTU-GRANT-IN-AID
Account Number	004614500000276
Bank Name & Branch	
IFSC/RTGS Code	HDFC BANK LTD G.T. ROAD JALANDHARPLOT NO 911, G.T. ROAD JALANDHAR HDFC0000046
Email address of PI	amitguptaptu@gmail.com
Email id of A/C Holder	registrar@ptu.ac.in
Email address of concerned officer	ms_tare@serbonline.in

The release amount of Rs. 3,35,000/- (Rupees Three Lakh Thirty 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:

Sant Longowal Institute of Engineering and Technology (SLIET) Longowal Distt. Sangrur - 148106 (Host):

PFMS Unique Code	SLIET
Account Name	DIRECTOR SLIET LONGOWAL
Account Number	1688335346
Bank Name & Branch	CENTRAL BANK OF INDIA SLIET CAMPUS, CENTRAL BANK OF INDIA, SLIET CAMPUS, LONGOWAL, SANGRUP PUNJAB INDIA
IFSC/RTGS Code	CBIN0283105
Email address of PI	amitguptaptu@gmzil.com
Email id of A/C Holder	surinder_sodhi@sliet.ac.in
Email id of Mentor	Dr Surinder Singh

9.Both the institutes will furnish Utilization certificate(UCs) financial year wise to the SERB and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

- 10. The institute will maintain separate audited accounts for the fellowship. 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.
- The File no. TAR/2021/000274 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.
- 12. As this is the first grant for the fellowship, no previous U/C is required.
- 13. 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.
- 14. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/ acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.
- 15. 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, a statutory body of Department of Science & Technology (DST), Government of India.

(Dr. T Thangaradjou) Scientist F msls@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.	(i) Dr. Amit Gupta Electronics and Communication Engineering Punjab Technical University , Jalandhar, Jalandhar, Punjab-144011 Email: amitguptaptu@gmail.com Mobile: 919872223212 (ii) Dr Surinder Singh Sant Longowal Institute of Engineering and Technology (SLIET) Longowal Distt. Sangrur - 148106 (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.	(i) REGISTRAR, Punjab Technical University, Jalandhar (ii)Director Sant Longowal Institute of Engineering and Technology (SLIET) Longowal Distr. Sangrur - 148106 (Receipt of Grant may be intimated by name to the undersigned)

(Anti Gepta)

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(Dr. T Thangaradjou) Scientist F msls@serb.gov.in

lead

Department of Electronics & Communication Engineering IK Gujral Punjab Technical University Main Campus, Kapurthala (Punjab)-144

FILE NO. MTR/2020/000479

SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

(a statutory body of the Department of Science & Technology, government of India)

Vasant Square Mall

Plot No. A, Community Centre

Sector-B, Pocket-5, Vasant Kunj

New Delhi-110070

Dated: 11-Dec-2020

ORDER

Subject: Financial Sanction of the research project titled ?Mathematical Modeling of the atmospheric air pollution over severely polluted coal mines region in India using time series, wavelet analysis, and soft computing techniques? under the guidance of Dr. Kulwinder Singh, Department of Mathematics, IKG Punjab Technical University, Hoshiarpur Campus, Punjab Technical University , Jalandhar, Jalandhar, Punjab-144011 - Release of 1st grant.

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned fellowship at a total cost of Rs. 6,60,000/- (Rs. Rupees Six Lakh Sixty Thousand only Only) for a duration of 36 months.

The items of expenditure for which the total allocation of Rs. 6,60,000/- has been approved are given below:

C 31	Budget Head	Amount	Total (in Rs.)
S. No	Control of the Contro		6.00,000
1	Research Grant	Rs. 2,00,000/- per annum(for a period of three years)	
And the second	Overheads	Rs. 20,000/- per annum	60,000
2.	Overneads	ns. 20,000/- per amidin	6,60,000
3.	Total Cost		4 9,50,55

- 2. Sanction of the SERB is also accorded to the payment of Rs. 2,20,000/- (Rupees Two Lakh Twenty Thousand only) to Punjab Technical University, Jalandhar being the first installment of the grant for the year 2020-2021 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 MATRICS - MATRICS Expert Committee
- 4. The Sanction has been issued to with the approval of the competent authority vide Diary No. SERB/F/5438/2020-2021 dated 10 December, 2020
- 5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (www.serb.gov.in).
- detailed at website (www. are used grants be Purpose for which can http://serb.gov.in/matrix.php).
- 7. Total expenditure for International travel cannot exceed Rs.2,00,000 of the overall budget.
- 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 release amount of Rs. 2,20,000/- (Rupees Two Lakh Twenty 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:

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, G.T. ROAD JALANDHAR
IFSC/RTGS Code	HDFC0000046
Email address of PI	kulmaths@gmail.com
Email id of A/C Holder	registrar@ptu.ac.in
Email address of concerned officer	ms_ms@serbonline.in

PTU HOSHIARPUR CAMPUS



11. The institute will furnish Utilization certificate(UCs) financial year wise to the SERB 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 fellowship. 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 File no. MTR/2020/000479 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.
- 14. As this is the first grant for the fellowship, no previous U/C is required.
- 15. 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.
- 16. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, a statutory body of the Department of Science & Technology (DST), Government of India should invariably be highlighted/acknowledged in their media releases as well as in bold letters in the opening paragraphs of their Annual Report.

17. 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, a statutory body of Department of Science & Technology (DST), Government of India.

(Dr. Magesh K K)
Scientist D
ms_ms@serbonline.in

To, Under Secretary SERB New Delhi

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. Kulwinder Singh Department of Mathematics, IKG Punjab Technical University, Hoshiarpur Campus Punjab Technical University , Jalandhar, Jalandhar, Punjab-144011 Email: kulmaths@gmail.com Mobile: 919876509195 (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.	Registrar, Punjab Technical University , Jalandhar (Receipt of Grant may be intimated by name to the undersigned)

(Dr. Magesh K K)
Scientist D
ms_ms@serbonline.in

DIRECTOR
IKGPTU HOSHIARPUR CAMPUS
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