

## **CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY**

## Criteria 3

## **Research, Innovations and Extension**

| Metric<br>3.2.2 | Grants for research projects sponsored by the government agencies during the last five years                                |  |  |  |  |  |
|-----------------|---|--|--|--|--|--|
| 3.2.2.1         | Total Grants for research projects sponsored by the government agencies year wise during the last five years (INR in Lakhs) |  |  |  |  |  |

## **Supporting Documents**

|   | E-copies of the grant award letters for research projects |
|---|---|
| 1 | sponsored by government                                   |
|   | (Year : 2016-17)  |

# Faculty of Technology & Engineering



#### Dr. Krishna Kanth Pulicherla

Scientist - C **TDT** Division Room No. 19, Hall-D Telephone No. 011-2659 0493 Mobile: 07291070520 E-mail: kkpulicherla.dst@gov.in

Telegram द्रभाष/Tel

फैक्स/Fax

26962819, 26567373, 26562134, 26562122 (EPBAX) 26569908, 26864570, 26863847, 26862418 वेबसाइट/website : www.dst.gov.in

DST/TSG/AMT/2015/332

: Scienctech

#### भारत सरकार

विज्ञान और प्रौद्योगिकी मंत्रालय, विज्ञान और प्रौद्योगिकी विभाग, टेक्नोलॉजी भवन, नया महरौली मार्ग, नई दिल्ली-110 016

**GOVERNMENT OF INDIA** 

MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD NEW DELHI-110 016

19th October, 2016

#### Subject: SMART Foundry 2020 (SMART=Sustainable Metal casting using Advanced **Research and Technology**).

Dear Dr. Savithri,

Kindly refer to this Department's sanction letter, dated 17th August, 2016. The Department of Science & Technology has sanctioned the above mentioned project at a total cost of Rs. 9,50,15,160/- i.e. Rs. 8,25,15,160/- as the contribution of DST and Rs. 1,25,00,000/- as the contribution of five Industrial Collaborators viz. M/s Aha 3D Innovations Private Ltd, M/s 3D Foundry Tech Pvt. Ltd, M/s Marco Polo Products Pvt. Ltd, M/s Treelabs Foundations and M/s Atomberg Technologies Pvt. Ltd with contribution of Rs. 25,00,000/- each. The breakup of the total allocation has been indicated in the sanction order.

We are also in receipt of an Email from you dated 11th October, 2016 enclosing the coordination agreement signed by the PI institutions for the implementation of the above project. In accordance to the above agreement letter signed by all the participating institutions, the Department has noted the sharing of the funds allocated to all the four PIs of the project with their collaborating institutes for effective implementation of the project as per the details given under:

| S. No. | Team Leader   | Research Team & Institute  | Fund allocated<br>(in lakhs) |
|--------|---|--|------------------------------|
|        | <b>CSIR-NIIST,</b><br><b>Thiruvananthapuram</b><br>Dr. S. Savithri &  | >  | 128.248                      |
| 1      | Dr. Elizabeth Jacob   | Dr. Atul Sharma &<br>Dr. ShyamKaragadde, <b>IIT</b> ,<br><b>Bombay</b> | 88.196                       |
|        | -2  | Dr. MayurSutaria,<br>CHARUSAT, Anand.                                  | 60.464                       |
|        |   | Dr. Amit Sata<br>BHG College of Engg & Tech.,<br>Rajkot                | 36.214                       |
|        | CSIR-CMERI,   | >  | 161.516                      |
| 2.     | <b>Durgapur</b><br>Dr. Nagahanumaiah                                  | Dr. Arati V. Mulay,<br>College of Engg., Pune                          | 52.464                       |
|        |   | Dr. VasudevShinde,<br>DKTE TEI, Ichalkaranji                           | 83.964                       |
|        | VNIT, Nagpur  | >  | 84.284                       |
| 3.     | Dr. A.M. Kuthe  | Dr. J.V.L. Venkatesh,<br>SGGS Inst., Nanded                            | 50.232                       |
| 4      | <b>Jadavpur University,</b><br><b>Kolkata</b><br>Dr. Goutam Sutradhar | >  | 79.5696                      |
|        |   | TOTAL  | 825.1516                     |

Rhhanes 19/10/16

It is requested that the Statement of Expenditure and the Utilization Certificates from all the participating institutions (to whom the fund is transferred) should be collected by above four PI's of the project and the consolidated Statement of Expenditure and the Utilization Certificates should be submitted to this Department at the end of each financial year by all the four PI's from NIIST-Trivandrum, CSIR-CMERI-Durgapur, VNIT-Nagpur and Jadavpur University separately.

With regards.

Yours Sincerely,

21

(Krishna Kanth Pulicherla) 「「いう」6 Scientist-C

Dr. S. Savithri, Sr. Principal Scientist, National Institute for Interdisciplinary Science & Technology (NIIST), Pappanamcode Industrial Estate, Thiruvananthapuram- 695 019, Kerala.

Copy to :

- 1. Dr. Nagahanumaiah, Sr. Principal Scientist & Head, Micro Systems Technology Laboratory, CSIR-Central Mechanical Engineering Research Institute (CMERI), M.G. Avenue, Durgapur- 713 209, West Bengal.
- 2. Dr. A.M. Kuthe, Professor and Head, Mechanical Engineering Department, Visvesvaraya National Institute of Technology (VNIT), Nagpur- 440 010, Maharashtra.
- 3. Dr. Goutam Sutradhar, Professor, Mechanical Engineering Department, Jadavpur University, Kolkata-700 032, West Bengal.

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(Krishna Kanth Pulicherla) パールの Scientist-C

Annexure-III

Charotar University of Science and Technology (CHARUSAT), Changa

### UTILISATION CERTIFICATE (2 COPIES) FOR THE FINANCIAL YEAR - (ENDING 31st MARCH)

- 1. Title of the Project/ Scheme: SMART FOUNDRY 2020 (SMART=Sustainable Metal Casting using Advanced Research & Technology)
- 2. Name of the Institution: Charotar University of Science and Technology
- 3. Principal Investigator: Dr. Mayur Sutaria
- 4. Department of Science & Technology sanction order No & date sanctioning the project: DST/TSG/AMT/2015/332(General) dated 17-08-2016
- 5. Head of account as given in the original sanction order:
- 6. Amount brought forward from the previous Financial year quoting DST letter no and date in which the authority to carry forward the said amount was given

i. Amount ii. Letter No iii. Date

Nil

7. Amount received during the financial year (Please give DST letter/order no and date)

i. Amount: **Rs. 28,50,000** ii. Letter/Order No.:

iii. Date: 26<sup>th</sup> December 2016 (Money transferred from CSIR-NIIST through RTGS transaction ref No. UTR.SBTRR52 on 26/12/2016)

- Total amount that was available for expenditure (excluding commitments) during the financial year (Sr. No. 6+7)
   Actual Expenditure (excluding commitments)
   Rs. 28,50,000
   Rs. 28,50,000
  - Incurred during the financial year (upto 31st March)
- 10. Balance amount available at the end of the financial year: Rs. 23,24,641
- 11. Unspent balance refunded, if any (please give details of cheque no etc.): Nil
- 12. Amount to be carried forward to the next financial year (if applicable):

Rs. 23,24,641

#### UTILISATION CERTIFICATE

Certified that out of Rs. 28,50,000 of grants-in-aid sanctioned during the year 2016-17 in favour of Charotar University Science and Technology under this Ministry/ Department letter/ order No. DST/TSG/AMT/2015/332(General) dated 17-08-2016 which was transferred from CSIR-NIIST through RTGS (ref no. UTR.SBTRR52) dated 26/12/2016 and NIL on account of unspent balance of the previous year, a sum of Rs. 5,25,359 has been utilised for the purpose of SMART FOUNDRY 2020 Project for which it was sanctioned and that the balance of Rs 23,24,641 remaining unutilized at the end of the current financial year will be carried forward for the committed expenditure for next financial year 2017-18

Signature of PI

Signature of Registrar

Date: 19th May, 2017 CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY CHARUSAT CAMPUS, CHANGA

Accounts Officer of the Institute

DY. ACCOUNTS OFFICER CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY CHANGA - 388 421, TA. PETLAD, DI. ANAND

#### (To be filled in by DST)

Certified that I have satisfied that the conditions on which the grants-in-aid was sanctioned have been fulfilled/ are being fulfilled and that I have exercised the following checks to see that the money was actually utilised for the purpose for which it was sanctioned:-

Kinds of checks exercised.

- 1.
- 2.
- 3. 4.
- 5.

| Signature:   |  |
|--------------|--|
| Designation: |  |
| Date:        |  |





Government of India Department of Atomic Energy (DAE) Board of Research in Nuclear Sciences (BRNS)

D K Dalal Programme Officer (PFRC) BRNS Secretariat, 1st Floor, CC, BARC, Trombay, Mumbai-400085Phone: +91-2225594683 Email: dkdalal@barc.gov.in

Date: 12/07/2016

#### No: 39/14/10/2016-BRNS/34162

#### OFFICE MEMORANDUM

Sub: R/P entitled "Phase detection system based on DSP in millimetre wave interferometer for fusion plasma diagnostic" under Dr. Hiren Kantilal Mewada, Associate Professor, CHARUSAT Space Research and Technology Center, Charotar university of Science & Technology, Charusat campus, changa, Anand-388421 Gujarat bearing sanction 39/14/10/2016-BRNS with PFRC, BRNS.

On the recommendations of the Board of Research in Nuclear Sciences (BRNS). I am pleased to convey the administrative approval and sanction of the President of India for the captioned project for 2 years beginning from financial year 2016-2017 with a total grant of Rs. 20,41,052/- (Rupees twenty lakh fourty one thousand fifty two only) for the project as under :

| Item of expenditure    | Year 1<br>(2016-2017) | Year 2<br>(2017-2018) |
|------------------------|-----------------------|-----------------------|
| Equipments             | 510654                | Ó                     |
| Staff Salary - SRF (1) | 336000                | 336000                |
| Technical Assistance   | 175000                | 175000                |
| Consumables            | 50000                 | 50000                 |
| Travel - Pl            | 45000                 | 45000                 |
| Contingencies          | 30000                 | 30000                 |
| Overheads              | 83749                 | 45450                 |
| Total(INR)             | 1230403               | 681450                |

Note: \* Componenet List-1(ADC, Frequency synthesizer, Voltage regulator, Controller, Amplifier, IQ detector, SRAM, phase detector), Component List -2 (Crystal osci., FPGA, Buffer, spartan evolution board, RF transormer), Component List-3 (Data acquisition card, SMA Connector, others)

JRF salary calculated @25,000/- p.m. for first two years and on redesignation by committee on in third year as SRF @ 28,000/- p.m. RA salary calculated @ 36,000/- p.m.

Overheads calculated @ 7.5% of the other heads except contingency. The remaining 7.5% towards overheads (Rs. 1,29,199/-) shall be released only on meeting the requirements specified (See Annex-B).

2. I am also pleased to convey the sanction of the President of India to incur an expenditure of Rs. 12,30,403/towards grant for the year 2016-2017.

3. The expenditure involved is debitable to: 04 3401 00 004 27 0231.

4. This issues with the concurrence of Scientific Secretary, BRNS and IFA.

**D** K Dalal

Pay & Accounts Officer, DAE, Mumbai - 400 001.

BRNS FORM - III

#### UTILISATION CERTIFICATE

Certified that Grant-in-aid of Rs.20.41.052/- (Rupees twenty lakh forty one thousand fifty two only) was sanctioned by the **Government of India**, **Department of Atomic Energy**, **Mumbri**-400 001 vide their letter No. 39/14/10/2016-BRNS/34162 dated 12/07/2016 and Rs. 12.30.403/- were paid on date 28/07/2016 for the year 2016-17 of which Rs.3.06.457/- has been utilized and there is an unutilized balance of Rs. 9.23,946/-of the said grant as on <u>31<sup>st</sup> March 2017</u> will be adjusted towards the grants-in-aid payable during the next year 2017<sup>c</sup>18 in respect of the Research Project "Phase Detection System" based on Digital Signal Processing in Millimeter wave Interferometer for Fusion Plasma Diagnotics."

(cixidr 1-110000 101 100. Signature & Seal: Principal

Signature & Seal: Registrar/Head of Institution

HARTERED ACCOUNTANTS Mile PARTNER

Signature & Seal: Statutory Auditor (Goxt.)/ Chartered Accountant/Internal Auditor\*

11.6.2

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\*Note: Consolidated Statement of Accounts & Utilization Certificate, which is to be submitted on completion of the project should also include remaining 7.5% Overheads. These forms shall be audited by Statutory Auditor (Government Auditor) or Chartered Accountant (external). However, the UC and SA audited by the internal auditor are accepted provided the accounts of the institution are audited by the C&AG and <u>same is certified by</u> the Head of the Institution. In respect of the other institutions where there is no audit by C&AG, they are required to submit the UC & SA audited by Statutory auditor/Chartered Accountant.





Government of India Department of Atomic Energy (DAE) Board of Research in Nuclear Sciences (BRNS)

D K Dalal Programme Officer (PFRC) BRNS Secretariat, 1st Floor, CC, BARC, Trombay, Mumbai-400085Phone: +91-2225594683 Email: dkdalal@barc.gov.in

Date: 12/07/2016

#### No: 39/14/11/2016-BRNS/34163

#### OFFICE MEMORANDUM

Sub: R/P entitled "Development of transmission line components for 42GHz Gyrotron for startup studies in tokamak aditya" under Dr. Amit Vinubhal Patel, Assistant professor, CHARUSAT Space Research and Technology Center, Charotar university of Science & Technology, Charusat campus, changa, Anand-388421 Gujarat, bearing sanction 39/14/11/2016-BRNS with PFRC, BRNS.

On the recommendations of the Board of Research in Nuclear Sciences (BRNS) I am pleased to convey the administrative approval and sanction of the President of India for the captioned project for 2 years beginning from financial year 2016-2017 with a total grant of Rs. 29,84,800/- (Rupees twenty nine lakh eighty four thousand eight hundred only) for the project as under :

| Item of expenditure    | Year 1      | Year 2      |
|------------------------|-------------|-------------|
|                        | (2016-2017) | (2017-2018) |
| Equipments             | 1240000     | 500000      |
| Staff Salary - SRF (1) | 336000      | 336000      |
| Consumables            | 25000       | 25000       |
| Travel - Pl            | 45000       | 45000       |
| Contingencies          | 25000       | 25000       |
| Overheads              | 123450      | 67950       |
| Total(INR)             | 1794450     | 998950      |

Note: \* Fabrication of Components, Mode Exciter, Adapter

JRF salary calculated @25,000/- p.m. for first two years and on redesignation by committee on in third year as SRF @ 28,000/- p.m. RA salary calculated @ 36,000/- p.m.

Overheads calculated @ 7.5% of the other heads except contingency. The remaining 7.5% towards overheads (Rs. 1,91,400/-) shall be released only on meeting the requirements specified (See Annex-B).

- I am also pleased to convey the sanction of the President of India to incur an expenditure of Rs. 17,94,450/towards grant for the year 2016-2017.
- 3. The expenditure involved is debitable to: 04 3401 00 004 27 0231.
- 4. This issues with the concurrence of Scientific Secretary, BRNS and IFA.

**D** K Dalal

Pay & Accounts Officer, DAE, Mumbai - 400 001.

Date: 24/05/2017

## STATEMENT OF ACCOUNT AS ON 31/03/2017

OF

BRNS FUNDED PROJECT

## "Development of transmission line components for 42GHz Gyrotron for startup studies in tokamak ADITYA"

| Sanction | No: | 39/14/ | 11/20 | 016-BRN | S/34163 | $(on 12^{in})$          | July 2016) |  |
|----------|-----|--------|-------|---------|---------|-------------------------|------------|--|
|          |     |        |       |         |         | Carl - Print The Street |            |  |

| Sr.<br>No.              |                    | Sanctioned | Opening<br>Balance | Received  | Total<br>(4+5) | Spent    | Unspent   |
|-------------------------|--------------------|------------|--------------------|-----------|----------------|----------|-----------|
| 1 <sup>st</sup><br>Year | (2016-2017)        |            |                    |           |                |          |           |
| 1                       | 2                  | 3          | 4                  | 5         | 6              | 7        | 8         |
| 1                       | Equipment          | 12,40,000  |                    | 12,40,000 | 12,40,000      | -<br>-   | 12,40,000 |
| 2                       | Staff Salaries     | 3,36,000   | 4                  | 3,36,000  | 3,36,000       | 1,44,665 | 1,63,335  |
| 3                       | Techn. Asst.       | _          | <b>_</b> r         | 1.1月- 月   |                | 的第三 月    |           |
| 4                       | Consumables        | 25,000     |                    | 25,000    | 25,000         |          | 25,000    |
| 5                       | Travel             | 45,000     | -                  | 45,000    | 45,000         | 23,764   | 21,236    |
| 6                       | Contingencies      | 25,000     | -                  | 25,000    | 25,000         | 14,119   | 10,881    |
| 7                       | Overheads          | 1,23,450   | -                  | 1,23,450  | 1,23,450       | -        | 1,23,450  |
| 8                       | Interest<br>Earned | -          | -                  | -         | -              | -        |           |
| 9                       | HRA                | -          | -                  | -         | -              | -        | -         |
| 10                      | TOTAL :            | 17,94,450  |                    | 17,94,450 | 17,94,450      | 1,82,548 | 16,11,902 |

CHAROTAR CHAROTAR CHAROTAR CHAROTAR CHAROTAR Signature & Seal: Registrar Head of Institution

CHARTERER ACCOUNTANTS

PARTNER

FR No. 121394W

Signature & Seal: Statutory Anditor (Govt.)/ Chartered Accountant/Internal Auditor\*

Nadiad 24/05/17.





Government of India Department of Atomic Energy (DAE) Board of Research in Nuclear Sciences (BRNS)

D K Dalal Programme Officer (PFRC) BRNS Secretariat, 1st Floor, CC, BARC, Trombay, Mumbai-400085Phone: +91-2225594683 Email: dkdalal@barc.gov.in

#### No; 39/14/19/2016-BRNS/34172

#### Date: 14/07/2016

Sub: R/P entitled "Development of Phase Locked Loop Circuit in Interferometer System for fusion plasma Diagnostics" under Dr. Jitendra P. Chaudhri, Associate Professor, CHARUSAT Space Research and Technology Center, Charotar university of Science & Technology, Charusat campus, changa, Anand-388421 Gujarat bearing sanction 39/14/19/2016-BRNS with PFRC, BRNS.

OFFICE MEMORANDUM

On the recommendations of the Board of Research in Nuclear Sciences (BRNS). I am pleased to convey the administrative approval and sanction of the President of India for the captioned project for 2 years beginning from financial year 2016-2017 with a total grant of Rs. 30,38,452/- (Rupees thirty lakh thirty eight thousand four hundred fifty two only) for the project as under :

| Item of expenditure    | Year 1<br>(2016-2017) | Year 2<br>(2017-2018) |
|------------------------|-----------------------|-----------------------|
| Equipments             | 1530132               | Ó                     |
| Staff Salary - SRF (1) | 336000                | 336000                |
| Technical Assistance   | 150000                | 130000                |
| Consumables            | 50000                 | 50000                 |
| Travel - PI            | 30000                 | 30000                 |
| Overheads              | 157210                | 40950                 |
| Total(INR)             | 2253342               | 586950                |

Note: \* Advanced Design Software, Component list 1 (Voltage Controlled Oscillator, Dielectric resonator Oscillator), component list 2 ( amplifier, coupler, loop filter, cables, TCXO )

JRF salary calculated @25,000/- p.m. for first two years and on redesignation by committee on in third year as SRF @ 28,000/- p.m. RA salary calculated @ 36,000/- p.m.

Overheads calculated @ 7.5% of the other heads except contingency. The remaining 7.5% towards overheads (Rs. 1,98,160/-) shall be released only on meeting the requirements specified (See Annex-B).

- I am also pleased to convey the sanction of the President of India to incur an expenditure of Rs. 22,53,342/towards grant for the year 2016-2017.
- 3. The expenditure involved is debitable to: 04 3401 00 004 27 0231.
- 4. This issues with the concurrence of Scientific Secretary, BRNS and IFA.

D K Dalal

Pay & Accounts Officer, DAE, Mumbai - 400 001.





Government of India Department of Atomic Energy (DAE) Board of Research in Nuclear Sciences (BRNS)

D K Dalal Programme Officer (PFRC)

No; 39/14/18/2016-BRNS/34171

#### OFFICE MEMORANDUM

Sub: R/P entitled "Design and Development of reflectometry diagnostic system for PAM antenna of Aditya-U tokamak" under Dr. Keyur k. Mahant, Asst. professor, CHARUSAT Space Research and Technology Center, Charotar university of Science & Technology, Charusat campus, changa, Anand- 388421 Gujarat bearing sanction 39/14/18/2016-BRNS with PFRC, BRNS.

On the recommendations of the Board of Research in Nuclear Sciences (BRNS), I am pleased to convey the administrative approval and sanction of the President of India for the captioned project for 3 years beginning from financial year 2016-2017 with a total grant of Rs. 30,25,050/- (Rupees thirty lakh twenty five thousand fifty only) for the project as under :

| Item of expenditure    | Year 1<br>(2016-2017) | Year 2<br>(2017-2018) | Year 3<br>(2018-2019) |
|------------------------|-----------------------|-----------------------|-----------------------|
| Equipments             | 600000                | 400000                | 0                     |
| Staff Salary - SRF (1) | 336000                | 336000                | 360000                |
| Technical Assistance   | 175000                | 175000                | 0                     |
| Consumables            | 50000                 | 50000                 | 0                     |
| Travel - PI            | 35000                 | 35000                 | 35000                 |
| Contingencies          | 25000                 | 25000                 | 0                     |
| Overheads              | 89700                 | . 74700               | 29625                 |
| Total(INR)             | 1310700               | 1095700               | 424625                |

Note: \* As per list attached

JRF salary calculated @25,000/- p.m. for first two years and on redesignation by committee on in third year as SRF @ 28,000/- p.m. RA salary calculated @ 36,000/- p.m.

Overheads calculated @ 7.5% of the other heads except contingency. The remaining 7.5% towards overheads (Rs. 1,94,025/-) shall be released only on meeting the requirements specified (See Annex-B).

- I am also pleased to convey the sanction of the President of India to incur an expenditure of Rs. 13,10,700/towards grant for the year 2016-2017.
- 3. The expenditure involved is debitable to: 04 3401 00 004 27 0231.
- 4. This issues with the concurrence of Scientific Secretary, BRNS and IFA.

D K Dalal

Pay & Accounts Officer, DAE, Mumbal - 400 001.

BRNS Secretariat, 1st Floor,

Email: dkdalal@barc.gov.in

CC, BARC, Trombay,

Date: 14/07/2016

Mumbai-400085Phone: +91-2225594683

Date: 24/05/2017

## STATEMENT OF ACCOUNT AS ON 31/03/2017

OF

BRNS FUNDED PROJECT

### "Design and Development of reflectometry diagnostic system for PAM antenna of Aditya-U tokamak"

| Sr.<br>No.              | × ^                | Sanctioned   | Opening<br>Balance | Received     | Total<br>(4+5) | Spent       | Unspent<br>(Carried<br>Forward) |
|-------------------------|--------------------|--------------|--------------------|--------------|----------------|-------------|---------------------------------|
| 1 <sup>st</sup><br>Year | (2016 - 2017       |              |                    |              |                |             |                                 |
| 1                       | 2                  | 3            | 4                  | . 5          | 6              | 7           | 8                               |
| 1                       | Equipment          | 6,00,000.00  | -                  | 6,00,000.00  | 6,00,000.00    | 1,15,558.00 | 4,84,442.00                     |
| 2                       | Staff Salaries     | 3,36,000.00  | -                  | 3,36,000.00  | 3,36,000.00    | 2,00,665.00 | 1,35,335.00                     |
| 3                       | Techn, Asst.       | 1,75,000.00  | -                  | 1,75,000.00  | 1,75,000.00    | 11,069.00   | 1,63,931.00                     |
| 4                       | Consumables        | 50,000.00    | -                  | 50,000.00    | 50,000.00      | 55,787.00   | -5,787.00                       |
| 5                       | Travel             | 35,000.00    | -                  | 35,000.00    | 35,000.00      | 7,971.00    | 27,029.00                       |
| 6                       | Contingencies      | 25,000.00    | -                  | 25,000.00    | 25,000.00      | 20,218.00   | 4,782.00                        |
| 7                       | Overheads          | 89,700.00    | i un               | 89,700.00    | , 89,700.00    |             | 89,700.00                       |
| 8                       | Interest<br>Earned |              |                    | -            | -              | -           | 1.                              |
| 9                       | HRA                | -            |                    | -            | -              | -           | -                               |
| 10                      | TOTAL:             | 13,10,700.00 | -                  | 13,10,700.00 | 13,10,700.00   | 4,11,268.00 | 8,99,432.00                     |

Sanction No: 39/14/18/2016-BRNS/34171 (on 14th July 2016)

FRNo

1213941

Signature & Seal: Registrar/Head of Institution



Signature & Seal: Statutory Auditor (Govt.)/ Chartered Accountant/Internal Auditor\*

Madice 24 05

दूरमाष/ Phones : 0135-2787004 to 2787007 फैक्स/ Fax : 0091-135 2787161 & 2787128

सभी पत्रादि निदेशक को ही सम्बोधित होने चाहिये, किसी वैज्ञानिक/अधिकारी के नाम से नहीं। All correspondence should be

addressed to Director and not to any Scientist/Officer by name.

सं./No. 43370/S

To

भारत सरकार, रक्षा मंत्रालय रक्षा अनुसंधान तथा विकास संगठन यंत्र अनुसंधान एवं विकास संस्थान रायपुर रोड, देहरादून – 248008

GOVT. OF INDIA, MINISTRY OF DEFENCE DEFENCE R & D ORGANISATION INSTRUMENTS R & D ESTABLISHMENT RAIPUR ROAD, DEHRADUN – 248 008

दिनांक /Date: 27Jun 2016

#### POST/OFFICE COPY

The Director Charusat Space Research & Technology Center (CSRTC) Charotar University of Science and Technology Charusat Campus <u>CHANGA-388421</u>

#### ALLOTMENT OF CARS

The CARS titled, "Development of Camera Electronics for Electro-Optical Payload for VNIR" is sanctioned by The Director, IRDE against the offer of your research services. The sanction alongwith Summary Offer of Provision of Research Services (Annex-1) & Contract for Acquisition of Research Services (Annex -2) and Principal Tech. Features of Offer (Attachment –A) is forwarded herewith for further necessary action at your end.

Further, you are hereby requested to raise the contingency bill for first installment in triplicate.

Encl: As stated

Copy To:

- 1. The Director PM O/o DG (ECS)
- 2. The Director, DMM
- 3. The Director, Dte of ER & IPR
- 4. JCDA (R&D), Dehradun

(ANIÉ KUMAR) Scientist 'G' for Director

5

दूरभाष/ Phones : 0135-2787004 to 2787007 फेक्स/ Fax : 0091-135 2787161 & 2787128

सभी पत्रादि निदेशक को ही सम्बोधित होने चाहिये, किसी वैज्ञानिक/अधिकारी के नाम से नहीं। All correspondence should be addressed to Director and not to any Scientist/Officer by name.

भारत सरकार, रक्षा मंत्रालय रक्षा अनुसंधान तथा विकास संगठन यंत्र अनुसंधान एवं विकास संस्थान रायपुर रोड, देहरादून – 248008

GOVT. OF INDIA, MINISTRY OF DEFENCE DEFENCE R & D ORGANISATION INSTRUMENTS R & D ESTABLISHMENT RAIPUR ROAD, DEHRADUN – 248 008

दिनांक /Date: 27 Jun 2016

То

सं./No. 43370/S

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The Director Charusat Space Research & Technology Center (CSRTC) Charotar University of Science and Technology Charusat Campus CHANGA-388421

## SANCTION OF CONTRACT FOR ACQUISITION OF RESEARCH SERVICES (CARS)

In exercise of the power delegated to Director, IRDE vide Govt. of India Letter No. DRDO/DBFA/FA/83226/M/01/2031/D (R&D) dated 30 Jul 2010, sanction is hereby accorded for the undertaking the CARS against your proposal as per following details –

| 1) | Title of CARS                        | : | Development of Camera Electronics for Electro-<br>Optical Payload for VNIR |
|----|--------------------------------------|---|--|
| 2) | Principal Investigator               | : | Shri Karan R Jasani & Shri Rikin J Nayak                                   |
| 3) | Total Estimated Cost                 | : | Rs. 9.90 Lakhs   |
|    |                                      |   | (RS. Nine Lakh and Ninety Thousands Only)                                  |
| 4) | Start Date                           | : | From the date of issue of Cheque of Advance                                |
| 5) | Probable Date of Completion (PDC)    | : | 12 Months from start date  |
| 6) | Details of Fund -                    |   |  |
|    | The funds will be utilized as under: |   |  |
|    | (i) Personnel                        | : | Rs. Nil Lakhs  |
|    | (ii) Equipment                       | : | Rs. 4.00 Lakhs   |
|    | (iii) Others                         | : | Rs. 5.90 Lakhs   |
| 7) | Release of funds will be as under –  |   |  |
|    | (i) Initial Advance                  | : | Rs. 5.00 Lakhs   |
|    | (ii) At Performance Milestone I      | : | Rs. 2.00 Lakhs   |
|    | (iii) At Performance Milestone II    | : | Rs. 1.00 Lakhs   |
|    | (iv) At Performance Milestone III    | : | Rs. 1.00 Lakhs   |
|    | (v) On submission of Final Report    | : | Rs. 0.90 Lakhs   |

Contd.....

8) Performance Milestones and Timeline:

- (i) Literature study, option study, components and design finalization T0+02 Months
- Schematics, layout design, fabrication & assembling and software development T0+06 Months
- (iii) Testing and troubleshooting of CE card T0+08 Months
- (iv) Embedded testing of fabricated card & developed software and integration with Detector Card (AFE) – T0+11
- (v) Submission of final Reports/Documentation T0+12 Months

#### 9) Deliverables:

- (i) Finalized block diagram and design documents
- (ii) Schematics of Camera Electronics
- (iii) Bill of Material
- (iv) Layout and Gerber file
- (v) Fabricated and Assembled PCB
- (vi) Various test reports
- (vii) RTL code for Data Acquisition
- **10)** The Principal Investigator (PI) will raise the contingency bills to Director IRDE for advance and each stage of payments. The certificate of utilization from competent authority will be submitted before releasing subsequent installment.
- 11) The Principal Investigator (PI) will submit bi-monthly progress report. The execution of technical features of the project shall be reviewed by the Director IRDE. The Project Review Committee shall meet at least once in three months.
- 12) Charotar University of Science and Technology, CHANGA is also authorized to assign sub contract to other agency and place the supply order on or to enter into development / fabrication contracts with public / private sector organization, academic institution etc within ceiling of the project.
- 13) Normal rules of purchase and accounting procedures shall be followed.
- 14) The PI/Research Service Provider (RSP) shall abide by the General Conditions of CARS, enclosed herewith as "Annexure -2".
- 15) Expenditure will be debited to Major Head 2080, Minor Head 110 of Defence Services Estimates.
- 16) Unique Sanction Code : DIR/ECS/IRDE/PROC(BRR)/16-17/72

(Dr. S. S. NEGI) OS & DIRECTOR

#### Copy To:

- 1. The Director PM O/o DG (ECS)
- 2. The Director, DMM
- 3. The Director, Dte of ER&IPR
- 4. JCDA (R&D), Dehradun ...... (Ink Signed Copy)

दूरभाष/ Phones : 0135-2787004 to 2787007 फैक्स/ Fax : 0091-135 2787161 & 2787128

सभी पत्रादि निदेशक को ही सम्बोधित होने चाहिये, किसी वैज्ञानिक/अधिकारी के नाम से नहीं। All correspondence should be addressed to Director and not to any Scientist/Officer by name.

सं./No. 43370/S

To

R

भारत सरकार, रक्षा मंत्रालय रक्षा अनुसंधान तथा विकास संगठन यंत्र अनुसंधान एवं विकास संस्थान रायपुर रोड, देहरादून – 248008

GOVT. OF INDIA, MINISTRY OF DEFENCE DEFENCE R & D ORGANISATION INSTRUMENTS R & D ESTABLISHMENT RAIPUR ROAD, DEHRADUN – 248 008 6

दिनांक /Date 27 Jun 2016

The Director Charusat Space Research & Technology Center (CSRTC) Charotar University of Science and Technology Charusat Campus CHANGA-388421

## SANCTION OF CONTRACT FOR ACQUISITION OF RESEARCH SERVICES (CARS)

In exercise of the power delegated to Director, IRDE vide Govt. of India Letter No. DRDO/DBFA/FA/83226/M/01/2031/D (R&D) dated 30 Jul 2010, sanction is hereby accorded for the undertaking the CARS against your proposal as per following details –

| 1) | Title of CARS                        | : | Development of Analog Front-End and power<br>distribution and regulation Network for Electro-<br>optical Payload for VNIR |
|----|--------------------------------------|---|---|
| 2) | Principal Investigator               | : | Shri Jagrat Mehta & Shri Kishan Patel   |
| 3) | Total Estimated Cost                 | : | Rs. 9.90 Lakhs  |
|    |                                      |   | (RS. Nine Lakh and Ninety Thousands Only)   |
| 4) | Start Date                           | : | From the date of issue of Cheque of Advance   |
| 5) | Probable Date of Completion (PDC)    | : |   |
| 6) | Details of Fund -                    |   |   |
|    | The funds will be utilized as under: |   |   |
| ,  | (i) Personnel                        | : | Rs. Nil Lakhs   |
| •" | (ii) Equipment                       | : | Rs. 3.50 Lakhs  |
|    | (iii) Others                         | : | Rs. 6.40 Lakhs  |
| 7) | Release of funds will be as under –  |   |   |
|    | (i) Initial Advance                  | : | Rs. 5.00 Lakhs  |
|    | (ii) At Performance Milestone I      | : | Rs. 2.00 Lakhs  |
|    | (iii) At Performance Milestone II    | : | Rs. 1.00 Lakhs  |
|    | (iv) At Performance Milestone III    | : | Rs. 1.00 Lakhs  |
|    | (v) On submission of Final Report    | : | Rs. 0.90 Lakhs  |

17) Performance Milestones and Timeline:

- (i) Literature study, option study, components and design finalization T0+02 Months
- Schematics, layout design, fabrication & assembling and power supply design T0+06 Months
- (iii) Testing and troubleshooting of AFE card T0+08 Months
- (iv) Integration with camera electronics card T0+11
- (v) Submission of final Reports/Documentation T0+12 Months

#### 18) Deliverables:

- (i) Finalized block diagram and design documents
- (ii) Schematics of AFE
- (iii) Bill of Material
- (iv) Layout and Gerber file
- (v) Fabricated and Assembled PCB
- (vi) Various test reports
- **19)** The Principal Investigator (PI) will raise the contingency bills to Director IRDE for advance and each stage of payments. The certificate of utilization from competent authority will be submitted before releasing subsequent installment.
- **20)** The Principal Investigator (PI) will submit bi-monthly progress report. The execution of technical features of the project shall be reviewed by the Director IRDE. The Project Review Committee shall meet at least once in three months.
- 21) Charotar University of Science and Technology, CHANGA is also authorized to assign sub contract to other agency and place the supply order on or to enter into development / fabrication contracts with public / private sector organization, academic institution etc within ceiling of the project.
- 22) Normal rules of purchase and accounting procedures shall be followed.
- 23) The PI/Research Service Provider (RSP) shall abide by the General Conditions of CARS, enclosed herewith as "Annexure 2".
- 24) Expenditure will be debited to Major Head 2080, Minor Head 110 of Defence Services Estimates.
- 25) Unique Sanction Code : DIR/ECS/IRDE/PROC(BRR)/16-17/73

(Dr. S. S. NÉGI) OS & DIRECTOR

#### Copy To:

11 812

- 1. The Director PM O/o DG (ECS)
- 2. The Director, DMM
- 3. The Director, Dte of ER&IPR
- 4. JCDA (R&D), Dehradun ...... (Ink Signed Copy)

- 2 - 7

दूरमाष/ Phones : 0135-2787004 to 2787007 फैक्स/ Fax : 0091-135 2787161 & 2787128

सभी पत्रादि निदेशक को ही सम्बोधित होने चाहिये, किसी वैज्ञानिक/अधिकारी के नाम से नहीं। All correspondence should be

addressed to Director and not to any Scientist/Officer by name.

सं./No. 43370/S

To

भारत सरकार, रक्षा मंत्रालय रक्षा अनुसंधान तथा विकास संगठन यंत्र अनुसंधान एवं विकास संरथान रायपुर रोड, देहरादून – 248008

GOVT. OF INDIA, MINISTRY OF DEFENCE DEFENCE R & D ORGANISATION INSTRUMENTS R & D ESTABLISHMENT RAIPUR ROAD, DEHRADUN – 248 008

दिनांक /Date: 27Jun 2016

#### POST/OFFICE COPY

The Director Charusat Space Research & Technology Center (CSRTC) Charotar University of Science and Technology Charusat Campus CHANGA-388421

#### ALLOTMENT OF CARS

The CARS titled, "Development of Analog Front-End and power distribution and regulation Network for Electro-optical Payload for VNIR" is sanctioned by The Director, IRDE against the offer of your research services. The sanction alongwith Summary Offer of Provision of Research Services (Annex-1) & Contract for Acquisition of Research Services (Annex -2) and Principal Tech. Features of Offer (Attachment –A) is forwarded herewith for further necessary action at your end.

Further, you are hereby requested to raise the contingency bill for first installment in triplicate.

A

Encl: As stated

Copy To:

- 1. The Director PM O/o DG (ECS)
- 2. The Director, DMM
- 3. The Director, Dte of ER & IPR
- 4. JCDA (R&D), Dehradun

(ANIL RUMAR)

Scientist 'G' for Director

 BHARAT ELECTRONICS

 भारत इलेक्ट्रॉनिक्स लिमिटेड

 (भारत सरकार का उद्यम)

 सेन्ट्रल रिसर्च लेबोरेटरी

 जालहल्ली पोस्ट, बेंगलूरु–560 013, भारत

 BHARAT ELECTRONICS LIMITED

 (A Govt. of India Enterprise)

 Central Research Laboratory

 Jalahalli Post, Bengaluru-560 013, India.

 Phone : +91 (080) 28381125 / 26 / 27

 Fax : +91 (080) 28381168

भारत इलेक्ट्रानिक्स

20-12-2016

To

#### Dippal Israni,

Assistant Professor, CHARUSAT Space Research and Technology Center (CSRTC), CHARUSAT University, Changa-388421.

Subject: Collaborative R & D project with CSRTC

We are pleased to inform you that the collaborative R & D project between Central Research Laboratory, Bharat Electronics Limited and CHARUSAT Space Research and Technology Center, CHARUSAT University titled "<u>Atmospheric Turbulence Mitigation in Real Time</u> <u>CCD/TI Videos</u>" under Prof. Dippal Israni and Dr. Jitendra Chaudhari has been approved by BEL management. The project duration is 24 months from the date of approval (18<sup>th</sup> October 2016) and INR 17.8 lakhs has been sanctioned on the same.

R Patil Group Head (EO & RADAR) 20/12/2016

Copy to: Dr. Jitendra Chaudhari

सी. आर. पाटिल / C. R. PATIL सदस्य (तफ़ि अनुसंधान स्टाफ) / Member (SRS). CBE210656 केंद्रीय अनुसंधान प्रयोगशाला / Central Research Laboratory भारत इलेक्ट्रॉनिक्स लिप्रिटेड / Bharat Electronics Limited जालहल्ली पोस्ट, बेंगलूरु - १३ / Jalahalil Post, Bangalore - 560 013

पंजीकृत कार्यालय : आउटर रिंग रोड, नागवारा, बेंगलूरु—560 045, भारत. दूरभाष : +91 (080) 25039300 Regd. Office : Outer Ring Road, Nagavara, Bengaluru - 560 045, INDIA.

| TTTA DITICAT  | CHAROTAR UNIVER   | RSITY OF SCIENCE AND T<br>CHARUSAT CAMPUS, CHANG.   |                  | )                |
|---|---|---|------------------|------------------|
| CHARUSAT  |   | 1-2697-265000, 247500. Fax # +91-<br>info@charusat.ac.in Web : www.ch                                 | 2697-247100.     |                  |
|   |   | CHEQUE RECEIPT  |                  |                  |
|   |   |   | Voucher No : 1   | 3 /17/002357     |
| Recevied with thank   | s from :  |   | Voucher Date : 0 | 6/12/2017        |
| CSRTC-BELATM  | o nont.   |   | Created On : 0   | 6/12/2017 9:10AM |
| Received as per follow  | ing:  |   | S.B.I CHANGA [3  | 0875081005]      |
|   | PARTICULA   | AR  |                  | AMOUNT (`)       |
| CSRTC - BELATM  |   |   |                  | 600,000.00       |
| (60,000) AT THA<br>6,00,000.00 RS                                 | AT TIME WE CAN'T TAKE TI<br>AND TDS IS 60,000.00 (AS<br>5,40,000.00 RS.NET AMOU | BUT SAID AMOUNT IS AFTE<br>DS SO NOW GORSS AMOUNT<br>PER FORM NO.16A) SO<br>NT. AS PER FORM NO.16A RE | IS               |                  |
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|   |   | Branch CHANGA   | TOTAL :          | 540,000.00       |
| Cheque No. : Transfer<br>Bank Name : S.B.I<br>Amount in words : : | RUPEES FIVE LAKH FOR  |   | TOTAL :          | 540,000,00       |

CHARUSAT Campus, Changa, ANAND District - 388 421 (Gujarat) India. Ph # +91-2697-265011, 265021 Fax # +91-2697-265007 • E-mail : info@charusat.ac.in • Web : www.charusat.ac.in

## **GUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY**



Department of Science & Technology, Government of Gujarat Block: B, 7th Floor, M.S. Building, Nr.Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in



Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2016-17/ 43

Dr. A. D. Patel, Principal C. S. Patel Institution of technology. Charotar University. Changa-884521

Sub: Release of first installment of the sanctioned grant for Minor Research Project 2015-16

Dear Sir.

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

We are pleased to inform you that the first installment of your Minor Research Project entitled "Effect of electromagnetic waves on plants" amounting Rs.3,00,000/-has been released through RTGS/NEFT to your Bank account directly vide online transaction on 27th June, 2016.

Further, on successful completion of 1st year of research work, if there is any delay in disbursing the 2nd year installment by GUJCOST, the concern institute should arrange to provide the necessary financial support (As approved by GUJCOST) to the PI to continue the work and to complete the project as per the project time schedule and duration. Once the GUJCOST grant is disbursed, the amount provided by institute shall be reimbursed accordingly.

We request you to please acknowledge us the stamped receipt of the above payment for our records.

Thanking you and with best regards.

Yours sincerely, (Narottam Sahoo)

Copy to: Dr. Trushit Upadhyay, Professor, Department of EC Eng. C. S. Patel Institution of technology. Charotar University, Changa

27th June, 2016

#### 3/09/2018

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| Project Title   | : Effects of Electromagnetic Waves  | on riano   |
| Project Title   | : Trushit Upadhyaya   |  |
| t Travestigator   | : Trushit Upadhyaya   |  |
| t Travestigator   | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20   | 016  |
| t Travestigator   | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20   |  |
| Name of Principal Investigator<br>Sanction Order No.: GUJCOST                                   | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20<br>Sanctioned Amount (in Rs.)                       | 016<br>Expenditure (in Rs.)  |
| Name of Principal Investigator<br>Sanction Order No.: GUJCOST<br>INCOME                         | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20<br>Sanctioned Amount (in Rs.)<br>2,75,000           | 016<br>Expenditure (in Rs.)<br>2,85,500  |
| Name of Principal Investigator<br>Sanction Order No.: GUJCOST<br>INCOME<br>Consumable           | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20<br>Sanctioned Amount (in Rs.)<br>2,75,000<br>15,000 | 016<br>Expenditure (in Rs.)<br>2,85,500<br>15,000  |
| Name of Principal Investigator<br>Sanction Order No.: GUJCOST<br>INCOME<br>Consumable<br>Travel | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20<br>Sanctioned Amount (in Rs.)<br>2,75,000           | 016<br>Expenditure (in Rs.)<br>2,85,500<br>15,000<br>15,000<br>3,15,500  |
| Name of Principal Investigator<br>Sanction Order No.: GUJCOST<br>INCOME<br>Consumable           | : Trushit Upadhyaya<br>/MRP/2016-17/282 dated 20 June, 20<br>Sanctioned Amount (in Rs.)<br>2,75,000<br>15,000 | 016<br>Expenditure (in Rs.)<br>2,85,500<br>15,000  |

Date: 11/11/2017

Place: Changa

Examined and found correct

Trushit Upadhyaya Principal Investigator

40 Dr. A D Patel Principal, CSPIT

Finance Officer

DY. ACCOUNTS OFFICER CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY CHANGA - 388 421, TA. PETLAD, DI. ANAND

Accountant Chartered

B. C. PATEL & CO. Chartered Accountants Mem.No. 32231



https://mail.google.com/mail/u/0/#search/GUJCOST/16540f7e6520df49?projector=1&messagePartId=0.1

## **GUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY**



Department of Science & Technology, Government of Gujarat Block: B, 7th Floor, M.S. Building, Nr.Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in



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Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/MRP/2015-16/2647

28th March, 2016

#### Mr. Killol V. Pandya

Electronics & Communication Engineering C S Patel Institute Of Technology, Harotar University of Science and Technology, CHANGA, Anand- 388421

Sub: Award of GUJCOST Minor Research Project Grant for the proposal on "Biological electronics circuit made from blood serum, blood and silicon rubber tubular harness" by Mr. Killol V. Pandya

Dear Sir,

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar

With reference to your project proposal on "Biological electronics circuit made from blood serum, blood and silicon rubber tubular harness". GUJCOST is pleased to inform you that your proposal has been sanctioned for an amount of Rs. 1,05,000/ for one year time period.

As per the GUJCOST MRP guidelines and for the disbursement of the grant, a Memorandum of Understanding (M.O.U) has to be signed between the Principal/ Head of the Institute, Principal Investigator of the project and GUJCOST on Rs. 100/- stamp paper with Notary registration. A draft MOU has been enclosed herewith for your reference,

We request you to please send us the signed copy of the MOU and Bank Detail at the earliest so that necessary financial assistance may be released.

Tanking you and with best regards.

Yours sincerely,

(Narottam Sahoo)

Encl.: As above

## **CHANDUBHAI S. PATEL INSTITUTE OF TECHNOLOGY - CHANGA**

CONSTITUENT OF CHARUSAT At & Po. CHANGA - 388 421. Ta. Petlad, Dist Anand Phone : (02697) 265011, 265021 Fax : (02697) 265007 E-mail : principal.cspit@charusat.ac.in



29/07/2016

Dr. Narottam Sahu Advisor & Member secretary GUJCOST-Gandhinagar

Subject: Receipt of sanctioned grant for Minor Research Project

Dear Sir,

Grant of Rs. 1,05,000 from Gujarat Council of Science and Technology (GUJCOST) has been received for minor research project entitled "Biological electronic circuit made from blood serum, blood and silicon rubber tubular harness".

An account has been opened for said project and amount is transferred to account for Principal Investigator to carry out research work.

Thanking you,

Dr. A. D. Patel Principal Chandubhai S Patel Institute of Technology, Charotar University of Science & Technology

## CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

## CHANDUBHAI S PATEL INSTITUTE OF TECHNOLOGY

#### INCOME AND EXPENDITURE STATEMENT

## GUJCOST SPONSORED MINOR RESEARCH PROJECT

#### (From 27/06/2016 to 28/06/2017)

Project Title: Biological electronic circuit made from blood serum, blood and silicon rubber tubular harness

Name of Principal Investigator: Dr. Killol Pandya

Letter No.: GUJCOST/MRP/2016-17/501 dated 27th June, 2016

| INCOME     | Amount (in Rs.) | Expenditure (in Rs.) |  |
|------------|-----------------|----------------------|--|
| Equipments | 70.000          | 72,500               |  |
| Travel     | 15,000          | 15,000               |  |
| Other cost | 20,000          | 20,000               |  |
| Total      | 1,05,000        | 1,07,500             |  |

Date: 10/11/2017

Place: Changa

Kylond

(Dr. Killol Pandya)

Principal Investigator

(Dr. A D Patel)

Principal

**Finance** Officer

DY. ACCOUNTS OFFICER CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY CHANGA - 388 421, TA. PETLAD, DI. ANAND

Examined and found correct

Chartered Accountant B. C. PATEL & CO. Chartered Accountants Mem.No. 32231



## GUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY Department of Science & Technology, Government of Gujarat



Block: B, 7th Floor, M.S. Building, Nr.Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in



Dr. Narottam Sahoo Advisor & Member Secretary

28th March, 2016

#### Dr. Pragnesh Bhatt

Department of Electrical engineering C. S. Patel institute of technology Charotar University of science and technology, Changa-388424

Sub: Award of GUJCOST Minor Research Project Grant for the proposal on "Emultion of hidden intertia of variable speed wind turbine Generators for frequency regulation" by Dr. Pragnesh Bhatt

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

With reference to your project proposal on "Emultion of hidden intertia of variable speed wind turbine Generators for frequency regulation". GUJCOST is pleased to inform you that your proposal has been sanctioned for an amount of Rs. 3,90,000/-for two years time period.

As per the GUJCOST MRP guidelines and for the disbursement of the grant, a Memorandum of Understanding (M.O.U) has to be signed between the Principal/ Head of the Institute, Principal Investigator of the project and GUJCOST on Rs. 100/- stamp paper with Notary registration. A draft MOU has been enclosed herewith for your reference.

We request you to please send us the signed copy of the MOU and Bank Detail at the earliest so that necessary financial assistance may be released.

Tanking you and with best regards.

Yours sincerely.

(Narottam Sahoo)

Encl.: As above

## **Faculty of Pharmacy**

JARAT COUNCIL ON SCIENCE AND TECHNOLOGY



Department of Science & Technology, Government of Gujarat

Block: B, 7th Floor, M.S. Building, Nr.Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in

Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2015-16/ 2693

28th March, 2016

**Ms. Kunti A. Shah** Assistant Professor Ramanbhai patel College of Pharmacy Anand, Gujarat 388421

Sub: Award of GUJCOST Minor Research Project Grant for the proposal on "Improvement of physicochemical properties of active pharmaceutical ingredient via solid sate modification" by Ms. Kunti A. Shah

Dear Madam,

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

With reference to your project proposal on "Improvement of physicochemical properties of active pharmaceutical ingredient via solid sate modification".GUJCOST is pleased to inform you that your proposal has been sanctioned for an amount of Rs:3,60,000#for two years time period.

As per the GUJCOST MRP guidelines and for the disbursement of the grant, a Memorandum of Understanding (M.O.U) has to be signed between the Principal/ Head of the Institute, Principal Investigator of the project and GUJCOST on Rs. 100/- stamp paper with Notary registration. A draft MOU has been enclosed herewith for your reference.

We request you to please send us the signed copy of the MOU and Bank Detail at the earliest so that necessary financial assistance may be released.

Tanking you and with best regards.

Yours sincerely,

(Narottam Sahoo)

Encl.: As above

## **GUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY**

Department of Science & Technology, Government of Gujarat

Block: B, 7th Floor, M.S. Building, Nr.Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in



Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2016-17/ 652

27th June,2016

#### Dr. Rajesh Harshadray Parikh

Principal Ramanbhai Patel College of Pharmacy Anand, Gujarat 388421

Sub: Release of first installment of the sanctioned grant for Minor Research Project 2015-16.

Dear Sir,

मत्यमेव ज्लयते

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

We are pleased to inform you that the <u>first installment of your Min</u>or Research Project entitled on <u>"Improvement of physicochemical properties of active pharmaceutical ingredient via solid sate</u> modification" amounting Rs.3,05,000/-has been released through RTGS/NEFT to your Bank account directly vide online transaction on 27th June,2016.

Further, on successful completion of 1st year of research work, if there is any delay in disbursing the 2nd year installment by GUJCOST, the concern institute should arrange to provide the necessary financial support (As approved by GUJCOST) to the PI to continue the work and to complete the project as per the project time schedule and duration. Once the GUJCOST grant is disbursed, the amount provided by institute shall be reimbursed accordingly.

We request you to please acknowledge us the stamped receipt of the above payment for our records.

Thanking you and with best regards.

Yours sincerely.

(Narottam Sahoo)

Copy to: Ms. Kunti A. Shah, Assistant Professor, Ramanbhai Patel College of Pharmacy, Anand

D' Project file & Personal File.

## **JUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY**



Department of Science & Technology, Government of Gujarat Block : B, 7th Floor, M. S. Building, Nr. Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in



Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2018-19/ 95-9

10<sup>th</sup> October, 2018

#### Ms. Kunti A. Shah

Assistant Professor Ramanbhai Patel College of Pharmacy Anand, Gujarat 388421

Sub: Release of second installment of the sanctioned grant for Minor Research Project 2015-16.

Dear Madam,

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

We are pleased to inform you that the second installment of your Minor Research Project entitled on "Improvement of physicochemical properties of active pharmaceutical ingredient via solid state modification" amounting Rs.55000/-has been released through RTGS/NEFT to your Bank account directly vide online transaction on 27th September, 2018.

We request you to acknowledge us the stamped receipt of the above payment for our records.

We also request you to please plan to complete the project work at the earliest and submit the report to GUJCOST accordingly.

Thank you and with best regards.

Yours sincerely,

(Narottam Sahoo)

Encl.: As above

JARAT COUNCIL ON SCIENCE AND TECHNOLOGY



Department of Science & Technology, Government of Gujarat

Block: B, 7th Floor, M.S. Building, Nr.Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in



Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2015-16/

28th March, 2016

Ms. Avani Bharatkumar Chokshi, 269 ) Professor Ramanbhaipatel College of Pharmacy, Charotar University of science and Technology, Charusat Campus, Changa-388421

Sub: Award of GUJCOST Minor Research Project Grant for the proposal on "Synthesis and evaluation of some novel lipid lowering agents" by Ms. Avani Bharatkumar Chokshi.

Dear Madam,

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

With reference to your project proposal on "Synthesis and evaluation of some novel lipid lowering agents". GUJCOST is pleased to inform you that your proposal has been sanctioned for an amount of Rs.1,00,000/-for two years time period.

As per the GUJCOST MRP guidelines and for the disbursement of the grant, a Memorandum of Understanding (M.O.U) has to be signed between the Principal/ Head of the Institute, Principal Investigator of the project and GUJCOST on Rs. 100/- stamp paper with Notary registration. A draft MOU has been enclosed herewith for your reference.

We request you to please send us the signed copy of the MOU and Bank Detail at the earliest so that necessary financial assistance may be released.

Tanking you and with best regards.

Yours sincerely,

(Narottam Sahoo)

Encl.: As above

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Gujarat Council on Science and Technology, Block B, 7<sup>th</sup> Floor, M S Building, Near Pathikashram, Sector 11, Gandhinagar –382 011.

Date: 20 - 6 - 16

Reference: (1) Minor Research Project proposal dated 27/11/2015 (2) GUJCOST Note Dated 28<sup>th</sup> April, 2016.

Sanction Order:

No: GUJCOST/MRP/16-17/

Gujarat Council on Science and Technology, Gandhinagar is running different schemes for nurturing & promoting Research and Development activities in the state. With reference to the above letter, we have received an application titled "Synthesis and evaluation of some novel lipid lowering agents" from Ms. Avani Bharatkumar Chokshi, from Ramanbhai Patel College of Pharmacy, Charotar university of Science and Technology, Changa as Principal Investigator under the Minor Research Project Scheme. On the basis of recommendation of technical experts and approval by GUJCOST Note, Dated 10<sup>th</sup> March, 2016 financial assistance Rs. 1,00,000/- (Rupees one lakh only) is sanctioned for period of two year as per the following details and conditions.

| Sr. No | ltem        | First<br>Year | Second Year | Total    |
|--------|-------------|---------------|-------------|----------|
| (1)    | Consumables | 40,000        | 30,000      | 70,000   |
| (2)    | Travel      | 5,000         | 5,000       | 10,000   |
| (3)    | Equipments  |               |             |          |
| (4)    | Other Cost  | 10,000        | 10,000      | 20,000   |
|        | Grand Total | 55,000        | 45,000      | 1,00,000 |

Permission is hereby granted for release of grant of Rs. 55,000/- for first year and Rs. 45,000/- for second year under the following conditions:-

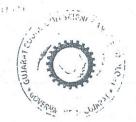
(1) To get the above mentioned financial assistance an M.O.U. has to be signed between the Principal/Head of the institute. Principal investigator of the Project and GUJCOST. On submission of the M.O.U. to GUJCOST, financial assistance will be released.

(2) Six monthly and spiral bound Final progress reports of the project in triplicate with photographs, Copies of Vouchers and Bills of the spent amount will have to be submitted to GUJCOST.

(3) Unspent amount will have to be submitted to GUJCOST at the end of Project.

The Cheque / DD of Rs. 55,000/- (Rupees fifty five thousand only) shall be issued in favor of "CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY" payable at, Changa. UJARAT COUNCIL ON SCHENCE AND RECHNOLOUS

Doptimient in Floor, M.S. Duilding, NoPathleishing, addited Block B. Zin Floor, M.S. Duilding, NoPathleishing, addited Goodhinagar, Gujarat - 382011 Phone (079) 23259362-65 Fax : (079) 23259363 E-mail: info-gujcost@gujarat.gov.in URL: www.gujcost.gujarat.gov.in



Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2016-17/ C20

27th June,2016

Dr. Rajesh Harshadray Parikh, Principal Ramanbhai Patel College of Pharmacy, Charotar University of science and Technology, Charusat Campus, Changa-388421

Sub: Release of first installment of the sanctioned grant for Minor Research Project 2015-16.

Dear Sir,

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

We are pleased to inform you that the first installment of your Minor Research Project entitled on "Synthesis and evaluation of some novel lipid lowering agents" amounting Rs.55,000/-has been released through RTGS/NEFT to your Bank account directly vide online transaction on 27th June,2016.

Further, on successful completion of 1st year of research work, if there is any delay in disbursing the 2nd year installment by GUJCOST, the concern institute should arrange to provide the necessary financial support (As approved by GUJCOST) to the PI to continue the work and to complete the project as per the project time schedule and duration. Once the GUJCOST grant is disbursed, the amount provided by institute shall be reimbursed accordingly.

We request you to please acknowledge us the stamped receipt of the above payment for our records.

Thanking you and with best regards.

Yours sincerely,

(Narotfam Sahoo)

Copy to: Ms. Avani Bharatkumar Chokshi, Professor, Ramanbhai Patel College of Pharmacy, Charotar University of Science and Technology, Changa

Pessonal File of MS. Aruni

TO

## **GUJARAT COUNCIL ON SCIENCE AND TECHNOLOGY**



Department of Science & Technology, Government of Gujarat Block : B, 7th Floor, M. S. Building, Nr. Pathikashram, Sector-11, Gandhinagar, Gujarat - 382011. Phone : (079) 23259362-65 Fax : (079) 23259363 E-mail : info-gujcost@gujarat.gov.in URL : www.gujcost.gujarat.gov.in

Dr. Narottam Sahoo Advisor & Member Secretary

No: GUJCOST/ MRP/ 2018-19/

Ms. Avani Bharatkumar Chokshi, Professor

Ramanbhaipatel College of Pharmacy, Charotar University of science and Technology, Charusat Campus, Changa-388421

Sub: Release of second installment of the sanctioned grant for Minor Research Project 2015-16.

Dear Madam.

Warm Greetings from Gujarat Council on Science and Technology (GUJCOST), Gandhinagar.

We are pleased to inform you that the second installment of your Minor Research Project entitled on "Synthesis and evaluation of some novel lipid lowering agents" amounting Rs.45000/-has been released through RTGS/NEFT to your Bank account directly vide online

We request you to acknowledge us the stamped receipt of the above payment for our records.

We also request you to please plan to complete the project work at the earliest and submit the

Thank you and with best regards.

Yours sincerely,

10th October, 2018

ON SCIEN

(Narottam Sahoo)

Encl.: As above

# Faculty of Computer Science and Applications

### FILE NO. EEQ/2016/000021 SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

(a statutory body of the Department of Science & Technology, government of India) 5 & 5A, Lower Ground Floor Vasant Square Mall Plot No. A, Community Centre Sector-B Pocket-5 Vasant Kuni

Sector-B, Pocket-5, Vasant Kunj New Delhi-110070

#### Dated: 31-Jan-2017

## <u>ORDER</u>

Subject: Financial Sanction of the research project titled <mark>"Simulation and Modeling of Big Data Time</mark> Series" under the guidance of Dr. Pritpal Singh, MCA, Charotar University of Science & Technology, Changa , Post changa, petlad, Anand, Gujarat-388421 - 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. 2378000/- (Rs. Twenty Three Lakh Seventy Eight Thousand Only)** with break-up of **Rs. 400000/- under Capital (Non-recurring) head** and **Rs.1978000/- under General (Recurring) head** for a duration of Four years. The items of expenditure for which the total allocation of **Rs. 2378000/-** has been approved are given below:

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

| S. No | Head   | Total (in Rs.) |
|-------|--|----------------|
| A     | Non-recurring  |                |
| 1     | Equipment<br>-> Work Station Desktop<br>-> Matlab Software<br>-> Printer | 400000         |
| Α'    | Total (Non-Recurring)  | 400000         |
| в     | Recurring Items  |                |
| 1     | Recurring - A : ( Manpower, Consumables, Travel, Contingencies)          | 1762000        |
| 2     | Recurring - B : (Overhead Charges)                                       | 216000         |
| B'    | Total (Recurring)  | 1978000        |
| С     | Total cost of the project (A' + B')                                      | 2378000        |

2. Sanction of the SERB is also accorded to the payment of

 Rs. 400000/- (Rupees Four Lakh only) under 'Grants for creation of capital assets' and Rs. 494000/- (Rupees Four Lakh Ninety Four Thousand only) under 'Grants-in-aid General' to Dy. Accounts Officer, Charotar University Of Science & Technology, Changa, Post Changa, Petlad

being the first installment of the grant for the year 2016-2017 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 Empowerment and Equity Opportunities for Excellence in Science. (Task force Committee) (SC)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on <mark>19 January, 2017 and vide Diary No.</mark> SERB/F/7615/2016-17 dated 21 January, 2017

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

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

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

10. The release amount of **Rs. 894000/-** (Rupees Eight Lakh Ninety Four Thousand only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| Account Nam | CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY |  |
|-------------|---|--|
| Account Num | er 30875081005                              |  |

| Bank Name &<br>Branch     | State Bank of India CHANGA / VALETVA-CHANGA ROAD/ CHANGA-388421 / ANAND / GUJARAT / INDIA |
|---------------------------|---|
| IFSC/RTGS Code            | SBIN0010961   |
| Email id of A/C<br>Holder | bhavdippatel.acc@charusat.ac.in   |
| Email id of PI            | drpritpalsingh82@gmail.com  |

11. The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. EEQ/2016/000021 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, 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.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

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(Dr. Pramod Kumar Prasad) Scientist C pk.prasad@serb.gov.in

To. **Finance & Budget Officer** SERB, New Delhi Copy forwarded for information and necessary action to: -The Principal Director of Audit, A.G.C.R.Building, IIIrd Floor I.P. Estate, Delhi-110002 1. 2. Sanction Folder, SERB , New Delhi. 3. **File Copy** 4. Dr. Pritpal Singh MCA Charotar University of Science & Technology, Changa , Post changa, petlad, Anand, Gujarat-388421 Email: drpritpalsingh82@gmail.com Mobile: 919427328660 (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit www.serb.gov.in.) Dy. Accounts Officer, 5. Charotar University Of Science & Technology, Changa, Post Changa, Petlad (Receipt of Grant may be intimated by name to the undersigned)

1-on

(Dr. Pramod Kumar Prasad) Scientist C pk.prasad@serb.gov.in

# Faculty of Management Studies

| ۱. | Name of the Institution              | CHAROTAR UNIVERSITY OF                  |
|----|--------------------------------------|---|
|    |                                      | SCIENCE AND TECHNOLOGY                  |
| 2. | Mailing Address (including Mobile    | Charusat Campus Changa.                 |
|    | No., email and Fax)                  | Off Nadiad-Petlad Highway.              |
|    |                                      | Dist. Anand, Ta.Petlad, Changa - 388421 |
|    |                                      | Gujarat State. India                    |
|    |                                      | Landline: +91-2697-265011/21            |
|    |                                      | Email: info@charusat.ac.n               |
| 3. | Name of the Focal Point/ Coordinator | Prof. (Dr.) Govind B Dave               |
| 4. | Study Area                           | India                                   |
|    | (a) State                            | Gujarat                                 |
|    | (b) District(s)                      | Ahmedabad                               |
|    | (c) No. and Name of Panchayat(s)     | 20 and Daskori Panchyat                 |
| 5. | Budget (@Rs. 2,000/- per Panchayat)  | Rs. 40,000/-                            |
| 6. | Name of the person signing the MoU   | Mr. Devang Joshi, Registrar, CHARUSAT   |

# **EMPOWERING PANCHAYATI RAJ INSTITUTIONS SPATIALLY (EPRIS)**

• MoU will be executed between ISRO and Partner Institution.

- Time frame for completing the data collection process after signing the MoU will be three months.
- · Study area has to be selected avoiding the districts already taken up under EPRIS project.
- Smart phone(s) for collecting the asset data in the field will be made available for this purpose by the Partner Institution.
- Assets collected by the institutions will be moderated by the Panchayat officials for final acceptance.

(Signature of the Coordinator/ Focal Point)

# То,

The Project Coordinator EPRIS National Remote Sensing Centre ISRO, Dept. of Space, Govt. of India Balanagar Hyderabad-500037 Telephone: 040-23878585 E-mail: cgm@nrsc.gov.in

P. SATYANARAYANA Scientist / Engineer National Remote Sensing Centre (NRSC): ISRO, Dept. of Space, Govt. of India, Balanagar,Hyderabad-500 037.

Date: 15/05/2017

# Letter of Intent for Asset Mapping

# Between

# National Remote Sensing Centre, Hyderabad - 500037 ISRO, DOS

#### And

# Charotar University of Science and Technology (CHARUSAT), Changa

ISRO has developed an online Portal - Bhuvan Panchayat (www.bhuvan-panchayat.nrsc.gov.in) with the space-based inputs towards resource-based and integrated spatial developmental planning of rural areas in a user-friendly enabling environment under the project 'Space based Information Support for Decentralized Planning (SIS-DP)'. In order to utilize the Portal for decentralized planning by Panchayati Raj Institutions (PRIs), ISRO has initiated a new project called Empowering Panchayati Raj Institutions Spatially (EPRIS) with the goal to empower PRIs by utilizing the Portal for developmental planning at Panchayat level. Towards achieving the goal, it is essential to have the information of existing assets so that one can assess the gap area and plan for new assets.

NRSC has initiated implementation of EPRIS project covering 10% of Panchayats with the help of Partner Institutions namely, SRSACs, NIRD and NGOs. Further to fasten the activity, the asset mapping workshop was conducted through distance learning from IIRS on 27th June 2016 to several academic institutions. During the workshop many academic institutions showed interest to participate in the asset mapping exercise. To carry out the asset mapping activity with Academic Institutions in a stipulated time of 3 months, ISRO has identified a nominal amount of Rs. 2000 per Gram Panchayat for the logistics support. To avoid duplication of work, this Letter of Intent for asset mapping has been prepared for joint signature by NRSC & academic Institutions.

In this Letter of Intent, National Remote Sensing Centre (NRSC) is the nodal agency for capacity building, asset mapping and activity planning for empowering PRIs, NRSC and Charotar University of Science and Technology (CHARUSAT) agree to exercise their best efforts in fulfilling the following obligations for asset mapping in the selected Gram Panchayats (as per list shown in Annexure-1):

- All the community assets lying in the selected Gram Panchayat area are to be mapped using the latest version of Bhuvan Panchayat Asset Mapping Mobile App, freely downloadable from the Bhuvan Panchayat Portal (www.bhuvan-panchayat.nrsc.gov.in).
- The asset mapping is to be done in co-ordination with the local Elected Panchayat 2. Representatives / Panchayat functionaries and validated by the concerned Elected Panchayat Representative / Panchayat functionary.
- The assets successfully mapped by the Bhuvan Panchayat Mobile App will be available 3
- The following documents, available in Bhuvan Panchayat Portal for free download, may 4. be referred for the detailed methodology: (i) Asset Directory and Mapping Guidelines, and (ii) Bhuvan Panchayat Asset Mapping App User Manual.
- Remuneration will be paid to the University at the rate of Rs. 2000 per Gram Panchayat 5.

- 6. University/Institutes should make their own arrangement for Smart phone(s) for collecting the asset data in the field
- 7. After successful mapping of all the assets utilization of fund with necessary certification by the Panchayat Representative/ Panchayat functionary need to be submitted to NRSC
- 8. After successful asset mapping, developmental activity planning using Bhuvan. Panchayat platform will be planned separately by capacity building of the locals with the participated academic institutions at Panchayati Raj Institutions.

This letter of intent is valid until successful completion of the task as per the above obligations, or 3 months from the date of signing this letter, whichever is earlier. The obligations under this letter of intent can be nullified on mutual consent. This letter of Intent is not intended to and shall not constitute in any way a binding or legal agreement, or impose any legal obligation or duty on either party.

Signatures

National Remote Sensing Centre

· (Jag TI / Uday Raj) मुख्य महाप्रमंधक-श्रेत्रीय केंद्र Chief General Manager (RCs) ाभाग उतावराजा गांधावधूंचा (१८७४) राष्ट्रीय सुद्ध संवेदन केंद्र National Remote Sensing Centre इसते, आतरिक विक्रमा, भारत सरकार 18RO, Dept. of Space, Govt. of India सम्बद्ध, वेद्यावर/Balanagar, Hyderabad-500 027.

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)

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A ......

REGISTRAR CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY CHARUSAT CAMPUS, CHANGA

P. Satzarangana) P. SATYANARAYANA Scientist / Engineer National Remote Sensing Centre (NRSC) ISRO, Dept. of Space, Govt. of India, Balanagar, Hyderabad-500 037.

19-12

# Memorandum of Understanding (MoU) Regarding Preparation of District Human Development Report (DHDR)

This Tripartite MoU is entered into between **Gujarat Social Infrastructure Development Society** (hereinafter referred to as GSIDS unless its meaning otherwise requires), a wholly owned Government of Gujarat Society, a society registered under provision of Societies Registration Act, 1860 and Bombay Public Trust Act, 1950, having its office at Directorate of Economics and Statistics, Near Police Bhavan, Sector 18, Gandhinagar of the ONE PART.

**Charotar University of Science & Technology (CHARUSAT) Changa** (hereinafter referred to as university / institute unless its meaning otherwise requires), a university / institute approved by Government of Gujarat and having its office at Charotar University of Science & Technology (CHARUSAT)Changa -388421,Gujarat of the SECOND PART.

Chhotaudepur District Collector, Government of Gujarat (hereinafter referred to as District Collector unless its meaning otherwise requires), having its office at, District Collector Office, Jilla Seva Sadan, Chhotaudepur of the THIRD PART.

# **BACKGROUND AND CONTEXT:**

WHEREAS the State Government had participated in the GOI-UNDP project on Strengthening State Plans for Human Development (SSPHD) in the year 2008-09. Five districts were selected at the initial stage for preparation of District Human Development Reports (DHDR) – (Sabarkantha, Surendranagar, Jamnagar, Surat and The Dangs). Later on, Government of Gujarat has undertaken the activity of preparation of DHDRs for 21 districts (Tapi, Panchmahals, Kheda, Banaskantha, Bharuch, Kachchh, Gandhinagar, Dohad, Narmada, Ahmedabad, Amreli, Anand, Bhavnagar, Junagadh, Mahesana, Navsari, Patan, Porbandar, Rajkot, Vadodara and Valsad) through GSIDS during 2010-11 to 2014-15.

AND WHEREAS again, in the current year 2016-17, State Government has decided to prepare District Human Development Reports (DHDRs) of the newly created Seven Districts through GSIDS, which includes **Chhotaudepur** district as well.

# AND THERE IS A NEED FOR PREPARATION OF DHDR DUE TO FOLLOWING REASONS

Human Development is increasingly becoming an area of concern and high priority is given to a development strategy which conceptually goes beyond per capita income as a measure of development. The preparation of DHDR's marks the beginning of the process whereby people are mobilized and actively participate in the development process. The DHDR is expected to be an important document for formulating the District Human Development Plan.

# NOW THIS DEED OF MOU WITNESSETH AS UNDER:

# (A) ROLES AND RESPONSIBILITES:

- (i) Gujarat Social Infrastructure Development Society (GSIDS)
  - (a) GSIDS shall provide the data input available with itself for the preparation of District Human Development Report. However, the additional data other than that supplied by GSIDS shall be obtained by Institute/University from other sources. It will also collect whatever data/statistics are required and available with the Directorate of Economics and Statistics.
  - (b) GSIDS will work as facilitator between the Institute/University and District Collector for which it will appoint nodal officer or contact person.
  - (c) Provide guidance to District Planning Officer, District SPAC/SPA and also to the Project Coordinator of University/Institute.
  - (d) GSIDS will call State Level High Level Committee Meeting for finalization of Draft Report.
  - (e) GSIDS will release the entire fund as per this MoU.
- (ii) Institute/University
  - (a) University/Institute shall carry out comprehensive study of Sociological status of the particular district viz. Education, Health & Nutrition, Livelihood, Basic Amenities, Gender Equity, Vulnerability etc. in consultation with the District Officer of the line Department and submit its draft report in English language.
  - (b) DHDR will include methodology, objective, brief profile of the district, including Demography, Education, Health & Nutrition, Livelihood, Gender & Vulnerability, Basic Amenities etc. Also Include SWOC Analysis at the end of each chapter and include a separate chapter for Way Ahead in the report.
  - (c) DHDR will also include the impact of various Flagship & Mission Mode programmes being implemented by the State Government and also include various Success Stories/ Case Studies in the report.
  - (d) University/Institute shall finalise the draft report in consultation with District Collector and the concerned District officers.
  - (e) The report should depict Human Development Status of the district and feedback / inputs required for policy formulation specifically need to be reflected in the report.
  - (f) Technical annexure regarding data availability and data gaps will be required to include in the report.
  - (g) The analysis should include Charts and Graphical presentations.

- (h) University/Institute shall prepare Draft report of DHDR within Six Months of period, after signing this MoU.
- (i) University/Institute shall provide Two Hard Copies of the draft Report as well as Soft Copy of the same to the GSIDS and District Collector Office and Two Hard Copies (Colour) of the Final approved report to GSIDS & District Collector Office.

# (iii) District Collector

- (a) To form a Core Committee of district officers related to various aspects of Human Development.
- (b) To organise District Core Committee of District / Taluka level officers and discuss various aspects/issues pertaining to Human Development of the district.
- (c) To provide necessary facilities, logistic arrangements and inputs to the University/Institute for field visits to carry out studies related to Human Development of the district. The District Collector shall also issue the directions to the concern district officers for inputs required for preparation of DHDR.
- (d) To organise District Core Committee for finalisation of the Draft report and submit the same to The Principal Secretary (Planning) & Chairperson GSIDS, Government of Gujarat, Gandhinagar with the remarks of Core Committee.

# (B) PAYMENTS AND RELEASE OF FUNDS:

Charotar University of Science & Technology (CHARUSAT) Changa will prepare District Human Development Report (DHDR) for Chhotaudepur District and will be paid total consideration of ₹ 6.00 lakh (Including Service Tax) for this purpose, in following manner by the GSIDS.

- **50** % upon signing of this MoU and receipt of Invoice
- 30 % upon approval of the draft report by District Collector (through District Core Committee)
- 20 % upon approval of the final report by State Level High Level Committee

# (C) JURISDICTION:

This entire contract is subject to competent court at Gandhinagar Jurisdiction only.

# **DIFFICULTIES AND DISPUTES**

Any difficulties or disputes that may arise on account of interpretation or implementation of this MoU shall be referred to Principal Secretary (Planning), General Administration Department, Government of Gujarat. If amicable solution could not be arrived at then the dispute or difficulties shall be placed before Steering Committee whose decision shall be final and binding to all the parties to this MoU.

Signed by and on behalf of (as under):

| For and on behalf of   | Name &<br>Designation                              | Signature & Stamp                             | Date  |          |
|--|--|---|---|----------|
| Gujarat Social Infrastructure<br>Development Society<br>(GSIDS)  | K.D.Vashi<br>Director & Member<br>Secretary, GSIDS | Director &<br>Member Secret<br>SSIDS, Gandhin |   |          |
| Registrar/<br>Authorised Signatory<br>Charotar University of Science<br>& Technology (CHARUSAT),<br>Changa | Shoi. Devang<br>Joshi                              | CHAROTAR UNIVERSIT                            | 116116<br>REGISTRAR<br>Y OF SCIENCE AND TE<br>AT CAMPUS, CHANGA | CHNOLQGY |
| District Collector/<br>Authorised Signatory,<br>Chhotaudepur   |  | ÷   |   |          |

# INDUKAKA IPCOWALA INSTITUTE OF MGT.

Date: 26/10/2020

# Account Ledger

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For period from 01/04/2016 To 31/03/2017

| Vou. Date<br>Vou. No                     | Туре<br>б   | Description  | Debit<br>Amount | Credit<br>Amount |
|--|-------------|--|-----------------|------------------|
| DISTRICT HUI                             | MAN DEVELOF | PMENT REPORT (DHDR) Opening Balance  |                 | 1                |
| ,  |             |  | a<br>a          | l                |
| 13/07/2016<br>1 /16/006090               | CASH/CP     | CHAROTAR UNIVERSITY OF SCIENCE AND<br>TECHNOLOGY<br>TRAVELLING+TOLL TAX+LUNCH BILLFOR<br>CHARUSAT-FMS-IIIM-DHDR VISIT O CHOTAUDAPUR<br>FOR PRESENTETATION IN FROUNT OF CARE<br>COMMITTEE (2970+600+220) PAID TO MR.PRAMOD<br>PATEL<br>POSTED TO CSAT CASH BOOK | 3,790.00        |                  |
| 19/10/2016<br>13 /16/001618              | SBIc/BR     | DHDR<br>PROJECT CONSULTANCY REC FROM DHDR, CHOTA<br>UDAIPUR PROJECT TOTAL PROJECT VALUE 600000/-<br>SO 50% ADVANCE RECEIVED RECD. FROM DHDR<br>POSTED TO CSAT S.B.I CHANGA [30875081005]   | •               | 300,000.00       |
| 25/10/2016<br>1 /16/011975               | CASH/CP     | CHAROTAR UNIVERSITY OF SCIENCE AND<br>TECHNOLOGY<br>TAXI FARE & TOLL TAX & LUNCH & GIFT CHARFOR<br>DHDR PROJECT PRESENTATION MEETING A'BAD TO<br>CHANGA TO BACK PAID TO MR.PRAMOD PATEL<br>POSTED TO CSAT CASH BOOK  | 3,471.00        |                  |
| 31/12/2016<br>/16/014166                 | CASH/CP     | CHAROTAR UNIVERSITY OF SCIENCE AND<br>TECHNOLOGY<br>EXPEN FOR TRANSPORTATION+TOLL TAX FOR<br>PROJECT -PHOTOGRAPHY FOR PRASENTATION AT<br>REPART AT CHHOTA UDEPUR DISTRICT BREAKFAST &<br>DINNER PAID TO MR.PRAMOD PATEL<br>POSTED TO CSAT CASH BOOK            | 3,925.00        |                  |
| 27/03/2017<br>23 /16/000230              | EXPS/EP     | PRITAL B. PATEL POSTED TO CHAROTAR UNIVERSITY<br>OF SCIENCE AND TECHNOLOGY<br>BILL NO.: 435 DT. 2017-03-27<br>TRAVELLING EXPS. FOR CHANGA TO VADODARA<br>KIRTI MAKWANA FOR DHDR WORK   | 2,300.00        |                  |
|  | <b>.</b>    | Transaction Total  | 13,486.00       | 300,000.0        |
|  |             | Opening + Transaction Total  | 13,486.00       | 300,000.0        |
|  |             | Closing Balance  | 286,514.00      |                  |
| n sa |             |  |                 |                  |

# **Faculty of Sciences**

# FILE NO. ECR/2015/000549 SCIENCE & ENGINEERING RESEARCH BOARD

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

## Dated: 31-Aug-2016

ORDER Subject: Financial Sanction of the research project titled "Application of microaerophilic-aerobic bioreactor system in treating real textile effluents and metagenomic analyses of microbial community dynamics" under the guidance of Dr. Chirayu Rameshchandra Desai, Biological Sciences, Charotar University of Science & Technology, Changa , Post Changa, Petlad, Anand, Gujarat-388421 and by Dr. Darshan H Patel, Assistant Professor, Department Of Biochemistry, P.D.Patel Institute Of Applied Sciences, Charotar University Of Science & Technology, Changa -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. 3362700/- (Rs. Thirty Three Lakh Sixty Two Thousand Seven Hundred Only) with break-up of Rs. 1197000/- under Capital (Non-recurring) head and Rs.2165700/- under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 3352700/- has been approved are given below:

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

| S. No | Head   | Total (in Rs.) |
|-------|--|----------------|
| A     | Non-recurring  |                |
| 1     | Equipment<br>-> UV-Visible Spectrophotometer and thermostat module<br>-> Refrigerator<br>-> Electronic Microbalance<br>-> Refrigerated Centrifuge<br>-> Deep Freezer (-20°C) | 1197000        |
| A'    | Total (Non-Recurring)  | 1197000        |
| B     | Recurring Items  |                |
| 1     | Recurring - A : ( Manpower, Consumables, Travel, Contingencies)  | 1860000        |
| 2     | Recurring - B : (Overhead Charges)   | 305700         |
| B'    | Total (Recurring)  | 2165700        |
| C     | Total cost of the project (A' + B')  | 3362700        |

2. Sanction of the SERB is also accorded to the payment of

and Add

Rs. 1197000/- (Rupees Eleven Lakh Ninety Seven Thousand only) under 'Grants for creation of capital assets' and Rs. 721900/- (Rupees Seven Lakh Twenty One Thousand Nine Hundred only) under 'Grants-in-aid General' to Registrar, CHARUSAT, Charotar University Of Science & Technology, Changa, Post Changa, Petlad being the first installment of the grant for the year 2016-2017 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 Early Career Research Award. (EC Life Sciences)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 24 August, 2016 and vide Diary No. SERB/F/3492/2016-17 dated 29 August, 2016

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

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

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

smouth of Na. 1990001- (nupers Mingleen Lakn Eignteen Incusand Nine Hundred only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY  |
|--|
| 30875081005  |
| STATE BANK OF INDIA STATE BANK OF INDIA, CHARUSAT CAMPUS, NEAR DARSHAN<br>HOSTEL, CHANGA 388 421 |
| SBIN0010961  |
| registrar@charusat.ac.in   |
| chirayudesai.bt@charusat.ac.in   |
|  |

11. The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. ECR/2015/000549 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

- 71 (Dr. Thangaradjou T)

Scientist E ttradjou@serb.gov.in

To, Finance & Budget Officer

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. Chirayu Rameshchandra Desai<br>Biological Sciences<br>Charotar University of Science & Technology, Changa , Post Changa, Petlad, Anand, Gujarat-388421<br>Email: chirayudesai.bt@charusat.ac.in<br>Mobile: 917573871952  |
|  | Dr. Darshan H Patel<br>Department Of Biochemistry, P.D.Patel Institute Of Applied Sciences<br>Charotar University Of Science & Technology, Changa<br>(Start date of the project may be intimated by name to the undersigned. For guidance, terms &<br>Conditions etc. Please visit <u>www.serb.gov.in.</u> ) |
| 5.   | Registrar, CHARUSAT,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad   |
| and the second | (Receipt of Grant may be intimated by name to the undersigned)   |

7. TL (Dr. Thangaradjou T) Scientist E ttradjou@serb.gov.in

# FILE NO. ECR/2015/000549 SCIENCE & ENGINEERING RESEARCH BOARD

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

Dated: 31-Aug-2016

Subject: Financial Sanction of the research project titled "Application of microaerophilic-aerobic bioreactor system subject, r manetal saliction of the research project theu Application of incroactophilic actoble bioteater system in treating real textile effluents and metagenomic analyses of microbial community dynamics" under the guidance of Dr. Chirayu Rameshchandra Desai, Biological Sciences, Charotar University of Science & Technology, Changa, Post Changa, Petlad, Anand, Gujarat-388421 and by Dr. Darshan H Patel, Assistant Professor, Department Of Biochemistry, P.D.Patel Institute Of Applied Sciences, Charotar University Of Science & Technology, Changa -

Sanction of Science and Engineering Research Board (SERB) is hereby accorded to the above mentioned project at a total cost of Rs. 3362700/- (Rs. Thirty Three Lakh Sixty Two Thousand Seven Hundred Only) with break-up of Rs. 1197000/- under Capital (Non-recurring) head and Rs. 2165700/- under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 3362700/- has been approved are

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa,

Petlad

|       |   | Total (in Rs.) |
|-------|---|----------------|
| S. No | Head  | 1197000        |
| A     | Non-recurring   | 1191000        |
| 1     | Equipment<br>-> UV-Visible Spectrophotometer and thermostat module<br>-> Refrigerator<br>-> Electronic Microbalance<br>-> Refrigerated Centrifuge | 1197000        |
|       | -> Deep Freezer (-20°C)   | 1197000        |
| A'    | Total (Non-Recurring)   | 1860000        |
| B     | Recurring Items<br>Recurring - A : ( Manpower, Consumables, Travel, Contingencies)  | 1800000        |
| 1     | Recurring - A : ( Manpower, Consumances, Harry)   | 305700         |
|       | Recurring - B : (Overhead Charges)  | 2165700        |
| 2     | Recurring)  | 3362700        |
| B'    | Total (Recurring)   |                |
| C     | Total cost of the project (A' + B')   | ·              |

 Rs. 1197000/- (Rupees Eleven Lakh Ninety Seven Thousand only) under 'Grants for creation of capital assets' 2. Sanction of the SERB is also accorded to the payment of and Rs. 721900/- (Rupees Seven Lakh Twenty One Thousand Nine Hundred only) under 'Grants-in-aid General'

and ns. 121900/- (Rupees Seven Lakin Twenty One Thousand Mile Fundred Only) under Grants-In-ad General to Registrar, CHARUSAT, Charotar University Of Science & Technology, Changa, Post Changa, Petlad being the first installment of the grant for the year 2016-2017 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 Early Career Research Award. (EC Life Sciences)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 24 August, 2016 and vide Diary No. SERB/F/3492/2016-17 dated 29 August, 2016

5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and (www.serb.gov.in): general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit

whenever the institute is called upon to do so. 9. The sanctioned equipment would be procured as per GFR and its disposal of the same would be done with prior

approval of SERB.

10. The release amount of Rs. 1918900/- (Rupees Nineteen Lakh Eighteen Thousand Nine Hundred only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| PROCESSION OF A CIT       | perow.   |
|---------------------------|--|
| Account Name              | CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY  |
| Account Number            | 30875081005  |
| Bank Name &<br>Branch     | STATE BANK OF INDIA STATE BANK OF INDIA, CHARUSAT CAMPUS, NEAR DARSHAN<br>HOSTEL, CHANGA 388 421 |
| IFSC/RTGS Code            | SBIN0010961  |
| Email id of A/C<br>Holder | registrar@charusat.ac.in   |
| Email id of PI            | chirayudesai.bt@charusat.ac.in   |

11.The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. ECR/2015/000549 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

(Dr. Thangaradjou T) Scientist É ttradjou@serb.gov.in

To, Finance & Budget Officer SERB, New Delhi Conv forwarded for information

| CODA TOLMS | inded 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. Chirayu Rameshchandra Desai<br>Biological Sciences<br>Charotar University of Science & Technology, Changa , Post Changa, Petlad, Anand, Gujarat-388421<br>Email: chirayudesai.bt@charusat.ac.in<br>Mobile: 917573871952  |
|            | Dr. Darshan H Patel<br>Department Of Biochemistry, P.D.Patel Institute Of Applied Sciences<br>Charotar University Of Science & Technology, Changa<br>(Start date of the project may be intimated by name to the undersigned. For guidance, terms &<br>Conditions etc. Please visit www.serb.gov.in.) |
| 5.         | Registrar, CHARUSAT,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad   |
|            | (Receipt of Grant may be intimated by name to the undersigned)   |

2.71 (Dr. Thangaradjou T) Scientist É ttradjou@serb.gov.in

Georgenet System, For SERB

# FILE NO. ECR/2016/000820 SCIENCE & ENGINEERING RESEARCH BOARD

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

Dated: 20-Sep-2016

<u>ORDER</u> Subject: Financial Sanction of the research project tilled "Insilico identification of adsorbent material for complete separation of C5-C7 alkane isomers: An attempt towards upgradation of octane number of petrol/gasoline." under the guidance of Dr. Bhaskarjyoti Borah, physical sciences, Charotar University of Science & Technology, Changa, Post Changa, Petlad, Anand, Gujarat-388421 - 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. 3970000/- (Rs. Thirty Nine Lakh Seventy Thousand Only) with break-up of Rs. 2500000/- under Capital (Non-recurring) head and Rs.1470000/- under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 3970000/- has been The follow:

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

| S. No | Head  | Constant C |
|-------|---|--|
| A     | Non-recurring   | Total (in Rs.)   |
| 1     | Equipment<br>-> Computer blade server                           | 2500000  |
| A'    | Total (Non-Recurring)   |  |
| B     | Recurring Items   | 2500000  |
| 1     | Recurring - A : ( Manpower, Consumables, Travel, Contingencies) | 1110000  |
| 2     | Recurring - B : (Overhead Charges)                              |  |
| B'    | Total (Recurring)   | 360000   |
| с     | Total cost of the project (A' + B')                             | 1470000  |
|       |   | 3970000  |

2. Sanction of the SERB is also accorded to the payment of

Rs. 2500000/- (Rupees Twenty Five Lakh only) under 'Grants for creation of capital assets' and Rs. 490000/-(Rupees Four Lakh Ninety Thousand only) under 'Grants-in-aid General' to PROVOST, Charotar University Of Science & Technology, Changa, Post Changa, Petlad

being the first installment of the grant for the year 2016-2017 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 Early Career Research Award. (EC Chemical Sciences)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 19 September, 2016 and vide Diary No. SERB/F/4197/2016-17 dated 20 September, 2016

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

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

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

10. The release amount of **Rs. 2990000/-** (Rupees Twenty Nine Lakh Ninety Thousand only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank

| Account Name              | CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY   | 1 |
|---------------------------|---|---|
|                           | 30875081005   |   |
| <br>Bank Name &<br>Branch | STATE BANK OF INDIA SBI CHARUSAT CAMPUS, STATE BANK OF INDIA, CHARUSAT<br>CAMPUS, CHANGA, ANAND, GUJARAT 388421 |   |

http://serhonline.in/SER.B/GenerateSanctionInRelease?Prold=242016001243&rid=0

# FILE NO. ECR/2016/000820

SCIENCE & ENGINEERING RESEARCH BOARD(SERB) (a statutory body of the Department of Science & Technology, government of India) 5 & 5A, Lower Ground Floor Vacant Square Mall

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

1

Dated: 22-May-2017

### ORDER

Subject: Research project entitled "Insilico identification of adsorbent material for complete separation of C5-C7 alkane isomers: An attempt towards upgradation of octane number of petrol/gasoline." under the guidance of Dr. Bhaskarjyoti Borah, physical sciences, Charotar University of Science & Technology, Changa , Post Changa, Petlad, Anand, Gujarat-388421.

1. This is in continuation of SERB's sanction order No. "ECR/2016/000820" dated "20 September, 2016 " of Science and Engineering Research Board (SERB).

- 2. Sanction of the competent authority is hereby accorded to the payment of a sum of
- Rs. 450000/- (Rupees Four Lakh Fifty Thousand only) under 'Grants-in-aid General' to PROVOST, Charotar University Of Science & Technology, Changa, Post Changa, Petlad
   being the 2nd grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the formatic way 2017 2018 for investigation of the above and grant for the a

being the 2nd grant for the financial year 2017-2018 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. 477231/- (Rupees Four Lakh Seventy Seven Thousand Two Hundred and Thirty One only) (Recurring Rs. 402731 and Non-Recurring Rs. 74500) to Charotar University of Science & Technology, Changa, Post Changa, Petlad from FY 2016-2017 to FY 2017-2018 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 Early Career Research Award. (EC Chemical Sciences)

7. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 12 May, 2017 and vide Diary No. SERB/F/765/2017-18 dated 17 May, 2017

8. The release amount of **Rs. 450000/-** (Rupees Four Lakh Fifty Thousand only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| Account<br>Name           | CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY   |  |
|---------------------------|---|--|
| Account<br>Number         | 30875081005   |  |
| Bank Name &<br>Branch     | STATE BANK OF INDIA SBI CHARUSAT CAMPUS, STATE BANK OF INDIA,<br>CHARUSAT CAMPUS, CHANGA, ANAND, GUJARAT 388421 |  |
| IFSC/RTGS<br>Code         | SBIN0010961   |  |
| Email id of<br>A/C Holder | registrar@charusat.ac.in  |  |
| Email id of PI            | bhaskargreen@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.

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 India.

(Dr. S. Carasanna) Scientist prasanna@serb.gov.in

|    | To,<br>Finance & Budget Officer<br>SERB, New Delhi<br>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. Bhaskarjyoti Borah<br>physical sciences<br>Charotar University of Science & Technology, Changa , Post Changa, Petlad, Anand,<br>Gujarat-388421<br>Email: bhaskargreen@gmail.com<br>Mobile: 918238074200 |
| 5. | PROVOST,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad  |

(Dr.S V. Prasanna) Scientist prasanna@serb.gov.in

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# FILE NO EMR/2016/002278

SCIENCE & ENGINEERING RESEARCH BOARD(SERB) ta statutory body of the Department of Science & Technology, government of India) 5 & 5A, Lower Ground Floor Vasant Square Mall Plot No. A, Community Centre Sector-B, Pocket-5, Vasant Kunj New Delhi-110070

Dated: 14-Mar-2017

Subject: Financial Sanction of the research project titled "To prepare and test tunable magnetic fluid diffraction grating " under the guidance of Dr. Rucha P Desai, Department of Physical Sciences, P D Patel Institute of Applied Sciences, Charotar University of Science & Technology, Changa , Post changa, petlad, Anand, Gujarat-388421 - 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. 5007574/- (Rs. Fifty Lakh Seven Thousand Five Hundred and Seventy Four Only) with break-up of Rs. 3389340/- under Capital (Non-recurring) head and Rs.1618234 - under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 5007574/- has been approved are given below: The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

|        |  | Total (in Rs.) |
|--------|--|----------------|
| S. No  | Head   |                |
| A      | Non-recurring  | 3389340        |
| 1      | Equipment<br>-> computer<br>-> He-Cd laser<br>-> Optical table with passive vibration isolation table<br>-> He-Ne laser<br>-> DPSS laser<br>-> Inverted Metallurgical Microscope |                |
|        | -> Fiber Optic spectrometer  | 3389340        |
| A      | Total (Non-Recurring)  |                |
| B<br>1 | Recurring Items<br>Recurring - A : (Manpower, Consumables, Travel, Contingencies)  | 1163000        |
| 1      |  | 455234         |
| 2      | Recurring - B : (Overhead Charges)   | 1618234        |
| B'     | Total (Recurring)  | 5007574        |
| С      | Total cost of the project (A' + B')  |                |
|        |  |                |

2. Sanction of the SERB is also accorded to the payment of

• Rs. 3389340/- (Rupees Thirty Three Lakh Eighty Nine Thousand Three Hundred and Forty only) under 'Grants for creation of capital assets' and Rs. 100000/- (Rupees One Lakh only) under 'Grants-in-aid General' to Registrar, Charotar University Of Science & Technology, Changa, Post Changa, Petlad

being the first installment of the grant for the year 2016-2017 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 Extra Mural Research Funding (Individual Centric). (PAC Physical Sciences)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 07 March, 2017 and vide Diary No. SERB/F/9363/2016-17 dated 11 March, 2017 20121.0

5. Sanction of the grant is subject to the conditions as detailed in Terms & Conditions available at website (<a href="http://www.serb.gov.in">www.serb.gov.in</a>)

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

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

10. The release amount of **Rs. 3489340/-** (Rupees Thirty Four Lakh Eighty Nine Thousand Three Hundred and Forty only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| Account Name              | CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY                                    |
|---------------------------|--|
| Account Number            | 30875081005  |
| Bank Name &<br>Branch     | STATE BANK OF INDIA STATE BANK OF INDIA, CHARUSAT CAMPUS<br>CHANGA PIN 388 421 |
| IFSC/RTGS Code            | SBIN0010961  |
| Email id of A/C<br>Holder | devang.adm@charusat.ac.in  |
| Email id of PI            | ruchapd@gmail.com  |

11. The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. EMR/2016/002278 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, 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.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

1 Willood Lightwigh (Dr. Nilotpal Ghosh) MS nilotpal@serb.gov.in

To, Finance & Budget Officer SFRB, New Delhi

| SERB, New<br>Copy forwa | Delhi<br>arded for information and necessary action to: -   |
|-------------------------|---|
| 1.                      | The Principal Director of Audit, A.G.C.N.Burkerry, 19<br>110002   |
| 2.                      | Sanction Folder, SERB , New Delhi.  |
| 3.                      | File Copy   |
| 4.                      | Dr. Rucha P Desai<br>Department of Physical Sciences, P D Patel Institute of Applied Sciences<br>Charotar University of Science & Technology, Changa , Post changa, petlad,<br>Anand, Gujarat-388421<br>Email: ruchapd@gmail.com<br>Mobile: 919426596644<br>(Start date of the project may be intimated by name to the undersigned. For<br>guidance, terms & Conditions etc. Please visit <u>www.serb.gov.in.</u> ) |
| 5.                      | Registrar,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad  |
|                         | (Receipt of Grant may be intimated by name to the undersigned)  |
|                         | (Dr. Nilotpal Ghosh)  |

nilotpal@serb.gov.in

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# No. BT/PR18965/BCE/8/1401/2016 GOVERNMENT OF INDIA MINISTRY OF SCIENCE & TECHNOLOGY DEPARTMENT OF BIOTECHNOLOGY

Block 2, 6-8th Floors CGO Complex, Lodhi Road, New Delhi- 110 003 Dated: 15.06.2017

# ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules ,1978, for the implementation of the project entitled: "Integrated ecoelectrogenic system for efficient and sustainable treatment of textile wastewater" for a period of 3 Year 0 Month at a total cost of Rs. 13487800 (Rupees: One Crores Thirty Four Lakhs Eighty Seven Thousand Eight Hundred: Only) on the terms and conditions detailed here under:-

# 2 The Project :

2.1 Title : "Integrated eco-electrogenic system for efficient and sustainable treatment of textile wastewater"

# 2.2 Details of the Investigations:

## Project Cordinator

# Dr. S Venkata Mohan

Principal Scientist, Bioengineering and Environmental Sciences, CSIR-Indian Institute of Chemical Technology, BEEC Habsiguda,Uppal Road, Hyderabad -500007, Telangana

# Principal Investigators:

# Dr. S Venkata Mohan

Principal Scientist, Bioengineering and Environmental Sciences, CSIR-Indian Institute of Chemical Technology, BEEC Habsiguda,Uppal Road, Hyderabad -500007, Telangana

# Dr. Chirayu Desai

Assistant Professor, Department of Biological Sciences, P. D. Patel Institute of Applied Sciences, Charotar University of Science and Technology (CHARUSAT) Campus, Changa Petlad, Anand – 388421, Gujarat

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# Prof. Jyoti P Jadhav Professor, Department of Biochemistry, Shivaji University, Vidyanagar, Kolhapur – 416004, Maharashtra

# CO-PI:

**Dr. A Kiran Kumar** Technical Officer, Indian Institute of Chemical Technology, BEEC Habsiguda, Uppad Road, Hyderabad - 500007, Andhra Pradesh

Dr. Seema Amin Assistant Professor.

Department of Microbiology, Department of Microbiology, Charotar University of Science and Technology, Changa Petlad, Anand – 388421, Gujarat

Prof. Govindwar SP Principal, Rajarambapu College of Sugar Technology, New, Bahe Naka, Islampur - 415409, Maharashtra

2.3 Objectives:

Institute wise Objectives:

Charotar University of Science and Technology

- 1. Characterization of industrial effluents
- 2. Enrichment and development of bacterial consortia from soil rhizosphere zones of potential dye remediating plants
- Construction, functional characterization and performance enhancement of prepilot/pilot scale phytoreactors augmented with enriched bacterial consortia with ability for dye degradation
- 4. Integration plant-bacterial phytoreactor treating textiles effluents with microbial fuel cells and identification of electrogenic bacterial communities
- 5. Characterization of microbial community dynamics along with the analysis of their functional potential in the plant rhizosphere zones during pre and post-treatment phase, to understand the role of augmented consortia and native microbial species involved in remediation of textile/dye wastewaters

# INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY

 To design optimized P-MFC based on appropriate evaluation of electrode materials, electrode assembly design, placement of cathode, distance between electrodes, process parameters optimization, etc

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- 2. To study the functional role of enriched/augmented microbial consortia and plant species variation on the electrogenic activity and treatment efficiency
- 3. To integrate P-MFC with constructed wetland and evaluating performance at scale up operation

# Shivaji University

- Construction of lagoons of aquatic plants (60,000L) through nallah till the entry of waste water to river for the biological treatment of textile effluent. The identified free floating aquatics, swamp marshy and submerged rooted plants (*viz. Ipoinea aquatica, Typha angustifolia, Salvinia molesta, Vetiver zizanioides*). Study of toxicity parameters of treated effluent (BOD, COD, TDS, Microbial count, Diversity, Cytogenotoxicity), analysis of dye residues in plant tissues, capacity of wetland, and longevity of plants.
- Study of plant-plant consortium and plant-bacterial synergism for efficient decolorization of textile dyes (Status of biotransformation enzymes, analysis of metabolite and Toxicity analysis).

# 2.4 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order.

# 2.5 Project Cost:

The total cost of the project is Rs. **13487800**/-(Rupees One Crores Thirty Four Lakhs Eighty Seven Thousand Eight Hundred Only) as per details given below :

| Institute   | Year I  | Year II  | Year III | Total Cost(Rs.) |
|---|---------|----------|----------|-----------------|
| 1. Charotar<br>University of<br>Science and<br>Technology | 3113000 | 1 060000 | 1103200  | 5276200         |
| 2. INDIAN<br>INSTITUTE OF<br>CHEMICAL<br>TECHNOLOGY       | 2023800 | 936800   | 936800   | 3897400         |
| 3. Shivaji<br>University                                  | 2003400 | 1155400  | 1155400  | 4314200         |
| Total (Rs.)   | 7140200 | 3152200  | 3195400  | 13487800        |

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# Institute wise details are:

Lind.

| Budget Head  | Year I  | Year II  | Year III                               | Total(Rs.)                           |
|--|---|--|--|--------------------------------------|
| 1. Charotar Un   | iversity of Science an                          | d Technology   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                                      |
| Equipment  | 2053000.00                                      | 9 <i>yr yr yn yn arlennau yn yr ar ar yn yr </i> |  | 2053000.00                           |
| Manpower   | 360000.00                                       | 360000.00  | 403200.00                              | 1123200.00                           |
| Overhead   | 50000.00  | 50000.00   | 50000.00                               | 150000.00                            |
| Travel   | 50000.00  | 50000.00   | 50000.00                               | 150000.00                            |
| Consumables  | 300000.00                                       | 300000.00  | 300000.00                              | 900000.00                            |
| Contingency  | 50000.00  | 50000.00   | 50000.00                               | 150000.00                            |
| Outsourcing  | 250000.00                                       | 250000.00  | 250000.00                              | 750000.00                            |
| Total (Rs.)  | 3113000.00                                      | 1060000.00   | 1103200.00                             | 5276200.00                           |
| ,  | sitv  |  |  |                                      |
| 2. Shivaji Unive   |   |  |  |                                      |
| <b>2. Shivaji Uni</b> ve<br>Equipment                                  | 798000.00                                       | COT 400 00   | (05.400.00)                            | 798000.00                            |
| <b>2. Shivaji Uni</b> ve<br>Equipment                                  | 798000.00<br>605400.00                          | 605400.00  | 605400.00                              | 1816200.00                           |
| <b>2. Shivaji Unive</b><br>Equipment<br>Manpower                       | 798000.00                                       | 605400.00  | 605400.00<br>50000.00                  |                                      |
| <b>2. Shivaji Unive</b><br>Equipment<br>Manpower<br>Overhead           | 798000.00<br>605400.00                          |  |  | 1816200.00                           |
| 2. Shivaji Unive   | 798000.00<br>605400.00<br>100000.00             | 50000.00   | 50000.00                               | 1816200.00<br>200000.00              |
| <b>2. Shivaji Unive</b><br>Equipment<br>Manpower<br>Overhead<br>Travel | 798000.00<br>605400.00<br>100000.00<br>50000.00 | 50000.00   | 50000.00                               | 1816200.00<br>200000.00<br>150000.00 |

| Contingency | 100000.00  | 100000.00 | 100000.00 | 300000.00  |
|-------------|------------|-----------|-----------|------------|
| Consumables | 300000.00  | 300000.00 | 300000.00 | 900000.00  |
| Travel      | 50000.00   | 50000.00  | 50000.00  | 150000.00  |
| Overhead    | 100000.00  | 50000.00  | 50000.00  | 200000.00  |
| Manpower    | 436800.00  | 436800.00 | 436800.00 | 1310400.00 |
| Equipment   | 1037000.00 |           |           | 1037000.00 |

# 2.6 Equipment:

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

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The details of the manpower sanctioned for the implementation of the project at 2.7 Manpower: Annexure-II

# 3. Head of Account:

The Non-Recurring expenditure involved is debitable to:

| Demand No. 85        | Department of Biotechnology  |  |
|----------------------|--|--|
| 3425                 | Other Scientific Research 2017-2018  |  |
|                      | Others (Sub Major Head)  |  |
| 3425.60.200          | Assistance to other Scientific Bodies (Minor Head)   |  |
| 3425.60.200.29       | Biotechnology Research and Development, Human Resource<br>Development, Research Resources and Facilities |  |
| 3425.60,200.29.17    | Assistance for Research and Development  |  |
| 3425.60.200.29.17.35 | Grants for creation of capital assets  |  |
|                      |  |  |

The Recurring expenditure involved is debitable to:

| Demand No. 85                 | Department of Biotechnology  |  |
|-------------------------------|--|--|
| 3425                          | Other Scientific Research 2017-2018  |  |
| 3425.60                       | Others (Sub Major Head)  |  |
|                               | Assistance to other Scientific Bodies (Minor Head)   |  |
| 3425.60.200<br>3425.60.200.29 | Biotechnology Research and Development, Human Resource<br>Development, Research Resources and Facilities |  |
| 3425.60.200.29.17             | Assistance for Research and Development  |  |
| 3425,60.200.29.17.31          | Grants-in-aid General  |  |

# 4. Terms & Conditions:

Considering the time bound nature of the project, the project will be monitored by the Task Force / Committee constituted by DBT. In addition, the PI will submit half yearly progress report as per format in Annexure-V.

4.1 The other terms and conditions governing this sanction are attached at Annexure- III.

4.2A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA by the grantee institutions and its acceptance by DBT. In case of NGO or Private Institution, MOA signed is mandatory first release. A format of the MoA is enclosed in Annexure-IV

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- 4.3The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DET in the Utilisation. Certificate and Statement of Expenditure. The Interest so earned will be treated as created to the institute/Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Accounts.
- 5.No International Travel will be undertaken from the sanctioned project grant unless specified otherwise.
- 6. The Director, Charotar University of Science and Technology, Anand, Gujarat and The Director, INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY, Hyderabad, Andhra Pradesh and The Finance and Accounts Officer, Shivaji University, Kolhapur, Maharashtra would be responsible for submission of Statements of Expenditure (SoE), utilization certificates (UC), Assets Certificates, Manpower staffing & expenditure details in prescribed DBT formats to DBT in respect of grants released in this project from time to time.
- 7.PI's of DBT sponsored projects can consider appointment of JRF from Category-II merit list of DBT-BET exam so that candidates can be paid fellowships at par with NET/GATE/BET qualified candidates as per DST OM No. A.SR/S9/Z-09/2012 dated on 21 Oct 2014. However, there is no compulsion on PI's to select candidates for JRF in their projects from Category-II of DBT-BET.
- 8.As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organisation is called upon to do so.
  - 9. This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No.102/IFD/SAN/1092/2017-2018 dated June, 12 2017.

**10.** This sanction order has been noted at serial no. 32 in the Register of Grants.

(Dr. Ońkar N Tiwari) Scientist 'D'

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# Τo,

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

# Copy to:

- The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002.
- 2 Dr S Venkata Mohan(Project Co-ordinator), Bioengineering and Environmental Sciences, CSIR-Indian Institute of Chemical Technology, Habsiguda,Uppal Road, Hyderabad-500007, Andhra Pradesh
- 3 The Director, Charotar University of Science and Technology, Taluka: Petlad, Anand -388421, Gujarat
- 4 The Director, Indian Institute Of Chemical Technology, Uppal Road, Hyderabad 500007, Telangana
- 5 The Finance and Accounts Officer, Shivaji University, Vidyanagar, Kolhapur 416004, Maharashtra
- 6 Dr. A Kiran Kumar, Technical Officer, Indian Institute of Chemical Technology Hyderabad, BEEC Habsiguda, Uppad Road,, Hyderabad - 500007, Andhra Pradesh
- 7 Dr. Chirayu Desai, Assistant Professor, Department of Biological Sciences, P. D. Patei Institute of Applied Sciences, Charotar University of Science and Technology(CHARUSAT) Campus, Changa Anand - 388421, Gujarat
- 8 Dr. S Venkata Mohan, Principal Scientist, Bioengineering and Environmental Sciences, CSIR-Indian Institute of Chemical Technology, BEEC Habsiguda, Uppal Road, Hyderabad -500007, Telangana
- 9 Dr. Seema Amin, Assistant Professor, Department of Microbiology, Charotar University of Science and Technology (CHARUSAT), Changa Petlad, Anand - 388421, Gujarat
- 10 Prof. Govindwar SP, Professor, Department of Biochemistry, Shivaji University, Vidyanagar, Kolhapur - 416004, Maharashtra
- 11 Prof. Jyoti P Jadhav, Professor, Department of Biochemistry, Shivaji University, Vidyanagar, Kolhapur - 416004, Maharashtra
- 12 Cash Section, DBT (2 copies).
- 13 Sanction Folder.
- 14 File Copy.

(Dr. Onkar N Tiwari) Scientist 'D'

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Annexure -I

Details of the Equipment sanctioned for the implemention of the project titled "Integrated ecoelectrogenic system for efficient and sustainable treatment of textile wastewater":

| Char        | otar University of Science and Technology   | n en anna an an an an anna an ann an an an |            |
|-------------|---|--|------------|
| SNo.        | Name of Equipment   | No.  | Cost(Rs.)  |
| 4<br>4<br>• | COD, BOD, DO meter and Small Instruments  | ~  | 554000.00  |
| 2.          | Real time-PCR System  | 1  | 1499000.00 |
|             | 1   | Total                                      | 2053000.00 |
| Shiva       | nji University  |  |            |
| SNo.        | Name of Equipment   | No.  | Cost(Rs.)  |
| 1.          | Land development and construction of lagoons etc.<br>(pipes, water pumps, land cultivation equipments etc.) |  | 798000.00  |
|             |   | Total                                      | 798000.00  |
| INDI        | AN INSTITUTE OF CHEMICAL TECHNOLOGY   |  |            |
| SNo.        | Name of Equipment   | No.  | Cost(Rs.)  |
| 1.          | Soil Electro conductivity probes  | 1  | 400000.00  |
| 2.          | Additional Potentiostat channels for pre-existing<br>Biologic Potentiostat                                  | T  | 637000.00  |
|             |   | Total                                      | 1037000.00 |

(Dr. Onkár N Ťiwari) Scientist 'D'

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# Annexure -II

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Details of the manpower sanctioned for the implemention of the project titled "Integrated ecoelectrogenic system for efficient and sustainable treatment of textile wastewater":

|  | No. of<br>Position | Year I   | Year II                | Year III                      | Total<br>(Rs.) |
|--|--------------------|--|------------------------|-------------------------------|----------------|
| 1. Charotar Univ   | ersity of Sc       | ience and Techn  | ology                  |                               |                |
| Junior Research<br>Fellow<br>@ Rs. 25,000/- pm -<br>20% HRA For 1st &<br>2nd Year<br>Senior Research<br>Fellow<br>@ Rs. 28,000/- pm -<br>20% HRA For 3rd |                    | 360000 00  | 360000.00              | 403200-00                     | 1123200.00     |
| Year<br>Total(Rs.)   |                    | 360000.00  | 360000.00              | 403200.00                     | 1123200.00     |
|  |                    | The state of the second st | i National And And A   |                               |                |
| Senior Research<br>Fellow @28000 +   | 1                  | 436800.00  | 436800.00              | 436800.00                     | 1310400.00     |
| Senior Research<br>Fellow @28000 →<br>30 %HRA  | 3                  |  |                        | 436800.00<br><b>436800.00</b> |                |
| Senior Research<br>Fellow @28000 +<br>30 %HRA<br>Total(Rs.)<br>3. Shivaji Univer   | 1                  | 436800.00  | 436800.00              |                               | 1310400.00     |
| Senior Research<br>Fellow @28000 +<br>30 %HRA<br>Total(Rs.)<br>3. Shivaji Univer<br>Senior Research<br>Fellow @ Rs.2800/-<br>per month + 20%             | 1<br>rsity         | 436800.00  | 436800.00              |                               | 1310400.00     |
| Senior Research<br>Fellow @28000 +<br>30 %HRA<br>Total(Rs.)  | 1<br>rsity         | 436800.00<br><b>436800.00</b>  | 436800.00<br>436800.00 | 436800.00                     |                |

Emoluments detail of research personal(s) mentioned in table(s) of Annexure-II shall be applicable only if candidate(s) met educational qualification and eligibility criteria as per DST OM No.SR/S9/Z-09/2012 dated 21.10.2014.

(Dr. Onkar N Thwari) Scientist 'D'

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# FILE NO. EMR/2016/003524 SCIENCE & ENGINEERING RESEARCH BOARD(SERB)

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

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

Dated: 14-Mar-2017

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<u>ORDER</u> Subject: Financial Sanction of the research project tilled "Construction of putative hydroxycitric acid (HCA) biosynthetic pathway in Bacillus and engineering Escherichia coli for HCA production by heterologous expression of artificial putative HCA biosynthetic operon" under the guidance of Dr. Aditi Deepak Buch, Department of Biological Sciences, Charotar University of Science & Technology, Changa, Post changa, petlad, Anand Guiarat-388421 - Belaze of Let areas Anand, Gujarat-388421 - 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. 4050000/- (Rs. Forty Lakh Fifty Thousand Only) with break-up of Rs. 1200000/- under Capital (Non-recurring) head and Rs.2850000/- under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 4050000/- has been approved are given below

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

| S. No | Head   | Total (in Rs.) |
|-------|--|----------------|
| A     | Non-recurring  |                |
| 1     | Equipment<br>-> Refrigerated centrifuge<br>-> Laminar air flow<br>-> PCR system (thermal cycler) | 1200000        |
| A'    | Total (Non-Recurring)  | 1200000        |
| B     | Recurring Items  |                |
| 1     | Recurring - A : ( Manpower, Consumables, Travel, Contingencies)                                  | 2490000        |
| 2     | Recurring - B : (Overhead Charges)   | 360000         |
| B'    | Total (Recurring)  | 2850000        |
| с     | Total cost of the project (A' + B')  | 4050000        |

2. Sanction of the SERB is also accorded to the payment of

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Rs. 1200000/- (Rupees Twelve Lakh only) under 'Grants for creation of capital assets' and Rs. 100000/-(Rupees One Lakh only) under 'Grants-in-aid General' to Registrar, Charotar University Of Science & Technology, Changa, Post Changa, Petlad being the first installment of the grant for the year 2016-2017 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 Extra Mural Research Funding (Individual Centric). (PAC Biophysics, Biochemistry, Molecular Biology & Microbiology)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 27 February, 2017 and vide Diary No. SERB/F/9061/2016-17 dated 06 March, 2017

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

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

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

| 10. The release amount  | of Rs. 1300000/- (Rupees Thirteen Lakh only) will be drawn by the Finance & Budget    |
|-------------------------|---|
| Officer of the SERB and | will be disbursed by means of RTGS transaction as per their Bank details given below: |
|                         | CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY   |
| Account Number          | 30875081005   |

|   | Bank Name & Branch        | STATE BANK OF INDIA STATE BANK OF INDIA, CHARUSAT CAMPUS, CHANGA-388<br>421 | ] |
|---|---------------------------|---|---|
|   | IFSC/RTGS Code            | SBIN0010961   | 1 |
| the second se | Email id of A/C<br>Holder | devang.adm@charusat.ac.in   |   |
|   | Email id of Pl            | aditibuch.biochem@charusat.ac.in  |   |

11.The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. EMR/2016/003524 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, 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.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

d J. Loosan

(Dr Harish Kumar) Scientist E ms\_bb@serbonline.in

| To.       | ms_bb@serbonline.in   |
|-----------|---|
|           | udget Officer   |
| ERB, New  | Delhi   |
| opy forwa | rded 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. Aditi Deepak Buch<br>Department of Biological Sciences<br>Charotar University of Science & Technology, Changa, Post changa, petlad, Anand, Gujarat-<br>388421<br>Email: aditibuch.biochem@charusat.ac.in<br>Mobile: 919825592847<br>(Start date of the project may be intimated by name to the undersigned. For guidance, terms &<br>Conditions etc. Please visit www.serb.gov.in.) |
| 5.        | Registrar,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad<br>(Receipt of Grant may be intimated by name to the undersigned)  |

(Dr. Hayish Kumar) worm. Scientist E

ms\_bb@serbonline.in



Science and Engineering Research Board (Statutory Body Established Through an Act of Parliament : SERB Act 2008) Government of India FILE NO. EMR/2016/001000 SCIENCE & ENGINEERING RESEARCH BOARD(SERB) (a statutory body of the Department of Science & Technology, government of India) 5 & 5A, Lower Ground Floor Vasant Square Mall Plot No. A, Community Centre Sector-B, Pocket-5, Vasant Kunj New Delhi-110070

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Dated: 03-Mar-2017

# ORDER

Subject: Financial Sanction of the research project titled "To engineer and develop suitable magnetic fluid for the induction heating based therapeutic strategy against cancer." under the guidance of Dr. Kinnari H Parekh, Dr. K C Patel R & D Center, Charotar University of Science & Technology, Changa, Post Changa, Petlad, Anand, Gujarat-388421 and by Dr. Neeraj D Jain, Assistant Professor, P D Patel Institute Of Applied Sciences, Charotar University Of Science & Technology, Changa - 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. 4938073/- (Rs. Forty Nine Lakh Thirty Eight Thousand and Seventy Three Only) with break-up of Rs. 2659558/- under Capital (Non-recurring) head and Rs.2278515/- under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 4938073/- has been approved are given below:

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

| S.N | loHead  | Total (in Rs.) |
|-----|---|----------------|
| A   | Non-recurring   |                |
| 1   | Equipment<br>-> Induction Heating Equipment<br>-> Ultra Low Temperature Freezer | 2659558        |
| A'  | Total (Non-Recurring)   | 2659558        |
| B   | Recurring Items   |                |
| 1   | Recurring - A : ( Manpower, Consumables, Travel, Contingencies)                 | 1829600        |
| 2   | Recurring - B : (Overhead Charges)  | 448915         |

| B' | Total (Recurring)                   | 2278515 |
|----|-------------------------------------|---------|
| С  | Total cost of the project (A' + B') | 4938073 |
|    |                                     |         |

2. Sanction of the SERB is also accorded to the payment of

• Rs. 2659558/- (Rupees Twenty Six Lakh Fifty Nine Thousand Five Hundred and Fifty Eight only) under 'Grants for creation of capital assets' and Rs. 100000/- (Rupees One Lakh only) under 'Grants-in-aid General' to Registrar, Charotar University Of Science & Technology, Changa, Post Changa, Petlad

being the first installment of the grant for the year 2016-2017 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 Extra Mural Research Funding (Individual Centric). (PAC Physical Sciences)

4. The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petlad with the approval of the competent authority under delegated powers on 01 March, 2017 and vide Diary No. SERB/F/8977/2016-17 dated 03 March, 2017

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

6. Overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and general administrative support etc. including benefits to the staff employed in the project.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority/audit whenever the institute is called upon to do so.

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

10. The release amount of **Rs. 2759558/-** (Rupees Twenty Seven Lakh Fifty Nine Thousand Five Hundred and Fifty Eight only) will be drawn by the Finance & Budget Officer of the SERB and will be disbursed by means of RTGS transaction as per their Bank details given below:

| Account Name   | CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY       |
|----------------|---|
| Account Number |   |
| Bank Name &    | STATE BANK OF INDIA STATE BANK OF INDIA, CHARUSAT |
| Branch         | CAMPUS,CHANGA 388421                              |
| IFSC/RTGS Code | SBIN0010961                                       |

| Email id of A/C | devang.adm@charusat.ac.in        |  |
|-----------------|----------------------------------|--|
| Holder          |                                  |  |
| Email id of PI  | kinnariparekh.rnd@charusat.ac.in |  |

11.The institute will furnish to the SERB, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. EMR/2016/001000 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, 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.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

(Dr. Nilotpal Ghosh) MS nilotpal@serb.gov.in To, Finance & Budget Officer SERB, New Delhi

| 1. | The Principal Director of Audit, A.G.C.R.Building, IIIrd Floor I.P. Estate, Delhi-<br>110002   |
|----|--|
| 2. | Sanction Folder, SERB, New Delhi.  |
| 3. | File Copy  |
| 4. | Dr. Kinnari H Parekh<br>Dr. K C Patel R & D Center   |
|    | Charotar University of Science & Technology, Changa , Post Changa,<br>Petlad, Anand, Gujarat-388421  |
|    | Email: kinnariparekh.rnd@charusat.ac.in<br>Mobile: 919426950505  |
|    | Dr. Neeraj D Jain<br>P D Patel Institute Of Applied Sciences   |
|    | Charotar University Of Science & Technology, Changa<br>(Start date of the project may be intimated by name to the undersigned. For<br>guidance, terms & Conditions etc. Please visit <u>www.serb.gov.in</u> .) |
| 5. | Registrar,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad<br>(Receipt of Grant may be intimated by name to the undersigned)   |

Copy forwarded for information and necessary action to: -

(Dr. Nilotpal Ghosh)

MS

nilotpal@serb.gov.in

Site best viewed in: Google Chrome, Mozilla Firefox (15 & Above), Internet Explorer (9 & Above) and Safari(6)

Designed, Developed and Maintained by C-DAC.



New Delhi-110070

Dated 14-Mar-2017

# FILE NO. EMR. 2016-003789 SCIENCE & ENGINEERING RESEARCH BOARD(SERB) a statutory body of the Department of Science & Technology, gove

| orogy. | government of Ingia)            |
|--------|---------------------------------|
|        | 5 & 5A. Lower Ground Floor      |
|        | Vasant Square Mall              |
|        | Plot No. A. Community Centre    |
|        | Sector-B. Pocket-5. Vasant Kunj |

ORDER

Subject Financial Sanction of the research project titled "Development of thin film solar cells with low-cost earthabundant materials by Inkjet Printing" under the guidance of Dr. Anjana Kothari. Thin Films and Nanostructures Laboratory, Dr. K C Patel Research and Development Centre (KRADLE), Charotar University of Science & Technology, Changa . Post changa, petlad, Anand, Gujarat-388421 - 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. 4322560/- (Rs. Forty Three Lakh Twenty Two Thousand Five Hundred and Sixty Only) with break-up of Rs. 1700000/- under Capital (Non-recurring) head and Rs.2622560/- under General (Recurring) head for a duration of Three years. The items of expenditure for which the total allocation of Rs. 4322560/- has been approved are given

The following budget may be considered for Charotar University Of Science & Technology, Changa, Post Changa, Petlad

| S. No | Head   |                |
|-------|--|----------------|
| А     | Non-recurring  | Total (in Rs.) |
| 1     | Equipment<br>-> Vacuum oven<br>-> Compact Split tube furnace<br>-> Microviscometer | 1700000        |
| A     | Total (Non-Recurring)  |                |
| В     | Recurring Items  | 1700000        |
| 1     | Recurring - A : ( Manpower, Consumables, Travel, Contingencies)                    | 2229600        |
| 2     | Recurring - B · (Overhead Charges)   |                |
| Β'    | Total (Recurring)  | 392960         |
| С     | Total cost of the project (A + B')   | 2622560        |
|       |  | 4322560        |

2. Sanction of the SERB is also accorded to the payment of

Rs. 1700000/- (Rupees Seventeen Lakh only) under Grants for creation of capital assets to Registrar, Charotar University Of Science & Technology, Changa, Post Changa, Petlad

being the first installment of the grant for the year 2016-2017 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 Extra Mural Research Funding (Individual Centric). (PAC Physical Sciences)

4 The Sanction has been issued to Charotar University Of Science & Technology, Changa, Post Changa, Petiad with the approval of the competent authority under delegated powers on 09 March, 2017 and vide Diary No. SERB/F/9353/2016-17 dated 11 March, 2017

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

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.

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

8. As per rule 211 of GFR, the accounts of project shall be open to inspection by sanctioning authority audit whenever the institute is called upon to do so.

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

10. The release amount of Rs. 1700000/- (Rupees Seventeen Lakh only) will be drawn by the Finance & Budget Officet of the SERB and will be disbursed by means of ETGS transaction as per their Bank details given below:

| Account Name              | CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY                                 |
|---------------------------|---|
| Account Number            | 30875081005   |
| Bank Name & Branch        | STATE BANK OF INDIA STATE BANK OF INDIA CHANGACHARUSAT CAMPUSCHANGA<br>388421 |
| IFSC/RTGS Code            | SBIN0010961   |
| Email id of A/C<br>Holder | devang.adm@charusat.ac.in   |
| Email id of Pl            | anjanakothari.rnd@charusat.ac.in  |

11.The institute will furnish to the SERE, New Delhi, separate Utilization certificate(UCs) financial year wise to the SERB for Recurring (Grants-in-aid General) & Non-Recurring (Grants for creation of capital assets) and an audited statement of accounts pertaining to the grant immediately after the end of each financial year.

12. The institute will maintain separate audited accounts for the project. A part or whole of the grant must be kept in an interest earning bank account which is to be reported to SERB. The interest thus earned will be treated as credit to the institute to be adjusted towards further installment of the grant.

13. The project File no. EMR/2016/003789 may also be mentioned in all research communications arising from the above project with due acknowledgement of SERB.

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

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

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

17. The organization/institute/university should ensure that the technical support/financial assistance provided to them by the Science & Engineering Research Board, 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.

18. In addition, the investigator/host institute must also acknowledge the support provided to them in all publications, patents and any other output emanating out of the project/program funded by the Science & Engineering Research Board, a statutory body of Department of Science & Technology (DST), Government of India.

> (Dr. Nilotpal Ghosh) MS nilotpal@serb.gov.in

Finance & Budget Officer SERB, New Delhi

To

| Copy forwarde | d for information and necessary action to: -   |   |
|---------------|--|---|
| 1             | The Principal Director of Audit, A.G.C.R.Building, Illrd Floor I.P. Estate, Delhi-110002 | 1 |
| 2.            | Sanction Folder, SERB , New Delhi.   |   |
| 3.            | File Copy  | - |

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| 4. | Dr. Anjana Kothari  |
|----|---|
|    | Thin Films and Nanostructures Laboratory, Dr. K C Patel Research and Development Centre (KRADLE)  |
|    | Charotar University of Science & Technology, Changa , Post changa, petlad, Anand, Gujarat-388421<br>Email: anjanakothari.rnd@charusat.ac.in<br>Mobile: 919427624117 |
|    | (Start date of the project may be intimated by name to the undersigned. For guidance, terms & Conditions etc. Please visit <u>www.serb.gov.in</u> .)                |
| 5. | Registrar,<br>Charotar University Of Science & Technology, Changa, Post Changa, Petlad  |
|    | (Receipt of Grant may be intimated by name to the undersigned)  |

(Dr. Nilotpal Ghosh) MS nilotpal@serb.gov.n

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