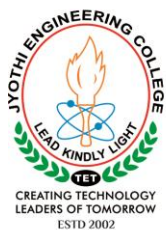




3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

3.1.1.1: Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)

Year	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
INR Lakhs	0.5875	25.16	2.15	0.315	12.724
TOTAL				40.9325 Lakhs	



INDEX

Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/ Co-investigator	Department of PI	Year	Name of the Funding Agency	Type	Page No.
Driver Centric Safety Evaluation Of Two Lane Rural Highway	Dr. Anitha Jacob/Dr. Jose P. Therattil/ Mr. Jinesh KJ	Civil Engineering	2016	Kerala State Council for Science, Technology and Environment, Thiruvananthapuram (KSCSTE)	Government	4
National Science day	Ms. Priya Jose	Basic Science and Humanities	2017	Kerala State Council for Science, Technology and Environment, Thiruvananthapuram (KSCSTE)	Government	8
Development of multiple sensor probes using error compensating algorithm for accurate measurement of fuel level in dynamic condition for automobiles	Dr. Biju C.V	Mechanical Engineering	2017	Kerala State Council for Science, Technology and Environment, Thiruvananthapuram (KSCSTE)	Government	12
Agni	Mr. Anil Antony	Computer Science Engineering	2017	KSCSTE	Government	13
Brailex	Mr. Jinesh K. J	Electronics and Communication Engineering	2018	Kerala Startup Mission	Government	14
National Science day	Ms. Smija Skaria	Basic Science and Humanities	2018	Kerala State Council for Science, Technology and Environment, Thiruvananthapuram (KSCSTE)	Government	17
Brailleon-A Low Cost Braille Printer	Mr. Jinesh K.J	Electronics & Communication Engg.	2019	KSCSTE	Government	19



Jyothi Engineering College

NAAC Accredited College with NBA Accredited Programmes*

Approved by AICTE & affiliated to APJ Abdul Kalam Technological University

A CENTRE OF EXCELLENCE IN SCIENCE & TECHNOLOGY BY THE CATHOLIC ARCHDIOCESE OF TRICHUR

JYOTHI HILLS, VETTIKATTIRI P.O, CHERUTHURUTHY, THRISSUR. PIN-679531 PH : +91- 4884-259000, 274423 FAX : 04884-274777



NBA accredited B.Tech Programmes in Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering valid for the academic years 2016-2022. NBA accredited B.Tech Programme in Civil Engineering valid for the academic years 2019-2022.

Currency Recognition Spectacles for Blinds	Mr. Fepsilin Athish Mon	Computer Science Engineering	2019	KSCSTE	Government	20
Speed Limiter	Ms. Aswathy Wilson	Computer Science Engineering	2019	KSCSTE	Government	21
Intelligent CPS Data Analytics Platform for a Metro Rail Transport System	Dr. Jaison Paul Mulerikkal	Computer Science Engineering	2019	DST	Government	22
Eco-friendly management of used diapers and napkins	Dr. Biju P.L and Mr. Manoj Kumar	Mechanical Engineering	2020	CERD, KTU	Government	34
Development of constant power discharging battery, using power capacitor	Dr. Biju C.V	Mechanical Engineering	2020	Kerala State Council for Science, Technology and Environment, Thiruvananthapuram (KSCSTE)	Government	36

Title of the Research project proposal : DRIVER CENTRIC SAFETY EVALUATION OF TWO-LANE RURAL HIGHWAY

Funding authority: Kerala State Council for Science, Technology and Environment, Thiruvananthapuram (Scheme - Engineering and Technology Programme)

Sanctioned amount : 12.7 Lakh

Project duration : 2 Years (2016-2018)

Application of the project: Development of safer road design and evaluation of safety of existing roads based on driver's workload.

Broad Subject Area: TRAFFIC ENGINEERING - ROAD SAFETY

Specific branch of Engineering: Civil Engineering and Electronics Engineering (Interdisciplinary)

Project Summary:

Safety, though a prime consideration of transportation, the statistics show that number of accidents and fatalities are increasing in which most of the accidents are taking place in rural highways. The comparatively less volume and high speed of traffic increases the severity of an accident in rural highways. Here, geometry and/or its consistency are the governing factors that guide a driver. Hence, this research work focuses on the effect of geometric design consistency on safety of two-lane rural highways, taking into consideration the amount of workload the geometry load up on a driver. Variation of workload from an optimum may result in erroneous driving action that may lead to an accident. The research aims to develop imperative measures for road safety auditing and to propose appropriate guidelines for geometric design of highways. Outcome of the project can be used as a tool by the engineers for analyzing alternative highway designs.

True Copy Attested


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O. - 679 531

KERALA STATE COUNCIL FOR SCIENCE, TECHNOLOGY AND ENVIRONMENT
An Autonomous body of the
Government of Kerala

KSCSTE- Engineering & Technology Programme - Project entitled 'Driver Centric Safety Evaluation of Two Lane Rural Highway' submitted by Dr. Anitha Jacob, Associate Professor, Dept. of Civil Engineering, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur -financial grant-sanctioned- orders issued.

Council (P) Order No.141/2016/KSCSTE

Dated: Thiruvananthapuram, 02.06.2016

- Ref:-
- (1) File No. ETP/03/2014/KSCSTE.
 - (2) Project proposal dated: 01.07.2014.
 - (3) Minutes of the 14th meeting of RC-ETP, held on 29th February 2016.
 - (4) Letter No. ETP/03/2014/KSCSTE, dated: 15.03.2016.
 - (5) Agreement executed on 18.03.2016 by The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur.

ORDER

1. As per reference (1) cited above Dr. Anitha Jacob, Associate Professor, Department of Civil Engineering, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur submitted a proposal entitled 'Driver Centric Safety Evaluation of Two Lane Rural Highway' under the Engineering and Technology Programme (ETP). The Research Council for ETP (RC-ETP) evaluated the proposal and based on the recommendations, the Council has decided to support the project for an amount of Rs. 12,72,400/- as per reference (3 & 4) cited above. As per the guidelines, Dr. Anitha Jacob (PI) and The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur executed the agreement in a non-judicial stamp paper worth Rs 100/- agreeing to the Terms and Conditions stipulated under this programme.
2. Kerala State Council for Science, Technology and Environment (KSCSTE) is pleased to accord sanction for the project proposal entitled 'Driver Centric Safety Evaluation of Two Lane Rural Highway' submitted by Dr. Anitha Jacob, Associate Professor, Dept. of Civil Engineering, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur for a total cost of Rs 12,72,400/- (Rupees Twelve Lakh Seventy Two Thousand and Four Hundred Only). The duration of the project shall be two years. The sanctioned budget heads of the project are as follows:

Sl. No.	Item	1 st year (Rs.)	2 nd year (Rs.)	Total (Rs.)
1.	Manpower i) Project Fellow	2,11,200	2,11,200	4,22,400
2.	Consumables	40,000	35,000	75,000
3.	Travel	1,60,000	50,000	2,10,000
4.	Contingencies	40,000	10,000	50,000
5.	Equipment	4,15,000	-----	4,15,000
	Sub Total	8,66,200	3,06,200	11,72,400
6.	Institutional Overhead (10%)	-----	-----	1,00,000
	Grand Total			12,72,400


3. KSCSTE is pleased to accord sanction to release Rs. 8,66,200/- (Rupees Eight Lakh Sixty Six Thousand and Two Hundred only) towards the 1st year grant for the above mentioned project and the amount will be disbursed to The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur - 679 531 by account payee cheque for the above said purpose.

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL

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4. Head of the Institution should ensure that the Terms and Conditions executed are strictly followed in the purchase of the equipments as well as in the implementation of the project. PI should report the date of start of the Project and in any case, it shall not be later than one month of the date of issue of the Council Order. PI should submit Quarterly Progress Reports in the prescribed format with effect from date of start of the project.
5. The details and copy of appointment order of the Project Fellow employed in the project should be furnished. In case, if a vacancy arises in due course, due to relieving of the appointed personnel, the details of new project personnel appointed should also be reported promptly.
6. KSCSTE's name should be engraved or affixed permanently on all equipment/ instruments procured and also in the fabricated ones under the ETP programme of KSCSTE as Procured under the ETP project sanctioned from KSCSTE. It should be ensured that all the assets are acquired, strictly following the purchase procedure of the Institution.
7. Monitoring and assessment of the progress of the project will be done by RC-ETP meetings and the subsequent grant will be released, based on the recommendations of the RC-ETP. Audited Statement of Expenditure and Utilization Certificate (in the prescribed format) for the grants on a project year basis should be furnished. Institutional Overhead will be released only after the submission of Final Project Report.
8. The expenditure in this regard will be met from the Council's budget head III Schemes and Programmes of KSCSTE (24) Engineering & Technology Programme.


The above sanction has been issued under the delegated powers of the Council, with the approval of the Director, KSCSTE, vide sanction No. 124/DIR/2016-2017/ KSCSTE, dt: 02.06.2016


Dr. V. Ajit Prabhu
Joint Director & Scientist F

To
The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur - 679 531.

Copy to:
Dr. Anitha Jacob, Associate Professor, Dept. of Civil Engineering, Jyothi Engineering College,
Jyothi Hills, Panjal Road, Vellikkalliri P.O, Cheruthuruthy, Thrissur-679 531.
Cash Section-They may arrange the payment by account payee cheque.
PS to Executive Vice President/ PA to Member Secretary/ PA to Director/ PA to Controller of
Administration/ Administrative Officer/ Finance Officer/ Scientific Officer (BT)/ Stock File/ Office Copy.

True Copy Attested


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthi, Thrissur - 679 531



KERALA STATE COUNCIL FOR SCIENCE, TECHNOLOGY AND ENVIRONMENT
An Autonomous body of the Government of Kerala

KSCSTE - Engineering & Technology Programme - Project entitled 'Driver Centric Safety Evaluation of Two Lane Rural Highway submitted by Dr. Anitha Jacob, Associate Professor, Department of Civil Engineering, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur - release of Institutional Overhead - orders issued.

Council (P) Order No707/2020/KSCSTE Dated: Thiruvananthapuram, 24/11/2020

- Ref: -
1. File No. ETP/03/2014/KSCSTE
 2. Council (P) Order No. 141/2016/KSCSTE; dt: 02.06.2016
 3. Council (P) Order No. 215/2018/KSCSTE; dt: 16.06.2018
 4. Minutes of the 19th meeting of RC-ETP held on 23rd & 29th September 2020.

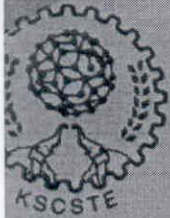
ORDER

1. Kerala State Council for Science, Technology and Environment (KSCSTE) had accorded sanction for the project entitled 'Driver Centric Safety Evaluation of Two Lane Rural Highway submitted by Dr. Anitha Jacob, Associate Professor, Department of Civil Engineering, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur, for a total budget of Rs. 12,72,400/-. The 1st and 2nd year grants were released as per the Council Order referred (2&3).
2. The progress of the project was reviewed in the 19th meeting of Research Council for Engineering and Technology Programme (RC-ETP). As the project is successfully completed, RC recommended to release Institutional Overhead subject to verification of audited financial statements and Project Completion Report.
3. KSCSTE examined the Project Completion Report and the consolidated audited financial statements. As per the Statement of Expenditure, the total expenses incurred is Rs. 9,59,178/- leaving an unspent balance of Rs. 142/-. Hence, it is decided to release an amount of Rs. 95,775/- (Rs 95,917/- - Rs 142/-) deducting the unspent balance of Rs. 142/- as Institutional Overhead for the above mentioned project.
4. KSCSTE is pleased to accord sanction to release an amount of Rs. 95,775/- (**Rupees Ninety Five Thousand Seven Hundred and Seventy Five Only**) towards Institutional overhead for the above mentioned project. The grant will be disbursed to **The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur - 679 531**; through net banking / e-payment for the above said purpose.
5. The amount will be disbursed to the following Bank Account through net banking / e-payment.

Beneficiary Account Name	The Principal, Jyothi engineering College
Beneficiary Account Number (SB/CC)	15250100001019
Beneficiary IFSC code	FDRL0001699
Bank Name and Branch	Federal bank, Cheruthuruthy Branch
Beneficiary Address	The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthi, Thrissur
Beneficiary Mobile No:	9447092923

True Copy Attested

(Signature)
Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)



കേരള ശാസ്ത്ര സാങ്കേതിക പരിസ്ഥിതി കൗൺസിൽ
Kerala State Council for Science, Technology and Environment
 'ഭരണഭാഷ-മാതൃഭാഷ'

Dr. Anilkumar C
 Principal Scientist and Head
 Science Education Division
 No.C-139 /NSD/2017/KSCSTE
 Sir/Madam,

09-02-2017

Sub:- KSCSTE – National Science Day 2017- Celebrations – reg.
 Ref:- File No. 01/NSD2017/KSCSTE/2016

With reference to your proposal, I am happy to inform that KSCSTE has approved to offer financial assistance of ₹20,000/- for organizing the National Science Day (NSD) 2017 celebrations, subject to the following conditions.

1. Programme schedule should be sent to KSCSTE well in advance.
2. Activities should be based on the focal theme: "Science and Technology for specially abled persons". Eminent speakers/ experts may be invited to handle the sessions organized in connection with the programme.
3. Though February 28 is observed as National Science Day, the activities in your institution may be organized on any convenient date in the month of February, but on or before February 28, 2017. The activities organized after February 28, 2017 will not be considered for financial assistance.
4. Each activity should be documented. Detailed report on the various activities organized in connection with NSD - 2017 along with captioned photographs should be submitted to KSCSTE.
5. KSCSTE should be duly acknowledged in the programme and it should be written in all the brochures, banners, publicity materials, etc. 'Sponsored by Kerala State Council for Science, Technology and Environment' and supported by 'Department of Science & Technology, Govt. of India'.
6. The financial assistance may be utilized to cover the expenditure on organizing expenses, publicity materials, travel expenses, honoraria for resource persons and refreshment. Utilization of the grant for any other purpose other than the approved heads shall not be entertained.
7. Head of the Institution should forward the audited Statement of Expenditure and Utilization Certificate in the standard format available in the KSCSTE website.
8. The financial assistance will be disbursed to the Head of the Institution, only after the successful conduct of the programme, subject to the submission of satisfactory report and financial statements.
9. The required documents mentioned above should reach this office as early as possible after the conduct of the programme. However, the documents received after April 30, 2017 will not be entertained for release of payment and such request will be summarily rejected.

Kindly refer the Letter No and File No. in all future correspondence.

Name of the Programme Co-ordinator: Mrs. Priya Jose, Asst. Professor, Department of Basic Science and humanities

Thanking you,

Anilkumar C

Yours sincerely

Anilkumar C

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL
 M.Tech, MCA, M.Sc, M.Phil, B.Ed
 Ph.D, (Yothi Hills, Vettikkalathur P.O.)
 PRINCIPAL

Anilkumar C

To,

The Principal, Jyothi Engineering College,
 Cheruthuruthy, Thrissur 679531
 Mrs. Priya Jose, Asst. Professor, Department of Basic Science and humanities, Jyothi
 Engineering College, Jyothi Hills, Vettikkalathur P.O., Cheruthuruthy, Thrissur 679531
 ശാസ്ത്രഭവൻ, പട്ടം. പി. ഒ., തിരുവനന്തപുരം, കേരളം, ഇന്ത്യ

NATIONAL SCIENCE DAY

CELEBRATIONS- 2017

Programme Schedule- Inaugural Function

- am : Decennial Hall
am : 28th Feb. 2017
- am : Prayer
- am Welcome Address : **Rev.Fr. John Tharayil**
HOD- Basic Science &
Humanities
- am Presidential
Address : **Dr. K.K. Babu, Principal**
- am Inauguration &
Inaugural Address : **Dr. K.M. Durga Devi**
Professor, Dept. of
Soil Science & Agrl. Chemistry
Kerala Agricultural University
- am Special Address : **Rev.Fr. Roy Joseph Vadakkan**
Asst. Manager,
Academics & Administration
- am Felicitation : **Er. Thomas Mathew**
Administrator
- am Prize distribution :
am Vote of Thanks : **Ms. Priya Jose**
Coordinator
- am Science Lecture : **Dr. K.M. Durga Devi**

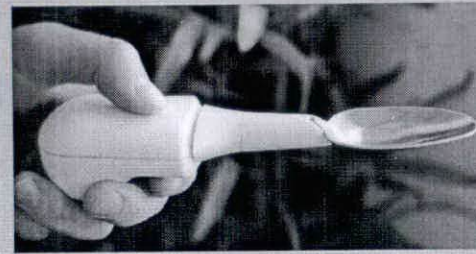
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"Science and Technology for specially abled persons"

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Sc., M.Phil., B.Ed.
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Engineering College
Cheruthuruthy P.O. - 679 53

4. Liftware

Liftware is a self stabilizing handle on which you can attach any eating utensil and it will work as a fork or



spoon. The device is helpful for mentally disabled people who suffer from Parkinson's disease or other type of disorder which causes hand tremors. Liftware helps in reducing the spilling of content before it reaches to patient's mouth. Liftware includes stabilizing handle, charger, utensils, fork, soup spoon and spoon that can be washed like normal utensils.

5. UNI

UNI provides a two-way communication for the deaf people using speech and gesture technology. The gadget detects the hands and figure gesture with its camera algorithms, then converts into text and provides the meaning of sign language. UNI uses a specialized camera to track your finger movement with incredible speed.



6. Vision Assisted Smart Glasses

The tech gadget Assisted Vision Smart Glasses is a pair of glasses that gives a little sight so that the blind people can walk around unfamiliar places, can recognize obstacles. This gadget gives a great independence, consists of two small cameras, gyroscope, compass, GPS unit, headphone and transparent OLED displays



Jyothi

Approved by AICTE & A
CENTRE OF EXCELLENCE IN SCIENCE
JYOTHI HILLS, VETTIKATTI P.O., CHERUTHURUTHY
731015

OR
**NAT
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CELEBR**
28th F

S
Kerala State Council
Enviro
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Department of S
Gov

"SCIENCE AN
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Inv
Dr. K
Professor- Ke
Thriss



National Science Day (NSD) is celebrated all over India with great enthusiasm on 28th of February every year in order to commemorate the invention of the Raman Effect in India by the Indian physicist, Sir Chandrasekhara Venkata Raman on the same

in the year 1928. For his great success in the field of science in India, Chandrasekhara Venkata Raman was awarded and honored with the Nobel Prize in Physics in the year 1930.

Sir Chandrasekhara Venkata Raman had worked from 1907 to 1933 at the Indian Association for the Advancement of Science, Kolkata, West Bengal in India. He had researched on many topics in Physics from which the Raman Effect (*"Change in the wavelength of light that occurs when a light beam is deflected by molecules. When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small portion of the light emerges in directions other than that of the incident beam."*) became his great success and discovery. It has been marked in the Indian history of science. For his big invention he was honored with the Nobel Prize in the year 1930. From the year 2013, the "Raman Effect" has been designated as an International Historic Chemical Landmark by The American Chemical Society.

The focal theme of the Science Day Celebration for the current year, 2017 is *"Science and Technology for specially abled persons"*.

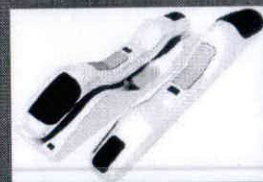
INGENIOUS INVENTIONS FOR SPECIALLY ABLED PERSONS

1. Finger Reader

The device helps visually impaired people to read any printed book or anything on any electronic device. Finger Reader includes a small camera that scans the text and provides real-time audio feedback of the detected words.



Tactile Wand



Finger Reader

2. Tactile Wand Electronic Stick

This electronic stick helps visually impaired people to determine the object that comes in their way. Tactile Wand Electronic Stick detects the object in front of the user and vibrates with the increasing intensity as soon as you get closer to it.

3. Dot

It is a wearable smart-watch that works for blind people and helps them to access tweets, messages anytime and anywhere right from their smart-phones. The device can connect with any smart-phone via Bluetooth and translate the text on its screen. The smart-phone features alarm, notifications, touch sensor, Bluetooth and Gyroscope.



True Copy Attested

Sunny Joseph

SUNNY JOSEPH KALAYATHANKAL
 M.Tech, MCA, M.Sc, M.Phil, B.Ed
 (Science), Ph.D (Maths)
 PRINCIPAL
 St. Ann's College
 Phone: 079 831



Jyothi Engineering College



Approved by AICTE & Affiliated to APJ Abdul Kalam Technological University
Jyothi Engineering College, Cheruthuruthy, Kerala. Ph: 0471-2561111, 0471-2561112
www.jyothi.ac.in | Email: info@jyothi.ac.in

Certificate of Participation

This is to certify that Mr. / Ms. of Semester
B.Tech.....Engineering has participated in the
"Science Quiz" Competition held as a part of National Science Day-2017 at Jyothi Engineering College,
Cheruthuruthy, sponsored by Kerala State Council for Science, Technology and Environment (KSCSTE) and
supported by Department of Science & Technology (DST), Govt. of India on 22nd Feb. 2017.

Ms. Priya Jose
Coordinator, NSD'2017

Fr. Roy Joseph Vadakkan
Asst. Manager

Dr. K.K. Babu
Principal

True Copy Attested

Amrith

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O. 679 531



Kerala State Council for Science, Technology and Environment

16-02-2017

Dr. Anilkumar C
Principal Scientist & Head
Science Education Division

52/SPS 60/2016/KSCSTE

Dear Shri. Biju C V,

Sub:- Financial assistance from KSCSTE for student project reg.
Ref:- Your application received under Student Project scheme

This is to invite your attention to the reference cited and to inform that the project proposal titled 'Development of multiple sensor probes using error compensating algorithm for accurate measurement of fuel level in dynamic conditions for automobiles' submitted by Shri. Biju C Vas PI and Mr. Abijith Mani, Mr. Ashiq Thomas, Mr. Calvin J Kundukulam, Mr. Deepak Charles, Mr. Deepak Tomas student investigator(s) has been approved. An amount of Rs.6500/- is sanctioned by the Council. The budget estimate of the project will be as detailed below.

SL.NO.	ITEMS	AMOUNT(Rs.)
1.	Consumables	1500
2.	Travel	
3.	Research Literature & Documentation	1000
4.	Others ((for fabrication))	4000
	Total	6500

The PI has to submit the signed 'Terms and Conditions' and the date of start of the project may be intimated to the Council. On completion of the project you should submit one hard copy and a soft copy of the final report (in pdf to spkscste@gmail.com), audited Statement of Expenditure and Utilization Certificate counter signed by the Head of the Institution for releasing the grant. The format for final report, SE & UC can be downloaded from www.kscste.kerala.gov.in.

Thanking you,

Yours sincerely,

Anilkumar C

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL

M.Tech, MCA, M.Sc, M.Phil, B.Ed,
Ph.D (Computer Science), Ph.D (Maths)

PRINCIPAL

Jyothi Engineering College
Cheruthuruthy P.O., 679531

To,

Shri. Biju C V, Associate Professor, Department of Mechanical Engineering, Jyothi Engineering College Cheruthuruthy Thrissur 679531

Copy to:

The Principal, Jyothi Engineering College Cheruthuruthy Thrissur 679531
Mr. Abijith Mani, Mr. Ashiq Thomas, Mr. Calvin J Kundukulam, Mr. Deepak Charles, Mr. Deepak Tom, Student(s), Department of Mechanical Engineering, Jyothi Engineering College Cheruthuruthy Thrissur 679531

Sasthra Bhavan, Pattom P.O., Thiruvananthapuram - 695 004, Kerala State, India

Tel : 0471-2548200-09, EVP - 2543557, 2548222, MS - 2534605, 2548220, CoA - 2543556, 2548248

Fax : 0471 - 2540085, 2534605 e-mail : kscste@gmail.com, www.kscste.kerala.gov.in



Kerala State Council for Science, Technology and Environment

Er. Sherin B.M.
Scientist B

No. C47/171/INNOVATE/2018/KSCSTE

28.11.2017

Sir/Madam,

Sub: - KSCSTE – TEKON 2018- INNOVATE scheme – reg.

With reference to your proposal on the above subject, I am happy to inform that KSCSTE has approved your project proposal entitled 'Agni' for a financial support of Rs.5,000/- subject to the following conditions.

1. The products/prototypes developed under INNOVATE scheme shall be demonstrated in TEKON- 2018 of KSCSTE which is to be held during 23rd to 25th February 2018.
2. The Objectives, Methodology, Output, Application of the project to the society and other relevant details shall be displayed at TEKON in poster of size 120 cm (height) ×90cm (width).
3. Excess expenditure incurred (if any) shall be met from the internal funds of the Institution/ other sources.
4. The Institution shall be the custodian of the projects supported under the INNOVATE scheme. It is the responsibility of the Institution for safe handling and transportation of the projects to the TEKON venue, as it has to be taken into the stock of the Institution after the event.
5. The financial grant shall be released only based on the recommendation of an expert committee constituted by KSCSTE after evaluating the prototype of the project.
6. Head of the Institution should forward the project report with photographs of the product/ prototype, copy of the participation certificate at TEKON and audited Statement of Expenditure and Utilization Certificate in the standard format after the completion of the project and exhibition at TEKON.
 - In the case of Govt. Departments/Autonomous institutions under the Government and Universities, audited SE and UC of the Financial Head counter signed by the Head of the Institution is acceptable.
 - In the case of affiliated colleges/ institutions, the audited SE and UC signed by the registered Chartered Accountant, counter signed by the Head of the Institution is essential.

However, KSCSTE may demand for the original bills and vouchers for verification at random.

7. The financial assistance will be disbursed to the Head of the Institution concerned, subject to recommendation of the expert committee and verification of audited financial statements.

If the above conditions are agreeable, you are requested to start design and develop the project, so as to present in TEKON – 2018 of KSCSTE.

Kindly refer the File No. in all future correspondence. Wishing you and your team All the best and with regards,

True Copy Attested

Prof. Anil Antony.,

Assistant Professor, Dept. of Computer Science Engineering,

Jyothi Engineering College, Engineering College Road, Cheruthuruthy, Thrissur - 679531

Dr. SUNNY JOSEPH KALAYATHANKAL

M.Tech, MCA, M.Sc, M.Phil, B.Ed

Ph.D (Computer Science), Ph.D (Maths)

PRINCIPAL

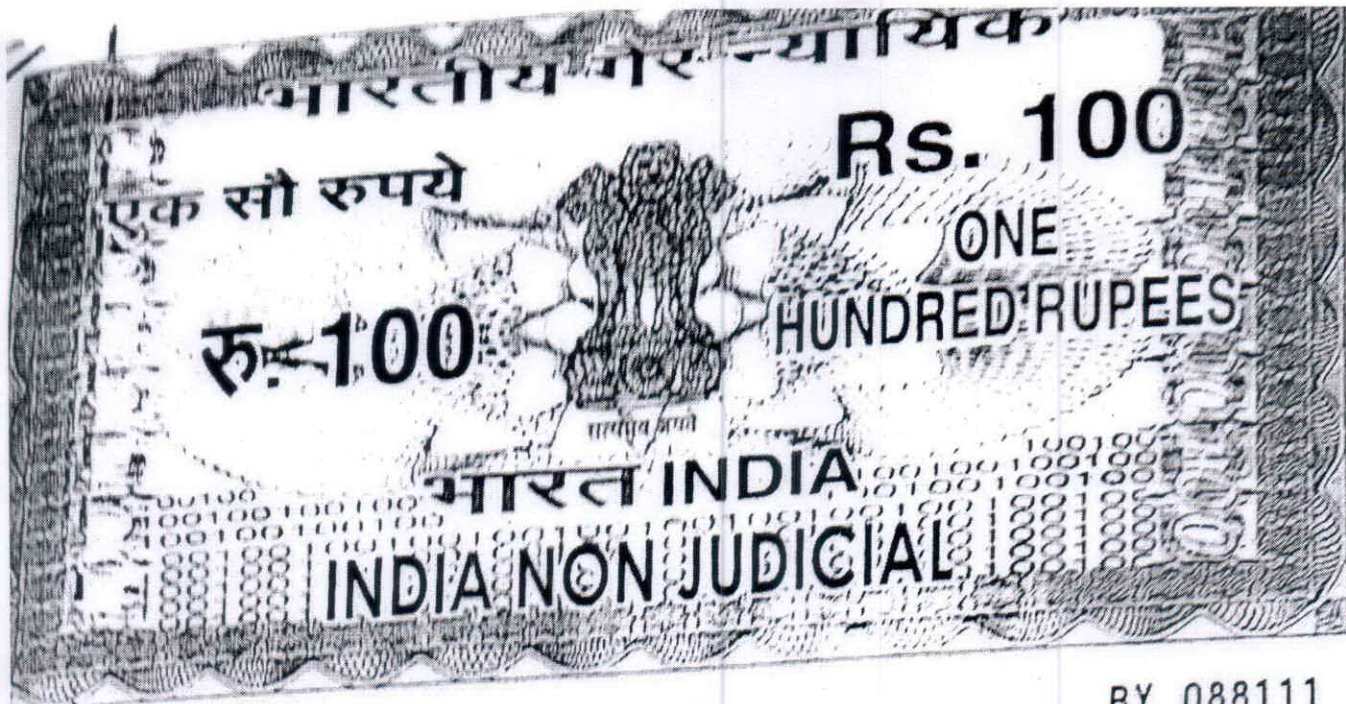
Jyothi Engineering College

Cheruthuruthy

Yours Sincerely,

Er. Sherin B. M.

Copy to: - The Principal, Jyothi Engineering College, Engineering College Road, Cheruthuruthy, Thrissur - 679531



BY 088111

കേരളം KERALA

AGREEMENT FOR AVAILING IDEA GRANT, SCALEUP GRANT AND PRODUCTISATION GRANT
06.08.2018

This agreement made this 06th day of August Two Thousand and Eighteen at Trivandrum by and between

KERALA STARTUP MISSION (TECHNOPARK TECHNOLOGY BUSINESS INCUBATOR), a society under the Travancore - Cochin Literary Scientific and Charitable Societies Registration Act 12 of 1955, and having its registered office at Technopark Campus, Karlavattom, Trivandrum - 695 581, represented by its Secretary & Registrar, Mr. B. Sreekumaran Nair, hereinafter referred to as "K-SUM" (which expression shall unless excluded by or repugnant to the subject or context be deemed to include its successors and assigns) of the FIRST PART.

AND

Mr. Jesvin Joseph Palatty., S/o. Joseph Thomas Palatty, A/211, Chandra CHS, Ram Mandir Road, Rasmi Nagar, Virar(West), Thane, Maharashtra- 401305, a Student of the Jyothi Engineering College, Cheruthuruthy, Vettikattiri P. O., Thrissur- 679531, and working as an innovator with the Innovation and Entrepreneurship Development Centre of the College hereinafter referred to as the "Awardee" of the SECOND PART

B. SREEKUMARAN NAIR

JESVIN JOSEPH PALATTY

ANIL ANTONY

Amuro

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D. (Computer Science), Ph.D (Maths)

PRINCIPAL
Jyothi Engineering College
Cheruthuruthy - 679 531
23 JUL 2018
THRISSUR

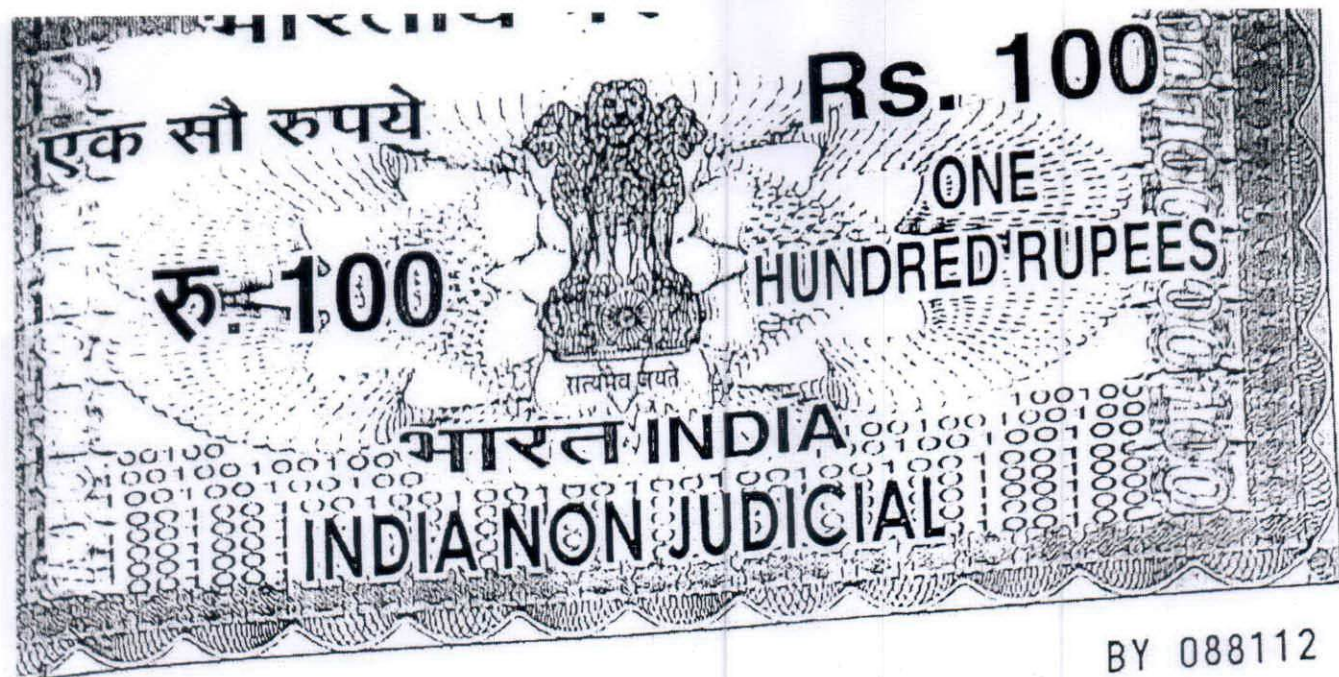
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ഇ. എ. സി. കോളേജിന്റെ അധീനതയിൽ

കോളേജിന്റെ ഉടമസ്ഥതയിൽ

S. S. S. S. S.

കേരളം കോളേജിന്റെ അധീനതയിൽ



BY 088112

കേരള KERALA

AND

Innovation and Entrepreneurship Development Centre at the Jyothi Engineering College, Cheruthuruthy, Vettikattiri P. O., Thrissur- 679531, Established with the support of the Kerala Startup Mission represented by Mr. Anil Antony Assistant Professor/IEDC Nodal Officer, Department of CSE, Jyothi Engineering College, Cheruthuruthy, Vettikattiri P. O., Thrissur- 679531, hereinafter referred to as the "IEDC" of the THIRD PART

WHEREAS Government of Kerala has a scheme to promote innovative idea by supporting through idea grant upto Rupees two lakhs for developing the prototype of the idea, productisation grant upto Rupees five lakh for converting the prototype into a marketable product and scale up the grant of Rupees Five lakh for scaling up of the product into a business. The ideas presented in the Idea days conducted by the Kerala Startup Mission will be evaluated by the Expert Committee and grants under the scheme will be released according to the recommendation.

AND WHEREAS the Awardee has submitted a proposal to consider the idea "Braillex" in the idea day for giving them grants under the above mentioned scheme.

B. SREEKUMARAN NAIR

JESVIN JOSEPH PALATTY

ANIL ANTONY

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
Principal
Jyothi Engineering College
Cheruthuruthy P.O.- 679 531



Handwritten notes in Malayalam and English, including 'IEDC' and '100'.

Handwritten signature: Anil

AND WHEREAS the idea submitted by the Awardee was placed in the idea day held on 12th May 2018 at Rajagiri Engineering college and the Expert Committee headed by the Secretary to Government, Electronics & Information Technology Department has recommended for a support of Rs. 2 lakhs against idea.

The amount of Rs. 2 lakhs will be released by the KSUM as installments. The 1st instalment as per the eligibility according to the requirements submitted by the awardee is Rs. 1 Lakh. The 1st installment of Rs. 1 lakh will be released through the IEDC on execution of this agreement.

The IEDC agreed that the amount will be transferred in full to the Awardee immediately on receipt of the same from the KSUM


The amount of Rs. 2 lakhs sanctioned under the scheme will be utilised by the Awardee only for the purpose of prototyping/productisation/scaling up the idea and that the entire amount will be utilised for the purpose in accordance with the utilisation plan and milestones submitted by the awardee which will also form part of this agreement as Annexure.


The Awardee will submit the details of utilisation to the IEDC immediately on utilisation along with the details of utilization and on receipt of the same the IEDC will submit the utilization certificate certified by the IEDC to KSUM within three months from the date of receipt of the amount.

Further instalments will be released only after getting the Utilization Certificate on the previous instalments shall be submitted by the IEDC within three months of receipt of the previous instalments.


Signed, sealed and delivered on the same day written above.

B. SREEKUMARAN NAIR
Secretary & Registrar
Kerala Startup Mission


JESVIN JOSEPH PALATTY
Jyothi Engineering College
Thrissur


ANIL ANTONY
Asst. Professor
Jyothi Engineering College
Thrissur

True Copy Attested


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Charuthuruthy



Kerala State Council for Science, Technology and Environment

Dr. Anilkumar C
Principal Scientist and Head
Science Education Division

12-02-2018
245
19/02/18

No.C-40 /NSD/2018/KSCSTE

Sir/Madam.

Sub:- KSCSTE – National Science Day 2018- Celebrations – reg.
Ref:- File No. KSCSTE/5231/2017/NSD

With reference to your proposal, I am happy to inform that KSCSTE has approved to offer financial assistance of ₹15000/-for organizing the National Science Day (NSD) 2018 celebrations, subject to the following conditions

1. Programme schedule should be sent to KSCSTE well in advance.
2. Activities should be based on the focal theme: **“Science and Technology for sustainable future ”** Eminent speakers/ experts may be invited to handle the sessions organized in connection with the programme.
3. Though February 28 is observed as National Science Day, the activities in your institution may be organized on any convenient date in the month of February, but on or before February 28, 2018. The activities organized after February 28, 2018 will not be considered for financial assistance.
4. Each activity should be documented. Detailed report on the various activities organized in connection with NSD - 2018 along with captioned photographs should be submitted to KSCSTE.
5. KSCSTE should be duly acknowledged in the programme and it should be written in all the brochures, banners, publicity materials, etc. ‘Sponsored by Kerala State Council for Science, Technology and Environment and supported by Department of Science & Technology, Govt. of India’.
6. The financial assistance may be utilized to cover the expenditure on organizing expenses, publicity materials, travel expenses, honoraria for resource persons and refreshment. Utilization of the grant for any other purpose other than the approved heads shall not be entertained.
7. On successful completion of the programme, the Head of the Institution should forward the following documents to The Director, KSCSTE - **Final report on the organized programme including necessary photographs, official bank account details of Head of the Institution, audited Statement of Expenditure and Utilization Certificate in the standard format available in the KSCSTE website. Also send soft copy for all**
8. The financial assistance will be disbursed to the Head of the Institution, only after the successful conduct of the programme, subject to the submission of satisfactory report and financial statements.
9. The required documents mentioned above should reach this office as early as possible after the conduct of the programme. However, the documents received after April 30, 2018 will not be entertained for release of payment and such request will be summarily rejected.

Kindly refer the Letter No and File No. in all future correspondence.
Name of the Programme Co-ordinator: Ms. Smija Skaria

Thanking you.

Anand
Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL

Yours sincerely
Atr
Anilkumar C

True Copy Attested

To
The Principal, Jyothi Engineering College, Jyothi Hills, Cheruthuruthy, Thrissur 679531
Ms. Smija Skaria, Assistant Professor, BSH, Jyothi Engineering College, Jyothi Hills, Cheruthuruthy, Thrissur 679531
P.O. Thiruvananthapuram, 605 004, Kerala State, India



National Science Day (NSD) is celebrated all over India with great enthusiasm on 28th of February every year in order to commemorate the invention of the Raman Effect in India by the Indian physicist, Sir Chandrasekhara Venkata Raman on the same

day in the year 1928. For his great success in the field of science in India, Chandrasekhara Venkata Raman was awarded and honored with the Nobel Prize in Physics in the year 1930.

Sir Chandrasekhara Venkata Raman had worked from 1907 to 1933 at the Indian Association for the Cultivation of Science, Kolkata, West Bengal in India. He had researched on many topics in Physics from which the Raman Effect (*"Change in the wavelength of light that occurs when a light beam is deflected by molecules. When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident beam."*) became his great success and discovery. It has been marked in the Indian history of science. For his big invention he was honored Nobel Prize in the year 1930. From the year 2013, the "Raman Effect" has been designated as an International Historic Chemical Landmark by The American Chemical Society.

The focal theme of the Science Day Celebration for the current year, 2018 is *"Science and Technology for Sustainable Future"*.


Creating knowledge and understanding through science and technology equips one to find solutions to today's acute economic, social and environmental challenges and to achieving sustainable development.



In the present era, the thrust is for science and technology innovations for development of science policies, to reform science systems and to build capacity to monitor and evaluate performance through indicators and statistics taking into account the broad range of country-specific contexts.

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Science policies are not enough. Science (and engineering education at all levels and research capacity at highest level need to be built to allow countries to develop their own solutions to their specific problems and to play their part in the international scientific and technological arena.


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
(Computer Science), Ph.D (Maths)
PRINCIPAL
Engineering College
P.O.- 679 531



Kerala State Council for Science, Technology and Environment

Dr. Ajit Prabhu V.
Chief Scientist (Scientist G)
& Head (TDPMD)

22.01.2019

No. ECE18/231/INNOVATE/2019

Sir/Madam

Sub: - KSCSTE —TECHFEST – INNOVATE 2019 - reg.

With reference to your proposal on the above subject, I am happy to inform that KSCSTE has approved your project proposal entitled 'Brailleon-A Low Cost Braille Printer' for a financial support of. Rs. 8,000/- subject to the following conditions.

1. All the products/prototypes developed under INNOVATE scheme shall be demonstrated in TECHFEST-2019 which is to be held during 15th to 17th February 2019.
2. The financial assistance to the project selected under INNOVATE scheme shall be disbursed only after the successfully demonstrating the technology in TECHFEST – 2019 of KSCSTE.
3. The financial assistance is provided for covering the expenses for fabrication, consumables, contingencies and testing charges.
4. No financial assistance is extended for research literature, major equipment and travel (unless extensive travel is required for the work)
5. The Objectives, Methodology, Output, Application of the project to the society and other relevant details shall be displayed at TECHFEST-2019 in poster of size 120 cm (height) x90cm (width).
6. Excess expenditure incurred (if any) shall be met from the internal funds of the Institution/ other sources.
7. The Institution shall be the custodian of the projects supported under the INNOVATE scheme. It is the responsibility of the institution for safe handling and transportation of the projects to the TECHFEST-2019 venue as it has to be taken into the stock of the Institution after the event.
8. The financial grant shall be released only based on the recommendation of an expert committee constituted by KSCSTE after evaluating the prototype of the project.
9. Head of the Institution should forward the project report with photographs of the product/prototype, copy of the participation certificate at TECHFEST-2019 and audited Statement of Expenditure and Utilization Certificate in the standard format after the completion of the project and exhibition at TECHFEST-2019.
 - > In the case of Govt. Departments/Autonomous institutions under the Government and Universities, audited SE and UC of the Financial Head counter signed by the Head of the Institution is acceptable.
 - > In the case of affiliated colleges/institutions, the audited SE and UC signed by the registered Chartered Accountant counter signed by the Head of the Institution is essential.
10. The financial assistance will be disbursed to the Head of the Institution concerned, subject to recommendation of the expert committee and verification of audited financial statements.

If the above conditions are agreeable, you are requested to start design and develop the project, so as to present in TECHFEST-2019. You have to register separately to participate in the TECHFEST – 2019 of which the details are available in the Website: techfest.ktu.edu.in. Kindly refer the File No. in all future correspondence. Wishing you and your team All the best and with warm regards.

Thanking you.

Yours Sincerely,

Dr. Ajit Prabhu V.

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL

M.Tech, MCA, M.Sc, M.Phil, B.Ed

Shri. Jinesh K.J.

Asst. Professor, Dept. of Electronics & Communication Engg., Jyothi Engg College Cheruthurithi, Thrissur- 679531
Copy to: 1. The Principal, Jyothi Engg College, Cheruthurithi, Thrissur- 679531
2. Dr. Thajuddin Ahmed V. I. General Convenor, TECHFEST- 2019, Email: thajud1.in88@gmail.com

Sasthra Bhavan, Pattom P.O, Thiruvananthapuram - 695 004, Kerala State, India.
Tel: 0471- 2548252, 2543234, 2548211. Fax : 0471-2543234 e-mail : to.drprabhu@gmail.com
Website : www.kscste.kerala.gov.in



Kerala State Council for Science, Technology and Environment

Dr. Ajit Prabhu V.
Chief Scientist (Scientist G)
& Head (TDPMD)
No. CSE6/21/INNOVATE/2019

22.01.2019

Sir/Madam

Sub: - KSCSTE —TECHFEST – INNOVATE 2019 - reg.

With reference to your proposal on the above subject, I am happy to inform that KSCSTE has approved your project proposal entitled 'Currency Recognition Spectacles for Blinds' for a financial support of. Rs. 5,000/- subject to the following conditions.

1. All the products/prototypes developed under INNOVATE scheme shall be demonstrated in TECHFEST-2019 which is to be held during 15th to 17th February 2019.
2. The financial assistance to the project selected under INNOVATE scheme shall be disbursed only after the successfully demonstrating the technology in TECHFEST – 2019 of KSCSTE.
3. The financial assistance is provided for covering the expenses for fabrication, consumables, contingencies and testing charges.
4. No financial assistance is extended for research literature, major equipment and travel (unless extensive travel is required for the work)
5. The Objectives, Methodology, Output, Application of the project to the society and other relevant details shall be displayed at TECHFEST-2019 in poster of size 120 cm (height) x90cm (width).
6. Excess expenditure incurred (if any) shall be met from the internal funds of the Institution/ other sources.
7. The Institution shall be the custodian of the projects supported under the INNOVATE scheme. It is the responsibility of the institution for safe handling and transportation of the projects to the TECHFEST-2019 venue, as it has to be taken into the stock of the Institution after the event.
8. The financial grant shall be released only based on the recommendation of an expert committee constituted by KSCSTE after evaluating the prototype of the project.
9. Head of the Institution should forward the project report with photographs of the product/prototype, copy of the participation certificate at TECHFEST-2019 and audited Statement of Expenditure and Utilization Certificate in the standard format after the completion of the project and exhibition at TECHFEST-2019.
 - > In the case of Govt. Departments/Autonomous institutions under the Government and Universities, audited SE and UC of the Financial Head counter signed by the Head of the Institution is acceptable.
 - > In the case of affiliated colleges/institutions, the audited SE and UC signed by the registered Chartered Accountant counter signed by the Head of the Institution is essential.However, KSCSTE may demand for the original bills and vouchers for verification at random.
10. The financial assistance will be disbursed to the Head of the Institution concerned, subject to recommendation of the expert committee and verification of audited financial statements.

If the above conditions are agreeable, you are requested to start design and develop the project, so as to present in TECHFEST-2019. You have to register separately to participate in the TECHFEST – 2019 of which the details are available in the Website: techfest.ktu.edu.in. Kindly refer the File No. in all future correspondence. Wishing you and your team All the best and with warm regards.

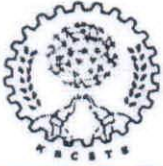
Thanking you,

Yours Sincerely,

Dr. Ajit Prabhu V.

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, M.C.A., P.O. Cheruvu, Jyothi Engg. College Cheruthurithy, Thrissur - 679531
Asst. Professor, Dept. of Computer & Science, Jyothi Engg. College Cheruthurithy, Thrissur - 679531
Copy to: 1. The Principal Jyothi Engg. College Cheruthurithy, Thrissur - 679531
2. Dr. Thajuddin Aliamed V. IP General Convenor, TECHFEST- 2019, Email: thajud in88@gmail.com
Sasthra Bhavan, Pattom P.O., Thiruvananthapuram - 695 004, Kerala State, India.
Tel: 0471-2548252, 2543234, 2548211 Fax: 0471-2543234 e-mail: to.drprabhu@gmail.com
www.kscste.kerala.gov.in



Kerala State Council for Science, Technology and Environment

Dr. Ajit Prabhu V.
Chief Scientist (Scientist G)
& Head (TDPMD)

No. CSE3/124/INNOVATE/2019

22.01.2019

Sir/Madam

Sub: - KSCSTE —TECHFEST – INNOVATE 2019 - reg.

With reference to your proposal on the above subject, I am happy to inform that KSCSTE has approved your project proposal entitled 'Speed Limiter' for a financial support of. Rs. 7,000/- subject to the following conditions.

1. All the products/prototypes developed under INNOVATE scheme shall be demonstrated in TECHFEST-2019 which is to be held during 15th to 17th February 2019.
2. The financial assistance to the project selected under INNOVATE scheme shall be disbursed only after the successfully demonstrating the technology in TECHFEST – 2019 of KSCSTE.
3. The financial assistance is provided for covering the expenses for fabrication, consumables, contingencies and testing charges.
4. No financial assistance is extended for research literature, major equipment and travel (unless extensive travel is required for the work)
5. The Objectives, Methodology, Output, Application of the project to the society and other relevant details shall be displayed at TECHFEST-2019 in poster of size 120 cm (height) x90cm (width).
6. Excess expenditure incurred (if any) shall be met from the internal funds of the Institution/ other sources.
7. The Institution shall be the custodian of the projects supported under the INNOVATE scheme. It is the responsibility of the institution for safe handling and transportation of the projects to the TECHFEST-2019 venue. as it has to be taken into the stock of the Institution after the event.
8. The financial grant shall be released only based on the recommendation of an expert committee constituted by KSCSTE after evaluating the prototype of the project.
9. Head of the Institution should forward the project report with photographs of the product/prototype, copy of the participation certificate at TECHFEST-2019 and audited Statement of Expenditure and Utilization Certificate in the standard format after the completion of the project and exhibition at TECHFEST-2019.
 - > In the case of Govt. Departments/Autonomous institutions under the Government and Universities, audited SE and UC of the Financial Head counter signed by the Head of the Institution is acceptable.
 - > In the case of affiliated colleges/institutions, the audited SE and UC signed by the registered Chartered Accountant counter signed by the Head of the Institution is essential.However, KSCSTE may demand for the original bills and vouchers for verification at random.
10. The financial assistance will be disbursed to the Head of the Institution concerned, subject to recommendation of the expert committee and verification of audited financial statements.

If the above conditions are agreeable, you are requested to start design and develop the project, so as to present in TECHFEST-2019. You have to register separately to participate in the TECHFEST – 2019 of which the details are available in the Website: techfest.ktu.edu.in. Kindly refer the File No. in all future correspondence. Wishing you and your team All the best and with warm regards.

Thanking you,

Yours Sincerely,

Dr. Ajit Prabhu V.

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed

Ph.D. (Computer Science), Jyothi Engg. College, Cheruthuruthi, Thrissur- 679531
Asst. Professor, Dept. of Computer & Science Engg., Jyothi Engg. College, Cheruthuruthi, Thrissur- 679531
Copy to: 1. The Principal, Jyothi Engg. College, Cheruthuruthi, Thrissur- 679531
2. Dr. Thajuddin Ahmed, General Convenor, TECHFEST- 2019, Email: thajud.in88@gmail.com
Cheruthuruthy P.O. - 679 531
Sasthra Bhavan, Pattom P.O, Thiruvananthapuram - 695 004, Kerala State, India.
Fax: 0471-2543234 e-mail: to.drprabhu@gmail.com

DST/ICPS/CPS-Individual/2018/1091(G)
Government of India
Ministry of Science & Technology
Department of Science & Technology

Technology Bhavan
New Mehrauli Road
New Delhi- 110 016
Dated: 07.12.2018

ORDER

Subject: Financial assistance for the project entitled "Intelligent CPS Data Analytics Platform for a Metro Rail Transport System" submitted by Dr. Jaison Paul Mulerikkal, Professor, Department of Computer Science & Engineering, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala.

Sanction of the President is hereby accorded to the approval of the above mentioned project at a total cost of ₹.24,96,000/- (Rupees Twenty Four Lakh Ninety Six Thousand only) for a duration of three years (36 months). The detailed breakup of the DST grant for General as well as Capital Components are given below:-

General Component: ₹.19,66,000/-
Capital Component : ₹.5,30,000/-

The sanction of the President is also accorded to the release of Rs. 7,65,000/- (Rupees Seven Lakh Sixty Five Thousand only) under the recurring budget being the first installment of grant under "General Component" for implementation of the above mentioned project. The item of expenditure for which the total allocation of ₹.24,96,000/- has been approved for a period of 36 months are given below:

Non-recurring (Capital Items)

	HEAD	1 st Year DST	Total
1.	EQUIPMENT: Workstation with display	₹.5,30,000/-	₹.5,30,000/-
	TOTAL	₹.5,30,000/-	₹.5,30,000/-

Recurring Items (General-DST component)

Sl.No	Item	BUDGET (in Rupees)			TOTAL
		1st Year	2nd Year	3rd year	
	Project Staff				
	JRF-02 @ Rs. 25,000/- pm for two years and SRF-01 @ Rs. 28,000/- for 3 rd year.	600000	600000	336000	1536000
2	Consumables	35000	35000	30000	100000
3	Travel	50000	50000	50000	150000
4	Contingency	50000	25000	25000	100000
	Total	735000	710000	441000	1886000
5	Overheads	30000	25000	25000	80000
	Grand Total	765000	735000	466000	1966000

True Copy Attested

[Signature]
DR. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)

... P.T.O.

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

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

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

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

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

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

7. *"The grantee organization will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing account. For Grants released during F.Y. 2017-18 and onwards, all interests and other earnings against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP), i.e. www.bharatkosh.gov.in), immediately after finalisation of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with Statement of Expenditure / Utilisation Certificate for considering subsequent release of Grant/ Closure of Project accounts."*

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

9. In case the scheme provides for payment of honorarium/remuneration/fellowships/scholarship to the PI, a para may suitably be incorporated in the DST to the effect that "PI is not drawing any emoluments/salary/fellowship from any other project either supported by DST or by any other funding agency.

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

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

True Copy Attested

SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)

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

13. The overhead expenses are meant for the host Institute towards the cost for providing infrastructural facilities and benefits to the staff employed in the project etc.

14. The expenditure involved is debitable to Demand No. 84, Department of Science & Technology for the year 2018-19:

3425	:	Other Scientific Research (Major Head)
60	:	Others
60 200	:	Assistance to Other Scientific Bodies (Minor Head)
69	:	Research & Development (S&T).
69.00.31	:	Grants-in-Aid General for the year 2018-19 (Plan) (Previous:TDP-NRDMS-3425.60.200.26.01.31)

15. The amount of Rs. 7,65,000/- (Rupees Seven Lakh Sixty Five Thousand only) will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to the Principal, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala. The bank details for electronic transfer of funds through RTGS are given below:-

1.	Name of the Account Holder :	Principal, Jyothi Engineering College
2.	Name of Bank :	Federal Bank Limited
3.	Bank Account Number :	15250100001019
4.	IFSC Code :	FDRL0001525

NITI Aayog NGO Darpan Unique ID : KL/2018/0198849

16. As per Rule 234 of GFR 2017, this sanction has been entered at Sl.No. 8 in the register of grants maintained in the Division for the scheme (Innovation, Technology Development and Deployment).

17. This issues with the concurrence of IFD vide their Concurrence Dy. No. C/3951/IFD/2018-19 dated 07.12.2018.

18. It is certified that all the Utilization Certificate in regard of all schemes/programmes/projects, present and previous pertaining to the institute have been received and no UC is pending against the organization as per the details in the PFMS also.

True Copy Attested

Rajeev

Rajeev
Dr. Rajeev Sharma,
Scientist-E
Tele:26590310

The Pay & Accounts Officer
Department of Science & Technology
New Delhi -110 016.

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O.- 679 531

Copy for information and necessary action:

1. Cash Section (3 copies) for preparing the bill and remitting the amount to the above grantee.
2. Accounts Section, DST, New Delhi.
3. IFD, DST, New Delhi.
4. Director of audit (CW&M-II) AGCR Building, IP Estate, New Delhi.

- 5. Principal, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala.
- 6. Dr. Jaison Paul Mulerikkal, Professor, Department of Computer Science & Engineering, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala.
- 7. Head, ICPS, DST
- 8. Sanction folder.

R. J. S.
 Dr. Rajeev Sharma
 Scientist-E
 Tele:26590310

True Copy Attested

Sunny

Dr. SUNNY JOSEPH KALAYATHANKAL
 M.Tech, MCA, M.Sc, M.Phil, B.Ed
 Ph.D (Computer Science), Ph.D (Maths)
 PRINCIPAL
 Jyothi Engineering College
 Cheruthuruthy P.O.- 679 531

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DST/ICPS/CPS-Individual/2018/1091(C)
Government of India
Ministry of Science & Technology
Department of Science & Technology

Technology Bhavan
New Mehrauli Road
New Delhi- 110 016
Dated: 07.12.2018

ORDER

Subject: Financial assistance for the project entitled " Intelligent CPS Data Analytics Platform for a Metro Rail Transport System " submitted by Dr. Jaison Paul Mulerikkal, Professor, Department of Computer Science & Engineering, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala.

With reference to the Sanction Order No. **DST/ICPS/CPS-Individual/2018/1091(G)** dated 07.12.2018, sanction of the President is accorded for the sanctioning of ₹. 5,30,000/- (Rupees Five Lakh Thirty Thousand only) under the 'Grant for creation of capital assets' in the above mentioned project.

2. Sanction of the President is also accorded for the release of ₹. 5,30,000/- (Rupees Five Lakh Thirty Thousand only) towards the Creation of Capital Assets Head for the purchase of equipment's under the project. The details of which is as given under:-

Non-recurring (Capital Items)

	HEAD	1 st Year DST	Total
1.	EQUIPMENT: Workstation with display	₹. 5,30,000/-	₹. 5,30,000/-
	TOTAL	₹. 5,30,000/-	₹. 5,30,000/-

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

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

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

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

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

Sunny
Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL

Jyothi Engineering College
Cheruthuruthy P.O.- 679 531

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

R. Tharay

release of grants under the project shall be considered only on receipt of the said documents.

7. "The grantee organisation will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing account. For Grants released during F.Y. 2017-18 and onwards, all interests and other earnings against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP), i.e. www.bharatkosh.gov.in), immediately after finalisation of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with Statement of Expenditure / Utilisation Certificate for considering subsequent release of Grant/ Closure of Project accounts."

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

9. In case the scheme provides for payment of honorarium/remuneration/fellowships/scholarship to the PI, a para may suitably be incorporated in the DST to the effect that "PI is not drawing any emoluments/salary/fellowship from any other project either supported by DST or by any other funding agency.

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

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

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

13. The expenditure involved is debitable to Demand No. 84, Department of Science & Technology for the year 2018-19:

- 3425 : Other Scientific Research (Major Head)
- 60 : Others
- 60.200 : Assistance to Other Scientific Bodies (Minor Head)
- 69 : Research & Development (S&T).
- 69.00.35 : Grants for creation of Capital Assets for the year 2018-19 (Plan)
(Previous:TDP-NRDMS-3425.60.200.26.01.35)

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14. The amount of ₹. 5,30,000/- (Rupees Five Lakh Thirty Thousand only) will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to Principal, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682039. Bank details for electronic transfer of funds through RTGS are given below:

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science) Ph.D (Maths)
Jyothi Engineering College
Cheruthuruthy P.O. - 679 531

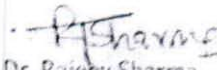
- 1. Name of the Account Holder : Principal, Jyothi Engineering College
- 2. Name of Bank : Federal Bank Limited
- 3. Bank Account Number : 15250100001019
- 4. IFSC Code : FDRL0001525

NITI Aayog NGO Darpan Unique ID : KL/2018/0198849

15. As per Rule 234 of GFR 2017, this sanction has been entered at Sl.No. 9 in the register of grants maintained in the Division for the scheme (sanctioning authority).

16. This issues with the concurrence of IFD vide their Concurrence Dy No C/3950/IFD/2018-19 dated 07.12.2018.

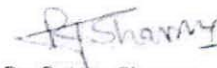
17. It is certified that all the Utilization Certificate in regard of all schemes/programmes/projects, present and previous pertaining to the institute have been received and no UC is pending against the organization as per the details in the PFMS also.


Dr. Rajeev Sharma,
Scientist-F,
Tele:26590310


The Pay & Accounts Officer
Department of Science & Technology
New Delhi -110 016.

Copy for information and necessary action:

1. Cash Section (3 copies) for preparing the bill and remitting the amount to the above grantee.
2. Accounts Section, DST, New Delhi.
3. IFD, DST, New Delhi.
4. Director of audit (CW&M-II) AGCR Building, IP Estate, New Delhi.
5. Principal, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala.
6. Dr. Jaison Paul Mulerikkal, Professor, Department of Computer Science & Engineering, Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur - 682 039, Kerala.
7. Head, ICPS, DST.
8. Sanction folder.


Dr. Rajeev Sharma,
Scientist-F,
Tele:26590310

True Copy Attested


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O.- 679 531

DST/ICPS/CPS-Individual/2018/1091
Government of India
Ministry of Science & Technology
Department of Science & Technology

Technology Bhavan
New Mehrauli Road
New Delhi- 110 016
Dated: 23.09.2020

ORDER

Subject: Financial assistance for the project entitled "Intelligent CPS Data Analytics Platform for a Metro Rail Transport System " sponsored to Dr. Jaison Paul Mulerikkal, Professor, Department of Computer Science & Engineering, Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039, Ernakulam, Kerala.

In continuation of this Department's Sanction Order dated 07.12.2018, sanction of the President is conveyed to the payment of **Rs.7,35,000/-** (Rupees Seven Lakh Thirty Five Thousand only) to Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039, Ernakulam, Kerala being the **second** instalment of grant for implementation of the said project during 2020-21.

2. The project also stands transferred from Jyothi Engineering College, Jyothi Hills, Panjal Road, Vettikattiri PO, Cheruthuruthy, Thrissur-679531, Kerala to Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039, Ernakulam, Kerala.

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

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

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

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

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

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

True Copy Attested

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Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL

Contd/-

7. "The grantee organization will maintain separate audited account for the project and the entire amount of grant will be kept in an interest bearing account. For Grants released during F.Y. 2017-18 and onwards, all interests and other earnings against released Grant shall be remitted to Consolidated Fund of India (through Non-Tax Receipt Portal (NTRP), i.e. www.bharatkosh.gov.in), immediately after finalization of accounts, as it shall not be adjusted towards future release of Grant. A certificate to this effect shall have to be submitted along with Statement of Expenditure / Utilization Certificate for considering subsequent release of Grant/ Closure of Project accounts".

8. Continuation of project beyond 31.03.2021 will be subject to appraisal and approval of the continuation of the scheme under which the project is funded.

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

(b). DST reserves rights to close the project activity any time based on the review of progress of the project.

(c). A prior intimation to DST by grantee is must before leaving the country for attending conference/availing any short term fellowship abroad during the project tenure.

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

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

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

3425	:	Other Scientific Research (Major Head)
60	:	Others
60.200	:	Assistance to Other Scientific Bodes (Minor Head)
71	:	Research & Development.
71.03.31	:	Grants-in-aid General for the year 2020-21 (Plan)
*(Previous:3425.60.200.63.01.31-Super Computing Facility & Capacity Building)		

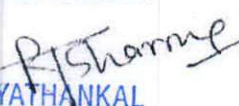
13. The amount of **Rs.7,35,000/-** (Rupees Seven Lakh Thirty Five Thousand only) will be drawn by the Drawing and Disbursing Officer, DST and will be disbursed to the Principal, Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039, Ernakulam, Kerala. The bank details for electronic transfer of funds through RTGS are given below:

Institution Account Name	Principal, Rajagiri School of Engineering and Technology, Kochi-682039, Kerala.
Saving Bank Account Number	920010048169239
Name of Bank	Axis Bank
Branch Name	Palarivattom
IFSC Code	UTIB0000691
MICR Code	682211005

14. As per Rule 234 of GFR 2017, this sanction has been entered at S. No. 13 in the register of grants maintained in the Division for the scheme.

True Copy Attested

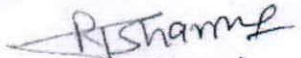

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)


R. S. Sharma

...Contd/

15. This issues with the concurrence of IFD Vide their Concurrence Dy. No. C/1992/IFD/2020-21 dated 21.09.2020.

16. It is certified that all the Utilization Certificate in regard of all schemes/programmes/projects, present and previous pertaining to the institute have been received and no UC is pending against the organization as per the details in the PFMS also.

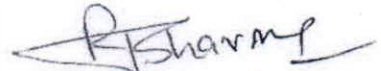

(Dr. Rajeev Sharma)
Scientist-'E'
011-26590310


To
The Pay and Accounts Officer,
Department of Science & Technology,
New Delhi.

Copy for information and necessary action to: -

1. Cash Section (3 copies) for making the payment to the grantee.
2. Account Section.
3. Director of Audit, (Scientific Department), AGCR Building, New Delhi - 110 002.
4. Principal, Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039, Ernakulam, Kerala.
5. Dr. Jaison Paul Mulerikkal, Professor, Department of Computer Science & Engineering, Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039, Ernakulam, Kerala.
6. Head, ICPS, DST (FFT Division)
7. Sanction Folder

True Copy Attested


(Dr. Rajeev Sharma)
Scientist-'E'
011-26590310


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O.- 679 531



To

31-Mar-17

Dr. Jaison Paul Mulerikkal
Professor
Department of Computer Science & Engineering
Rajagiri School of Engineering & Technology
Kakkanad, Ernakulam- 682 039, Kerala

Sir,

Sub: Letter of support for the research project, "INTELLIGENT CPS DATA ANALYTICS PLATFORM FOR A METRO RAIL TRANSPORT SYSTEM"

Ref: MoU signed between KMRL& RSET, dated 06-Oct-2016

We thank RSET for the presentation on research project, "INTELLIGENT CPS DATA ANALYTICS PLATFORM FOR A METRO RAIL TRANSPORT SYSTEM" and proposal for associating KMRL with the research project on the said subject.

Since, KMRL intends to implement an intelligent, integrated public transport system for the city of Kochi, we are pleased to associate with you as a research partner, in accordance with the terms of the MoU cited above so as to share with you the available platforms and human resource hours within KMRL for the said project. Subject to the technical feasibility, confidentiality and commercial aspects, required data for the project would be made available by KMRL. We understand this association is at no extra cost to KMRL. The results of the research shall be shared with KMRL and KMRL is free to use the results and related data without any restrictions.


This letter is issued to RSET for submitting the "INTELLIGENT CPS DATA ANALYTICS PLATFORM FOR A METRO RAIL TRANSPORT SYSTEM" project to Department of Science and Technology.

Thanking you,


Addl. General Manager (Finance & IT)



True Copy Attested


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy P.O.- 679 531



Dr. Rajeev Sharma
Scientist "F", ICPS (FFT) Division
Room No : 2, Hall-C
Telephone : 26602187, 26590310
26562135, 26567373 310
E-mail: rajeev.sharma@nic.in
Mobile : 09971888229, 099108933 89

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
TECHNOLOGY BHAVAN
NEW MIHRAULI ROAD
NEW DELHI - 110 016

Reference No: DST/ICPS/CPS-Individual/2018/1091

Dated : 22.02.2021

Subject: **Project entitled "Intelligent CPS Data Analytics Platform for a Metro Rail Transport System"**.

Dear Dr Sunny Joseph Kalayathankal,

As you may be aware that the above project was sponsored to Dr. Jaison Paul Mulerikkal at a total cost of Rs. 24,96,000/- with the initial release of Rs. 7,65,000/- under the Recurring grant and Rs. 5,30,000/- under the Non-recurring grant during the financial year 2018-19 to Jyothi Engineering College.

As per the request received from Dr. Jaison, the project has now been transferred to Rajagiri School of Engineering and Technology, Rajagiri Valley, Kakkanad, Kochi-682039 on 23.09.2020 after obtaining necessary consent documents from both the institutes.

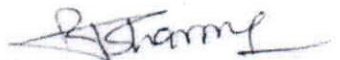
Department has received a request from Dr. Jaison Paul for the permission to transfer the computing resources - the computing cluster and the desktops - associated with the project from Jyothi Engineering College to Rajagiri School of Engineering and Technology.

As per the terms and conditions of the project, all the assets procured under the project should also be transferred to the new institute along with the project where the PI has been transferred.

In view of the above, you are requested to kindly make necessary arrangements to transfer the assets procured under the above project from Jyothi Engineering College to Rajagiri School of Engineering and Technology for utilizing the same in the project activities.

With regards,


Yours Sincerely,


(Rajeev Sharma)

Dr Sunny Joseph Kalayathankal,
Principal (Professor & Dean-Research)
Jyothi Engineering College,
Jyothi Hills, Vettikattiri P.O.,
Cherthuruthy,
Thrissur-679531, Kerala.

Copy to : **Fr Dr Jaison Paul Mulerikkal**, Vice Principal & Professor, Computer Science, Rajagiri School of Engineering & Technology (Autonomous), Rajagiri Valley, Kakkanad, Kochi, India - 682 039

True Copy Attested


Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College

LIST OF STUDENT PROJECTS SELECTED - 2019 - 2020

Sl No	Name of Principal Investigator	Name of Student Investigators	College	Branch	Title of the Project	Amount Sanctioned	Consumables	Equipments	Travel	Contingency	Miscellaneous
1	Dr. Ranjith S. Kumar Assistant Professor	Ajmal A R Akhildev V T K Akhil Bedhoonraj	CET	ME	Ground mobility device for disabled.	50,000	20,000	15,000	5000	9000	1,000
2	Dr. Jayasree P. K. Professor	Athira Bismi N A Mohammed Shikaf Ali S Sreesha N P	CET	Civil	Effect of vetiver roots on erosion control in slopes.	50,000	10,000	28,000	2000	5000	5000
3	Dr. Jayasree P. K. Professor	Dilshan P Ghanasyam J Jesbin John Vishnu Jacob Suresh	CET	Civil	Green Bricks for Sustainable Future.	50,000	10,000	28,000	2000	5000	5000
4	Sreedevi A. R. Assistant Professor	Althaf Hussain N Anand Solomon K Binoy K Cyril G Thottumkal	CET	Civil	Development of Sustainable Particle Boards from Water Hyacinth and Pineapple Leaf Pulp.	40,000	10,000	20,000	5000	5000	
5	Dr. Sumi S. Assistant Professor	Akshay Ranjith Alisha P M Binoy P T Catherine Chakkakakkal	CET	Civil	Performance assessment of constructed wetland in treatment of wastewater.	49,000	10,000	20,000	3000	5000	11,000
6	Dr. Dinesh Gopinath Associate Professor	Sujeesh B Sachin K Aravind Adwaith M K Akarsh A M	CET	EEE	Design and development of a high frequency power supply for magnetic hyperthermia based cancer treatment	50,000	10,000	30,000	5000	5000	
7	Dr. Dinesh Gopinath Associate Professor Dr. Shereef R. M. (Co-Investigator)	Archana Govindan Malavika Jayakumar Parvathy G Ajay Pavithra P Venu	CET	EEE	SiC MOSFET based bi-directional DC-DC power converter for EV applications.	50,000	10,000	30,000	5000	5000	
8	Dr. Mayadevi N. Associate Professor	Rohit G Midhun Satheesh Aswin A S	CET	EEE	Portable bio signal detector-brain computer interface	50,000	10,000	35,000		5000	
9	Dr.Sreeja S. Associate Professor	Adharsh K Tom Justin Jose P Joseph Kurian Nithin Philip Joseph	CET	EEE	Emergency response rover for disaster mitigation with reconfigurable antenna	44,267	1700		500	1000	

44,267 Copy Attested

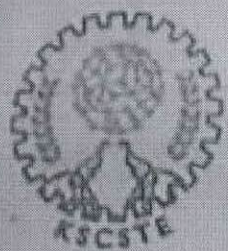
Dr. SUNNY JOSEPH KALAYATHANKAL
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Ph.D (Computer Science), Ph.D (Maths)
PRINCIPAL
Jyothi Engineering College
Cheruthuruthy - 679 531

80	Dr. Naveen S Assistant Professor Shijitha R (Co-Investigator)	Aiswarya S. S Architha V. M Asiya Nizam Parvathy Devi R	LBS Institute of Technology for Women,TVM	ECE	SPI-D: Spider Inspired Wall Climbing Robot	11,000	1500	7500	1000	1000	
81	Akhila K. Assistant Professor Rajitha A R (Co-Investigator)	Fathima Parveen A S Hidha Fathima Babu Priyanka Devassy Thanziya K J	Adishankara Institute of Engineering & Technology, Kalady	EEE	Universal mind read # DOF bed for rehabilitation.	22,000	5000	12,500	3000	1500	
82	Divya V Chandran Assistant Professor. Arya Paul (Co-Investigator)	Abhilash G Panicker Aswany Thilakan DonDavis Gayathri G Shenoy	Adishankara Institute of Engineering and Technology.	ECE	Doily	26,000	8000	15,000	1000	2000	
83	Dr. Aju Mathew George Assistant Professor	Kevin Emmanuel Lismol Scaria Tresa Rose Vignesh O S	Amal Jyothi College of Engineering, Kottayam	Civil	Adsorptive Removal of Arsenic from Water Using Chemically Treated Biosorbents:Evaluation of Equilibrium and Kinetic Parameters.	23,000	8000		2000	5000	8000
84	Midhun Joy Assistant Professor Therese Yamuna Mahesh (Co- Investigator)	Thomson Sunny Sneha Margret Abraham Sneha Mariam Thomas Tanniamol K Parambil	Amal Jyothi College of Engineering	ECE	Smart Agro-Incubator	23,000	4000	15,000	1000	3000	
85	Dr. Therese Yamuna Mahesh Associate Professor Midhun Joy (Co-Investigator)	Parvathy S S Shibin Thomas Shilpa Rachel	Amal Jyothi College of Engineering	ECE	Cicerone - A Real Time Object and Path Detection for Visually Impaired People.	22,500	5000	12,000	2000	3500	
86	Dr. Godwinraj D. Assistant Professor. Godfrey D (Co-Investigator)	Akhil K V Anjana N Anagha Santhosh Anitta roy Njavallil	Amal Jyothi College of Engineering	ECE	Design Microscale Laser Controlled PCB Engraver & Solder Dispenser Unit	25,000	5000	15,000	1000	4000	
87	Reeju Elisa Baby Assistant Professor Godwin Raj D (Co-Investigator)	Leah Sibi Lija Mariam Biju Sahi Ann George Shalu Shaji	Amal Jyothi College of Engineering	ECE	Self-Driving Car using Optical Flow & Gridding System	15,000	5000	5000	1000	4000	
88	Dr.Biju P L HOD Manoj Kumar V K (Co- Investigator)	Albin Mathew Ajilas V R Ajay Wilson Harith H Flewin Johnson	Jyothi Engineering college Thrissur	ME	Eco-friendly and effective management of used diapers and napkins.	49,000	7000	33,000	4500	4500	

True Copy Attested

Amal

Dr. SUNNY JOSEPH KALAYATHANKAL
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PRINCIPAL
Jyothi Engineering College
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Kerala State Council for Science, Technology and Environment

Prof (Dr.) K.P. Sudheer
Executive Vice President
KSCSTE, Pattom

116
22/1/2022
Date of Receipt

Letter No. 01181/SPS 64/2019/KSCSTE

Dear Prof. Biju C.V.,

Sub: Financial assistance for Student Project scheme of KSCSTE reg.
Ref: Your application received under Student Project scheme

This is to invite your attention to the reference cited and to inform that the project titled "Development of Constant Power discharging battery, using super capacitor" submitted by you as PI and Ms. Suprabha Hyman, Mr. Ajith C, Mr. Ashik M.S. as student investigator(s) has been sanctioned by the Council. The budget estimate of the project is as detailed below.

SLNO.	ITEMS	AMOUNT
1	Consumables	3500
2	Minor equipments	2750
3	Travel	1250
4	Research Literature & Documentation	750
5	Others (for analysis)	1500
	Total	9750

The PI has to submit the signed Terms and Conditions (as per the guidelines) and the date of project within two weeks to the undersigned. The project should be completed within six months. You have to submit the certified soft copy of the final report (in pdf to sed.kscste@kerala.gov.in), audited Expenditure and Utilization Certificate counter signed by the Head of the Institution for release. The format for final report, SE and UC can be downloaded from www.kscste.kerala.gov.in.

Thanking you,

Biju C.V.
Congrats!

True Copy Attested

Dr. SUNNY JOSEPH KALAYATHANKAL
M.Tech, MCA, M.Sc, M.Phil, B.Ed
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Prof (Dr.)