



All India Council for Technical Education
(Statutory body under Ministry of Education, Govt. of India)
Nelson Mandela Marg, Vasant Kunj, New Delhi 110 070
Website link: <https://www.aicte-india.org/atal>



TRAINING AND LEARNING BUREAU
SANCTION LETTER

F. No. 1691406981/AICTE/ATAL/2023-24

Dated : 06.11.2023

To

The Drawing and Disbursing Officer,
All India Council for Technical Education
Nelson Mandela Marg, Vasant Kunj,
New Delhi-110070

Sub: Release of a sum of Rs. 2,50,000/ (Rupee two lakh fifty thousand only) being the first instalment of the Grant-in-Aid under AICTE Training and Learning (ATAL) Academy Programmes for the Academic year 2023-24 - reg.

Sir/Madam,

This is to convey the sanction of the Competent Authority of the Council for payment of **Rs. 3,50,000/- (Rupees Three Lakhs fifty thousand Only)** as Grant- In -Aid for conducting of **Face to Face** Faculty Development Programme under AICTE Training and Learning (ATAL) Academy Program and to make payment of **Rs.2,50,000/- (Rupee two lakh fifty thousand only)** as first instalment of Grant-in-Aid as per details given below:

1	Name of the Beneficiary Institute (University/College/Institute)	KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES
2	Address	D NO:646,647 VINJANAMPADU (VILLAGE) VATTICHERUKURU (MANDAL) GUNTUR(DIST) ANDHRAPRADESH PIN:522017,522017
3	Name of the Coordinator	Dr. M Srinivasa Sessa Sai
4	Permanent ID of Institute	1-2076261
5	Title	Recent Trends in Artificial Intelligence & Machine Learning for Next-Gen Technologies
6	Dates of FDP	18/12/2023 to 23/12/2023
7	FDP Type	Technical
8	Total Amount Sanctioned	Rs.3,50,000/-
9	Amount to be released as 1 st Instalment	Rs.2,50,000/-
10	Amount to be released as 2 nd Instalment (Case to case basis upon submission of Statement of Expenditure)	Rs.1,00,000/- (Cap Limit)

The instructions/guidelines to be followed by University/Institution

I. Release of funds

a. The maximum cost for conducting per programme will be of **Rs. 3,50,000/-** as per detail given as under:

Sr. No	Particulars	Sanctioned amount for <u>2023-24</u> for Face to Face FDPs
1.	Honorarium to Co-ordinator	Rs. 8,000/-
2.	Honorarium to Co-Co-ordinator	Rs. 5,000/-
3.	Honorarium for computer operators/lab-Technicians	Rs. 5,000/-(in total)
4.	Honorarium for experts	Rs. 50,000/- (Rs. 5,000 per session)
5.	TA to External experts engaging sessions	Rs. 1,00,000/-
6.	Refreshment & Lunch	Rs. 60,000/-
7.	Hands on training material, consumable items, and Miscellaneous Charges etc. reimbursed on actual basis	Rs. 22,000/-
8.	TA to Participants (excluding in-house participants)	Rs. 1,00,000/- (Rs. 2,000 (lump sum) per External Participant payable only for those with $\geq 90\%$ attendance and travelling beyond 20 KM one side)
TOTAL		Rs. 3,50,000/-

Maximum amount mentioned against each head will not be relaxed and expenditures are to be restricted to head wise maximum limits

- (b) The grant is subject to the adjustment on the basis of Utilisation Certificate in the prescribed proforma to be submitted by the University/College/Institution. Further, the accounts of the institute will be open for test check by the Council or Controller & Auditor General of India or any other officer designated by them.
- (c) The amount of the Grant-in-Aid bill shall be disbursed and credited to the account of **KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES** through RTGS.
- (d) This Grant-in-Aid is being released in conformity with the terms & conditions as well as norms of the scheme as already communicated vide the scheme document.
- (e) The sanctioned grant-in-aid is debitabale to the ATAL's FDP scheme and is valid for payment during the financial year 2023-24 only.
- (f) Funds once released for organising the approved topic/area of FDP cannot be utilised for any other programme.
- (g) In case the event is cancelled/not conducted/could not conduct due to lack of required participants on the first day first session, the Grant- In-Aid shall be **refunded to AICTE within 07 days**.
- (h) In case it is revealed that any vigilance case/ grievance is pending against the institute or punitive action has been initiated against the institute for violation of AICTE norms, the Grant-In-Aid released to the institute will be liable to be refunded along with interest @, of 10% per annum.

2. Maintenance of Account by the Institute/University

- (a) The University/College/ Institute shall maintain proper accounts of the expenditure out of the grants, which shall be utilised only on approved items of expenditure as given above.
- (b) Funds covered by this grant shall be kept separately and would not be mixed up with other funds, so as to know the amount of interest accrued on the grant from AICTE.
- (c) The Council or its nominee shall have the right to check/ verify the account to satisfy that the fund has been utilised for the purpose for which it was sanctioned.
- (d) The Institute shall send a confirmation to AICTE within 15 days of receipt of grant on the receipt of the same.
- (e) All mandatory documents in original, in hardcopy be submitted to The Director, Training & Learning Bureau, All India Council for Technical Education, Nelson Mandela Marg, Vasant Kunj, New Delhi - 110070 within fifteen days of completion of the FDP

II. Distribution of funds to institutions,

Amount of the grant sanctioned will be released in two instalments; first as advance of Rs. 2,50,000/- and then as reimbursement against the utilization Certificate and Statement of Expenditure, limited to Rs. 1,00,000/- to the University/Institute through electronic transfer in the account of the University/Institute after submission of mandate form.

III. Refund of Grant by way of a RTGS in favour of Member Secretary, AICTE, New Delhi

The unutilized Grant-in-Aid should be refunded to the Council within fifteen days of conduct of the FDP. If the university/institute does not conduct FDP on the prescribed dates, or fails to follow directions in regard to conduct of FDPs as laid out in the scheme document, or falls under 1(h), the entire amount will be liable to be refunded along with interest @, of 10% per annum within 07 days. The amount has to be refunded to AICTE through RTGS as per details given below:

Account Number	55113200222
Name of the Account Holder	Member Secretary, AICTE, New Delhi
Bank Name	State Bank of India
Branch Name	Shastri Bhawan, New Delhi
IFSC Code	SBIN0050203

IV Submission of documents by University / Institution

- (a) The following mandatory relevant documents are required to be submitted by the University / institution within fifteen days of the completion of the programme.
 - (i) List of candidates who have successfully completed the programme on the basis of the test conducted by the prog. co-ordinator
 - (ii) Completion report along with photographs and media reports

- (ii) Originals of Utilisation Certificate, Statement of Expenditure and bills etc., duly audited by a chartered Accountant and countersigned by the Head of the Institution within one month of conduct of FDPs. In case of the institute being a Government Institute/ University the documents are to be certified by the Accounts Officer/ Controller of Accounts as deemed and counter signed by the head of the Institution.
- (b) The amount of the grant shall be adjusted on submission of utilisation certificate and detailed expenditure statement by university / institution. On receipt of these documents the total amount of financial assistance, admissible as per the norms, shall be worked out and Grant in aid shall be adjusted.

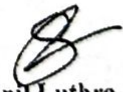
v

General Instructions

- (a) Maximum 50 and minimum 30 minimum number of participants relaxed to 20 for North Eastern states Jammu, Kashmir, Ladakh and Andaman & Nicobar Islands).
- (b) A test has to be conducted on the last day accordingly. Scheme document 2023-2024 and those who score more that 70% will be termed as successful candidates. Those who have attendance 80% or more and also score more that 70% in the test will be issued a digital certificate.
- (c) Eligibility for institutions and participants are as laid out in the scheme guidelines
- (d) No fees shall be charged from any participant for attending ATAL FDP.
- (e) The institute should bear the expense incurred in addition to the fund granted by AICTE from their own resources.
- (f) Terms and conditions laid out in the Scheme Guideline for ATAL FDPS 2023-24 will be final and binding.

This Sanction Order may be treated as Offer Letter for all purposes.

Yours Sincerely,



Dr. Sunil Luthra,
Director,
Training and Learning Bureau, AICTE

Copy forwarded for information and necessary action to: -

1. Dr. M Srinivasa Sessa Sai, Email: msssai@gmail.com
2. Dr. BABU PENTALA, D NO:646,647 VINJANAMPADU (VILLAGE) VATTICHERUKURU (MANDAL) GUNTUR(DIST) ANDHRAPRADESH PIN:522017,522017
3. Guard File



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TRAINING AND LEARNING BUREAU
SANCTION LETTER

F. No. 1691211130/AICTE/ATAL/2023-24

Dated : 06.01.2024

To

The Drawing and Disbursing Officer,
All India Council for Technical Education
Nelson Mandela Marg, Vasant Kunj,
New Delhi-110070

Sub: Release of a sum of Rs. 2,50,000/ (Rupee two lakh fifty thousand only) being the first instalment of the Grant-in-Aid under AICTE Training and Learning (ATAL) Academy Programmes for the Academic year 2023-24 - reg.

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This is to convey the sanction of the Competent Authority of the Council for payment of **Rs. 3,50,000/- (Rupees Three Lakhs fifty thousand Only)** as Grant- In -Aid for conducting of **Face to Face** Faculty Development Programme under AICTE Training and Learning (ATAL) Academy Program and to make payment of **Rs.2,50,000/- (Rupee two lakh fifty thousand only)** as first instalment of Grant-in-Aid as per details given below:

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2	Address	D NO:646,647 VINJANAMPADU (VILLAGE) VATTICHERUKURU (MANDAL) GUNTUR(DIST) ANDHRAPRADESH PIN:522017,522017
3	Name of the Coordinator	Dr. SANAM NAGENDRAM
4	Permanent ID of Institute	1-2076261
5	Title	AI at the Edge: Enabling Smart Devices with Embedded ML
6	Dates of FDP	05/02/2024 to 10/02/2024
7	FDP Type	Technical
8	Total Amount Sanctioned	Rs.3,50,000/-
9	Amount to be released as 1 st Instalment	Rs.2,50,000/-
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V

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Yours Sincerely,


Dr. Sunil Luthra,
Director,

Training and Learning Bureau, AICTE

Copy forwarded for information and necessary action to: -

1. **Dr. SANAM NAGENDRAM, Email: nagendram.ai@kitsguntur.ac.in**
2. **Dr. BABU PENTALA, D NO:646,647 VINJANAMPADU (VILLAGE) VATTICHERUKURU (MANDAL) GUNTUR (DIST) ANDHRAPRADESH PIN:522017,522017**
3. **Guard File**

1. Details of Incubatee:

1.1 Details of the Host Institute (HI)	KKR and KSR Institute of Technology and Sciences , Vinjanampadu, Vatticherukuru Mandal, Guntur, Andhra Pradesh, India-522017 , 08632286666 , kitsgnt@gmail.com , 9951713366	1.2 Name of the Business Incubator (BI)	Dr.Chittineni Aruna , Professor , chittineni.aruna@gmail.com , 9866485761
1.3 Category of the Incubatee	Others	1.4 Incubatee Name	KRISHNAMOORTHY R
1.5 State	TAMIL NADU	1.6 District	THIRUVALLUR
1.7 Email Id	krishnamoorthy.mkr@gmail.com	1.8 Mobile Number	9944573139
1.9 Category	General	1.10 Gender	Male
1.11 Address	VANDAVASI TAMILNADU		

2. Details of Idea:

2.1 Title of proposed idea/innovation	Design and Development of Machine learning based fruit plucking drone
2.2 Whether the idea involves use of existing intellectual property or not, give brief detail there of	NO
2.3 Briefly explain newness/uniqueness of the innovation	In recent years, agriculture has needed to automate and save labour. Fruit-growing automation and robots, meanwhile, are still in their infancy. This study suggests utilising a robot arm to automatically recognise fruits and pick them. Here, fruit is located using a Single Shot MultiBox Detector in a very quick and precise manner, and its three-dimensional location is located using a stereo camera. The robot arm is moved to the location of the target fruit after using inverse kinematics to determine the angles of the joints at the detected position. After that, the fruit is harvested by the robot by rotating the hand axis. According to the trial findings, more than 90 of the fruits were found. The robot could also harvest a fruit in 16 seconds..
2.4 Concept & Objective	The declining number of agricultural employees and rising cost of fruit picking are only two of the issues facing the agriculture sector. In order to solve these issues, agriculture must be scaled up and labour costs reduced. For labor-saving and industrial-scale agriculture, agriculture automation has advanced recently. However, physical labour is still used extensively in the sector of fruit harvesting. The creation of a robotic fruit harvester is a workable answer to these issues. Fruit recognition and localization on trees using computer vision and a sensor, as well as robot arm motion to the position of the identified fruit and fruit harvesting by the end effector without injuring target fruit, are two major challenges involved in the autonomous harvesting of fruits by a Drone
2.5 Specify the potential areas of application in industry/market in brief	In addition to addressing rising labour costs, harvesting robots can address labour shortages. The robots can also be used to implement precision farming. In particular, the use of harvesting robots allows for the control, tracability, and customization of the harvesting process. At the same time, harvesting robots can collect, process, and analyse spatial, temporal, and individual data of the target fruits (ripe time, harvest time, fruit position and pose, fruit ripeness and defect, etc.), as well as environmental data (branch distribution, leaves occlusion, disease infection), and combine it with other data (plant health, for example).

2.6 Briefly provide the market data for the potential idea/ innovation	The purpose of this invention is to give a thorough analysis of the state of fruit harvesting technology and to suggest a standardized methodology for comparing the most advanced fruit harvesting robots quantitatively and evaluating their commercial viability. The following steps make up the framework of this study: The following steps are involved in conducting a review: I developing the protocol for the review, including the inclusion and exclusion criteria (ii) searching for and choosing relevant data (iii) classifying selected data (iv) analysing and interpreting the selected data and (v) disclosing findings		
2.7 Name and details of Mentors	DR CHARUNA, PROFESSOR	2.8 Experience and Qualification of Mentors	23 YEARS AND PHD
2.9 Contact Details of Mentors	9866485761	2.10 Current Development Status of innovation	Over the past few decades, intelligent fruit picking Drones have been actively developed to fill the widening gap between feeding a population that is expanding quickly and the labour resources available. Despite significant developments in this field, there hasnt been much use of harvesting Drones in orchards. This work compares the system architectures, visual perception strategies, fruit detachment techniques, and system performances of the most advanced intelligent fruit harvesting Drones
2.11 Expected time of completion of idea	12 MONTHS	2.12 Idea Theme	Digital Agriculture
2.13 Idea Sector	Agriculture, Rivers & Ocean Produce based industries, fertilizers, Agricultural Implements & Agro processing and any related sub-sector		

3. Financial requirements:

3.1 Activity-wise break

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	10.000	8.500	1.500
Charges for mentor/handholding supporting team Max (3.00) lakh.	3.000	2.550	0.450
Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2.000	1.700	0.300
Total	15.000	12.750	2.250

Approved Activity-wise break

Approved By	Approved Date
PMAC	13/07/2023

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	10.000	8.500	1.500
Charges for mentor/handholding supporting team Max (3.00) lakh.	3.000	2.550	0.450
Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2.000	1.700	0.300
Total	15.000	12.750	2.250

4. Other students/Entrepreneurs associated with this project/idea

Name	Aadhar No/Udhyog Aadhar No/Udyam Registration
SHAIK SADULLA	635513XXXXXX

Ref. No.	INC22BTN007668	5. Summary of the idea. This is the section reviewers read to understand the technical solution. Please state the solution clearly. Reviewers may ask: What is the actual technical advancement or improvement provided by this solution?	In addition to addressing rising labor costs, harvesting Drones can address labour shortages. The Drones can also be used to implement precision farming. In particular, the use of harvesting Drones allows for the control, tracability, and customization of the harvesting process. At the same time, harvesting Drones can collect, process, and analyse spatial, temporal, and individual data of the target fruits (ripe time, harvest time, fruit position and pose, fruit ripeness and defect, etc.), as well as environmental data (branch distribution, leaves occlusion, disease infection), and combine it with other data (plant health, for example).
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6 (a) Is it a new concept?	YES
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(b) Prior art on the concept, if any	NA	7. Main Problem Being Addressed in the Project (Every solution targets a certain problem. Please use this section to highlight the specific problem the solution addresses. This section can be as short or as long as needed to describe the precise problem the solution addresses)	To address the above gaps, this paper proposes a standardized framework to quantitatively compare state of the art Drones in harvesting, and to gauge its commercial viability. This framework involves the following steps: (i) development of the review protocol regarding the inclusion and exclusion criteria (ii) exploration and selection of related data (iii) classification of selected data (iv) analysis and interpretation of the selected data and (v) reporting findings and results.
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8. Background for getting the idea?

a. Who is it for?	Over the past few decades, intelligent fruit picking Drones have been actively developed to fill the widening gap between feeding a population that is expanding quickly and the labour resources available. Despite major developments in this area, it is still unlikely that harvesting Drones	b. What will it do?	Fruit plucking robot can move autonomously in a farm containing plantations of a given fruit using placards or signs placed at each plant bearing
c. Any unique features? Explain?	Detecting fruits and automated harvesting using a Drone arm Intelligent mobile platform, picking arm	9. How simple or complex will the idea's execution or implementation be? What are the risk factors involved in executing the idea?	Execution of Idea is some difficult but the implementation is may be easy..
10. How soon could the idea be put into operation? (TRL of prototype)	TRL 3	11. How much investment would you need for prototyping of the Idea?	15 LAKHS

<p>12. (a) How do you intend to protect your idea (i.e. your intellectual property or IP)? Status of IPR (If any)</p>	<p>WE WILL FILE PATENT</p>	<p>(b) Related Background This section is used to highlight information that can be used by the reviewers or patent attorney to help put the solution in proper context. You can think of this section as something similar to the introduction section of an academic publication. This section is specifically reserved for other people's work (please include competitive work) as well as your past work that you believe will aid the reviewers in understanding the technical landscape. Data related to or supporting your solution should NOT be in this section, it should be in Section III: "How is this Solution Made and Used."</p>	<p>The declining number of agricultural employees and rising cost of fruit picking are only two of the issues facing the agriculture sector. In order to solve these issues, agriculture must be scaled up and labour costs reduced. For labor-saving and industrial-scale agriculture, agriculture automation has advanced recently. However, physical labour is still used extensively in the sector of fruit harvesting. The creation of a robotic fruit harvester is a workable answer to these issues.</p>
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<p>13. How is This Project Made and Used: Please describe in as much detail as possible how the innovation is implemented. This includes details on how you actually make, assemble, synthesize, or build the solution and details on how the solution is used once it is made. Reviewers will ask: How does the technical innovation actually work – or – what is the detailed process to achieve the technical innovation? Please help convince the reviewers with supporting statements using as much of the following that is available: your thoughts, logic, supporting literature, and/or experiments.</p>	<p>Agriculture has needed to automate and save labour. Fruit-growing automation and Drones, meanwhile, are still in their infancy. This study suggests utilising a robot arm to automatically recognise fruits and pick them. Here, fruit is located using a Single Shot MultiBox Detector in a very quick and precise manner, and its three-dimensional location is located using a stereo camera. The robot arm is moved to the location of the target fruit after using inverse kinematics to determine the angles</p>
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<p>Upload Block diagram/ flow chart/ Circuit Diagram/Pictures</p>	<p>View/Download</p>
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<p>Uploaded Minutes of the Selection Committee</p>	<p>View/Download</p>
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Application Remarks

Action	Date	Status	Remark
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PMAC	13/Jul/2023 02:52:29 PM	Approved By PMAC	The financial sanction is as approved by the committee in the 4th PMAC meeting. Check your mail and do the needful as instructed on priority basis. This may be treated as most urgent. View/Download
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I declare that:

- 1. I have read the entire scheme guidelines and shall abide by all the requirements stipulated therein for seeking financial assistance.**
- 2. I hereby declare that information given above is true to the best of my Knowledge and that I have not withheld/distorted any material fact.**
- 3. Any information/ documents that may be required to be verified shall be provided immediately before the concerned authority.**
- 4. I hereby declare that I have not availed any financial assistance for this purpose from any other scheme from any Central/ State govt. agency.**
- 5. In case the Idea is approved, Host Institute would undertake to make facilities available to carry out the development arrange for the submission of periodic progress reports and other information that may be required by the Ministry.**
- 6. I certify that the accounts of the funds received and spent will be kept and made available on demand, as per scheme guidelines**
- 7. I certify that the funds will be used only for Idea development as per activities defined in Scheme Guidelines & no funds out of this grant will be utilized for any other activity/production purposes.**

1. Details of Incubatee:

1.1 Details of the Host Institute (HI)	KKR and KSR Institute of Technology and Sciences , Vinjanampadu, Vatticherukuru Mandal, Guntur, Andhra Pradesh, India-522017 , 08632286666 , kitsgnt@gmail.com , 9951713366	1.2 Name of the Business Incubator (BI)	Dr.Chittineni Aruna , Professor , chittineni.aruna@gmail.com , 9866485761
1.3 Category of the Incubatee	Others	1.4 Incubatee Name	S PADMAPRIYA
1.5 State	TAMIL NADU	1.6 District	CHENNAI
1.7 Email Id	padmapriya.it@prathyusha.edu.in	1.8 Mobile Number	9962562307
1.9 Category	General	1.10 Gender	Female
1.11 Address	SHAKTHI NAGAR,CHOO LAIMEDU,CHENNAI		

2. Details of Idea:

2.1 Title of proposed idea/innovation	A Novel IoT and Machine Learning based Automatic waste segregator
2.2 Whether the idea involves use of existing intellectual property or not, give brief detail there of	NO
2.3 Briefly explain newness/uniqueness of the innovation	<ul style="list-style-type: none"> • It is efficient and durable since it requires less power for its operation and no human supervision. • In the proposed system we develop a product which is a cheap and gives a ease solution for segregation of household wastage and can be sent directly for processing. It is designed to sort the refuse into metallic waste, wet waste and dry waste and the 4-way segregation in the smart bin is done accordingly in different stages • At stage -1 the waste is dropped into the segregator and it enters one at a time into flap-1. Using rain sensor module (ESP8266) it is segregated in to wet and dry waste • In stage-2, by using capacitive proximity sensor (M-30) it finds and separates whether the waste is plastic or not, Metal or non-metal • if it is plastic then flap-2 is connected with the servo motors which tilts at an angle of 90° to 15°and by using spectral sensor it is segregated into recyclable and non-recyclable plastics • If it is non-plastic, by using inductive proximity sensor (M-18) it is verified whether it is metallic or non-metallic • With the help of load and ultrasonic sensors, the weight and the threshold levels of the containers are monitored continuously. When it reaches the maximum threshold, an alert will be sent to the driver of the garbage collection truck and concerned authorities through SMS and the shortest path to empty the bin is calculated by KNN technique.

<p>2.4 Concept & Objective</p>	<p>• In the current scenario, most of the available waste segregation systems use only three-way segregation method in smart bins • The proposed design uses a 4-way segregation method for separating plastic into (recyclable non-recyclable) and also separating non -plastic into (metal and by-products) in different containers • In our project we develop a product which is a cheap and gives a ease solution for segregation of household wastage and can be sent directly for processing. It is designed to sort the refuse into metallic waste, wet waste and dry waste. The Smart bin is divided into four compartments. Each compartment does its own functions like • The first compartment consists of an IR sensor and a electro magnet to segregate metallic waste • The second compartment consists of ultrasonic sensor with a filter tray for detecting dry and wet waste and also to filter liquid in the waste, • The third compartment consist of blower in order to recycle light weight plastics and • The last compartment collects the segregated waste in separate containers • An Infrared sensor/proximity sensor under the dustbin to calculate the level of Garbage. When the sensor signal reaches the threshold value, a notification SMS will be sent to the respective Municipality authorities. • A dashboard has been developed, which allows the authenticated persons to check the density and present condition of Garbage in the dustbin and be able to send the collection vehicle to empty</p>		
<p>2.5 Specify the potential areas of application in industry/market in brief</p>	<p>? It is estimated that in 2006 the total amount of municipal solid waste generated globally reached 2.02 billion tones, representing a 7 annual increase since 2003 (Global Waste Management Market Report 2007). By 2025, the waste management market size in India is projected to be worth approximately USD 15 Billion with annual growth around 7 percent. ? The targeted customers can be Municipal Authorithies, Entertainment zones, schools, colleges, MNC companies, restaurants, and small-scale industries. ? Initially, the product is targeted in our college and tested. ? As it created a great impact it can be rolled out to nearby schools&#"; colleges and small industries in Chennai district</p>		
<p>2.6 Briefly provide the market data for the potential idea/ innovation</p>	<p>• The main objective of the product is to reduce the additional labour costs incurred by the waste picker organizations for segregation of waste • The financial sustainability of our product depends on the segregation of recyclable waste across the value chain by linking it to the other utility services like farming and gardening consultancy • The metallic waste recovered in our product can also be linked with scrap dealers to make a profit out of the waste • Once our product gets initiated in any one of the malls or schools it will be successful it will be further implemented in other areas of the sector • Yes, it is 100 Eco-friendly as our product system does not contain any environmental affecting components • The product helps in getting rid of the overflow of garbage in an environmentally sustainable way, which reduces the pollution in the environment and also prevents the disease from spreading • It can be scaled to waste minimization and zero landfill • It Can be developed to identify health-care waste for Hospitals. Because 10 to 25 of health-care waste is hazardous and the rest is similar to domestic waste, the treatment/disposal costs could greatly be reduced if hazardous health-care waste were segregated. • Can introduce specific Colour Coding of containers for segregation of infectious chemical and pharmaceutical waste</p>		
<p>2.7 Name and details of Mentors</p>	<p>DRCH ARUNA PROFESSOR</p>	<p>2.8 Experience and Qualification of Mentors</p>	<p>23 YEARS AND PHD</p>
<p>2.9 Contact Details of Mentors</p>	<p>9866485761</p>	<p>2.10 Current Development Status of innovation</p>	<p>The IoT system has been developed to detect waste categories including metallic waste with inductive proximity sensors, dry waste with capacitive proximity sensors, and wet waste with rain sensors. The ultrasonic sensor attached to the dustbins edge calculates the level of the dustbin.A dashboard, which can be accessed via a cloud server from anywhere, monitors the level of waste in different locations and instructs the collection vehicle to empty overflowing garbage bins or dustbins.</p>

2.11 Expected time of completion of idea	1 year • Designing of IoT through Software – 3 months • Mobile App development unit for remote access – 2 Months • Design and fabrication of Segregation Structure– 3 Months • Integration and testing – 2months • Final implementation Validation of the project – 1 Month	2.12 Idea Theme	Waste to Wealth creation, Circular solutions & waste management
2.13 Idea Sector	Miscellaneous Sector (Environment, Forests, Water & Sanitation; Foods, Beverages, FMCG, Consumer Goods; Infrastructure, Construction, Housing; IT, ITES, Electronics, White Goods, Telecommunication; Metals, Engineering, Machinery, Automation and Transportation, Automotive, E Vehicles, Railways, Aviation, UAV and any other sub-sector)		

3. Financial requirements:

3.1 Activity-wise break

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	10.000	8.500	1.500
Charges for mentor/handholding supporting team Max (3.00) lakh.	3.000	2.550	0.450
Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2.000	1.700	0.300
Total	15.000	12.750	2.250

Approved Activity-wise break

Approved By	Approved Date
PMAC	13/07/2023

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	10.000	8.500	1.500
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Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2.000	1.700	0.300
Total	15.000	12.750	2.250

4. Other students/Entrepreneurs associated with this project/idea

Name		Aadhar No/Udhyog Aadhar No/Udyam Registration	
SHAIK SADULLA		635513XXXXXX	
Ref. No.	INC22BTN015060	<p>5. Summary of the idea. This is the section reviewers read to understand the technical solution. Please state the solution clearly. Reviewers may ask: What is the actual technical advancement or improvement provided by this solution?</p>	<p>Using a 4-way segregation method, the Smart Bin sorts refuse into metallic, wet, and dry waste. An IoT system has been developed to detect waste categories including metallic waste with inductive proximity sensors, dry waste with capacitive proximity sensors, and wet waste with rain sensors. The ultrasonic sensor attached to the dustbins edge calculates the level of the dustbin. An infrared sensor/proximity sensor under the dustbin to measure garbage levels. When the garbage reaches the threshold, an alert is sent to the relevant municipal authorities and driver of the garbage collection truck via SMS using GSM technology. Using a dashboard accessible from anywhere, the level of waste is monitored periodically at different locations, and a</p>
6 (a) Is it a new concept?		YES	

<p>(b) Prior art on the concept, if any</p>	<p>At the moment, most waste segregation systems use only three-way segregation in smart bins. The proposed design uses a 4-way segregation method for separating plastic into recyclables, non-recyclables, and non-plastic into metal and by-products in different containers.</p>	<p>7. Main Problem Being Addressed in the Project (Every solution targets a certain problem. Please use this section to highlight the specific problem the solution addresses. This section can be as short or as long as needed to describe the precise problem the solution addresses)</p>	<p>A 4-way segregation method has been developed for separating plastic into recyclables, non-recyclables, and non-plastic into metal and by-products in different containers. When the garbage reaches the threshold, an alert is sent via SMS via GSM technology to the relevant municipal authorities and the driver of the garbage collection truck. It predict overflow of the bin with considerable accuracy and uses K-nearest neighbour (KNN) regression to calculate distance and estimate the shortest path</p>
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8. Background for getting the idea?

<p>a. Who is it for?</p>	<p>The targeted customers can be Entertainment zones, schools, colleges, MNC companies, restaurants, and small-scale industries.</p>	<p>b. What will it do?</p>	<p>Using a 4-way segregation method, we can separate plastic into recyclables, non-recyclables, and non-plastic into metals and by-products in a variety of containers</p>
<p>c. Any unique features? Explain?</p>	<p>Our products financial sustainability depends on connecting it with other utility services, such as scrap dealers, farming, and gardening consulting to make a profit out of the waste</p>	<p>9. How simple or complex will the idea's execution or implementation be? What are the risk factors involved in executing the idea?</p>	<p>Development of 4-way segregation method for identifying and separating plastic into recyclables, non-recyclables, and non-plastic into metal and by-products in different containers. Using sensors. Implementation of appropriate ML algorithm to predict estimate the shortest path to empty the overflowed bin</p>
<p>10. How soon could the idea be put into operation? (TRL of prototype)</p>	<p>TRL-4 -A custom microcontroller boards based on Arduino was developed to acquire and process the data from the sensor, coordinate missions with the gateway, and optimize data collection.</p>	<p>11. How much investment would you need for prototyping of the Idea?</p>	<p>15 LAKHS</p>

<p>12. (a) How do you intend to protect your idea (i.e. your intellectual property or IP)? Status of IPR (If any)</p>	<p>IP will be filed</p>	<p>(b) Related Background This section is used to highlight information that can be used by the reviewers or patent attorney to help put the solution in proper context. You can think of this section as something similar to the introduction section of an academic publication. This section is specifically reserved for other people's work (please include competitive work) as well as your past work that you believe will aid the reviewers in understanding the technical landscape. Data related to or supporting your solution should NOT be in this section, it should be in Section III: "How is this Solution Made and Used."</p>	<p>With the increase in population, the amount of waste generated has increased tremendously. The accumulation of waste over large areas of land results in the formation of landfills, which have dangerous consequences. The Automatic Waste Segregator separates the waste in 3 different bins under the category of wet, dry and metallic. Different sensors are used for the detection of the type of waste. The level of the garbage in the bins is monitored continuously so that the bins don't overflow and the</p>
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<p>13. How is This Project Made and Used: Please describe in as much detail as possible how the innovation is implemented. This includes details on how you actually make, assemble, synthesize, or build the solution and details on how the solution is used once it is made. Reviewers will ask: How does the technical innovation actually work – or – what is the detailed process to achieve the technical innovation? Please help convince the reviewers with supporting statements using as much of the following that is available: your thoughts, logic, supporting literature, and/or experiments.</p>	<p>A 4-way segregation method has been developed for separating plastic into recyclables, non-recyclables, and non-plastic into metal and by-products in different containers. When the garbage reaches the threshold, an alert is sent via SMS via GSM technology to the relevant municipal authorities and the driver of the garbage collection truck. It predicts overflow of the bin with considerable accuracy and uses K-nearest neighbour (KNN) regression to calculate distance and estimate the shortest path.</p>
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<p>Upload Block diagram/ flow chart/ Circuit Diagram/Pictures</p>	<p>View/Download</p>
<p>Uploaded Minutes of the Selection Committee</p>	<p>View/Download</p>

<p align="center">Application Remarks</p>			
<p>Action</p>	<p>Date</p>	<p>Status</p>	<p>Remark</p>
<p>PMAC</p>	<p>13/Jul/2023 02:51:20 PM</p>	<p>Approved By PMAC</p>	<p>The financial sanction is as approved by the committee in the 4th PMAC meeting. Check your mail and do the needful as instructed on priority basis. This may be treated as most urgent. View/Download</p>

I declare that:

1. I have read the entire scheme guidelines and shall abide by all the requirements stipulated therein for seeking financial assistance.
2. I hereby declare that information given above is true to the best of my Knowledge and that I have not withheld/distorted any material fact.
3. Any information/ documents that may be required to be verified shall be provided immediately before the concerned authority.
4. I hereby declare that I have not availed any financial assistance for this purpose from any other scheme from any Central/ State govt. agency.
5. In case the Idea is approved, Host Institute would undertake to make facilities available to carry out the development arrange for the submission of periodic progress reports and other information that may be required by the Ministry.
6. I certify that the accounts of the funds received and spent will be kept and made available on demand, as per scheme guidelines
7. I certify that the funds will be used only for Idea development as per activities defined in Scheme Guidelines & no funds out of this grant will be utilized for any other activity/production purposes.

Fwd: Approval of ideas/ proposals submitted by your Institute under the Incubation Component of MSME Innovative Scheme(Incubation, Design & IPR) of MSME Champion Scheme for Gol assistance-reg.

5 messages

Kits Subba rao <kitsgnt@gmail.com>
To: "chittineni.aruna" <chittineni.aruna@gmail.com>

Thu, Jul 13, 2023 at 3:08 PM

----- Forwarded message -----

From: **MSME Innovative Scheme** <helpline-msme@gov.in>

Date: Thu, Jul 13, 2023 at 2:52 PM

Subject: Approval of ideas/ proposals submitted by your Institute under the Incubation Component of MSME Innovative Scheme(Incubation, Design & IPR) of MSME Champion Scheme for Gol assistance-reg.

To: <kitsgnt@gmail.com>

विकास आयुक्त का कार्यालय
(सूक्ष्म, लघु एवं मध्यम उद्यम)
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
(भारत सरकार)

निर्माण भवन, सातवीं मंजिल, मौलाना आजाद रोड,
नई दिल्ली-110 108



OFFICE OF THE DEVELOPMENT COMMISSIONER
(MICRO, SMALL & MEDIUM ENTERPRISES)
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES
GOVERNMENT OF INDIA

Nirman Bhawan, 7th Floor, Maulana Azad Road,
New Delhi-110 108

Ph. EPAX-23063800, 23063802, 23063803, 23063804, 23063805 & 23063806

File No. : 17(2)/ MSME Innovative/PMAC/2021-22

Date : 13-07-202

To,

KKR and KSR Institute of Technology and Sciences

Subject: Approval of ideas/ proposals submitted by your Institute under "MSME Idea Hackathon 2.0" under the Incubation Component of MSME Innovative Scheme Gol assistance-reg..

Sir,

I am directed to inform you that the idea(s) / proposals received from your Institute under the above scheme were considered by the PMAC meeting held on 26/06/2023. The committee has approved the following idea(s). The details of approved idea / proposal are as under.

Sl. No.	Name of Incubatee and Title	Project cost	Amount Sanctioned as GOI Share (Rs. In lakhs)	Incubatee Share (Rs. In lakhs)
1	KRISHNAMOORTHY R , Design and Development of Machine learning based fruit plucking drone	15.000	12.750	2.250

Further, in order to release Gol grant, You are requested to go through instructions/ guidelines on Revised procedure for flow of funds under Central Sector Schemes O.M from D/o Finance. vide no. 1(18)/PFMS/FCD/202dated 9.03.2022 carefully and nomination of CTTC Bhubaneswar as CNA vide letter dated No, 41(1)/Budget/MSME Champions/2021 dated 27.06.2022 for Model -2 for release of funds to HIs (For details [Click here](#))

1. CTTC Bhubaneswar has opened Saving A/c in SBI for release of fund to HIs as CNA Account. The contact officer of CTTC, Bhubaneswar is Shri S. K. Rout, 9437965670, skrout@cttc.gov.in

2. All HIs have to inform CTTC, Bhubaneswar about the name of SBI Branch and code, where the Sub Agency (SA) account of HI is to be opened.
3. CTTC, Bhubaneswar will integrate it with CNA account through SBI Bank
4. HI will open new Zero Balance Current A/c in SBI in the branch shared with CTTC, Bhubaneswar and link with the CNA account.
5. HI shall share the mandate form with CTTC, Bhubaneswar and O/o DC (MSME) through email- schand@dcmsme.gov.in with a copy to ramakrishnan.v@gov.in
6. Once the above procedure is completed, You are requested to login to your HI account in the <https://innovative.msme.gov.in/> portal and uploaded all required documents for process the GOI release.

Yours faithfully,
(V. Ramakrishnan
Dy. Director

This is an automated message, Do not reply.

--

K. Subba Rao / Chairman
KKR & KSR Institute of Technology & Sciences (KITS)
NBA Accredited for ECE CSE, EEE, Civil and Mechanical
Accredited with 'A' Grade by NAAC
Ph: 0863 - 2286699,9951713366
e-Mail id : kitsgnt@gmail.com
chairman@kitsguntur.ac.in
Url:<http://kitsguntur.ac.in>

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: K Mallikarjuna Rao <malli.siva2000@gmail.com>

Thu, Jul 13, 2023 at 3:48 PM

[Quoted text hidden]

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: yesarun1810@gmail.com

Tue, Aug 1, 2023 at 4:30 PM

----- Forwarded message -----
From: **Kits Subba rao** <kitsgnt@gmail.com>
Date: Thu, Jul 13, 2023 at 3:08 PM
[Quoted text hidden]
[Quoted text hidden]

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: simbunarayana@gmail.com

Mon, Aug 7, 2023 at 11:56 AM

----- Forwarded message -----
From: **Kits Subba rao** <kitsgnt@gmail.com>
Date: Thu, Jul 13, 2023 at 3:08 PM
[Quoted text hidden]
[Quoted text hidden]

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: mail2rvkk@gmail.com

Fri, Sep 29, 2023 at 7:18 PM

----- Forwarded message -----
From: **Kits Subba rao** <kitsgnt@gmail.com>
Date: Thu, Jul 13, 2023 at 3:08 PM

[Quoted text hidden]
[Quoted text hidden]

Fwd: Approval of ideas/ proposals submitted by your Institute under the Incubation Component of MSME Innovative Scheme(Incubation, Design & IPR) of MSME Champion Scheme for Gol assistance-reg.

1 message

Kits Subba rao <kitsgnt@gmail.com>
To: "chittineni.aruna" <chittineni.aruna@gmail.com>

Thu, Mar 14, 2024 at 4:21 PM

----- Forwarded message -----

From: **MSME Innovative Scheme** <helpline-msme@gov.in>

Date: Thu, Mar 14, 2024 at 3:57 PM

Subject: Approval of ideas/ proposals submitted by your Institute under the Incubation Component of MSME Innovative Scheme(Incubation, Design & IPR) of MSME Champion Scheme for Gol assistance-reg.

To: <kitsgnt@gmail.com>

विकास आयुक्त का कार्यालय
(सूक्ष्म, लघु एवं मध्यम उद्यम)
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
(भारत सरकार)

निर्माण भवन, सातवीं मंजिल, मौलाना आजाद रोड,
नई दिल्ली-110 108



OFFICE OF THE DEVELOPMENT COMMISSIONER
(MICRO, SMALL & MEDIUM ENTERPRISES)
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES
GOVERNMENT OF INDIA

Nirman Bhawan, 7th Floor, Maulana Azad Road,
New Delhi-110 108

Ph. EPAX-23063800, 23063802, 23063803, 23063804, 23063805 & 23063806

File No. : 17(2)/MSME/Innovative/PMAC/2021-22

Date : 14-03-202

To,

KKR and KSR Institute of Technology and Sciences

Subject: Approval of ideas/ proposals submitted by your Institute under "MSME Idea Hackathon 3.0 (Women)" under th Incubation Component of MSME Innovative Scheme Gol assistance-reg..

Sir,

I am directed to inform you that the idea / proposals received from your Institute under the above scheme were considered by the PMAC meeting held on 15/02/2024. The committee has approved the following idea. The details of approved idea / propose are as under.

Sl. No.	Name of Incubatee and Title	Project cost	Amount Sanctioned as GOI Share (Rs. In lakhs)	Incubatee Share (Rs. In lakhs)
1	INJETI SAILAJA , INJETI SAILAJA	15.000	12.750	2.250

Further, in order to release Gol grant, you are requested to go through instructions/ guidelines on Revised procedure for flow of funds under Central Sector Schemes O.M from D/o Finance. vide no. 1(18)/PFMS/FCD/202dated 9.03.2022 carefully and nomination of CTTC Bhubaneswar as CNA vide letter dated No, 41(1)/Budget/MSME Champions/2021 dated 27.06.2022 for Model -2 for release of funds to HIs (For details [Click here](#))

1. CTTC Bhubaneswar has opened Saving A/c in SBI for release of fund to HIs as CNA Account. The contact officer of CTTC, Bhubaneswar is Shri S. K. Rout, 9437965670, skrout@cttc.gov.in

2. All HIs have to inform CTTC, Bhubaneswar about the name of SBI Branch and code, where the Sub Agency (SA) account of HI is to be opened.
3. CTTC, Bhubaneswar will integrate it with CNA account through SBI Bank
4. HI will open new Zero Balance Current A/c in SBI in the branch shared with CTTC, Bhubaneswar and link with the CNA account.
5. HI shall share the bank mandate form with CTTC, Bhubaneswar by email and O/o DC (MSME) in Web Portal (<https://innovative.msme.gov.in/>) through your HI login.
6. Once the above procedure is completed, You are requested to login to your HI account in the (<https://innovative.msme.gov.in/>) portal and uploaded all required documents for processing the GOI release.

Yours faithfully,
(V. Ramakrishnan
Dy. Director

This is an automated message, Do not reply.

--

K. Subba Rao / Chairman
KKR & KSR Institute of Technology & Sciences (KITS)
NBA Accredited for ECE CSE, EEE, Civil and Mechanical
Accredited with 'A' Grade by NAAC
Ph: 0863 - 2286699,9951713366
e-Mail id : kitsgnt@gmail.com
chairman@kitsguntur.ac.in
Url:<http://kitsguntur.ac.in>

Fwd: Approval of ideas/ proposals submitted by your Institute under the Incubation Component of MSME Innovative Scheme(Incubation, Design & IPR) of MSME Champion Scheme for Gol assistance-reg.

5 messages

Kits Subba rao <kitsgnt@gmail.com>
To: "chittineni.aruna" <chittineni.aruna@gmail.com>

Thu, Jul 13, 2023 at 3:07 PM

----- Forwarded message -----

From: **MSME Innovative Scheme** <helpline-msme@gov.in>

Date: Thu, Jul 13, 2023 at 2:51 PM

Subject: Approval of ideas/ proposals submitted by your Institute under the Incubation Component of MSME Innovative Scheme(Incubation, Design & IPR) of MSME Champion Scheme for Gol assistance-reg.

To: <kitsgnt@gmail.com>

विकास आयुक्त का कार्यालय
(सूक्ष्म, लघु एवं मध्यम उद्यम)
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
(भारत सरकार)

निर्माण भवन, सातवीं मंजिल, मौलाना आजाद रोड,
नई दिल्ली-110 108



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(MICRO, SMALL & MEDIUM ENTERPRISES)
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES
GOVERNMENT OF INDIA

Nirman Bhawan, 7th Floor, Maulana Azad Road,
New Delhi-110 108

Ph. EPAX-23063800, 23063802, 23063803, 23063804, 23063805 & 23063806

File No. : 17(2)/ MSME Innovative/PMAC/2021-22

Date : 13-07-202

To,

KKR and KSR Institute of Technology and Sciences

Subject: Approval of ideas/ proposals submitted by your Institute under "MSME Idea Hackathon 2.0" under the Incubation Component of MSME Innovative Scheme Gol assistance-reg..

Sir,

I am directed to inform you that the idea(s) / proposals received from your Institute under the above scheme were considered by the PMAC meeting held on 26/06/2023. The committee has approved the following idea(s). The details of approved idea / proposal are as under.

Sl. No.	Name of Incubatee and Title	Project cost	Amount Sanctioned as GOI Share (Rs. In lakhs)	Incubatee Share (Rs. In lakhs)
1	S PADMAPRIYA , A Novel IoT and Machine Learning based Automatic waste segregator	15.000	12.750	2.250

Further, in order to release Gol grant, You are requested to go through instructions/ guidelines on Revised procedure for flow of funds under Central Sector Schemes O.M from D/o Finance. vide no. 1(18)/PFMS/FCD/2023 dated 9.03.2022 carefully and nomination of CTTC Bhubaneswar as CNA vide letter dated No, 41(1)/Budget/MSME Champions/2021 dated 27.06.2022 for Model -2 for release of funds to HIs (For details [Click here](#))

1. CTTC Bhubaneswar has opened Saving A/c in SBI for release of fund to HIs as CNA Account. The contact officer of CTTC, Bhubaneswar is Shri S. K. Rout, 9437965670, skrout@cttc.gov.in

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3. CTTC, Bhubaneswar will integrate it with CNA account through SBI Bank
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5. HI shall share the mandate form with CTTC, Bhubaneswar and O/o DC (MSME) through email- schand@dcmsme.gov.in with a copy to ramakrishnan.v@gov.in
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Yours faithfully,
(V. Ramakrishnan
Dy. Director

This is an automated message, Do not reply.

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K. Subba Rao / Chairman
KKR & KSR Institute of Technology & Sciences (KITS)
NBA Accredited for ECE CSE, EEE, Civil and Mechanical
Accredited with 'A' Grade by NAAC
Ph: 0863 - 2286699,9951713366
e-Mail id : kitsgnt@gmail.com
chairman@kitsguntur.ac.in
Url:<http://kitsguntur.ac.in>

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: K Mallikarjuna Rao <malli.siva2000@gmail.com>

Thu, Jul 13, 2023 at 3:47 PM

[Quoted text hidden]

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: yesarun1810@gmail.com

Tue, Aug 1, 2023 at 4:30 PM

----- Forwarded message -----

From: **Kits Subba rao** <kitsgnt@gmail.com>
Date: Thu, Jul 13, 2023 at 3:07 PM

[Quoted text hidden]

[Quoted text hidden]

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: simbunarayana@gmail.com

Mon, Aug 7, 2023 at 11:55 AM

----- Forwarded message -----

From: **Kits Subba rao** <kitsgnt@gmail.com>
Date: Thu, Jul 13, 2023 at 3:07 PM

[Quoted text hidden]

[Quoted text hidden]

Dr.Aruna Chittineni <chittineni.aruna@gmail.com>
To: mail2rvkk@gmail.com

Fri, Sep 29, 2023 at 7:50 PM

----- Forwarded message -----

From: **Kits Subba rao** <kitsgnt@gmail.com>
Date: Thu, Jul 13, 2023 at 3:07 PM

[Quoted text hidden]
[Quoted text hidden]

1. Details of Incubatee:

1.1 Details of the Host Institute (HI)	KKR and KSR Institute of Technology and Sciences , Vinjanampadu, Vatticherukuru Mandal, Guntur, Andhra Pradesh, India-522017 , 08632286666 , kitsgnt@gmail.com , 9951713366	1.2 Name of the Business Incubator (BI)	Dr.Chittineni Aruna , Professor , chittineni.aruna@gmail.com , 9866485761
1.3 Category of the Incubatee	Others	1.4 Incubatee Name	INJETI SAILAJA
1.5 State	ANDHRA PRADESH	1.6 District	VISAKHAPATNAM
1.7 Email Id	ISBABU2003@GMAIL.COM	1.8 Mobile Number	8555067087
1.9 Category	General	1.10 Gender	Female
1.11 Address	sai sadan SF3 KurmannaPalem, near Sai baba temple, Duvvada, Vadlapudi, Vishakapatnam, Andhra Pradesh, 530046		

2. Details of Idea:

2.1 Title of proposed idea/innovation	INJETI SAILAJA
2.2 Whether the idea involves use of existing intellectual property or not, give brief detail there of	No
2.3 Briefly explain newness/uniqueness of the innovation	<p>Welcome to our pioneering and sustainable paper bag manufacturing unit, where we are committed to crafting eco-friendly packaging solutions for a greener future. Our mission is to revolutionize the packaging industry by offering top-quality, biodegradable, and recyclable paper bags that cater to a wide range of businesses while reducing their carbon footprint. In todays world, the demand for sustainable packaging is growing rapidly, and paper bags have emerged as a superior alternative that strikes the perfect balance between functionality, aesthetics, and environmental responsibility. By focusing on reducing plastic waste and promoting environmental consciousness, paper bags have become the preferred choice for various applications. From retail shopping and food packaging to promotional events and corporate gifting, paper bags have revolutionized the packaging industry, providing an eco-conscious solution that aligns with modern values. As consumers and businesses increasingly prioritize sustainability, our paper bags offer a versatile and eco-friendly option that showcases your commitment to the environment and enhances your brand image. With our dedication to quality, innovation, and sustainability, we aim to be your go-to partner for all your eco-friendly packaging needs. Together, lets create a greener and more sustainable future for generations to come.</p>

2.4 Concept & Objective	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices throughout the production process to minimize the impact on the planet. Objectives are Reduce Plastic Waste by The primary objective is to curb the use of single-use plastic bags, which are a major contributor to plastic pollution and environmental degradation. Promote Biodegradability by Sustainable paper bags are designed to be biodegradable, meaning they can naturally decompose over time, reducing the burden on landfills and marine ecosystems. Minimize Carbon Footprint By adopting energy-efficient practices and reducing greenhouse gas emissions, sustainable paper bag manufacturing aims to minimize its carbon footprint. Support Circular Economy by Emphasizing the use of recycled paper and encouraging recycling of used paper bags to promote a circular economy and close the material loop. Educate Consumers by Sustainable paper bag manufacturing seeks to raise awareness among consumers about the benefits of eco-friendly packaging and the importance of making environmentally conscious choices.</p>		
2.5 Specify the potential areas of application in industry/market in brief	<p>Potential Areas of Application in Industry/Market for Sustainable Paper Bag Manufacturing, Retail Packaging, Sustainable paper bags are an ideal alternative to plastic bags for retail stores, providing eco-friendly packaging options for customers purchases. Food and Takeout Packaging by Sustainable paper bags are widely used in the food industry for takeaway orders, ensuring that food can be carried safely and sustainably. Grocery Stores and Supermarkets by Many grocery stores and supermarkets are shifting to sustainable paper bags to offer customers a more environmentally friendly option for carrying groceries. Fashion and Apparel by Sustainable paper bags can be used for packaging clothing, shoes, and accessories in fashion and apparel retail, promoting sustainability throughout the supply chain. Corporate Gifting by Sustainable paper bags are used for corporate gifting, offering a sophisticated and eco-conscious way to present gifts to clients and employees. Artisan and Craft Businesses by Artisanal products and handmade crafts can be packaged in sustainable paper bags, aligning with the values of environmentally conscious consumers. Green Initiatives and Environmental Campaigns by Sustainable paper bags can be part of green initiatives and environmental campaigns to promote sustainable practices and raise awareness about plastic pollution.</p>		
2.6 Briefly provide the market data for the potential idea/ innovation	<p>The market potential of sustainable paper bag manufacturing is significant and driven by various factors that align with global sustainability trends and consumer preferences are Increasing Environmental Awareness by Growing concerns about plastic pollution and its detrimental impact on the environment have led to a surge in demand for eco-friendly alternatives like sustainable paper bags. Government Regulations and Initiatives by Many governments and regulatory bodies are implementing policies to curb single-use plastics, creating a favorable market environment for sustainable packaging solutions. Consumer Preference for Sustainable Products by Environmentally conscious consumers are actively seeking products with minimal environmental impact, driving the demand for sustainable packaging choices like paper bags. Innovation and Customization by Continuous innovation in sustainable paper bag materials and designs allows businesses to offer customized and aesthetically appealing packaging solutions to suit their brand identity. Circular Economy Approach by Emphasizing the use of recycled paper and promoting recycling of used paper bags contributes to the circular economy and enhances the overall market potential.</p>		
2.7 Name and details of Mentors	Dr. Ch Aruna	2.8 Experience and Qualification of Mentors	23 years and Phd
2.9 Contact Details of Mentors	9866485761	2.10 Current Development Status of innovation	prototype already done
2.11 Expected time of completion of idea	10 months	2.12 Idea Sector	Services, Education, Hospitality, Media, Publishing, Entertainment, Design, Wellness, Logistics, Sports and any related sub-sector
3. Financial requirements:			

3.1 Activity-wise break

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	10.000	8.500	1.500
Charges for mentor/handholding supporting team Max (3.00) lakh.	3.000	2.550	0.450
Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2.000	1.700	0.300
Total	15.000	12.750	2.250

Approved Activity-wise break

Approved By	Approved Date
PMAC	14/03/2024

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	10.000	8.500	1.500
Charges for mentor/handholding supporting team Max (3.00) lakh.	3.000	2.550	0.450
Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2.000	1.700	0.300
Total	15.000	12.750	2.250

Ref. No.	INC23CAP030722	5. Summary of the idea. This is the section reviewers read to understand the technical solution. Please state the solution clearly. Reviewers may ask: What is the actual technical advancement or improvement provided by this solution?	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices throughout the production process to minimize the impact on the planet.</p>
6 (a) Is it a new concept?		YES	
(b) Prior art on the concept, if any	No	7. Main Problem Being Addressed in the Project (Every solution targets a certain problem. Please use this section to highlight the specific problem the solution addresses. This section can be as short or as long as needed to describe the precise problem the solution addresses)	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices throughout the production process to minimize the impact on the planet.</p>
8. Background for getting the idea?			
a. Who is it for?	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices.</p>	b. What will it do?	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices.</p>
c. Any unique features? Explain?	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags</p>	9. How simple or complex will the idea's execution or implementation be? What are the risk factors involved in executing the idea?	<p>this is simple and one has to be ready with the technology to make it</p>
10. How soon could the idea be put into operation? (TRL of prototype)	10 months	11. How much investment would you need for prototyping of the Idea?	1 lakh

<p>12. (a) How do you intend to protect your idea (i.e. your intellectual property or IP)? Status of IPR (If any)</p>	<p>by filing an IPR</p>	<p>(b) Related Background This section is used to highlight information that can be used by the reviewers or patent attorney to help put the solution in proper context. You can think of this section as something similar to the introduction section of an academic publication. This section is specifically reserved for other people's work (please include competitive work) as well as your past work that you believe will aid the reviewers in understanding the technical landscape. Data related to or supporting your solution should NOT be in this section, it should be in Section III: "How is this Solution Made and Used."</p>	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices throughout the production process to minimize the impact on the planet</p>
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<p>13. How is This Project Made and Used: Please describe in as much detail as possible how the innovation is implemented. This includes details on how you actually make, assemble, synthesize, or build the solution and details on how the solution is used once it is made. Reviewers will ask: How does the technical innovation actually work – or – what is the detailed process to achieve the technical innovation? Please help convince the reviewers with supporting statements using as much of the following that is available: your thoughts, logic, supporting literature, and/or experiments.</p>	<p>The concept of sustainable paper bag manufacturing centers around producing eco-friendly and environmentally responsible paper bags as an alternative to plastic bags. It involves using renewable resources and adopting environmentally conscious practices throughout the production process to minimize the impact on the planet</p>
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<p>Upload Block diagram/ flow chart/ Circuit Diagram/Pictures</p>	<p>View/Download</p>
<p>Uploaded Minutes of the evaluation Committee</p>	<p>View/Download</p>

Application Remarks			
Action	Date	Status	Remark
PMAC	14/Mar/2024 03:55:56 PM	Approved By PMAC	The 7th PMAC held on 15/02/2024 has approved this idea for GoI grant. Please check your mail and do the needful as instructed on priority basis. This may be treated as most urgent. View/Download

- I declare that:
- I have read the entire scheme guidelines and shall abide by all the requirements stipulated therein for seeking financial assistance.

- 2. I hereby declare that information given above is true to the best of my Knowledge and that I have not withheld/distorted any material fact.**
- 3. Any information/ documents that may be required to be verified shall be provided immediately before the concerned authority.**
- 4. I hereby declare that I have not availed any financial assistance for this purpose from any other scheme from any Central/ State govt. agency.**
- 5. In case the Idea is approved, Host Institute would undertake to make facilities available to carry out the development arrange for the submission of periodic progress reports and other information that may be required by the Ministry.**
- 6. I certify that the accounts of the funds received and spent will be kept and made available on demand, as per scheme guidelines**
- 7. I certify that the funds will be used only for Idea development as per activities defined in Scheme Guidelines & no funds out of this grant will be utilized for any other activity/production purposes.**