



Energy Management Centre - Kerala
Thiruvananthapuram - 695017

EMC SMALL GRANTS PROGRAM

Greetings from EMC,

Energy Management Centre - Kerala (EMC) in collaboration with Bureau of Energy Efficiency (BEE), Govt. of India is inviting project proposals on the topic "SMART ENERGY MANAGEMENT SYSTEMS (SEMS) USING INTERNET OF THINGS (IoT)".

Energy is one of the most critical components of infrastructure, crucial for the economic growth and welfare of nations and development of which is essential for sustained growth. Energy conservation refers to the reducing of energy consumption through energy efficient technologies and behavioral practices without reducing the required output and comfort. Energy conservation can result in increased environmental quality by reduced carbon footprints; improve national energy security, personal financial security. It is at the top of the sustainable energy hierarchy as it lowers energy costs by preventing future resource depletion and reserve for future generations.

The energy sector is undergoing a massive transformation. Renewable energy like solar/wind/others, energy storage being core technological interventions, increased use of IT including internet of things, AI, Machine learning etc., is helping to drive this transformation. There is a vast spread in the use of Internet of Things (IoT) in various segments such as energy, cities, logistics, homes, industries, health, and agriculture. It is revolutionizing nearly every part of the energy industry from generation to transmission to distribution and changing how energy companies and customers interact and making the grid smarter, reliable, efficient and robust.

BEE in collaboration with EMC is intending to help develop Smart Energy Management Systems using IoT involving the academic community by inviting them to come up with innovative interventions to further the transformations in energy sector.

EMC is providing an opportunity and suitable grants to budding engineers and technologists encouraging them to think out of the box and come up with solutions and ideas in the field of SEMS using IoT that may change the course of energy utilization in our society.

Utilise this opportunity!

Let's know about EMC SMALL GRANTS PROGRAM

1. What is EMC-Kerala?

Energy Management Centre - Kerala under the Department of Power, Govt. of Kerala is the State Designated Agency of the Bureau of Energy Efficiency. EMC is the torch bearer for the energy conservation activities in Kerala.

2. What is EMC SMALL GRANTS PROGRAM?

IoT is becoming a major part in the energy sector. According to Gartner, there will be 26 billion devices using IoT technology by 2020. EMC wants propagate the idea of IoT and its role in Smart Energy Management Systems to budding students and researchers in the state of Kerala. Therefore, EMC with the help of BEE is inviting project proposals on the topics "SEMS using IoT".

3. Structure of the EMC SMALL GRANTS PROGRAM?

- i. 4-day idea generation sessions
- ii. Initial Project Proposal Submission
- iii. Preliminary Selection Process by EMC technical committee
- iv. Online Presentation of the preliminary shortlisted participants with EMC technical committee
- v. Selection of the final shortlisted participants by EMC technical committee
- vi. Pre award online meeting of the final shortlisted participants with EMC technical committee
- vii. EMC Offer Acceptance of Project Development
- viii. Final Submission of Project Report and developed prototype (on condition)
- ix. Funding after final submission and evaluation

4. Who are eligible to participate in the EMC SMALL GRANTS PROGRAM?

- Students and Researchers who are studying in an institution registered in the state of Kerala can participate in the EMC SMALL GRANTS PROGRAM.
- A single student/researcher or a team of students/researchers are eligible for submission of a proposal.

- Students/Researchers from one institution can team up with students/researchers in other institution for submission of a proposal.
- Students/Researchers from one institution in the state of Kerala can collaborate with Students/Researchers from institutions in other states only if the primary investor of the proposed project is the former.
e.g.: Students from College of Engineering Thiruvananthapuram can collaborate with students from IIT Madras only if the primary investor of the proposed project is the student from College of Engineering Thiruvananthapuram.

5. Whether the help of Mentors and Guides can be used in the EMC SMALL GRANTS PROGRAM?

Yes, you or your team may use the help of mentors or guides for the development of the project. But the participants must inform EMC Kerala about the details of the mentor/guide during the course of the development of the proposed project.

6. Who is evaluating the project proposals in the EMC SMALL GRANTS PROGRAM?

EMC Kerala will setup a technical committee for the EMC SMALL GRANTS PROGRAM who are versatile in the field of Energy Management and IoT. It is this technical committee will be evaluating all the proposals.

7. What are the weightages given for the project proposals in the EMC SMALL GRANTS PROGRAM?

- Interdisciplinary nature of the proposed project
- Collaboration with other reputed institutions, research organizations of the proposed project
- Relevancy of the proposed project
- Practicality of the proposed project
- Financial viability of the proposed project

8. Whether the students/researchers are allowed to gain other financial aid for the same project?

Yes, the student/researcher are allowed to gain other financial aid for the same project. But they would have to submit the details of the financial aid in the due course of development of the project.

9. What is the maximum amount given for a single project proposal in the EMC SMALL GRANTS PROGRAM?

EMC Kerala with the help of BEE will fund a maximum amount of Rs. 75,000/- for a single project proposal. Funding Amount will be decided by the technical committee setup by EMC as per the submitted project proposal and Pre-award meeting.

10. If selected for EMC SMALL GRANTS PROGRAM, whether the funding for the project will be given in advance?

No, the funding for the final selected projects will be done only after the submission of the final project report and prototype verification. For verification of the prototype, the EMC technical committee may physically come and verify the results for confirmation.

11. Will EMC Kerala give any guarantee for the reimbursement of the selected project proposal for EMC SMALL GRANTS PROGRAM?

Yes, if you or your team's project proposal is finally shortlisted for EMC SMALL GRANTS PROGRAM, an Offer Acceptance letter will be provided by EMC Kerala with the funding amount as determined by the technical committee. After final submission of the project report and prototype verification, EMC Kerala will reimburse the amount mentioned in the Offer Acceptance letter.

12. Whether the students/researchers need to attend the idea generation session compulsory from 23-07-2020 to 26-07-2020?

No, it is not compulsory for attendance of all the idea generation sessions in order to be eligible for the EMC SMALL GRANTS PROGRAM. The 4-day sessions are brain storming so that participants can tune into the idea of Energy Conservation, Energy Management, Smart Energy, Internet of Things (IoT) to think out of the box. For those who have missed the sessions, it will be uploaded in EMC Kerala official YouTube channel.

<https://www.youtube.com/channel/UCMmtgT3qVUWB3vg6gKmBnoQ>

Schedule of the EMC SMALL GRANTS PROGRAM

Sl No	Item	Last Date
1	4-day idea generation sessions	26-07-2020
2	Initial Project Proposal Submission (along with application)	07-08-2020
3	Preliminary selection of initial project proposals by Expert Committee	14-08-2020
4	Online Presentation of the preliminary shortlisted participants with EMC technical committee	09-09-2020
5	Selection of the final shortlisted participants by EMC technical committee	18-09-2020
6	Pre award online meeting of the final shortlisted participants with EMC technical committee	30-09-2020
7	EMC Offer Acceptance for Project Development	06-10-2020
8	Final Submission of Project Report and developed prototype	25-11-2020
9	Funding after final submission and evaluation	08-12-2020

Contact List

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- EMC Facebook page: www.facebook.com/energymanagementcentre



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EMC SMALL GRANTS PROGRAM

Format for Initial Project Proposal from Participants

1. Cover Page & Title Page
2. Project Abstract
3. Problem Statement and Gap Analysis
4. Project Objective
5. Proposed Solution
6. Project Scope
7. Approximate Cost
8. Time Frame of Development
9. References



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EMC SMALL GRANTS PROGRAM

APPLICATION FORM

Please submit the application form duly filled in this format (using a word application), initial project proposal along with the copies of the Institution Id cards of the Project members to the email id etrsep@gmail.com

Project Title: _____

Project Member Details:

Sl No	Name of Students/Researchers	Institution of Study	University	Course of Study
1				
2				

Address of Correspondence : _____

Mobile Number : _____

Email Id : _____

Details of Guide/Mentor* : _____
(with mobile no: and official email)

Details of Other grants received : _____
for the same project*
(order copy of the same should be submitted along with this application)

Project been collaborated : _____
with other research institutions*
(If Yes, details of the research institution)

The above details submitted is/are true to the best of my/our knowledge. We/I have read all the directions given by EMC Kerala. We/I are/am very much interested to participate in the EMC SMALL GRANTS PROGRAM.

Date:

Name and signature (all members):

*if not finalized at the time of submission of this application form, it can be informed to EMC in due course of the project