GOVERNMENT OF KERALA
Abstract

Electronics and Information Technology Department- Indian Institute of Information Technology and Management-Kerala(IIITM-K)- Plan Schemes 2024-25- Revised Administrative Sanction accorded- Orders issued.

ELECTRONICS & INFORMATION TECHNOLOGY (B) DEPARTMENT

G.O.(Rt)No.236/2024/ITD   Dated,Thiruvananthapuram, 09-12-2024

Read 1 G.O.(Rt.)No.120/2024/ITD Dated 12-06-2024.

2 G.O.(P)No.76/2024/Fin Dated 31-08-2024

3 Minutes of the meeting of the Chief Secretary level committee for Plan Prioritisation 2024-25 held on 15-11-2024.

4 Letter No. IIITMK/F&A/5072/2024-25 dated 29.11.2024 from the Director, IIITM-K.

ORDER

As per Government Orders read as 1st above, administrative sanction was accorded for an amount of ₹88 Lakhs for the Electronics Incubator Project [Maker Village-ESDM project] implemented by Indian Institute of Information Technology and Management-Kerala (IIITM-K).

2. As per the Government Order, issued with regard to the guidelines on plan prioritisation, read as 2nd above, the Chief Secretary level committee for Plan Prioritisation 2024-25 held on 15.11.2024, has approved the revised allocation for plan schemes of IIITM-K.

3. Government are thus pleased to revise the administrative sanction for the plan scheme Electronics Incubator Project [Maker Village-ESDM] implemented by Indian Institute of Information Technology and Management-Kerala for the financial year 2024-25 with the financial outlay as detailed below, subject to the terms and conditions mentioned in the Government order read as 1st above : -

Electronics Incubator Project [Maker Village-ESDM]	
Head of Account : - 4859-02-004-85 - Amount : - ₹50 Lakhs	

SL No	Components	Amount (in Lakhs)
1	Research & Development Expenses	25
2	Faculty Cost	5

3	Other Expenses- Evangelization and Awareness programs, Hardware Conclave, Hackathons, Product Showcase/Expo Patent Filing, travel , communication	15
4	Overhead charges	5
	Total	**50**

The detailed activity-wise statement, financial outlay for components, outcome of the projects, deliverables and the activities proposed for the current financial year are attached as Annexure to this G.O.

4. The Director, IIITM-K, shall follow all the prescribed guidelines, rules, other formalities and procedures for implementation of the scheme. Proposals for release of funds should contain break up of expenditure, report on the component wise expenditure of funds released during the previous year and component wise Utilization Certificates in the prescribed proforma. Funds will not be released in case of any procedural laxity or violation.

(By order of the Governor)
DR RATHAN U KELKAR I A S
SECRETARY

To:
The Director, IIITM-K, Thiruvananthapuram
Principal Accountant General (A&E) Kerala, Thiruvananthapuram
Principal Accountant General (G&SSA) Kerala, Thiruvananthapuram
Finance Department   /   Planning & Economic Affairs Department
Electronics & IT (C) Department
Information Officer(Web & New Media), I&PR Department
Stock File.

Forwarded /By order

Signed by
Mahesh. R
Date: 10-12-2024 09:58:19
Section Officer

INDIAN INSTITUTE OF INFORAMTION TECHNOLOGY AND MANAGEMENT KERALA

ANNUAL PLAN PROPOSAL (2024-25)REVISED

IIITM-K was set up in the year 2000 as a premier institute of excellence, focusing in the areas of science, technology and management related to IT and emerging as an engine for promoting growth. Current year, an amount of Rs 100 lakhs earmarked in the State Budget. Due to prioritization of funds, revised proposal for an amount of 50 lakhs is submitted for kind approval.

Name of the Schemes	Head of Account	Outlay in lakhs
Electronics Incubator Project [Maker Village-ESDM]	4859-02-004-85	50
Total		**50**

Electronics Incubator Project
[Maker Village-ESDM]

IIITMK is now focused on hardware set up, electronic product development, research and manufacturing units. An R&D, design and manufacturing unit centre with incubation facility for SME and Entrepreneurs is included in the proposal along with state share for the continuing ESDM project. Women Incubation for Sustainable Entrepreneurship (WISE) which form part of the incubation centre focuses on woman Incubation and Entrepreneurship programme for the purpose of empowering woman through entrepreneurship in which woman can initiative a business, nurture their skills, make them to face challenges, provide employment for others and manage the business independently.

Sl No	Research Projects	Rupees In lakhs
1.	Electronics Incubator Project [Maker Village-ESDM]	50.00
	Total	**50.00**

1. Name of the SchemeElectronics Incubator Project [Maker Village-ESDM (State Share)]

2. Budget Allocation for (2024-25): Rs 50 lakhs

3. Head of account: 4859-02-004-85

4. Objectives (2024-25)

Sl No	Objectives
1	To set up design Centre for Electronics Hardware products
2	To set up EMI/EMC Testing centre
3	To enhance the Existing prototype development centre augmenting with industrial grade equipment & Testing instruments.
4	To set up Establish Incubation centre under AIM
5	To set Nidhi Centre of Excellence under DST

Sl No	Detailed Objectives
1	Build the most thriving & equipped electronics hardware ecosystem in India: Maker Village, which is one of the largest electronic incubators in the country is an initiative of Ministry of Electronics and Information Technology (MeitY), Government of India facilitated by the Govt of Kerala with Indian Institute of Information Technology Kerala (IIITMK) Trivandrum as the implementation agency. Maker Village is based out of Kerala Technology Innovation Zone, KINFRA Hi Tech Park, Kalamasserry, Kochi, Kerala. Currently 65 companies are incubating at Maker Village, which hosts about 60,000 sqft of fully furnished space with all required amenities. Within a very short span since its inception, Maker Village has made significant strides in the start-up landscape of the country with its strong network of associations with Industries, ESDM facilities, Academic institutions and R &D institutes. Maker Village has a unique basket of offerings in terms of infrastructure, hardware & software resources for prototyping, technical support and associated services. Currently, Maker Village which hosts 65 startups developing state-of-the-art hardware electronic products in divergent areas viz., Automation, Robotics, Drones, Internet of Things, Autonomous Vehicles, Biomedical Instrumentation, Energy Management etc., is the largest exclusive deeptech hardware incubator in the country. Most of the startups are leveraging cutting edge technologies – IOT, 4g and 5g , Machine Learning, Artificial Intelligence, Augmented Reality / Virtual Reality etc., to make their products innovative and globally competitive. The startups work in an environment with dedicated workstations, access to conference rooms, high speed leased line connectivity, and access to state-of-the-art labs with end to end facilities for prototyping Maker Village is equipped with an Automated SMT Assembly Line, Testing and Measurement lab, Development Kits, Industrial 3d printer, Metal Machining Centre, Pre - EMC compliance equipment, CAE software like Solidworks, Dassault 3DS, Altium, Altair etc. which can be used by the incubated startups.
2	Incubate & Accelerate Electronics Startups through structured programs : While the major objective of the incubator is to support startups from an idea stage to an advanced prototype, Maker Village is adding a suite of accelerator

programs as an extension of the incubation program, where additional support is provided to ensure that the product reaches the market from both manufacturing and market access perspective.

To achieve the above objective, Maker Village has envisaged five structured programs of varying features, duration and maturity level of startups. The program are as follows:

i) MV-Entrepreneur- Young Entrepreneur Preincubation Program (12 weeks duration)

- Targeted at start-ups at maturity level TRL 1

- Entrepreneur programme is designed for technical college students and young technical graduates to learn entrepreneurship, leadership skills and to develop them as entrepreneurs and future Leaders through integrated classroom sessions, mentoring and capstone project/business plan competition.

ii) MV-IDEA- Ideation Program (12 weeks duration)

- Targeted at start-ups at maturity level TRL 1-3

- IDEA is a structured program that offers a scalable approach to develop and support budding entrepreneurs entering the startup ecosystem. The programme is designed to equip participants to create and develop ideas into tangible concepts, prototypes and business models.

iii) MV-PROTO- Prototype Development Program (24 month duration)

- Targeted at start-ups at maturity level TRL 1-5

- PROTO is the flagship incubation programme at Maker Village that equips start-ups to design and prototype electronics hardware providing support through the product development journey upto technology/product validation.

iv) MV-COMMERCE- Product Commercialization program (24 month duration)

- Targeted at start-ups at maturity level TRL 5-9, IRL 3-5

- MV – Commerce is a Maker Village programme that supports startups in commercializing their validated technologies/products through preparing the grounds for market launch, validation in test markets and large scale commercialization.

v) MV-SCALEUP- SCALEUP Program (24 months duration)

- Targeted at start-ups at maturity level IRL 5-9

- MV – SCALEUP is a Maker Village programme that supports electronics hardware/IoT start-ups to generate scale up opportunities. Start-ups that are on the cusp of becoming scale-ups in terms of having market validated products and generated revenue or partnerships will be able to develop industry standard operations in manufacturing, distribution and marketing such as in small batch production, vendor management, QC & logistics, testing certification and pilot trials.

Every stage requires working space , funding and other necessary resources to

3	achieve the milestones .
	A total of 23 promising start-ups have been selected in the last two accelerator programs and are showing excellent traction
3	Develop Awareness on Entrepreneurship, Start-ups and Electronics Hardware:
	Modes: Hackathon/Seminar/Workshops/Conferences/Events/Evangelisation.
	Evangelization of Maker Village through Awareness programmes/Events for public, students and potential start up entrepreneurs from all parts of the country on the opportunities/developments in the ESDM segment, benefits of initiating entrepreneurial ventures in the sector and the comprehensive facilities offered by Maker Village. Technical workshops and mentoring sessions for selected potential entrepreneurs in the incubator. Talks/lectures by nationally/internationally renowned thought/innovation leaders for evangelizing the electronics incubator. International Conclave to showcase the product of startups to a national and international audience. To provide further impetus to strong ecosystem of start-ups, innovators & researchers in the country, MeitY has announced a Swadeshi Microprocessor Challenge using family of state-of-the-art Swadeshi Microprocessors made available under MDP by IIT Madras (32-bit & 64-bit शक्ति processor IP variants) and C-DAC (32-bit & 64-bit वेगा processor IP variants) to promote a culture of innovation and entrepreneurship by innovating frugal solutions around home-grown processor ecosystem. The program spanning 18 months is coordinated by Maker Village
4	Manpower:
	• Business Development & Marketing Manager to build brand awareness on support for entrepreneurship by Maker Village by increasing visibility in the startup ecosystem at the national and international levels.
	• Training Manager to develop training courses and liaison with startup ecosystem to understand needs and deliver outcomes
	• Manager- Labs to look after the facility and Lab infrastructure.
	• Supervisor - Production and Operator production to run the SMT Line, Vertical Machining centre and the Industrial 3D printer.
	• Program Manager for Idex and other indigenisation program with Defence.
	• Program Manager for Swadeshi Microprocessor Challenge
	• Operators to run the various prototyping equipment in labs.
	• Internship program for interested qualified graduates to work with the incubation team to develop new programs with industry and institutional partners as well as gain valuable experience in marketing, entrepreneurship, HR and training.
5	Financial Support for Promising Startups through Seed fund:
	Some of the promising hardware start-ups require a bridge round of funding and also for meeting working capital requirements. Funding also provides avenues for generating revenues for Maker Village in the future when Maker Village can liquidate the investment in larger rounds of funding. Maker Village needs to support startups through strategic investment for both the success of the startups and the sustainability of the incubator.

6	Develop Technical & Entrepreneurial skills in the Community through Training programs: Maker Village hosts several start-ups working on a range of technical challenges. The parent organization of Maker Village, i.e. IIITMK and sister organization the Digital University of Kerala (DUK) have expertise and resources for training people in the areas of electronics, machine learning, computing technologies and business management. The pre incubation to continued education is a necessity for many of the employees of the start-ups. Maker Village has now developed structured programs for the pre incubation, prototyping and scale up The Maker Village Annex will be used for supporting the training activities. These programs will be designed to be financially sustainable. There will be also self-paced learning online courses designed in advanced electronics and management aspects of the product development.

5. Physical Target

Sl No	Target (2024-25)	
	<u>Maker Village - Kochi</u>	
1	Incubation Operations	30
2	Incubation & Accelerator Program	5
3	Hackathon/Seminar/Conferences	12
4	Manpower	19
5	Setting up of Innovation centres	5000 sqft
	<u>Maker Village Annex - Trivandrum</u>	
6	Industry and preincubation training programs	10
7	Online programs	10
8	Setting up of Innovation centres	1000 sqft

6. Project Phasing:

Sl No	Project Phasing:	Year (2024-25)
1	Genisis Project under MeitY	
2	EIC Program under AIM	
3	Nidhi COE	
4	Nidhi SSS	
5	Monthly screening of applications received for incubation for new incubations	Monthly
6	Conducting technical workshops /mentoring session fortnightly	Fortnightly
7	Outreach Activities (Events, Investors meet, Product Showcases)	Bi Monthly

7. Project Outcome:

Sl No	Outcome of the Scheme: (2024-25)
1	Genisis program would cater to support startups in tier 2& 3 cities of the state. This program has funding support to startups in terms of Grants, soft loans, CCDs and equity investments.
2	Established incubation centre provides incubation space to innovative startups and also provides access to electronics lab facilities. Various funding schemes, hackathons, social impact programs would be executed through EIC.
3	Centre of excellence for design, Prototyping and testing of deep tech hardware products would act as all under one roof for startups who are looking at one stop solution for their product development. One can get incubated with a novel idea and come out as markable product post validation and testing.
4	Startup SEED support provides the much required funding support for the incubated startups who are in the commercialization and scale up stage.
5	Incubation Operations: • Incubation: Maker Village is planning to incubate an additional 20 startups in the year 2024-25. This entails an augmentation of associated facilities and activities to ensure that Maker Village would be able to support a cumulative of around 100 startups which would make this centre one of the largest in the world. • Acceleration: Accelerate at least 30 start-ups with validated prototypes to become commercialized and scaled up in terms of manufacturing. • Graduation: Graduate at least 4 start-ups from incubation phase
6	Patents: Generate at least 10 patents singularly or jointly owned by Maker Village and/ or incubates.
7	Lab Facilities: Benefit to external startups and small-scale industries through usage of Maker Village lab facilities on paid basis
8	Hackathon/Seminar/Conferences: • Conduct a national level hardware conference and challenge • Organize at least 20 events of various kinds such as webinars, hackathons, seminars, conferences on topics of interest to the startup community
9	Training programs: • A training centre of excellence in Maker Village Annex for providing high end training for the start-ups. • An MTech programme in electronics system design and Manufacturing (ESDM) in collaboration with DUK • At least 10 training courses will be offered in association with IIITMK and DUK.
10	Manpower: Retention and recruitment of best talent to lead and manage the various

	activities
11	Innovation centres : Setup five new centres in the different domain and areas to develop Maker Village to a centre of excellence for Deeptech in India

8. Detailed Description

Sl No	*Description*
1	Carrying out need analysis of startup requirements in terms of type of software requirement and number of users/Licences.
2	Purchase of Design Software licences& workstations
3	Recruitment of manpower for manning the Design Centre
4	Identifying equipment required for NABL accreditation for EMI/EMC testing centre
5	Obtaining technical committee approval for the purchase of equipment
6	Purchase of equipment & chamber for setting up of EMI/EMC testing centre
7	Purchase of equipment for augmenting existing fabrication facilities.
8	Setting up of incubation centre for EIC under AIM
9	Purchase of lab equipment & setting up of EIC lab
10	Construction of Building for establishing Nidhi COE

9. Physical Progress

Sl No	Projects	Physical achievements of each resource person and cumulative achievements.
1	ESDM Incubation Program	Overall count of the startups incubated is 75 as per details below: IDEA – 8 PROTO – 33 COMMERCE – 29 VIRTUAL INCUBATION – 5
2	Nidhi Prayas	NIDHI Prayas 3rd Cohort under DST with Rs.1 Cr funding support to 21 innovators for developing prototype is in final stage. NIDHI PRAYAS 4th Cohort screening completed and 14 projects out of 55 selected for funding support under the scheme and the execution is in pipeline.
3	Nidhi Accelerator	13 Projects under NIDHI Accelerator program is in the commercialization stage.
4	SPARSH	SPARSH fellowship program under BIRAC, Department of Biotechnology is supporting 3 fellows in the thematic area of "Combating Environment Pollution" and to be completed by

		November 2023, New proposal for the SPARSH Centre for the next 3 cohorts being submitted.
5	MSME for Incubators	Nomination of 20 projects forwarded to MSME for funding support for prototype development and the final screening result awaited. 4 proposals under MSME Women Hackathon submitted MSME.
6	SAMRIDH Accelerator	Under the SAMRIDH Accelerator program of MeitY, 4 investment proposals have been submitted to MeitY for their matching contribution and another 4 proposals are under process of submission.
7	TIDE 2.0 GRANT/EiR	2nd Cohort of TIDE 2.0 GRANT/EiR scheme is in progress supporting 8 startups/innovators. Call for the 3rd cohort under TIDE 2.0 GRANT/EiR being rolled out.
8	Tide Investment	2nd Cohort under TIDE Investment scheme of MeitY has been completed successfully and Rs.40 lakh each released to 5 startups. 22 proposals have been submitted to MeitY for the 3rd Cohort.
9	Startup India SEED fund	Under Startup India seed fund, 5 projects with grant support of Rs.20 Lakhs each and 4 projects with CCD support of total Rs.1.45 Crores are in progress.
10	Idex	Incubation support to 6 startups who are winners of iDEX DISC VII is being provided by Maker Village.

10. Financial Outlay

Sl No	Maker Village-ESDM (State Share)	Rs in Lakhs
1	Research & Development Exp	25.00
2	Faculty Cost	5.00
3	Other Expenses- Evangelization and Awareness programs, Hardware Conclave, Hackathons, Product Showcase/Expo Patent Filing, travel , communication	15.00
4	Overhead charges	5.00
	Total	**50.00**