

ANNUAL REPORT 2020-21

KMEA ENGINEERING COLLEGE

KMEA Institution's Innovation Council (K-IIC)



A. About K-IIC

The Institution's Innovation Council at KMEA Engineering College is focused on building a full ecosystem to encourage an innovation culture across the KMEA, from idea creation to pre-incubation, incubation, and graduation from the incubator as successful start-ups. KMEA IIC or K-IIC will also focus on evaluation methods to identify and nurture students who will transition from dependent to startup status. IIC was established to inspire our students' creativity to work on new ideas and innovation and to promote them in the creation of start-ups and entrepreneurial enterprises.

Vision

To cater for the needs of students as well as faculty entrepreneurs with innovative ideas of social relevance and thereby disseminating a culture of entrepreneurship in the campus which will boost our education system and thereby growing the national economic and social development

Mission

To develop a system with the required infrastructure that can enable students and faculty to innovate and prototype their ideas with industrial standards and support from Government, industry and reputed academic institutions around the world and help them to realize their potentials

Journey of IIC at KMEA

KMEA IIC or K-IIC was established in the year 2018, under MoE- GOVT of India to establish an innovative and startup ecosystem on the campus. IIC follows the activity calendar provided by MoE. KMEA IIC became one of the IICs in Kerala with THREE Star performance in the year 2018-2019 for ARIIA and for the very next academic year, i.e 2019-2020, KMEA received a FIVE Star rating. The college is actively participating in MIC driven activities, IIC driven activities and

self-driven activities on innovation, IPR and entrepreneurship.

Objectives of K-IIC

- Students/Faculty associated with IICs will have the exclusive opportunity to participate in various Innovation related initiatives and competitions organized from institution level to international level.
- Win exciting prizes/Certificates every month.
- Meet/Interact with renowned Business Leaders and top-notch academicians.
- Opportunity to nurture and prototype new ideas.
- Mentoring by Industry Professionals.
- Experiment with new technologies.
- Visit new places and see new cultures.

Functions of K-IICs

- To conduct various innovation and entrepreneurship-related activities prescribed by IIC in a time-bound fashion.
- Identify and reward innovations and share success stories.
- Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.
- Network with peers and national entrepreneurship development organizations.
- Create an Institution's Innovation portal to highlight innovative projects carried out by the institution's faculty and students.
- Organize Hackathons, idea competitions, mini-challenges etc. with the involvement of industries.

External Representation from Industry:

K-IIC has four external representatives like Mr Eby Chembola, Alumni Entrepreneur; Dr Sadiq A; Patent Expert, Mr V. K. Adarsh; Union Bank and Mr Muhammed Fasil; Startup Mission.

B. Key Functionaries at K-IIC

Head of the Institution:	Dr T.M. Amarnishad, The Director/The Principal
President:	Dr Sangeetha C.P, Assoc. Professor ECE Dept.
Vice President:	Mr Muhammad Ajmal, Asst. Professor CE Dept.
Convenor:	Mr Vasudev S Mallan, Asst. Professor ECE Dept.
Co-ordinators & Members:	Asst. Prof MUHAMMED AJMAL Asst. Prof Ajmal E B Asst. Prof Mohammed Ismail H

Asst. Prof Abeera V P
 Asst. Prof Neenu B
 Asst. Prof Binish M.C
 Asst. Prof Divya P.V
 Asst. Prof Sandeep Kumar M
 Asst. Prof Fazna Nazim
 Asst. Prof Lakshmi E G
 Asst. Prof Shahina M S
 Dr Rekha Lakshmanan
 Dr Faseela C K
 Asst. Prof Mahendra K S

C. Portfolio

Sl No	Resource Title	Strength
1	IIC Members	37
2	Innovation Ambassadors	12
3	Faculty Mentors	2
4	Incubation Unit	2000 sq. ft
5	IPR Cell Members	20

- K-IIC consists of 16 teaching faculties and 21 student members from different departments united for the same goal of working for the vision and mission of IIC at the institution.
- From the 16 teaching faculties, 3 of them are recognised Innovation Ambassadors from the 2019 batch and two of them have completed advanced level in the academic year 2021. Also, 10 faculties (nominated by the institution) attended the basic level training and completed it successfully.
- The college has 2 active faculty mentors. One of the faculty mentors and the team got selected in the final stage of NIC 2020.
- At KMEA we have a DIC sponsored incubation unit with all the lab and infrastructure facilities, in which currently one company has been given pre-incubation space to develop their idea and product.
- At K-IIC, under the leadership of the senior innovation ambassadors, we host an IPR Cell to facilitate all the IP related activities.

D. Infrastructure and Facilities

The institution has a sprawling campus spread over 25 acres and 70.529 cents with modern buildings, technology-enabled classrooms, internet with Wi-Fi, library with a reading room, digital library, well-equipped laboratories, central computing facility, spacious hostels for the students, seminar halls and an auditorium. We have 33 spacious classrooms with proper ventilation and lighting, of which 12 classrooms are equipped with ICT facilities. We have four seminar halls with ICT facilities. The college has well-equipped labs for all branches that incorporate modern technology and facilitate interactions between faculty members and students. Sports facilities for students such as basketball court, football and cricket ground, volleyball court, indoor badminton court etc. are provided. All sports activities are coordinated by the Department of Physical Education. There are sufficient numbers of conference halls and an auditorium for organizing cultural and literary events. A fully equipped auditorium with a seating capacity of 1000 is available for organizing intercollegiate as well as Intra college cultural events every year.

IEDC Boot Camp

IEDC stands for **Innovation and Entrepreneurship Development Centre**, is conducting different innovative and start-up activities to enable students to start startups. These activities are funded by the start-up mission of Kerala state. Students and teachers are participating in various startup activities in college and outside. Faculty Coordinators of the club are Dr Faseela CK and Asst. Prof. Mohammed Ismail and the student coordinator is Mr Abdul Hafis from the EEE department.

EDC

The Entrepreneurship Development Club (EDC) at KMEA is promoted by the Govt. of Kerala Directorate of Industries & Commerce to foster techno-entrepreneurship for the generation of wealth and employment. The mission of the EDC is to develop institutional mechanisms to create an entrepreneurial culture among the stakeholders and to foster growth entrepreneurship amongst the students, faculty and the society at large. The faculty coordinator of the EDC at KMEA is Asst. Prof Abeera V P with student coordinator Ms Ameena A K.

Electronic Incubator (Electronic Startup Incubator)

This is a facility having 2000 sq. ft., established by DIC to perform student's ideation and prototype development needs. Students and teachers are using this facility for their entrepreneurship development. A team of KMEA alumni has been given pre-incubation space to develop their idea and product. They are proceeding with the

registration of the company and also have acquired their incubation space with all the facilities provided by the college in the incubation period.

SDPK (Skill Delivery Platform Kerala)

This is established by Govt. of Kerala for improving the skill levels of students in colleges. KMEA is establishing a skill delivery platform worth 20 lakhs that is open to all the students and staff of the college. It helps to link over 150 colleges under Kerala Technological University. They will conduct various short term skill courses to improve the skill set of an individual.

K-DISC (Kerala Development and Innovation Strategic Council)

This provides opportunities for the institution and students to collaborate with centres of excellence, research institutes, government & corporates in solving some of the everyday problems faced by the societies & the nation. This club is headed by Asst. Prof. Fazna Nazim and the student coordinator is Ms Vismaya Ashok of the Civil Department. The main objectives of K-DISC are given as follows.

a) Promotion of innovation in KMEA to meet pressing challenges in development through judicious application of Science and Technology, for increased productivity competitiveness and employment, and to foster equitable and inclusive development.

b) Establishment of a supportive ecosystem for innovation at KMEA that facilitates experimentation, risk-taking and creativity.

c) Strengthening of skills, behaviours and attitudes of knowledge economy talent pool, particularly of the students, to strengthen innovation and eliminate barriers to physical, human and knowledge capital.

d) Enhancing innovation spirit and talent, specifically young talent, by supporting greater innovation at the institutional level including teaching institutions, Medium Small and Micro Industries, Research and Development institutions, Government Departments, Public and Private sector bodies, Local Government and Corporates.

e) Knowledge creation and management as well as addressing information asymmetries related to innovation.

f) Developing strategies for strengthening capabilities in proactively developing Industrial Revolution 4.0 Technologies at KMEA jointly with different Universities, Research Centres and Academic Institutions and promoting the development of start-ups jointly with Kerala Startup Mission and innovation collectives at KMEA.

g) Developing systems for translational Engineering at KMEA jointly with Universities for translating research in Research and Development Centres into startups and Innovation Collectives.

h) Systematic promotion of grass root level and rural innovations and linking them to the Innovation Ecosystem.

KMEA Continuing Education Cell- (KCEC)

The continuing education cell of the college has been contributing to the enhancement of the skill development of neighbouring communities by conducting skill development courses through ASAP, PMKVY and SRC Programmes. This is also an eye-opener to all the young minds of the college in the area of innovation and entrepreneurship.

Additional Skill Acquisition Programme (ASAP)

ASAP aims at becoming an initiative that works with a passionate drive towards equipping the youth of Kerala for the highly demanding industrial roles of today and the future. This student-centred programme works with different industrial sectors to design and update curriculums that inculcate desirable skill sets and qualities to the students to develop a pool of industry-ready candidates.

Intellectual Property Rights (IPR) Cell

IPR Cell adopts a sound IP strategy, to secure IPR for a large base of knowledgeable faculties and highly talented students at the college to promote their regular project and research activities having innovation potential. The IPR Cell is an exclusive unit dedicated to strategizing the process of setting up structured processes to identify, facilitate and develop innovation at the campus. IPR cell is here to provide relevant, timely and targeted support to inventors in protecting their IPR and to boost confidence in generating IPR to make the innovator or entrepreneur self-reliant in finance and preserve their ideas/innovations. The faculty coordinator for the IPR Cell in KMEA is Asst. Prof Binish M. C and the student coordinator is Mr Sharan K S.

E. Achievements

KMEA IIC or K-IIC is a very active member of all the activities conducted by IIC from 2018. Initially, a group of 3 faculty has attended Innovation Ambassador training at Bangalore in the 2019 summer and has conducted enormous activities in the 2019-2020 academic year. From these 3 faculties 2 of them namely Asst. Prof Binish M. C and Asst. Prof Sandeep Kumar has completed advanced level training in 2021. A new president, Dr

Sangeetha C. P for the K-IIC has been nominated by the college and under her 10 faculties has completed the basic level of Innovation Ambassador training.

Sl.No	Achievements	Number
1	I&E, IPR activities	58
2	Ideas generated	55
3	Innovation prototype developed	1
4	No. of IP filed	1
5	Amount spent for promotion of innovation-related activities	₹32,000
6	Amount fund supported to students	₹1,50,000

F. BEST INNOVATIONS

- KMEA POC team got selected in regional, national and international level events through IIC during 20-21.
- A Civil engineering student Shifana V. H and her team had received a grant of Rs. 2.5 lakh from AICTE for the project “Treatment of Seafood Processing Effluent using Stringed Bed Suspended Bio-Reactor” during Feb 2021. The team members are M Muhammed Asif, Mubeena M, Shifana T. A.
- A student from the Computer Science Department of the college named Nirmal Dorothy under the guideship of IIC Innovation Ambassador Dr Rekha Lakshmanan has participated in the NIC contest 2020 conducted by IIC with an innovative idea called “**Automated Quality Assessment using Digital Image Processing**”. It has been selected for the 2nd stage of the competition and has qualified in the final list declared during 2021.
- Under the guidance of Asst. Prof Pradeep P D a team of students from the mechanical department of the college came up with an idea namely “**Bladeless Wind Turbine: A Futuristic Windmill**” and has announced them as winners in a competition called **IDEATE 2021** (an Idea competition under IIC) conducted by **Ahalia School of Engineering and Technology**. The student team members are Muhammed Rifan K. K, Mohammed Hafiz V. J, Sooraj K. S and Prem Kumar D.



- A students team, Arun Abraham, Ashik Alby, Amal Jhony, Jerom Alan with their mentor Asst. Prof Premkrishnan P had participated in the **All Kerala B.Tech Project Competition** in association with the **Institution of Engineers India (IEI)** at Albertian Institute of Science and Technology and has acquired the third position. The project was **Flood Proof Safety Airbag System For Cars**.



G. PARTICIPATION IN VARIOUS PROGRAMS

ARIIA (Atal Ranking of Institutions on Innovation Achievements)

This is established by MoE- GOVT of India for ranking educational institutions based on innovative and startup activities organized in the institution. KMEA participated in the 2019-2020 ARIIA ranking process and obtained 64th position in the national level ranking.

NISP ADOPTION STATUS

The NISP cell has been formed and the faculty coordinator is Mr Mahendra K S. The NISP institute cell is framing startup policy for KMEA. The coordinator is waiting for the MoE training.

SMART INDIA HACKATHON

KMEA Engineering college and its students are active members of the Smart India Hackathon. In the year 2020-2021 a team lead by Mr Muhammad Iqbal with a project idea named “**COSPLA (Costume Planner)**” has reached the finals.

H. SOCIAL MEDIA DETAILS



I. TESTIMONIALS

Dr Sangeetha CP, IIC President

“KMEA-IIC has started functioning from the year 2018 onwards. The growth of innovative culture among staff and students has been visible from the various activities and competitions conducted within and outside KMEA. IIC-MoE is the motivation behind the innovation, start-ups and IPRs in KMEA”

J. CONTACT

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