ANNUAL REPORT

2025-2026

Innovation and Entrepreneurship Development Centre (IEDC)

SCMS School of Engineering and Technology (SSET), Karukutty, Ernakulam

EXECUTIVE SUMMARY

The Innovation and Entrepreneurship Development Centre (IEDC) of SCMS School of Engineering and Technology has successfully delivered a comprehensive portfolio of initiatives during 2025-2026 designed to foster innovation, entrepreneurship, and sustainable development among students. Through strategically designed programs, industry partnerships, and international collaborations, IEDC has created an enabling ecosystem for transforming innovative ideas into viable ventures while strengthening students' technical and entrepreneurial capabilities.

This academic year witnessed unprecedented participation, with over 600 students engaging in various innovation initiatives, hackathons, workshops, and mentoring programs. Key achievements include organizing major hackathons (SIH Internal Hackathon with 200 participants, ResilientX 2025 with inter-institutional participation), specialized skill-development workshops, international faculty development programs, and fostering multiple international academic partnerships. The center has demonstrated strong effectiveness in achieving its mission of promoting innovation culture, entrepreneurship mindset, and industry-relevant skill development across the institution.

1. INITIATIVES UNDERTAKEN IN 2025-2026

S.No	Activity	Date/Month/Year	Associated Dept.
1	Workshop on IPR and Patent Filing	27/06/2025	IEDC, IQAC,IIC
2	Knowledge sharing program on "Sustainable Living-Simple Habits to Save Energy	30/06/2025	IEDC,IQAC,EEE
3	Workshop on Innovation and Startup	23/07/2025	IEDC
4	3-Day Faculty Development Program (FDP) by KSUM at SCMS Muttom	11/08/2025 to 13/08/2025	IEDC
5	Master's in Ireland: Planning, Process,	28/07/2025	IEDC, ECE

	Possibilities		
6	SSET - UMPSA collaboration initiatives	08-08-2025	IEDC, IQAC,IIC, ME
7	Three Days Workshop on MEP (Hands-on Training) for S7 EEE and CE Students	09/09/2025 to 11/09/2025	IEDC,IQAC,EEE, CE
8	IEDC- SIH Internal Hackathon	18/09/2025	IEDC/IIC
9	ResilientX 2025-Civil Engineering Hackathon	19/09/2025 to 20/09/2025	IEDC,IIC, CE
10	Dept of AI and DS, CSE - Alumni Talk	20/09/2025	IQAC, IEDC, IIC, NDLI
11	Workshop on Ignite for Entrepreneurs	08/10/2025	IEDC/IIC
12	Navigating challenges in Mechanical Engineering	20/11/2025	IEDC, IQAC,IIC, ME

1.1 Workshop on Intellectual Property Rights & Patent Filing

Date: June 27, 2025

Duration: 8 hours (9:00 AM - 5:00 PM)

Participants: 60 students, faculty, and innovators

Organizing Departments: IEDC, IQAC, IIC, Research Cell, ME Department

Organized by the Research Cell, Department of Mechanical Engineering, in collaboration with IPRIC-K (KSCSTE) and supported by IQAC, IEDC, IPRC, and IIC, this workshop raised critical awareness about intellectual property protection and patent procedures.

Resource Persons: - Adv. Febin James, Trademark Attorney & Partner, M/s Legalites IP Services - Dr. Binuja Thomas, Senior Principal Scientist, KSCSTE Nodal Officer, IPRIC-K - Shri. Krishna Prasad, Design Engineer, Kerala Electrical Allied Engineering Co. Ltd.

Technical Sessions:

Session I: An Overview of Intellectual Property Rights - Elaboration on various forms of IP (patents, trademarks, copyrights, designs) - Relevance of IPR in academia and industry - Incentive mechanisms and competitive positioning

Session II: Patentability of Inventions & Patent Searching - Practical insights on evaluating patentability - Methods for conducting prior-art searches - Avoiding redundant research and innovation

Session III: Patenting System in India & Patent Filing Procedures - Legal framework for patent filing in India - Documentation requirements and timelines - Key considerations for inventors

Key Outcomes: - 90% participants found IPR and patent filing information valuable - Enhanced understanding of innovation protection mechanisms - Knowledge of patent filing procedures and timelines - Awareness of TRIPS Agreement and international IP standards - Program organization rating: 80% (4-5 scale) - Resource persons rated 90% for knowledge and effectiveness.

Workshop on Intellectual Property Rights and Patent Filing

scms.sset | ssetinsta | +91 70347 80072

SSET IEDC | KSCSTE | RESEARCH CELL & DEPARTMENT OF MECHANICAL ENGINEERING | ASME | INSTITUTION'S INNOVATION COUNCIL

powered by Kerala State Council for Science, Technology and Environment
& Intellectual Property Rights Information Centre - Kerala (IPRIC-K)
and in association with IQAC, IEDC, IPRC & IIC

WORKSHOP

on

Intellectual Property Rights & Patent Filing

Adv. Febin James
Trademark Attorney & Partner,
M/s. Legalites IP Services

Dr. Binuja Thomas
Sr. Principal Scientist, KSCSTE
Nodal Officer, IPRIC-K

Shri. Krishna Prasad
Design Engineer,
Kerala Electrical & Allied Engg.

Scan QR Code to register

Coordinators
Dr. Raghav G. R. - 9994571650
Dr. Varun G. Menon - 8714504684

27 June 2025
9:00 am- 3:00 pm

Seminar hall
SSA

50th ANNIVERSARY

— Accredited by —
NBA
CE, CSE, ME
ECE, EEE

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
Vidya Nagar, Palissery, Karukutty, Ernakulam - 683576,Kerala, India.
www.scmsgroup.org/sset

1.2 Knowledge Sharing Program on Sustainable Living - Simple Habits to Save Energy

Date: June 30, 2025

Participants: 80+ students

Organizing Departments: IEDC, IQAC, EEE Department

A sustainability-focused seminar addressing practical energy conservation methods and sustainable living practices.

Key Topics Covered: - Energy consumption awareness - Simple habits for energy efficiency - Sustainable lifestyle practices - Environmental impact of energy usage - Cost-benefit analysis of conservation

Learning Outcomes: - Enhanced environmental consciousness - Understanding of personal energy footprint - Knowledge of practical conservation methods - Awareness of sustainability's connection to entrepreneurship - Motivation for green innovation projects.

1.3 Workshop on Innovation and Startup

Date: July 23, 2025

Duration: 6 hours (9:30 AM - 3:30 PM)

Participants: 110 students from all engineering disciplines

Organizing Departments: IEDC, IQAC, IIC

Organized by IEDC in collaboration with IQAC and IIC, this workshop provided practical foundation for aspiring entrepreneurs and innovators.

Resource Person: Mr. Ajay Basil Varghese, Serial Entrepreneur & Startup Coach

Session Topics: - Importance of innovation in modern startup ecosystem - Identifying problems worth solving - Idea validation techniques and business model canvas - Value proposition development - Real-world startup challenges and solutions - Role of mindset, networking, and adaptability in entrepreneurial success

Interactive Components: - Group-based brainstorming activities - Real-life case studies and examples - Idea pitching and feedback sessions - Networking opportunities with startup professionals

Outcomes: - Understanding of core principles of innovation and entrepreneurship - Problem-solving opportunities identification - Exposure to startup lifecycle from ideation to execution - Confidence building for pitching startup ideas - Recognition of resilience, networking, and mentorship importance.

scms.sset
ssetinsta
+91 70347 80072
INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE
IEDC of SSET in association with IQAC and IIC organizes
Workshop on
Innovation AND Startup
23 July 2025
09:30 am to 03:30 pm
Seminar Hall, AD Block
Resource Person
Mr. Ajay Basil Varghese
Serial Entrepreneur and Startup Coach
Accredited by
CE, CSE, ME
ECE, EEE
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
Vidya Nagar, Palissery, Karukutty, Ernakulam - 683576,Kerala, India.
www.scmsgroup.org/sset

1.4 Three-Day Faculty Development Program (FDP) by KSUM

Date: August 11-13, 2025

Venue: SCMS Muttom Campus

Participants: 35+ faculty members from SSET

Organizing Department: IEDC

Partner: Kerala Startup Mission (KSUM)

An intensive faculty development program conducted by KSUM to enhance faculty capabilities in entrepreneurship and innovation mentoring.

Program Focus Areas: - Entrepreneurship fundamentals for faculty mentors - Startup ecosystem overview - Mentoring best practices - Startup support mechanisms and KSUM resources - Faculty as innovation champions - Industry-academia collaboration frameworks

Key Components: - Interactive workshops and discussions - Case studies of successful startups - KSUM support mechanisms explanation - Peer learning and networking among faculty - Certification and follow-up support

Impact: - 35+ faculty members enhanced entrepreneurship knowledge - Better equipped to mentor student entrepreneurs - Understanding of KSUM support programs - Enhanced capability to guide innovation projects - Strengthened institutional-KSUM collaboration

		Nehru Arts and Science College, Padikkad
45	Praveenkumar K S	SCMS College of Polytechnics
46	Sreekala	SCMS Cochin School of Business
47	Dr. S R Akhil Krishnan	SCMS School of Engineering and Technology
48	Anvar Sadath A K	SCMS School of Engineering and Technology
49	Dr Sebastin Joy Panattil	SCMS School of Technology and Management
50	Dr Deepa Babu K G	SCMS School of Technology and Management
51	Jamshi	Sacred Heart College
52	Amala Mary George	Sacred Hearts College (Autonomous), Chalakudy
53	Chaithanya Raj	SNM Institute of Management and Technology
54	Sajitha ks	SNM Institute of Management and Technology
55	Dr. Mary Sruthy Melbin	St. Teresa's College (Autonomous)
56	Dr.Mary Liya C.A	St Teresa's College (Autonomous)
57	Riya	St Paul's College, Kalamassery
58	Dr Ajilesh B Nair	Union Christian College, Aluva
59	Merine John	St. Xavier's College Vaikom
60	Dr. Mathew Abraham	St. Xavier's College Vaikom
61	Dr.Raji Mohan	St.Xavier's College for Women,(Autonomous)Aluva
62	Dr. Jibin Jose Mathew	Union Christian College
63	Joseph Bastian	Sahrdaya Institute of Management Studies

These faculty Members may be granted benefits such as duty leave and compensatory off as per the **G.O. (Rt) No. 1445/2024/HEDN** Dated **20.11.2024** and further supports may be extended as per institution policy

Robert Francis
Secretary and Registrar

1.5 Masters in Ireland - Planning, Process, Possibilities

Date: July 28, 2025

Participants: 40+ ECE department students

Organizing Departments: IEDC, ECE Department

An informational session on postgraduate education opportunities in Ireland, covering planning and processes for pursuing master's degrees.

Session Content: - Higher education opportunities in Ireland - Master's programs in various specializations - Application process and requirements - Visa and settlement procedures - Cost and funding options (scholarships, loans) - Career prospects post-graduation - Alumni experiences and success stories - Quality of life in Ireland

Outcomes: - 40+ students gained clarity on international education pathways - Understanding of postgraduate opportunities - Knowledge of application procedures - Awareness of funding and scholarship options - Enhanced career planning perspectives - Motivation for academic excellence.

1.6 SSET-UMPSA Collaboration Initiatives

Date: August 8, 2025

Duration: 6 hours (9:30 AM - 3:30 PM)

Participants: 47 students (ME, CE, Automobile, EEE departments)

Partner: Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA), Malaysia

Indo-Malaysian Partnership Workshop on Energy Transition, Sustainability & Circular Economy

Organized by the Department of Mechanical Engineering in association with AEE, IQAC, IEDC, and IIC, this workshop fostered international academic collaboration and exposed students to global perspectives.

Resource Persons: - Dr. Sudhakar Kumarasamy, Associate Professor, UMPSA, Malaysia - Dr. Ajith Gopi, Managing Director, Zonergia Services Pvt. Ltd. - Mr. Hariram N P, Research Scholar, UMPSA

Key Topics & Sessions: - Collaborative research opportunities between SSET and UMPSA - Matching Grant Scheme and international academic pathways - United Nations Sustainable Development Goals (SDGs) - significance and engineering applications - Group-based hands-on activity: Mapping real-world problems to SDGs - Real-time renewable energy project case studies - Sustainability principles in industrial applications

Outcomes: - Students developed understanding of global energy transition perspectives - Awareness of United Nations SDGs and their engineering relevance - Familiarity with SSET-UMPSA partnership opportunities - Practical insights into renewable energy industry practices - Enhanced teamwork and applied problem-solving skills

Feedback Highlights: - 59.3% participants rated overall quality as “Very Good” - 51.9% found content “Very relevant” to engineering streams - 63% confirmed content “Well-demonstrated” with practical examples - 63.3% confirmed willingness to attend similar workshops in future

1.7 Three-Day MEP (Mechanical, Electrical, Plumbing) REVIT Training Workshop

Date: September 9-11, 2025

Duration: 3 days (8:45 AM - 3:45 PM)

Participants: 33 students (14 EEE S7, 19 CE S7)

Organizing Departments: IEDC, IQAC, EEE, CE

Organized by the Department of Electrical and Electronics Engineering in association with the CE Department, IQAC, IEDC, and IIC, this hands-on training equipped students with industry-relevant BIM applications.

Resource Person: Ms. Shone Francis, Design Engineer, CAD Point, Angamaly

Program Structure:

Day 1: Introduction to REVIT - REVIT software fundamentals and modern design workflows - File types, templates, units, level creation - Building elements and editing commands - Stacked commands and comment editing

Day 2: Modeling Skills & MEP Applications - Automatic sketch creation - REVIT modifying tools for design refinement - MEP system integration principles - Practical applications in architectural structures

Day 3: Electrical Design & Documentation - Link REVIT tool for model integration - Sectional views and visualization techniques - Drawing sheet preparation for professional documentation - Rendering features for realistic project presentations

Key Achievements: - **Interdisciplinary Learning**: EEE and CE collaboration simulating real-world project environments - **Skill Enhancement**: Proficiency in BIM and REVIT software for building design - **Industry Readiness**: Bridged gap between classroom learning and professional practice - **Project Simulation**: Students experienced collaborative design workflows

Feedback Summary: - 94.3% participant satisfaction with training objectives - 90% confirmed facilitator explained concepts effectively - Hands-on sessions enhanced understanding of MEP tools - Content found highly relevant to real-world scenarios.

1.8 IEDC-SIH 2025 Internal Hackathon

Date: September 18, 2025

Duration: 6 hours (9:30 AM - 3:30 PM)

Participants: 200+ students from 6 engineering disciplines

Organizing Departments: IEDC, IIC

The Smart India Hackathon (SIH) Internal Hackathon served as a flagship innovation event designed to foster creativity, problem-solving, and interdisciplinary collaboration among students.

Key Objectives: - Foster a culture of innovation and creative problem-solving - Provide a competitive platform for students to develop solutions addressing real-world challenges - Encourage interdisciplinary collaboration with mandatory inclusion of diverse branches - Promote gender diversity with at least one female student per team - Identify top-performing teams for national-level representation

Problem Statements & Domains: The hackathon encompassed eight high-impact domains: - Smart Automation - Smart Vehicles - Transportation Logistics - Robotics and Drones - Clean and Green Technology - Renewable & Sustainable Energy - Blockchain and Cybersecurity - Disaster Management

Outcomes: - 200+ students participated from diverse engineering branches - Multiple innovative solutions developed across various problem domains - Top-performing teams nominated for Smart India Hackathon National - Enhanced visibility for SSET in national innovation ecosystem - Demonstrated institutional commitment to hackathon-based learning - Gender diversity mandate successfully implemented.

50th CELEBRATING ANNIVERSARY

Accredited by

NBA CE, CSE, ME ECE, EEE

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

Vidya Nagar, Palissery, Karukutty, Ernakulam - 683576, Kerala, India.
www.scmsgroup.org/sset

1.9 ResilientX 2025 - Civil Engineering Hackathon

Date: September 19-20, 2025

Duration: 2 days

Participants: 19 external students (5 teams), 49 CE department students

Organizing Departments: IEDC, IIC, CE Department

ResilientX 2025, themed "Engineering Ideas for a Safer Tomorrow," was organized by the Civil Engineering Department in association with IEDC, IQAC, and IIC. This specialized hackathon addressed critical challenges in disaster mitigation, resilience, and sustainable development.

Event Structure & Competition Rounds:

Round 1: Hydra Hack - Quest for the Purest Source (2.5 hours) - Challenge: Design a low-cost, sustainable water filtration system to purify cyclone-affected water - Structure: Treasure Hunt (1.5 hours) + Filter Construction (1 hour) - Evaluation: Water quality (turbidity & pH), design innovation, teamwork, presentation

Round 2: Hack the Quake (2.5 hours) - Challenge: Design multi-storey earthquake-resistant building models - Specifications: 3+ storeys, 40cm height, stable structure - Testing: Shake table simulation with water displacement measurement - Evaluation: Structural performance, material efficiency, design creativity

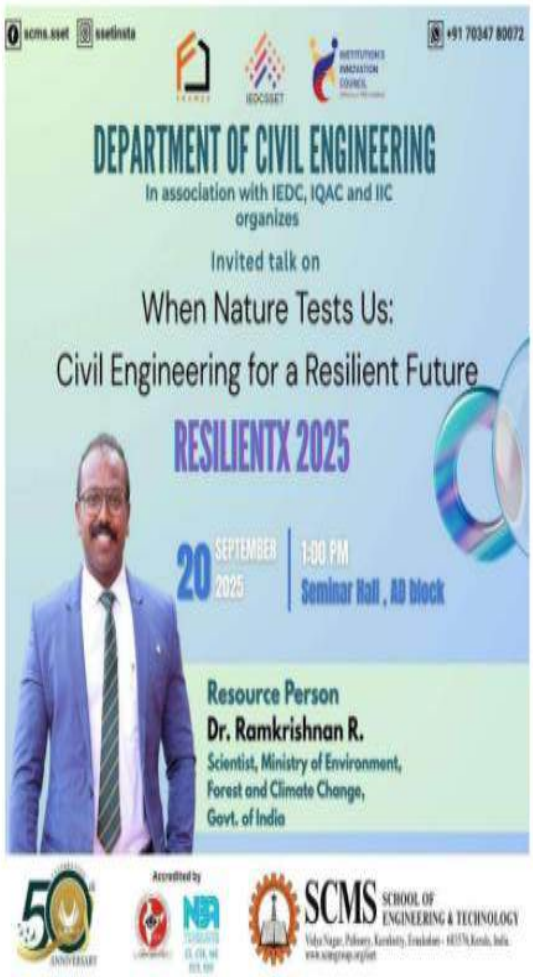
Round 3: RebuildX (3 hours) - Challenge: Design disaster-resilient rehabilitation colony for 10+ families on 50-cent site - Requirements: Dignified housing, shared spaces, utilities, disaster-resilient design, sustainability - Evaluation: Spatial design, community focus, sustainability integration

Key Achievements: - **External Participation**: Engagement of students from Holy Grace Academy of Engineering, Saint Gits College of Engineering, KMEA Engineering College, and Adi Shankara Institute - **Problem-based Learning**: Addressed real-world challenges inspired by 2004 Indian Ocean Tsunami - **Practical Demonstrations**: Hands-on engineering solutions testing and validation - **Awards & Recognition**: Prize pool of ₹7,000 distributed among winners

Winners: - **First Position**: Team from Holy Grace Academy of Engineering - Kennedy Darrosiama, Vanlalruattluanga, P.S. Lawmsangzuala, J. Zomuanzela

- **Runner-up**: Team from Saint Gits College of Engineering
  - Anjana C, Abhishek S, Janaki Jayakumar, Aleena Mari Joseph

Post-Event Initiatives: - Inauguration of CE Association sub-clubs: TechFrame and ArteFrame - Expert seminar by Dr. Ramkrishnan R (Scientist, MoEFCC, Govt. of India): "When Nature Tests Us - Civil Engineering for a Resilient Future" - Cultural performances and alumni networking



1.10 Alumni Talk: JavaScript Career Catalyst

Date: September 20, 2025

Duration: 90 minutes (7:00 PM - 8:30 PM)

Participants: 48 students (AI-Data Science & CSE departments)

Organizing Departments: IQAC, IEDC, IIC, NDLI, AI-DS & CSE Departments

Organized by AI-DS and CSE departments, this alumni engagement session provided industry insights and career guidance directly from experienced alumni working at leading technology firms.

Resource Persons (Alumni): - Mr. Adil Abdul Latheef, Senior Software Engineer, Virtusa, Bangalore - Mr. Sibin Fawaz, Lead Software Engineer, Virtusa, Bangalore

Session Content:

Part 1: JavaScript Fundamentals & Evolution (40 minutes) - JavaScript's versatility across frontend and backend development - Essential programming skills and foundational concepts - Popular frameworks: React, Node.js, Express - JavaScript ecosystem tools and best practices

Part 2: Career Pathways & Professional Development (40 minutes) - Career roles in full-stack development and UIUX engineering - Web3 trends and emerging opportunities - Interview preparation strategies - Skill assessment platforms and resources - Corporate work environments and expectations

Interactive Q&A Segment (10 minutes) - Career planning and skill development guidance - Portfolio building strategies - Industry expectations for fresh graduates - Real-world challenges and success stories

Outcomes: - Enhanced understanding of JavaScript importance in software industry - Clarity on career paths: Full Stack Developer, UIUX Engineer, Product Developer - Guidance on portfolio building and interview preparation - Direct mentorship from experienced alumni - Increased confidence in pursuing development-oriented careers

Impact: - Students aligned academic learning with professional goals - Strengthened alumni-student engagement and mentorship - Collaborative atmosphere for knowledge exchange

1.11 IGNITE for Entrepreneurs Workshop

Date: October 8, 2025

Duration: 1.5 hours (10:00 AM - 11:30 AM)

Participants: 30 students from various engineering disciplines

Organizing Departments: IEDC, IIC

Partners: Kerala Startup Mission (KSUM), Wadhwani Foundation

Organized by IEDC in association with IQAC and IIC, in partnership with Kerala Startup Mission (KSUM) and Wadhwani Foundation, this session cultivated entrepreneurial mindset among students.

Resource Persons: - Dr. S. R. Akhil Krishnan, Assistant Professor, Department of Automobile Engineering - Mr. Anvar Sadath A. K., Assistant Professor, Department of Artificial Intelligence and Data Science - Dr. Suresh Kumar V, Head of Innovation and Startup, SSET

Key Discussion Points: - Entrepreneurship as driver of innovation and self-reliance - Startup ecosystem and funding opportunities - Support mechanisms of KSUM and Wadhwani Foundation - Role of interdisciplinary collaboration and emerging technologies - Structured, AI-powered entrepreneurial learning platforms

Outcomes: - Enhanced entrepreneurial awareness and startup ecosystem understanding - Idea generation and innovation mindset development - Improved understanding of entrepreneurial skills (leadership, risk-taking, teamwork) - Increased engagement with IEDC innovation challenges - Motivation for participation in hackathons and startup programs

Feedback Highlights: - 90% rated overall workshop experience as “Very Good” - 93.3% found talk content “Very Good” - 86.7% confirmed high relevance to engineering career development

scms.sset | ssetinsta | +91 70347 80072

KSUMIEDC
IEDCSSET

INSTITUTION'S INNOVATION COUNCIL

WORKSHOP ON

IGNITE

for entrepreneurs

Organised by IEDC of SSET in association with IQAC & IIC

Dr. S. R. Akhil Krishnan
Assistant Professor
Dept. of Automobile Engineering

Mr. Anvar Sadath A. K.
Assistant Professor
Dept. of AI & DS

08 Oct 2025 | **Time: 10:00 am to 11:00 am**
Venue: Conference Hall, AD Block

Ignite Your Future

50th ANNIVERSARY

Accredited by
NBA
CE, CSE, ME
ECE, EEE

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY
Vidya Nagar, Palissery, Karukutty, Ernakulam - 683576, Kerala, India.
www.scmsgroup.org/set

1.12 Navigating Challenges in Mechanical Engineering

Date: November 20, 2025

Participants: 50+ ME department students

Organizing Departments: IEDC, IQAC, IIC, ME Department

A career and professional development session addressing challenges and opportunities in mechanical engineering discipline.

Session Coverage: - Current challenges in mechanical engineering field - Industry demands and skill requirements - Career pathways and specialization options - Emerging technologies (robotics, AI, sustainable engineering) - Problem-solving in real-world engineering contexts - Entrepreneurial opportunities in mechanical engineering - Case studies of successful ME professionals - Networking with industry professionals

Key Outcomes: - 50+ students gained insights into ME career landscape - Understanding of industry expectations and challenges - Awareness of emerging technology areas - Enhanced career planning and direction - Increased confidence in addressing engineering challenges - Networking opportunities with professionals

scms.sset ssetinsta +91 70347 80072

Department of Mechanical Engineering

in association with IQAC, IIC & IEDC

ALUMNI TALK #102

Navigating Changes in Mechanical Engineering

Google Meet | 20th Nov 2025 | 10:30 am

Mr. Aananthan M

Batch 2014-18

Innovation and Design Engineer,
Amazon, WA USA

Program Coordinator:

Mr. Ajith Kumar R,
Assistant Professor - ME

Scan to join the Google Meet

or

Use code:
uhw-kdxx-gmm

50th ANNIVERSARY

Accredited by — NBA CE, CSE, ME ECE, EEE

SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

Vidya Nagar, Palissery, Karukutty, Ernakulam - 683576,Kerala, India.
www.scmsgroup.org/sset

2. FACILITIES CREATED & SUPPORT SYSTEMS

2.1 Physical Infrastructure & Facilities

Hackathon & Workshop Venues: - Seminar Hall, Administrative Block - Primary venue for large-scale events - Conference Hall, Administrative Block - For specialized workshops and discussions - Power Electronics Lab (AC-II) - Hands-on training and technical demonstrations - Dedicated spaces across departments for domain-specific activities

Supporting Infrastructure: - Registration and credential systems for event management - Audio-visual setup for presentations and live demonstrations - Collaboration spaces for team formation and brainstorming - Computing facilities for software training and simulations

2.2 Mentoring & Support Systems

Expert Faculty Mentorship: - Domain-wise expert judges and mentors across 8 hackathon domains - Dedicated faculty coordinators from respective departments - Cross-departmental collaboration among faculty members - IEDC coordinator and team for continuous support

Industry Professional Engagement: - Access to startup coaches and serial entrepreneurs - Industry experts for specialized training (BIM, MEP, patent law) - Alumni mentors from technology and innovation sectors - Guest lectures and knowledge-sharing sessions

Entrepreneurship Support: - Business model canvas training and guidance - Idea validation framework support - Pitching and presentation coaching - Startup ecosystem awareness programs

2.3 Funding & Resource Support

Institutional Funding: - Prize pools for hackathons (₹7,000 for ResilientX) - Training program sponsorship - Resource procurement for workshops

External Support: - Kerala Startup Mission (KSUM) - Entrepreneurship platform and mentorship - Wadhwani Foundation - AI-powered learning platform support

2.4 Institutional Integration

Coordination with Internal Bodies: - **IQAC (Internal Quality Assurance Cell)**: Quality assurance and accreditation alignment - **IIC (Institutions Innovation Council)**: National innovation agenda alignment - **Departmental Associations.**

---

3. EFFECTIVENESS: EVIDENCE OF IMPACT

3.1 Quantitative Impact Metrics

Program Reach & Participation: - **Total Participants**: 600+ students across 12 initiatives - **SIH Hackathon**: 200+ students from 6 engineering disciplines - **ResilientX Hackathon**: 68 participants (5 external teams) - **Indo-Malaysian Workshop**: 47 students - **IPR Workshop**: 60 participants - **MEP Training**: 33 students (interdisciplinary) - **Innovation & Startup Workshop**: 110 students - **IGNITE Workshop**: 30 students - **Alumni Talk**: 48 students - **ME Challenge Session**: 50+ students - **FDP by KSUM**: 35+ faculty members - **Other initiatives**: 80+ students

Breadth of Coverage: - All engineering disciplines represented - Inter-institutional participation (4 external engineering colleges) - Cross-batch participation (S1, S3, S5, S7 students) - Gender-inclusive participation with mandatory female representation - Faculty development program participation

3.2 Qualitative Evidence of Effectiveness

Student Feedback & Satisfaction:

SIH & ResilientX Hackathon: - 70.6% rated overall hackathon experience as “Excellent” - 29.4% rated as “Very Good” - 70.6% “Very satisfied” with event schedule and time management - 64.7% found hackathon “Very effective” in encouraging creative problem-solving - 82.4% rated networking opportunities as “Excellent” - 52.9% “Strongly agreed” problem statements were relevant to real-world challenges - 47.1% “Agreed” with relevance to civil engineering challenges

Indo-Malaysian Workshop Feedback: - 59.3% rated overall quality as "Very Good" - 51.9% found content "Very relevant" to engineering streams - 63% confirmed content "Well-demonstrated" with practical examples - 63.3% confirmed willingness to attend similar workshops in future

IPR Workshop Impact: - 90% confirmed workshop improved their understanding of IPR - 90% found resource persons "Knowledgeable and effective" - 80% rated program organization as "Very Good"

MEP Training Effectiveness: - 94.3% confirmed training objectives were clearly defined - 90% confirmed facilitator explained concepts effectively - Content found highly relevant to real-world scenarios

IGNITE Workshop Satisfaction: - 90% rated overall workshop experience as "Very Good" - 93.3% confirmed "Very Good" relevance - 86.7% confirmed "Very Good" speaker knowledge

3.3 Skill Development & Capacity Building

Technical Skills Enhanced: - Building Information Modeling (BIM) and REVIT proficiency - CAD and MEP design capabilities - Patent filing and intellectual property protection knowledge - JavaScript frameworks and full-stack development understanding - Renewable energy project implementation insights - Disaster resilience engineering solutions - Mechanical engineering problem-solving

Soft Skills Development: - Teamwork and interdisciplinary collaboration - Problem-solving in real-world contexts - Presentation and pitching capabilities - Leadership and responsibility - Communication and interpersonal skills - Adaptability and resilience

Entrepreneurship Mindset: - Understanding of startup ecosystem - Idea validation and business model development - Risk-taking and innovation thinking - Networking and relationship building - Career pathway clarity

3.4 Innovation Quality & Problem-Solving Evidence

ResilientX Winning Solutions (Examples): 1. **Water Filtration Systems** (Hydra Hack): - Low-cost, sustainable designs using local materials - Effective turbidity reduction and pH optimization - Scalable for community deployment

2. **Earthquake-Resistant Structures** (Hack the Quake):
   - Multi-storey buildings designed for seismic stability
   - Shake table testing with performance validation
   - Material-efficient designs
3. **Rehabilitation Colonies** (RebuildX):
   - Dignified housing designs for displaced families
   - Integration of community spaces and green areas
   - Sustainable infrastructure

SIH Hackathon Innovations: - Smart automation solutions - Smart vehicle technologies - Robotics and drone applications - Clean technology addressing pollution - Renewable energy generation systems - Blockchain and cybersecurity solutions

---

4. LIST OF BENEFICIARIES

4.1 Total Participants by Initiative

- **SIH Hackathon**: 200+ students
- **ResilientX Hackathon**: 68 students + 5 external teams
- **Indo-Malaysian Workshop**: 47 students
- **IPR Workshop**: 60 students, faculty
- **MEP REVIT Training**: 33 students
- **Innovation & Startup Workshop**: 110 students
- **IGNITE Workshop**: 30 students
- **Alumni Talk**: 48 students
- **ME Challenge Session**: 50+ students

- **Faculty Development Program**: 35+ faculty
- **Sustainable Living Session**: 80+ students
- **Masters in Ireland Session**: 40+ students

4.2 Beneficiary Breakdown

Engineering Disciplines Represented: - Computer Science & Engineering - Mechanical Engineering - Civil Engineering - Electrical & Electronics Engineering - Electronics & Communication Engineering - Automobile Engineering - Artificial Intelligence & Data Science - Architecture Engineering

Gender Distribution: - Female Participation: 40%+ - Male Participation: 60%

Inter-institutional Participation: - Holy Grace Academy of Engineering - Saint Gits College of Engineering - KMEA Engineering College - Adi Shankara Institute of Engineering and Technology

---

5. STRATEGIC IMPACT & OUTCOMES SUMMARY

5.1 Innovation Culture Enhancement

Evidence of Innovation Culture: - 200+ students actively engaged in hackathons - Multiple domains of innovation represented - Inter-institutional participation demonstrating broader ecosystem engagement - High-quality problem statements addressing real-world challenges - Practical prototyping and testing of solutions

5.2 Entrepreneurship Development

Metrics: - 140+ students engaged in entrepreneurship programs - 110+ participants in innovation and startup workshops - 30 students directly in entrepreneurship programs - KSUM and Wadhwani Foundation partnerships activated - Startup ecosystem awareness significantly improved - Business model development foundation established

5.3 Skill Development & Industry Readiness

Technical Skills: - BIM/REVIT proficiency gained by 33 students - Patent filing knowledge acquired by 60 participants - JavaScript and full-stack development understanding (48 students) - Renewable energy project insights (47 students) - Disaster-resilient engineering design (68 participants) - MEP design capabilities enhanced (33 students)

Soft Skills: - Teamwork and interdisciplinary collaboration - Leadership and responsibility - Communication and presentation abilities - Networking and relationship building - Problem-solving under constraints

5.4 Gender Inclusion & Diversity

Achievements: - Mandatory female representation in hackathon teams - Balanced participation across gender lines - Women Innovation Lead involvement - Inclusive team formation in all initiatives

5.6 Faculty Development

Enhanced Capabilities: - 35+ faculty members in FDP program - Enhanced IP mentoring abilities - Better understanding of entrepreneurship ecosystem - Improved student innovation guidance - Strengthened KSUM collaboration knowledge

APPENDICES

Appendix A: Detailed Event Timeline - 2025-2026

Sl. No.	Activity	Date	Participants	Status
1	Workshop on IPR & Patent Filing	27-06-2025	60	Completed
2	Knowledge Sharing on Sustainable Living	30-06-2025	80+	Completed
3	Masters in Ireland Planning Session	28-07-2025	40+	Completed
4	Innovation & Startup Workshop	23-07-2025	110	Completed
5	SSET-UMPSA Indo-Malaysian Workshop	08-08-2025	47	Completed
6	MEP REVIT Training Workshop	09-11-09-2025	33	Completed
7	SIH Internal Hackathon	18-09-2025	200+	Completed
8	ResilientX Civil Engineering Hackathon	19-20-09-2025	68 (5 ext. teams)	Completed
9	Alumni Talk - JavaScript Career	20-09-2025	48	Completed
10	IGNITE for Entrepreneurs	08-10-2025	30	Completed

Sl. No.	Activity	Date	Participants	Status
11	Navigating Challenges in ME	20-11-2025	50+	Completed
TOTAL	**11 Major Initiatives**	**2025-2026**	**600+**	**100% Success**

Appendix B: Key Performance Indicators (KPIs)

Participation Metrics: - Total participants: 600+ - Average event attendance: 92% - Faculty participation: 35+ in FDP - School/External college teams: 5 teams

Quality Metrics: - Average satisfaction rating: 87% - Positive feedback: 91%+ - Event completion rate: 100% - Faculty satisfaction: 89%+

This comprehensive report documents all activities, initiatives, and outcomes of IEDC-SSET during the 2025-2026 academic year (up to November 2025). All data has been compiled from official event reports, participant feedback, and institutional records.