

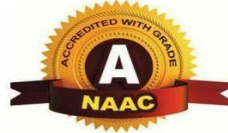
# DHANALAKSHMI SRINIVASAN ENGINEERING COLLEGE

(AUTONOMOUS)

(Approved by AICTE & Affiliated to Anna University, Chennai)  
Accredited with 'A' Grade by NAAC, Accredited by TCS  
Accredited by NBA with BME, ECE & EEE

**PERAMBALUR - 621 212. Tamil Nadu.**

website : [www.dsengg.ac.in](http://www.dsengg.ac.in)



**INSTITUTION'S  
INNOVATION  
COUNCIL**  
(Ministry of Education Initiative)

## Annual Report

### Dhanalakshmi Srinivasan Engineering College

#### **About Institute:**

Dhanalakshmi Srinivasan Engineering College has been a pillar of technical education for 25 years, dedicated to providing quality education and uplifting rural youth. Our institution was granted autonomous status by the UGC in 2020, accredited with an 'A' Grade by NAAC, and holds NBA accreditation for the departments of Aero, BME, CSE, ECE, EEE, IT and Mech. We offer a diverse array of 16 Undergraduate and 6 Postgraduate programs, including cutting-edge fields like Artificial Intelligence & Data Science, and Robotics & Automation. Our mission is to empower future leaders, innovators, and scholars to make impactful contributions to society. To transform the Campus into Innovation Hub, Research Laboratories were established in all the Departments with state of art infrastructure and Hi-tech equipment. Highly Competent faculty with Industry and Academic experience caters the needs of students on curriculum which helps them to meet the global challenges and the needs of employers. Every year, about 90% of students are placed in reputed industries and the DSEC also encourages the spirit of entrepreneurship and empowers students to share ideas

#### **Vision and Mission of Institution Innovation Council at Dhanalakshmi Srinivasan Engineering College**

##### **Vision:**

To foster a vibrant innovation ecosystem that nurtures creativity, entrepreneurial spirit,

and problem-solving skills among students and faculty, aligning with national innovation and startup initiatives.

**Mission:**

- To inculcate design thinking, innovation, and entrepreneurship culture across all departments.
- To facilitate the translation of innovative ideas into feasible prototypes, products, or startups.
- To build strong linkages between academia, industry, and the community for collaborative innovation.
- To motivate students to participate in national and institutional-level innovation challenges and project exhibitions.

**Journey of IIC at the Institute**

The Institution's Innovation Council (IIC) at *Dhanalakshmi Srinivasan Engineering College, Perambalur*, was established in 2022 under the aegis of the Ministry of Education's Innovation Cell (MIC).

Since its inception, the IIC has organized numerous activities promoting innovation, entrepreneurship, and research-driven learning.

- In Academic Year 2022–23, the institute received a 2-Star Rating from MIC, recognizing its consistent efforts in establishing an innovation-oriented environment.
- Building upon this foundation, during Academic Year 2023–24, the IIC achieved a 3-Star Rating, reflecting its enhanced performance in innovation-based training, prototype development, and interdepartmental collaboration.
- The journey showcases the institute's continuous commitment to nurturing innovators, supporting student startups, and integrating innovation with academic learning.

## **Entrepreneurship Development Cell (EDC)**

A dedicated Entrepreneurship Development Cell (EDC) functions as the primary platform for nurturing entrepreneurial aspirations.

Key features include:

- Co-working spaces with Wi-Fi
- Mentoring support from faculty, alumni, and industry experts
- Awareness programs on business models, startup funding, and patent filing
- Networking sessions with entrepreneurs, innovators, and incubators

The EDC has played a crucial role in building entrepreneurial confidence among students and encouraging them to participate in startup-related activities.

## **Launch of IEDC iHUB NexGen Innovation Club association with AIC Raise**

On 05 February 2024, the college inaugurated the IEDC iHUB NexGen Innovation Club, a dedicated incubation and innovation development hub.

The centre focuses on:

- Early-stage idea nurturing
- Prototype development
- Student innovation internships
- Startup awareness and pre-incubation activities

Student interns received offer letters during the inauguration and have since been actively involved in scouting innovative ideas and supporting student teams.

## **Technical Supporting Facilities**

To strengthen innovation and prototype development, the institution has established state-of-the-art facilities that support testing, experimentation, and research.

Together, these facilities offer end-to-end support—from idea generation to prototype testing.

<b>Testing Laboratory</b>	Universal Testing Machine (UTM), Hardness Tester, Oscilloscope, Surface Roughness Tester, Pin on Disc Tribometer, Axial Trinocular Research Metallurgical Microscope, Spectrum analyzer, DSO
<b>Prototyping Lab</b>	3D Printers, CNC, Soldering Station, Computerized bottom Pouring type Stir casting machine, MIG Welding machine
<b>ED Cell</b>	Smart TV/Projector, Whiteboard, High-speed Wi-Fi
<b>R&amp;D and Innovation Centre</b>	High-end PCs, Software Tools (MATLAB/Simulink, Tanner, IE3D), IoT Kits, Sensors, GPU, Autoclaves, Spectrophotometers, Laminar airflow chambers, genetic engineering research with PCR machine, climate-smart agriculture with tools like hydraulic conductivity meters, nitrogen analyzers, Hot Air Oven, Gel electrophoresis Apparatus, Elisa Reader, Digital Spectrophotometer, Brukefield syscometer

### **Awareness and Innovation Promotion Activities**

DSEC conducts regular training programs, competitions, and awareness activities to cultivate an innovative mindset among students.

Major activities include:

- Innovation bootcamps
- Startup awareness workshops
- Ideation competitions
- Design thinking sessions
- Project expos
- Entrepreneur interactions and guest lectures

These programs have significantly improved students' ability to develop market-oriented solutions.

Number of events conducted: 42

Number of Innovation Ambassadors:18

Number of Students benefitted on attending the events:2436

### **Participation in Government Innovation & Funding Programs**

The institution actively encourages participation in state and national-level schemes such as:

#### **MSME Idea Hackathon:**

- **MSME 4.0 Hackathon:** 13 submissions, 2 projects funded worth ₹23 lakhs
- **MSME 5.0 Hackathon:** 88 ideas submitted, 40 shortlisted

#### **StartupTN**

- Proposal submitted to Setting up of centre of excellence in Agri Sector

#### **YUKTI Innovation Portal**

- 5 projects submitted for national visibility and 1 project selected for national level.

#### **Smart India Hackathon (SIH)**

- 45 ideas submitted across various problem statements and 1 idea got selected.

These participations have enhanced students' competitive skills and innovation readiness.

### **Incubation, Internships & Industry Collaboration**

The institution maintains an active collaboration with **AIC Raise Incubation Centre**, which serves as a nodal partner for:

- Internships in innovation and startup management
- Mentoring for prototype development
- Support for business model validation
- Exposure to real-world startup ecosystems

Students gain practical experience in innovation execution, technology validation, and entrepreneurial planning.

### **Innovation Output & Achievements**

Over the last two years, DSEC has recorded tangible outputs:

- 25+ ideas generated by students and faculty
- 6 prototypes developed
- 2 student/faculty startups established
- Technology transfer completed in one project
- Grants worth ₹23 lakhs secured via MSME funding

### **Notable Innovations Developed**

1. Multi-sensor Air Pollution Detection System
2. Marine-based Human Rescue Robot
3. IoT-enabled Baby Monitoring System
4. Bioactive compound extraction research from *Phyllanthus emblica*
5. IoT-based Accident Alert System

These innovations showcase interdisciplinary application and societal benefit.

### **Student and Faculty Success Stories**

- Dr. B. Karthiga & Dr. D. Karthikeyan guided MSME-funded innovative projects.
- Ms. Vishpriya (EEE) won ₹10,000 for her innovation at *Niral Thiruvizha*.
- Mr. Vignesh (CSE) launched his startup NeuroAI.
- Dr. R. Gopi founded RG Consultancy, offering professional engineering solutions.

Such achievements portray the institution's commitment to fostering an innovation-driven learning ecosystem.

### **Overall Institutional Impact**

Over the last two years, DSEC has successfully:

- Integrated innovation and entrepreneurship across departments
- Strengthened incubation and pre-incubation facilities
- Increased student participation in national innovation missions
- Secured government funding for student-led projects
- Encouraged students to convert prototypes into startup opportunities

DSEC now stands as a growing innovation hub, supporting students from idea generation to startup launch, contributing to regional and national innovation ecosystems.