



Concept Note for NIDAR 2026-27

National Innovation Challenge for Drone Application & Research Under the SwaYaan initiative of MeitY, the Government of India

Background:

The National Innovation Challenge for Drone Application & Research 2025–26 (NIDAR 2025–26) is organised by Drone Federation India (DFI) in collaboration with the Ministry of Electronics and Information Technology (MeitY) under Project SwaYaan, as a national platform for student-led innovation in drone technologies.

The first edition of NIDAR was launched by the Secretary, MeitY, in the presence of the Chairman, AICTE, and leading industry stakeholders, and attracted **participation from 3,448 students across 22 States and 4 Union Territories, spanning 109 cities.**

The problem statements of the 1st Edition of the competition focused on **Disaster Management and Precision Agriculture** and successfully demonstrated the importance of hands-on innovation, indigenous capability development, and real-world problem-solving through drones.

93 teams qualified for the Grand Finale in the 1st Edition, culminating in the recognition of 24 winners, who received prizes worth ₹40 lakh and several other goodies.

NIDAR 2026-27:

Building on the success and national response, this year's competition is envisioned as a **larger national innovation platform to advance autonomous drone systems, indigenous avionics, autonomous navigation, and critical drone components.**

The **next phase of drone innovation will be shaped not only by airframes but also by autonomy stacks, embedded avionics, flight controllers, secure communication, mission software, and indigenous electronic subsystems.**

With the rapid growth of India's drone ecosystem and the increasing strategic importance of autonomous systems, **there is a strong need to encourage student-led innovation in areas such as GPS-denied navigation, collaborative drone operations, indigenous flight-control systems, and core electronic design.**

Objectives of NIDAR 2026-27

- To create a national innovation platform for student-led research and development in autonomous drone systems and indigenous avionics.

- To promote innovation in collaborative drone systems, GPS-denied navigation, indoor autonomy, and mission planning technologies.
- To encourage indigenous design and development of drone flight controllers, processors, and critical electronic subsystems.
- To strengthen collaboration between academia, government, defence, and industry.
- To provide students with hands-on exposure to real-world operational and strategic challenges in drone operations.
- To support India's vision of technological self-reliance and indigenous capability development in emerging technology sectors.

Mission 1 - NIDAR RescueSwarm

Under this challenge, teams will be required to develop **two or more fully autonomous collaborative drones capable of identifying survivors, geotagging locations, and delivering medical or survival kits within a disaster-affected area without relying on external communication networks**. The challenge focuses on multi-drone coordination, autonomous mission execution, collaborative scouting, and aid delivery in time-critical emergency scenarios.

Mission 2 - NIDAR AirMouse

This challenge focuses on **autonomous indoor drone navigation in GPS-denied environments**. Teams will **develop autonomous aerial systems capable of navigating confined indoor spaces, generating 2D or 3D maps, detecting survivors, and tagging survivor locations inside damaged or collapsed structures**. The challenge promotes innovation in indoor autonomy, mapping, obstacle avoidance, and localisation technologies for disaster response and industrial inspection applications.

Mission 3: NIDAR VEGAPilot

Under this challenge, teams will be required to **design and develop an indigenous drone flight controller and autopilot system built around the VEGA Processor platform**. The challenge aims to encourage innovation in integrating indigenous processors, autopilot architectures, embedded systems, mission planning, and reliable drone control systems, all using **non-Chinese electronic components**. Teams will demonstrate stable flight, mission execution, telemetry integration, and autonomous operations on standard multirotor platforms.

As part of the selection process, teams will submit detailed technical proposals and participate in online technical evaluations before a jury panel. Based on this evaluation, only the **top 100 teams across the country will be shortlisted and provided with two VEGA Processors** each for development, testing, and final integration.

This mission is expected to significantly strengthen India's indigenous drone electronics ecosystem and advance domestic capabilities in flight control systems, embedded avionics, and semiconductor-linked drone technologies.



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सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF
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INFORMATION TECHNOLOGY



NIDAR

NATIONAL INNOVATION CHALLENGE FOR
DRONE APPLICATION AND RESEARCH

REGISTER NOW FOR INDIA'S LARGEST STUDENT DRONE COMPETITION

Mission 1

RescueSwarm



Build autonomous drones. Find survivors. Deliver critical aid.

Mission 2

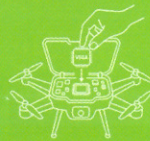
AirMouse



Build an indoor navigation drone. Map the unknown. Find survivors.

Mission 3

VEGAPilot



Build indigenous drone autopilot powered by India's VEGA Processor.

Win prizes worth

INR 65+ LAKHS

Get mentorship, industry access, incubation opportunities, and national recognition.

REGISTER NOW



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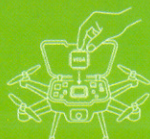
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