



Manekshaw Centre, IIT JODHPUR
In Association With
Konark Corps, Indian Army

PROUDLY PRESENTS

FLYING WINGS

NATIONAL LEVEL HACKATHON 2026

Registration Start Date
1 March 2026

Registration End Date
15 March 2026



FOR WEBSITE





MISSION BRIEF

- Flying Wings is a national defence innovation hackathon focused on aerial systems and passive RF/EW intelligence.
- It aims to validate operational concepts, stress-test field proto-types, and fast-track industry-to-defence pathways.

THE GOLDEN TICKET

Student & Academy Category

- To validate your product to defence-grade benchmarks.
- For students to interact with army-aligned evaluators industries, startups and researchers.
- To learn and access collaborations.
- For visibility and potential procurement of recognition from army and experts.

JOINING REQUIREMENTS

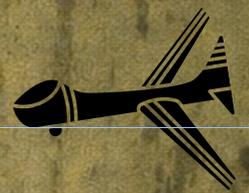
- Undergraduates, postgraduates, doctoral students.
- Teams of up to 3 members.
- Multi-disciplinary teams encouraged.

REWARDS

- ₹1,00,000 cash prize for top student team for each operation.
- Potential invitations to collaborate on MCOENSSR projects.



CHALLENGE ZONES



BUILD • NAVIGATE • DETECT

Three operations testing low-cost airframes, GPS-denied autonomy, and passive RF/EW intelligence. Deliver testable, unclassified prototypes.

OPS 1 - CARDBOARD DRONE

Forge a battle-ready cardboard UAV to carry a 2 kg payload in nose cone.

Range ≥ 10 km

Speed : 50-60 km/h

Payload : 2 kg at nose

Airframe $\geq 70\%$ cardboard

Durability : Survive 2 m drop

Empty Weight <5 kg

Wing Span < 2.5m

OPS 2 - GPS-DENIED NAVIGATION

Develop a flight capable of navigating autonomously without onboard GPS reception.

Flight Time : ≥ 15 min

Range : ≥ 1000 m

- ✓ Initial coordinates to be provided at start
- ✓ Navigate 5 assigned destinations
- ✓ Autonomous Return-to-Home

Allowed Sensors

Vision • LiDAR • IMU • Odometry • UWB

OPS 3 - DRONE IN EW ENVIRONMENT

Choose One Track

Track 1

Track 2

Track 3

Spectrum Intelligence

Direction Finding

Anti-UAS Early Warning

RF detection, classification & signature library

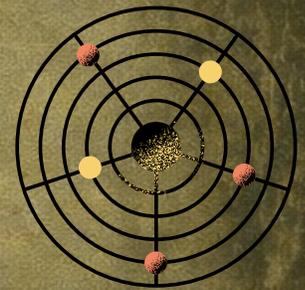
Passive AOA/TDOA bearing estimation

Detect UAS RF activity & raise alerts ≤ 2 sec

$P_d \geq 0.90$ | $F_1 \geq 0.80$

RMS bearing error $\leq 5^\circ$ for SNR ≥ 10 dB
RMS bearing error $\leq 10^\circ$ for SNR 0-10 dB

($F_1 \geq 0.85$)



Deliverables

- Docker prototype
- JSON/SQLite logs
- Minimal UI/CLI
- Technical brief
- Short explanation

Student & Academy Category

THE COMPETITION MARCH!

- Round 1: This will be a virtual round, demo, proof of concept runnable artifacts – 7+7+1 minutes (10 slides presentation + Q&A + changeover).
- Round 2: Live demos, bench tests, awards, site acceptance

TIMELINES

- Round 1 (virtual) – 3 – 4 April 2026
- Round 2 (IIT Jodhpur campus) – 17 – 18 July 2026



FEEES & REGISTRATION

Participant type	Round 1	Round 2
Students/ Academicians	₹7000/ team	₹20,000*/ team

*Includes 3 team members accomodation and food at hostel

SUPPORT & RESOURCES

Visit the website for more details and regular updates

CONTACT US

Event Co-ordinator :

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TO REGISTER

Student & Academy Category