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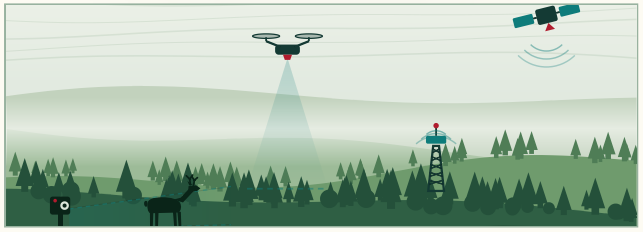
Five-Day National Training Programme

on

Frontier Technologies in Forest and Wildlife Management

(05-09 October 2026)

Organised under the **National Programme for Training of Scientists and Technologists Working in Government Sector (NPTS&T)** and its **Women Component Plan (WCP)**, Department of Science and Technology, Government of India



IMPORTANT DATES

Last date for application submission	**03 Oct 2026**
Reporting at IIFM campus	**04 Oct 2026**
Programme	**05-09 Oct 2026**

ORGANISED BY

Indian Institute of Forest Management, Bhopal

An Autonomous Institute of the Ministry of Environment, Forest and Climate Change, Government of India

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BACKGROUND

India's forests and wildlife are under simultaneous pressure from land-use change, climate variability, invasive species, fire and expanding human-wildlife interfaces. At the same time, the technological landscape available to forest and wildlife managers has been transformed. Unmanned aerial systems, hyperspectral and LiDAR sensing, synthetic aperture radar, artificial intelligence and machine learning, environmental DNA, bioacoustics, satellite telemetry, cloud-based geospatial computing and IoT sensor networks have collectively moved from experimental use to operational deployment.

The bottleneck today is no longer the availability of technology but the readiness of institutions to use it. Scientists and technologists in government departments are increasingly expected to design, commission, validate and interpret technology-driven monitoring systems, to evaluate vendor claims and datasets, and to convert data into defensible management decisions and policy advice. This programme responds to that need, grounded throughout in Indian datasets, Indian institutional realities and Indian field conditions.

OBJECTIVES

- ✓ Familiarise participants with the current frontier of technologies applicable to forest and wildlife management, and with the scientific principles that underlie them.
- ✓ Build practical, hands-on competence in geospatial analytics, drone-based survey, AI/ML-assisted image and audio analysis, and molecular and sensor-based monitoring tools.
- ✓ Develop the capacity to critically evaluate data quality, accuracy, uncertainty and limitations before technology outputs are used in management or policy decisions.
- ✓ Enable participants to design technology-enabled monitoring protocols appropriate to their own institutional mandate and resource setting.
- ✓ Strengthen the visibility, technical confidence and professional networks of women scientists and technologists in this domain.
- ✓ Create a continuing peer network across departments, states and disciplines for collaboration beyond the programme.

ELIGIBILITY

Only Scientists and Technologists (Group A officers) working in Government organizations are eligible.

COURSE MODULE

- ❖ **Day 1 · Technology landscape and geospatial foundations.** Remote sensing fundamentals, spectral behaviour of vegetation, Indian earth-observation assets and open data, projections and data quality. *Hands-on: a working spatial database for a forest division.*
- ❖ **Day 2 · Advanced sensing: UAV, LiDAR, hyperspectral, SAR.** Platforms, payloads, flight planning and regulation; photogrammetry and structure-from-motion; canopy height and biomass; species discrimination; change detection. *Hands-on: UAV demonstration, orthomosaics and canopy models.*
- ❖ **Day 3 · AI, machine learning and cloud analytics.** Computer vision for camera-trap classification, passive acoustic monitoring, cloud geospatial computing, habitat suitability modelling. *Hands-on: train and validate a classifier; multi-temporal land-cover change.*
- ❖ **Day 4 · Wildlife monitoring and molecular frontiers.** Satellite telemetry and movement analytics, eDNA and metabarcoding, conservation genomics and wildlife forensics, conflict early warning, digital patrolling. *Field exercise at Van Vihar National Park.*
- ❖ **Day 5 · Fire, IoT, governance and application.** Fire risk modelling and IoT early warning, digital MRV for forest carbon, traceability and legality assurance, decision support systems. *Participant presentations and valedictory session.*

Pedagogy: a working laboratory rather than a lecture series. Expert sessions, live hardware and software demonstrations, computer-lab exercises, a field exercise and Indian case discussion. Faculty from IIFM, national research institutes, technology organisations and senior sector practitioners.

DURATION

05-09 October 2026 (Five Days)

No Registration Fee

Boarding, lodging and meals on the IIFM campus are provided free of cost for the full five days. Participants arrange their own travel. Full attendance is mandatory for the award of the certificate.

APPLICATION PROCEDURE

- ❖ Complete the online application form at **https://training.dst.gov.in/**
- ❖ Click on the above link.
- ❖ Click on "Register Now" and register yourself as an Applicant.
- ❖ After successful registration, log in only as an Applicant using your credentials.
- ❖ Complete and submit the application form.

PROGRAMME DIRECTOR

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Raja Bhoj Airport 10.5 km; Bhopal Junction and Rani Kamlapati stations 7 km.