



International Conference on Autonomous Aerial Vehicles ICAAV - 2026



On 20-21 Aug 2026

Jointly Organized by
ADE-DRDO & Design Division-AeSI

Call for Papers

About ICAAV seminar

International Conference on Autonomous Air Vehicles-Technologies & Applications is a bi-annual event jointly conducted by Design Division of Aeronautical Society of India and Aeronautical Development Establishment (DRDO), Bangalore for UAV community to share their knowledge and expertise. This event focuses on technology developments & end applications related to UAVs for both civil and military domains. The event will be conducted **in hybrid mode with in-person and online participation**.

Event Date: 20th & 21st August 2026 at Bengaluru

Note: Venue details will be shared in due course. Online link will be sent to the registered members attending virtually.

Areas of Focus

- Swarms and Net-centric warfare
- Artificial Intelligence/Machine Learning for Autonomous UAV
- Path planning, Navigation and Control
- Technologies and Perspectives for tactical operational scenarios
- Human Machine Teaming
- Digital Twin / Model Based System Engineering
- Emerging Technologies for UAV Propulsion & Energy Storage
- Airspace Integration of UAV
- Defence - Industry - Academia collaboration
- Emerging Technologies for UAV Payloads, Weapons & Integration

SUBMISSION GUIDELINES

- *Submission of Extended Abstract of 4-6 pages written in English are required through conference webpage*
- *All manuscripts will be reviewed double-blind for technical content & scope*
- *Papers should be in word file only adhering to single column Springer Nature Format*
- *Submit paper at: www.ddaesi.in/icaav-2026 or icaav.review@gmail.com*



Registration fees can be paid through NEFT/ IMPS/ DD

A/c Name : Design Division, AeSI

A/c No. : 36693960168

Bank Address: SBI, ADE Branch, New Thippasandra Post,
Bengaluru - 560075

A/c Type : Current Account

IFSC Code : SBIN0006538

Categories	Off-line	Online
Industry / R&D Labs	Rs. 10000/-	Rs. 5000/-
Academia/ Startups/ MSME	Rs. 8000/-	Rs. 4000/-
Students	Rs. 4000/-	Rs. 2000/-
Foreign Delegates	\$ 200	--

Registration: 01 July 2026

For Registration contact: Shri. Saumya B Thakur, Sc-F, ADE

Mobile : +91 9448206504 , Landline : +91 80 2505 8928,

Fax : +91 80 2528 3188, eMail: icaav.registration@gmail.com.

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Patrons

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Treasurer

Main Theme - Autonomy and Air Superiority

Themes/ Topics

Sub-Topics

Swarms and Net-centric warfare

- Secure Communication
- Manned-Unmanned Teaming (MUM-T)
- Group Autonomy
- Fault-tolerant distributed network
- Robust & Fault-tolerant control Design for Next generation Combat UAVs

Emerging Technologies for UAV Propulsion & Energy Storage

- Distributed Propulsion
- Advanced jet engines
- Hybrid-Electric & All-Electric Propulsion: Challenges & Opportunities
- Dense energy storage

Airspace integration of UAV

- Sense and avoid technologies
- Multi-sensor data Fusion
- Geo-fencing

Digital Twin/ Model Based System Engineering (MBSE)

- Framework for Model-based Design of Complex System like UAV
- System Thinking Approach for the Complex System Design - Applicable to UAV System
- Process framework for UAV system design
- Virtual Testing of Aircraft Structures
- Degradation Modeling
- Real-time digital twin and hardware-in-loop integration
- Sustainable lifecycle technologies for aircraft
- Digital Twins for Flight Dynamics & Mission-level Control

Path planning, Navigation and Control

- Flight dynamics modelling, simulation and control (UAV)
- Aerial Simultaneous Localization and Mapping
- Autonomous target Engagement & Real-time Guidance Laws
- Intelligent Path Planning & Obstacle Avoidance
- Autonomous Flight dynamics & Adaptive Control in contested environments
- AI-Driven Flight Dynamics modeling, Control, Guidance
- Navigation for Autonomous operations in GNSS-Denied Environment
- Autonomous Landing
- Artificial intelligence for Predictive Guidance & Autonomous Decision-making

Artificial intelligence/ Machine learning for Autonomous UAV

- AI-driven Autonomy - Advantages and Trade-offs
- Physics-informed Machine Learning for surrogate aerodynamics model
- AI-accelerated conceptual aero-structure design/ MDO
- AI/ ML for Integrated Vehicle Health Management
- Fault detection, isolation and Prognostics/ predictive maintenance
- Airworthiness Certification for AI in AAV

Technologies and Perspectives for tactical operational scenarios

- Low-observable technologies for aircraft
- Battlefield-Resilient Autonomy
- UAVs in multi-domain Battlefield: Challenges & Opportunities
- Combat missions of UAVs
- Combat UAV requirements & Architecture for Multi-Domain Operations

Defence - Industry - Academia collaboration

- Industry Capabilities in the Development of Technologies for UAV System
- Innovative drone technologies and their patents
- Role of R&D organization in the UAV system Capability & Technologies development

Human Machine Teaming

- Human-Machine collaboration on the future Battlefield
- Human Interaction Design for UAV Operator's Interfaces
- Operator's Workload Assessment
- Human Factor Integration (HFI) and Human Reliability Analysis (HRA)
- Virtual, Wearable Cockpit/ Control Stations

Emerging Technologies for UAV Payloads, Weapons and integration

- Distributed Radar using aerial drones/UAVs, Cognitive Radar, Photonic signal processing
- Quantum Sensors for UAVs - Current status and future prospects
- Multi-sensor data Fusion for mission effectiveness
- Miniaturized sensors for perception modules
- Automatic Target Detection, Recognition, Identification, localization
- Weapon delivery performance and release techniques
- Drone weaponization/ Drones as kinetic weapons

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17 August 20–21, 2026 | Bengaluru, India | Hybrid Participation | <https://www.ddaesi.in/icaav-2026>

Submission Phases and Guidelines

Authors must navigate three distinct submission phases via the **Microsoft CMT** portal. Please note the specific length requirements for each stage:

Initial Submission: Extended Abstract

- **Start Date:** 25 March 2026, **End Date:** 25 April 2026
- **Length:** 4 - 6 Pages
- **Format:** Must follow the Springer template
- **Submission Type:** PDF Only.
- **Review Type:** Double-Blind (Anonymized PDF). Remove all author names, affiliations, and identifying acknowledgments.
- **Purpose:** Technical scope and preliminary merit assessment.

Post-Acceptance of Abstract: Full-Length Paper

- **Start Date:** 10 May 2026, **End Date:** 10 June 2026
- **Length:** 8–12 pages.
- **Format:** Must follow the Springer template
- **Submission Type:** PDF Only.
- **Eligibility:** Only authors whose Extended Abstracts were accepted are eligible to submit a Full Paper.
- **Review Type:** Double-Blind (Anonymized PDF). Remove all author names, affiliations, and identifying acknowledgments.
- **Purpose:** Comprehensive peer review of methodology, results, and conclusions.

Final Submission: Camera-Ready Paper

- **Start Date:** 30 June 2026, **End Date:** 15 July 2026
- **Length:** 8–12 pages.
- **Format:** Must follow the Springer template
- **Submission Type:** Source Files (LaTeX/Word).
- **Eligibility:** Only authors whose **Full-Length Paper** has been formally accepted following peer review are eligible to submit the Camera-Ready Paper.
- At this stage, authors **must** include:
 - Full names of all authors and their respective academic/official affiliations.
 - Contact emails (typically for the corresponding author).
 - Formal acknowledgments (funding agencies, lab support, etc.).
 - ORCID IDs (recommended for Springer indexing).

Instructions to Authors

- All papers must be submitted electronically via the **Microsoft CMT** portal.
 - **Note:** The Microsoft CMT service is provided free of charge by Microsoft, including all Azure cloud hosting and software support.
- ICAAV 2026 uses a **double-blind review process**. Initial submissions must be anonymized:
 - Remove all author names and affiliations from the title page.
 - Omit acknowledgments that identify your lab or funding.
 - Use neutral references (e.g., "As discussed in [12]..." instead of "In our previous work [12]...").
- Must use the official **Springer proceedings templates** (LaTeX or Word).
- A strict limit of **15% Similarity Index** (excluding references) is enforced.
- "No Podium, No Paper." At least one author must complete registration by **July 15, 2026**, for the paper to be included in the program and proceedings.
- The use of Large Language Models (e.g., ChatGPT) for generating manuscript content is **prohibited**.
- References should be numbered in the order they appear in the text, enclosed in square brackets (e.g., [1], [2]).
- Every reference must include the author(s), title, journal/conference name, volume/issue, page numbers, and Year. Include the Digital Object Identifier (DOI) for all journal articles to ensure easy verification by reviewers.
- Avoid referencing Wikipedia or generic websites. Focus on peer-reviewed journals, conference proceedings, and official technical reports.
- Use Microsoft Equation Editor or LaTeX (preferred) for all mathematical expressions. Do not submit equations as images/screenshots.
- Define every variable the first time it appears in the text. Use standard symbols.
- All axes in graphs must be labeled with the variable name and its unit in parentheses, e.g., Velocity (m/s) or Pressure (Pa).
- Use high-contrast colors and line types (solid, dashed, dotted) so that graphs are readable even if printed in grayscale. Include a clear legend within the plot area if multiple data sets are shown.
- If a figure is reproduced from a previous work, the original source must be cited in the caption.
- Use only SI Units (System International). If industry-specific units (like knots or feet) are necessary for context, provide the SI equivalent in parentheses.

For any technical issues with the CMT portal or queries regarding the review process, please reach out to: icaav.review@gmail.com

Submission Portal: [Managed via Microsoft CMT](#)

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Submission Procedure through Microsoft CMT

Step I: Account Registration and Login

1. **Access the Portal:** Navigate to the ICAAV 2026 CMT link: <https://cmt3.research.microsoft.com/ICAAV2026>
2. **Create an Account:** If you do not have a CMT account, click on "**Register.**"
* *Note:* It is highly recommended to use your **official institutional/organizational email** for professional verification.
3. **Complete Profile:** Fill in your name, affiliation, country and other relevant information.

Step II: Starting a New Submission

1. **Select Role:** Ensure your role is set to "**Author**" in the top navigation bar.
2. **Create Submission:** Click the "+ **Create New Submission**" button.
3. **Title and Abstract:**
 - a. **Title:** Enter the full title of your paper.
 - b. **Abstract:** Paste your abstract. This text is used for initial reviewer matching.

Step III: Starting a New Submission

1. **Primary Author:** Your details will be populated automatically.
2. **Add Co-Authors:** Use the "**Add**" button to include co-authors by entering their email addresses.
 - a. *Crucial:* All co-authors must be added at this stage to be included in the official program. You can reorder authors using the arrow keys.
3. **Subject Areas:** Select one **Primary** subject area (e.g., *Swarms, AI/ML, Path Planning*). This is vital for assigning the correct subject matter experts for Review.

Step IV: File Upload (The Manuscript)

1. **Format:** Ensure your file is a searchable PDF
2. Check that no names, affiliations, or identifying headers are visible in the PDF.
3. **Upload:** Drag and drop your file into the upload box.

Step V: Mandatory Submission Questions

Keywords: Enter a minimum of **3 keywords** that describe your research methodology and domain.

- **Originality:** Confirming the work is original and not under review elsewhere.
- **Anonymity Check:** Confirming the PDF is anonymized.
- **Similarity Index:** Acknowledging the **15% Turnitin limit**.
- **AI Policy:** Certifying the work is not LLM-generated.

Select "I agree" for all

Step VI: Confirmation and Tracking

1. **Click Submit,** Once saved, you will receive a unique Paper ID (e.g., Paper ID 42). Please quote this in all future correspondence.
2. **Email Confirmation:** You and all co-authors will receive an automated confirmation email from CMT.
3. You may edit your submission (update files or metadata) any time before the April 25, 2026 deadline.

For any technical issues with the CMT portal or queries regarding the review process,
please reach out to: icaav.review@gmail.com