



**2nd International Conference on
Advanced Air Mobility Systems
ICAAMS-2**



**A Joint Initiative
(VFS and RWSI)**

**VFS AUSTRALIA CHAPTER
ROTARY WING SOCIETY OF INDIA**

Presenting

ICAAMS-2

Conference & Workshop Program and Sponsorships

4-6 Dec 24

James Cook University Campus

Singapore

Supported by





A joint initiative by Vertical Flight Society (VFS) International Asia Australia Region and Rotary Wing Society of India (RWSI) under support of VFS International (Australia Chapter)

It pioneers a holistic forum on
Advanced Air Mobility System (AAMS)

The **I**nternational **C**onference on **A**dvanced **A**ir **M**obility **S**ystem
ICAAMS - 2

The forum will address all subdisciplines of Aerospace and Aviation. Coverage is from design development to operations, product support, regulations and on to airspace management.

The ICAAMS-2 has been limited to a “Single Session and Workshop” format to enhance closer interaction during the three-day program.

The keynote presentations and workshop have been specifically designed to address four strategic issues and challenges of an AAMS

ICAAMS -2 is an ongoing opportunity to **Set-the-Scene** for the ICAAMS series of forums in the Asia Australia Region
So, join in as a delegate or sponsor to be part of it.

Organising Committee



Wednesday - 4 Dec 24
(Tentative based on Abstracts)

Time	Activity	Presenter/Authors
0745-0800	All Keynote and Paper Presenters Briefing	Ananth Srinivas, Coordinator-in-Chief
0800-0815	Briefing - ICAAMS-2	James Wang, Deputy Chair ICAAMS 2
0815-0830	Welcome Address to Country, and University	TBA
0830-0845	Introductory Address - ICAAMS Series	Arvind Sinha, Convenor-in-Chief
0845-0900	Opening Address – ICCAMS 2	Vijaya Kumar Mudubagilu, Chair ICAAMS 1
0900-0930	VFS and RWSI Address	Executive Director VFS and President RWSI
0930-1000	Melbourne University and IISc Joint Study Report	Jason Monty and SN Omkar
1000- 1030	Keynote 1– Technology Status and Updates	TBA
1030-1100	Tea/Coffee/Drinks/Networking	
Session 1 – Operations and Airspace Management <i>Chair: Salim Mousallam, GE Aerospace, UAE</i>		
1100-1130	Application of AI to UTM Problems	Shubeeksh Kumaran, Omkar
1130-1200	Trajectory Planning for Obstacle Avoidance in Precision Agricultural Drone Operations	Shubeeksh Kumaran, Omkar
1200-1230	Airspace Management of Autonomous UAS Operations	AK Sachdev
1230-1330	Lunch & Networking	
1330-1400	Keynote 2 – Safety Regulations Status Updates	TBA
Session 2 – Airworthiness and Regulations -1 <i>Chair: TBA</i>		
1400-1430	Developing Regulatory and Ecosystem for Advanced Air Mobility Systems in India	Peeush Kumar
1430-1500	Design & Development of indigenous Helicopters – Challenges & Strategies of Project Management	Kumaraswamy
1500-1530	Tea/Coffee/Drinks/Networking	
Session 3 – Aerodynamics and Design 1 <i>Chair: TBA</i>		
1530-1600	Design of Performance Testing Process for Agricultural UAVs in on-Campus UAV Sandbox	Jitlada Aumpirom
1600-1630	Study on Effect of Folding of Rotor Blades on Elastomeric Bearing in an Articulated Rotor System	K. Subramanian
1630-1645	Vote of Thanks	BS Singh Deo, Technical Chair
1645-1650	Day 1 – Closing Remarks	James Wang, Deputy Chair ICAAMS 2
1930-2000	Keynote 3 - Advanced Air Mobility - Way Ahead	James Wang, <i>Nanyang University, Singapore</i>
1845-2215	Conference and RWSI & VFS Banquet & Awards	

Wednesday - 4 Dec 24
(Parallel Sessions - P)
(Tentative based on Abstracts)

Session 1P – Structures 2		
<i>Chair: TBA</i>		
1130-1200	Advanced Drone-based Bridge Inspection: A Focus on Crack Detection	Srinivasan Siddhamoorthy
1200-1230	A Fundamental FE Modeling Approach for the Drop Test Simulation Analysis of Quadcopter (UAV) & CFD analysis of Quadcopter blades.	Amit Kumar Lodha
1230-1330	Lunch & Networking	
1330-1400	Keynote 2 – Safety Regulation Status Updates	TBA
Session 2P – Systems 2		
<i>Chair: TBA</i>		
1400-1430	Design, Modelling and Simulation of a UAV- Mounted Gun Platform	Shobhit Sharma and SN Omkar
1430-1500	Autopilot Coupling for Terrain based Navigation (TBN) – Feasibility and Prospects for Manned Rotorcrafts	Karuna Tomar
1500-1530	Tea/Coffee/Drinks/Networking	

Thursday - 5 Dec 24
(Tentative based on Abstracts)

Time	Activity	Presenter/Authors
0755-0800	Day 2- Conference Introductory Briefing	Vijaya Kumar Mudubagilu, Chair ICAAMS-2
0800--0845	Keynote 3– Research & Innovation Status Updates	JVR Prasad Georgia Tech
Session 4 –Systems 1 Chair: TBA		
0845-0915	A Generalized Methodology for UAV Digital Twin Development	Himanshu Meena and SN Omkar
0915-0945	Lightweight Armour Protection for Helicopters Operating in Naxal-Affected Area	Prem Singh
0945-1015	Dynamic Inversion Flight Control Laws for Autonomous Conversion of Tilt-Rotor/Wing Aircraft	Umberto Saetti
1015-1045	Tea/Coffee/Drinks/Networking	
Session 5– Aerodynamics and Design 2 Chair: TBA		
1045-1115	An Efficient Inverse Aerodynamic Design Method for Rotor Sections	Lakshmi Sankar
1115-1145	Selection and optimization of Transmission System configuration of Helicopters	Bhattacharya
1145-1215	Computational Study for High- Efficiency eVTOL Proprotor Design.	Issareephat Kanishthanonda
12-15-1315	Lunch and Networking	
1315-1345	Keynote 4 – Airspace Management- Joint Updates	To be advised
Session 6 –Structures 1 Chair: TBA		
0845-0915	Structural Optimization of eVTOL airframes	Dominik Schwin
0915-0945	Fatigue life of Helicopter Components A comparative study on theory and test estimates	Jayachandran Warriar
1445-1515	Tea/Coffee/Drinks/Networking	
Session 7 – Airworthiness and Regulations -2 Chair: TBA		
1515-1545	Design, Testing and Certification Challenges in Development of Rotorcraft Flight Control & Utility Hydraulic Actuators	N K Agarwal
1545-1615	DC Starter Generator System Ideation and Realisation for Rotarywing Application with Novel Qualification Approach	Ashish Kumar Shrivastava
1615-1645	Conference Panel Discussions	Industry, Academia, Regulator & Independent
1645-1700	Vote of Thanks	BS Singh Deo, Technical Chair
1700-1715	Day 2 – Closing Address	Vijaya Kumar Mudubagilu, Chair

Workshop

Enhancing Future VTOL (AAM) usage in the Region

The Workshop aims to provide a platform to all stakeholders from the field of research & development to manufacturers, regulators, operators, and other leaders in the industry to discuss the present status of limited use of the helicopters in the Asia Australia region and its associated issues and challenges.

As future Advanced Air Mobility (AAM) aircraft are likely to share the airspace with helicopters and are likely to be operated under similar regulations, the present problems facing the helicopter industry are likely to be carried forward to future AAM operations. The Workshop will discuss how we can ensure the smooth induction and operationalization of the new platforms while ensuring that the regulatory and operational hurdles are overcome to allow AAM to fulfill its promise as a gamechanger for society.

The Workshop will also highlight the global status of the efforts by various stakeholders in AAM. This includes the design and development, standards & certification, airspace management and operationalization of the AAM platforms. The Workshop will also discuss the challenges which the industry is likely to face as we embrace new concepts and technology.

The outcome of the Workshop will help generate ideas to develop a generic "AAM Roadmap" for the region in the immediate future by the relevant authorities to enhance the usage of not only its present helicopter fleet, but also the expected introduction of AAM platforms, by customization of the roadmap.

Time	Activity	Presenter/Authors
0900-0915	Workshop Welcome Address	Vijaya Kumar Mudubagilu, Chair ICAAMS-2
0915-0930	Workshop Introductory Briefing	Mike Hirschberg, Director Strategy VFS
0930-1030	Workshop Session 1	
1030-1100	Tea/Coffee/Drinks Break	
1100-1200	Workshop Session 2	
1200-1245	Meetings and Lunch	
1245-1330	Workshop Panel Discussions	Mike Hirschberg, Director Strategy VFS
1330-1500	VFS/RWSI Meetings	
1500-1530	Tea/Coffee/Drinks Break	

CONFERENCE BANQUET AND AWARDS

VFS Australia Chapter and Rotary Wing Society of India

Wednesday - 4 Dec 24: Evening

Time	Activity	Presenter/Organiser
1845-1915	Welcome Drinks	Conference Organising Team
1915-1930	VFS and RWSI - History and Status Video	VFS and RWSI
1930-2000	Keynote 3 - Advanced Air Mobility - Way Ahead	James Wang, <i>Nanyang University, Singapore</i>
2000-2030	Course 1 – Entrees/Snacks	Officers Mess Staff
2030-2100	VFS and RWSI Awards	VFS and RWSI
2100-2130	Course 2 - Dinner	Officers Mess Staff
2130-2145	ICAAMS 2 to ICAAMS 3 - Handing Taking Over	Singapore to Thailand
2145-2215	Course 3 - Desert and Networking	Officers Mess Staff/Delegates



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Organising Team



Convenor-in-Chief	: Arvind Sinha, <i>Melbourne University, Australia</i>
Chair	: Vijaya Kumar Mudubagilu, <i>Rotary Wing Society of India, India</i>
Deputy Chair	: James Wang, <i>Nanyang Tech University, Singapore</i>
Technical Chair Aerospace	: KC Wong, <i>Vertical Flight Society International, Australia</i>
Technical Chair Aviation	: BS Singh Deo, <i>Rotary Wing Society of India, India</i>
Executive Committee	: AS Butola, <i>Rotary Wing Society of India, India</i> : BS Singh Deo, <i>Rotary Wing Society of India, India</i> : Vijaya Kumar Mudubagilu, <i>Rotary Wing Society of India, India</i> : Arvind Sinha, <i>Vertical Flight Society International, Australia Chap</i> : Robert Hood, <i>Vertical Flight Society International, Australia Chap</i>
Industry Advisors	: V Sadagopan, <i>Former CEO, Helicopter Complex, HAL, India</i> : R K Narang, <i>Author, Drone and Aviation Policy Analyst, India.</i> : Aman Johri, <i>Jatayu Unmanned Technologies Private Ltd, India</i>
Technical Review Subcommittee	: KC Wong, <i>Sydney University, Australia</i> : Raman Singh, <i>Monash University, Australia</i> : JVR Prasad, <i>Georgia Tech, USA</i> : Farhan Gandhi, <i>Rensselaer Polytechnic Institute, USA</i> : James Wang, <i>Nanyang Tech University, Singapore</i> : Auraluck Pichitkul, <i>Suranaree University, Thailand</i> : Wan Mazlina, <i>Universiti Teknologi Mara, Malaysia</i> : Yasutada Tanabe, <i>Japan Aerospace Exploration Agency, Japan</i> : Sang Joon Shin, <i>Seoul National University, South Korea</i> : Salim Mousallam, <i>GE Aerospace, UAE</i> : C Venkatesan, <i>Indian Institute of Technology, Jodhpur, India</i> : Abhishek, <i>Indian Institute of Technology, Kanpur, India</i> : Senthil Murugan, <i>Indian Institute of Technology, Madras, India</i> : S N Omkar, <i>Indian Institute of Science, Bengaluru, India</i> : Suresh Sundaram, <i>Indian Institute of Science, Bengaluru, India</i> : Prashant K R, <i>Rotary Wing R & D Centre, HAL, Bengaluru, India</i>
Coordinator-in-Chief	: Ananth Srinivas, <i>Vertical Flight Society International, India Chap</i>
Secretariate	: Kalpana Dhar, <i>Rotary Wing Society of India, India</i> : Betty Chen, <i>Vertical Flight Society International, USA</i> : Rajat Misra, <i>Rotary Wing Society of India, India</i>



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Delegates Registrations Sponsorship Opportunities



Delegates Registrations

Rates	VFS/RWSI Member	Non-Member
Regular Attendee	S\$425	S\$540
Speaker, Government, or Military	S\$400	S\$515
Fully retired or full-time student	S\$275	Must enrol in VFS/RWSI membership

Registration includes coffee breaks, lunches, social & presentation materials. Non-member registration fees include a one-year VFS membership.

Sponsorship levels/events

	Platinum	Gold	Silver	Lunch/Dinner	Tea per day	Advertisement
US\$	7,000 inclusive of tax	4,500 inclusive of tax	3,000 inclusive of tax	3000 inclusive of tax	1,000 inclusive of tax	1,000 inclusive of tax

Sponsorships benefits

	Platinum	Gold	Silver	Lunch or Dinner	Tea
Free Delegates at the Event	20	15	10	10	5
Corporate Logo on Delegate Folder	✓	✓	✓	✓	✓
Corporate Logo on Conference Brochure	✓	✓	✓		
Corporate Logo on Conference Hall Screen	✓	✓	✓	✓	✓
Corporate Logo on Delegate Name Badges	✓	✓			
Corporate Logo on Thank You Sponsors Panel	✓	✓	✓	✓	✓
Acknowledgment at Lunch/Dinner Venue	✓	✓		✓	
Acknowledgment at Tea Venue	✓	✓			✓
Colour Advertisement in Conference Brochure	1 Page	1 Page	½ Page	½ Page	½ Page
Signages in Reception Area	✓	✓			

Contact to process Sponsorships:

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