

AAV-2022- SESSION SUMMARY

Session	Date	Time	THEME	Chairman
	6 Jan 2022	8:30 to 9:30	Registration	
1	6 Jan 2022	9:30 to 10:45	Inaugural session & Keynote address	
2	6 Jan 2022	11:15 to 12:55	Autonomous Technologies for UAV	Mr Vasanth Sastry, Sc G, ADE
3	6 Jan 2022	13:55 to 15:35	Technology, Applications and concept of operation of UAVs	Ms Sudha Rani, Sc G, ADE
4	6 Jan 2022	16:00 – 18:05	UAV Technology Development	Mr Subramanian V, Sc G, ADE
5	7 Jan 2022	9:30 to 11:15	UAV Design and Development	Mr Manjunath, Sc G, ADE
6	7 Jan 2022	11:30 to 13:10	Future Technologies	Ms Veena Dixit, Sc G , ADE
7	7 Jan 2022	14:10 – 15:50	UAV application and Digital Technology for UAV Development	Ms Asha Garg, Sc G, ADE
8	7 Jan 2022	15:50 –16:45	Panel Discussion & Concluding session	

AAV-2022- Inaugural Function

- 09:30 Invocation & Lamp Lighting
- 09:40 Welcome Address & Overview of Seminar
Shri R. Chandrasekaran, Sc 'G' & Convener AAV-2022
- 09:45 Address by Dr Kota Harinaraya, Chairman, DD-AeSI
- 09:50 Address by Shri Y Dilip, OS & Director, ADE
- 09:55 Address by Chief Guest
Dr Tessy Thomas , DS & Director General (Aeronautical Systems)
- 10:05 Key note address by Prof M Vidyasagar
Reinforcement Learning for path planning in autonomous Vehicles
- 10:35 Vote of Thanks by Vadivelan, Sc-F & Co-Convener AAV-2022
- 10:40 High Tea

AAV-2022- TECHNICAL SESSIONS

Date : 06 Jan 2022 Time : 09:30-18:05 Hrs

Session	Time (in hrs)	Speaker(s)	Topic/Subject	Online / In-person
Session-01: Inaugural session	9:30 to 10:45	Inaugural function		In-person
	10:05 to 10:35	Prof. M Vidya Sagar, IITG	Reinforcement Learning for autonomous Vehicles	Online
	10:45 – 11:15	High Tea		
Session-02: Autonomous Technologies for UAV	11:15 to 11:40	Ms Veena Dixit, Sc 'G' ADE	Flight Control Systems for Autonomous flight of UAV	In-person
	11:40 to 12:05	Dr Arshad Jamal, Sc F, CAIR	Applications of Small Intelligent Unmanned Aerial System	In-person
	12:05 to 12:30	Dr. Amit Kumar Tripathi Dr. Niranjana Kumar Sura & Dr Amitabh Saraf	Approach to Development of Automatic Takeoff and Landing (ATOL) Technologies for Fighter Aircraft	In-person
	12:30 to 12:55	Ms Sharmila, Sc E, ADE	Autonomous Landing of MALE UAV	In-person
	12:55 to 13:55	Lunch		
Session-03 Technology, Applications and concept of operation of UAVs	13:55 to 14:20	Gp Capt Arun Malhotra, GD Ops IAF PMT, ADA	Concept of operation of Autonomous Vehicles	In-person
	14:20 to 14:45	Dr. Devanandham Henry	The value of adopting a Systems Engineering approach during UAV design and development	In-person

	14:45 to 15:10	Prof. Santosh Ansumali, JNCASR	Aerodynamic Simulation of unmanned Aerial Vehicles using Lattice Boltzmann method.	In-person
	15:10 to 15:35	Prof Sathya Narayana Chakravarthy, IITM	Applications and Design features of eVTOL aircraft	Online
	15:35 to 16:00	Tea		
Session-04: UAV Technology Development	16:00 – 16:25	Dr L Venkata Krishnan, NAL	The CSIR-High Altitude Aircraft Program	Online
	16:25 – 16:50	Mr Sameer Joshi, Newspace Research & Technologies	Swarm UAVs - Gamechangers over future battlefield	In-person
	16:50 – 17:15	Mr. Pritam Ashutosh, Edall Systems	Development of High- Altitude VTOL Cargo Drone	In-person
	17:15 – 17:40	David W Casbeer	Control and Optimization as a Foundation for Multi- UAV Coordination	Online
	17:40-18:05	Dr Rajneesh K Singh	Role of high-fidelity flight simulators for UAV autonomy development	Online

AAV-2022- TECHNICAL SESSIONS

Date : 07 Jan 2022 Time : 09:30- 17:00 Hrs

Session	Time (in hrs)	Speaker	Topic/Subject	Online / In-person
Session-05: UAV Design and Development	9:30 to 10:00	Dr S Venugopal, Director, ADE	Autonomous Aerial Vehicles- Development Perspective for Present and Future	In-person
	10:00 to 10:25	Prof Abhishek, IIT, Kanpur	Design and Autonomy Aspects of a Small-Scale Unmanned Compound Helicopter	Online
	10:25 to 10:50	Prof RK Pant, IIT Bombay	Design of Autonomous Lighter- than-Air systems	Online
	10:50 to 11:15	Shri K Selvaraj, Sc G ADE	Wing Design Technology for HALE UAVs	In-person
	11:15 to 11:30	Tea		
Session-06: Future Technologies	11:30 to 11:55	Shri Jagannath Naik Dir, CHESS	Anti-Drone System and Technology in future warfare: Implementation, Challenges and Prospectives	Online
	11:55 to 12:20	Shri Krishan Lal, DEAL	Datalink Technologies: Present and future	Online
	12:20 to 12:45	Prof P Raja Lakshmi, IIT Hyderabad	Lidar based aerial Navigation systems	Online
	12:45 – 13:10	Dr L Ravi Kumar, MSG, URSC, ISRO	Swarm UAV cooperative decentralized control with obstacle avoidance	Online

	13:10 to 14:10	Lunch		
Session-07: UAV application and Digital Technology for UAV Development	14:10 – 14:35	Cmdr. TV Sunil, Commodore (Naval Air Staff)	UAV andUCAV requirements and applications from Naval Perspective	Online
	14:35 to 15:00	Lt. Col Arun Sharma, GS01, Aviation 10	UAV requirements from Army perspective	Online
	15:00 –15:25	Kiran Jacob & Umashankar G	Accelerating UAV development through Model-based & Data- Driven engineering	In-person
	15:25 –15:50	Mr. Amit Agarwal, Ansys	Accelerating UAV product development and operations with Digital technology.	Online
Session-08 Panel Discussion & Concluding session	15:50 –16:45	Panel Discussion <ul style="list-style-type: none"> • Synergy between Design, Production and User agency to realize UAV • Technology areas UAV developers have to focus to increase the autonomy level of UAV Concluding session Felicitation of Sponsors		
	16:45 – 17:00	Tea & Snacks		

Panel Discussion

Panel Discussion & Concluding session	Moderator	Dr Kota Harinarayana, SERB Distinguished fellow, CSIR-NAL & Chairman, DD-AeSI
	Members	<ol style="list-style-type: none">1. Vice Adm. Raman Puri, PVSM, AVSM, VSM2. Prof Sudhakar, IITB (Retd)3. Dr Subrata Rakshit, OS & Director CAIR4. Shri Y Dilip, OS& Director, ADE5. Dr Ravi Kiran, Director Defence and Aerospace, Dassault Systems6. Gp Capt Modak, PMT, ADE7. Shri Laxmesh BH, VP & Head-Missiles & Aerospace Business – L&T Defence
	Theme	<ol style="list-style-type: none">1. Synergy between Design, Production and User agency to realize UAV2. Technology areas UAV developers have to focus to increase the autonomy level of UAV