

AERO INDIA 2013 - INTERNATIONAL SEMINAR TECHNICAL SESSIONS

KEYNOTE SESSION – 1: UAV – 1

Monday 04 February 2013 **1045 – 1245 HRS**

Chair : Mr P S Krishnan, Distinguished Scientist, Director, ADE, DRDO, India

1045 - 1115 hrs KNS – 1	1115 - 1145 hrs KNS – 2	1145 - 1215 hrs KNS – 3	1215 - 1245 hrs KNS – 4
 Dr M N Burov NPO Saturn	 Mr P Srikumar Outstanding Scientist ADE, DRDO	 Prof C Venkatesan Indian Institute of Technology, Kanpur	 Mr. Richard Aplin Business Development Manager Insitu Pacific Limited
Main directions of development of small-sized gas-turbine engines for UAVs in JSC NPO Saturn	Indian Unmanned Aerial Systems Roadmap	Development of an Autonomous Mini Helicopter – Challenges faced	From Fishing Boat to Frigates: The evolution of a multi-mission maritime UAS

LUNCH : 1245 – 1315 HRS

TECHNICAL SESSION – 1A – Auditorium ‘A’: MODELLING AND SIMULATION

Monday, 04 February 2013 **1315 - 1515 HRS**

Chair: Dr Prahlada, Vice Chancellor, DIAT

1315 - 1345 hrs TS – A1	1345 - 1415 hrs TS – A2	1415 - 1445 hrs TS – A3	1445 – 1515 hrs TS – A4
 Prof Mikhail Goman De Mont Fort University, UK	 Mr Kornev A Vladimirovich Team Leader Design Research Department of JSC Su-30 Design Bureau	 Mr. Shane Rogers Director, Analysis & Experimentation Centre, Boeing India	 Mr. Ed Hagger Senior Principal Engineer UTC-AEROSPACE SYSTEMS UK
Flight Simulation in Extended Beyond Stall Flight Envelope for Upset Recovery Training	Use of supercomputer technologies in actual task solution for creating of the new generation of aircraft complexes	Collaborative Engagement for Informed Decision Making – Using simulation to provide future programme insight and maximize capability development	2D Course Correction Fuze Solution for Guided Munitions


TEA : 1515 – 1530 HRS

TECHNICAL SESSION – 1B – Auditorium ‘B’ : TECHNOLOGY INNOVATION AND PLANNING

Monday, 04 February 2013

1315 - 1515 HRS

Chair: Shri P S Subramanyam, Distinguished Scientist, Director, ADA

1315 - 1345 hrs TS – B1	 Mr Shyam Chetty Director NAL, CSIR	 Air Cmde KA Muthana, VSM Project Director (Flight Test) NFTC, ADA	 Dr Sergey L. Chernyshev Executive Director, TsAGI	 Mr Brian Norton Managing Director Indestructible Paint, UK	1445 – 1515 hrs TS – B4
Certifiable Control Laws for High Performance Aircraft		Critical Lessons learnt from the D & D of LCA		Recent developments concerning REACH ; chromates and the European Aero industry ; Recent developments in erosion resistant coatings for aerospace use	

TEA : 1515 – 1530 HRS

TECHNICAL SESSIONS – 1C – Auditorium ‘C’ : HELICOPTERS

Monday, 04 February 2013

1315 - 1515 HRS

Chair: Air Marshall (Retd) P Rajkumar, PVSM, AVSM, VM

1315 - 1345 hrs TS – C1	 Maj Gen P K Bharali, VSM Additional Director General, Army Aviation	 Wg Cdr (Retd) Unni Krishna Pillai Chief Test Pilot Rotary Wing, HAL.	 Cdr KPS Kumar Test Pilot NPO	 Mr G Chandramouli, Scientist ‘G’ Proj Dir, AKASH, DRDL , DRDO	1445 – 1515 hrs TS – C4
Integration of Weapon Systems and Mission Systems on Dhruv		Lessons learnt from the indigenous development of ALH		Challenges in design, development, system integration, testing, evaluation and production of Surface to Air Tactical Missile system – Akash	
		Shipborne Helicopters – Design and Integration Challenges			





TEA : 1515 – 1530 HRS

TECHNICAL SESSION – 2A : AIRBORNE SURVEILLANCE

Monday, 04 February 2013

1530 - 1730 HRS

Chair: Dr S Christopher, Distinguished Scientist, Director CABS, DRDO

1530 – 1600 hrs TS – A5	 Dr Hans Hellsten Senior Radar Expert SAAB AB	1600 – 1630 hrs TS – A6	 Ms Suma Varughese Group Director CABS, DRDO	1630 – 1700 hrs TS – A7	 Mr. Heinz Georg Wippich Senior Manager, CASSIDIAN	1700 – 1730 hrs KNS - 14 TS – A7	 Mr. Diego Mendonça Fonseca Aeronautical Engineer Embraer Defense & Security
Low Frequency Airborne Radar Surveillance – Swedish Knowledge and Experience		Indian AEW&C programme yields an operational military surveillance system, AEW&C INDIA, together with crucial state-of-the-art technologies for the system.		Mission Avionic System in Civil and Military Environment		EMB145 AEW&C India: From a Regional Platform to an AEW&C Aircraft	

TECHNICAL SESSION – 2B – Auditorium 'A' : FLIGHT OPERATIONS, MAINTENANCE AND FLIGHT TESTING

Monday, 04 February 2013

1530 - 1730 HRS

Chair: Air Vice Marshal R Nambiar, VM and Bar, Commandant, ASTE





1530 – 1600 hrs TS – B5	 Mr Ola Rignell Flight Test Director SAAB AB	1600 - 1630 hrs TS – B6	 Gp Capt Nand Kumar Nair Officer Commanding Test Engineering Squadron ASTE	1630 – 1700 hrs TS – B7	 Cmde JA Maolankar Chief Test Pilot NFTC, ADA	1700 – 1730 hrs TS – B8	 Air Cmde V Pande PD (Engg Support), AHQ
Flight Testing of Gripen E – A joint test program of the next generation Gripen		New Test Technique For Flight Evaluation of Infrared Flares		Limited Upgrade of the Sea Harrier		Maintenance issues in indigenously induced systems	









TECHNICAL SESSION – 2C – Auditorium 'B' : PROPULSION

Monday, 04 February 2013

1530 - 1730 HRS

Chair: Dr CP Ramnarayanan, Outstanding Scientist, Director GTRE, DRDO

1530 – 1600 hrs TS - C1	 Dr Jayant Sabnis Vice President Pratt & Whitney	1600 - 1630 hrs TS – C6	 Dr Kishore Kumar, Sc 'G' Associate Director - Turbomachinery Design Programme Director - GATET, GTRE, DRDO	1630 - 1700 hrs TS – C7	 Mr Clemens Linden Managing Director, Euro jet	1700 – 1730 hrs TS – C8	 Dr Alexander Chevagin Head, Propulsion System Aerodynamics Division, TsAGI
Design Challenges for Next Generation Commercial Aviation Propulsion Systems		CFD simulations of gas turbine engine at GTRE -- Current Status and Future Outlook		Modern Way of Combat Engine Design		Wind Tunnel Tests and CFD Simulation of Air Breathing Propulsion System Aerodynamics	

PLENARY SESSION 1 : AEROSPACE TECHNOLOGY			1130 – 1300 HRS
Monday, 05 February 2013			
Chair: Dr VK Aatre former SA to RM			
1130 – 1200 hrs PS – 1	1200 – 1230 hrs PS – 2	1230 – 1300 PS - 3	
 Mr R K Tyagi Chairman HAL	 Mr Anil Kumar Chairman & Managing Director BEL	 Mr T Suvarna Raju Director (D & D) HAL	Prototype to Production
LUNCH : 1300 – 1340 HRS			
PLENARY SESSION 2 : FUTURISTIC AIR POWER SCENARIO			1345 – 1515 HRS
Tuesday, 05 February 2013			
Chair: Lt Gen (Retd) Dr V J Sundaram, PVSM, AVSM, VSM			
1345 - 1415 hrs PS – 4	1415 – 1445 hrs PS – 5	1445 - 1515 PS-6	
 Dr A Sivathanu Pillai CEO & Managing Director Brahmos Aerospace	 Mr. Tim Peters Vice President Boeing	 Brig Gen Johan Svensson Head of Procurement and Training, Swedish Air Force	Futuristic BVR Missiles
TEA : 1515 – 1535 HRS			
PLENARY SESSION 3: INDIAN AVIATION INDUSTRY CAPABILITIES & CHALLENGES			1535 – 1735 HRS
Tuesday, 05 February 2013			
Chair : Mr G Elangovan, Distinguished Scientist, CC R & D, DRDO, India			
1535 – 1600 PS-7	1600 – 1635 PS-8	1635 – 1700 PS-9	1700 – 1735 PS – 10
 Dr Ajit T Kalghatgi Director (R & D) BEL	 Mr Peter Gutmiedl CEO CASSIDIAN India	 Mr PS Subramanyam Director (CA) & PGD Aeronautical Development Agency	 Mr Pritam Bhavnani President, Honeywell International Pvt Ltd, India
Networking aspects of Airborne Communications – Motivations, Challenges and Solutions	Partnership for growth of an Aerospace Industrial Complex	Future trends in Design Methodologies for Fighter Aircraft	Developing Indian Capability in Aerospace Technology – A Honeywell Perspective

DINNER AT HOTEL ROYAL ORCHIDS 1930 – 2230 HRS

TECHNICAL SESSION – 3A – Auditorium 'A' : UAV – 2

Wednesday, 06 February 2013

0900 – 1100 HRS

Chair: Mr VS Chandrasekhar, Outstanding Scientist, ADE, DRDO, India

0900 – 0930 hrs TS – A9	 Dr Alexander Nagel Aerodynamic Research Engineer, IAI	0930 – 1000 hrs TS – A10	 Mr Iddo Kressel Manager, Advanced Structural Technologies Department IAI, Israel	1000 – 1030 hrs TS – A11	 Dr. N. Sundararajan Professor (Retired) Nanyang Technological University Singapore	1030 – 1100 hrs TS – A12	 Dr Anup Puri Chief Structural Engineer, SELEX ES
Wings for UAV based on High Lift Aerofoils		Fibre Optic based technology for UAV Structural Health Monitoring		Fault - Tolerant Neuro and Fuzzy-Neuro Controllers for Aircraft Auto-landing		Airworthiness Clearance Procedures for Manned and UAV Structures	


TEA: 1100 – 1115 HRS

Wednesday, 06 February 2013

0900 – 1100 HRS

TECHNICAL SESSIONS – 3B – Auditorium 'B' : CONTROL, GUIDANCE AND SYSTEMS

Chair: Prof Seetha Rama Bhatt, IISc

0900 – 0920 hrs TS – B9	 Mr Anish Gopinath VSSC, ISRO	0920 – 0940 TS – B10	 Mr Rohin K oduri Scientist-D, DRDL, DRDO	0940 – 1000 TS – B11	 Ms R. Gifty Benjamin et al, VSSC, ISRO	1000 – 1020 TS - B12	 Mr G K Sadangi DGM HAL	1020 – 1040 TS – B13	 Wg Cdr K Sendhil Kumar DARE, DRDO	1040 – 1100 TS – B14	 M Shivkumar BEL
Motor Drives for High Power Electromechanical Actuation Systems for Space Applications - Challenges and Prospects		Visual Instrumentation Scheme for Airborne Stores Separation Studies		Lateral guidance for the Entry Phase of Winged Vehicles		Self healing aircraft		Futuristic Engineering Flight Simulator For Pilot Vehicle Interface (PVI) R&D		Role of Distributed Real Time Middleware in Avionics	

TEA: 1100 – 1115 HRS

Wednesday, 06 February 2013

TECHNICAL SESSIONS 3C – Auditorium 'C' : PROPULSION, AIRWORTHINESS, QA AND VALIDATION

0900 – 1100 HRS

Chair: Mr K Nagaraj former CE

0900 – 0920 TS – C9	 Mr Achutananda Parhi Sc/Engr – SE VSSC, ISRO	0920 - 0940 hrs TS – C10	 Mr Ajay Kumar Singh Scientist – E, ASL, DRDO	0940 - 1000 hrs TS – C11	 Mr S.V. Mohan Kumar Manager RWR&DC, HAL	1000 – 1020 TS – C12	 Ms Nisha G.R Sc/Engr - SE VSSC, ISRO	1020 - 1040 hrs TS – C13	 Dr. H. Saleem VSSC, ISRO	1040 – 1100 TS C 14	 Dr. Mathews P Samuel Scientist 'E' CEMILAC, DRDO
A Study to Assess the Steady Burning of a Slow Burning Motor operating at Low web Average Pressure		Aerodynamic studies of plenum chamber – Diffuser ejector system for altitude simulation		Testing and Validation of Ground Proximity Warning System (GPWS) using Virtual Terrain on Helicopter		Quality Assurance Techniques for FPGA based safety critical applications		Qualification of Industrial Grade Parts For Satellite Launch Vehicles		Operational Envelope Verification for Aeroengines	



TEA : 1100 – 1115 hrs

PLENARY SESSION 4 : STRUCTURES AND HEALTH MONITORING

Wednesday, 06 February 2013

1115 – 1315 HRS

Chair : Mr Shyam Chetty, Director, NAL

1115 – 1145 hrs PS – 11	 Prof Ian K Jennions Cranfield University, UK	1145 – 1215hrs PS – 12	 Dr Ramesh Sundaram Senior Principal Scientist NAL	1215-1245 PS – 13	 Dr Christian Boller Director, Fraunhofer Institute of Non Destructive Testing	1245 – 1315 PS - 14	 Dr T Jayakumar Director, Metallurgy Group, IGCAR
Integrated Vehicle Health Management		Manufacturing and Certification of Composite Structures – Issues and Challenges		Business Cases for Structural Health Monitoring in Aviation		Advanced Non Destructive Evaluation and Failure Analysis Towards Enhanced Structural Integrity and Life Extension of Aerial Platforms	

LUNCH 1315 – 1345 HRS

PLENARY SESSION 5 : EW SYSTEMS

Wednesday, 06 February 2013

1345 – 1545 HRS

Chair : Mr PM Soundararajan, Outstanding Scientist, Director DARE

1345 -1415 hrs PS - 15	 Dr. Andrea De Martino CTO, Elettronica S.p.A. Roma-Italy	1415 - 1445 hrs PS -16	 Ms Anand Raji Scientist 'E' DARE, DRDO	1445 - 1515 hrs PS - 17	 Mr Uri Shatit Senior Director ELISRA, Israel	1515 - 1545 hrs PS - 18	 Mr. Steve Roberts Vice President – Strategy SELEX, UK
Additional effective EW capabilities provided by Real-Time Data Links among military platforms		A novel method for classification of point targets in IR image		Future Airborne EW – Enhancing Capabilities through Operational & Functional Convergence		Adaptable integrated Defensive Aids System Architectures	

TEA : 1545 – 1600 HRS

FEEDBACK SESSION

Wednesday, 06 February 2013

1600 – 1700 HRS