

08:30 – 09:30	REGISTRATION
09:30 – 10:00	Inaugural Programme
10:00 – 10:30	High Tea

Session 1		10:30 – 1:00
10:30 – 11:30	Plenary Talk	“What is Code Modernization? Why is it important? How did we achieve 13x performance on JNCASR’s Megha-3 code” – Ananth Kinnal, Calligo Technologies, Bangalore, India.
		Chair : Dr V.Y.Mudkavi, Head, CSIR-4PI, Bangalore
	1A Chair : Dr V.Ashok, VSSC,Tiruvananthapuram	1B Chair Dr.T.N.Venkatesh,CSIR-NAL,Bangalore
11:30 – 11:45	CP1 Cure for shock instability in HLL-CPS Riemann solver through anti-diffusion control, S.Sangeeth, J.C.Mandal, Dept. of Aerospace Engg., IIT Bombay, India. (paper no.2)	CP7 Performance of a compressible DNS code on multi-GPU architectures, N.H.Maruti, Rajesh Ranjan, S.M.Deshpande, Roddam Narasimha, JNCASR, Bangalore, Bharatkumar, Shakara Rao, Thejaswi Naditale, NVIDIA, Bangalore India(paper no. 36)
11:45 – 12:00	CP2 Reinvestigating discrete stability of numerical scheme using psuedospectra, Ameya D.Jagtap, Centre for Applicable Mathematics, TIFR, Bangalore, India (paper no. 5)	CP8 A Reduced order model based LQR feedback control of one dimension heat equation, Sintu Singha and Kaushik Kumar Nagarajan, NAL, India(paper no. 39)
12:00 – 12:15	CP3 Solution of India elliptic equations using weighted least squares meshless method, Konark Arora, Amity Institute of Aerospace Engineering, Amity University, UP, India(paper no. 13)	CP9 Multidisciplinary design optimization for an airfoil using OpenMDO Sachchit Vekaria, A. Chatterjee, Hemanth Arya, Bharat Adsul, Dept. of Aero., Engg., IIT Bombay, Mumbai, India. (paper no. 52)
12:15 – 12:30	CP4 Development of 2-dimensional axisymmetric solver for imperfect gas simulation at high temperature. Anant Diwakar, Kowsik Bodi, Dept. of Aerospace Engg., IIT Bombay, India(paper no. 21)	CP10 Lattice Boltzmann relaxation scheme for ideal magnetohydrodynamics, Rohan Deshmukh, S.V.Raghurama Rao, Dept. of Aero., Engg., IISc, Bangalore, India(paper no. 53)
12:30 – 12:45	CP5 A WENO-hybrid scheme for ideal Magneto-hydrodynamics, Ved Mukherjee, Narendra R. Deore, Dept. of Mech. Engg., Pimpri Chinchwad College of Engineering, Pune, India(paper no. 25)	CP11 Grid free solver with CUDA computing, PVRRB Rao, K.Anandhanarayanan, R.Krishnamurthy, Debasis Chakraborty, DRDL, Hyderabad, India.(paper no. 46)
12:45 -- 1:00	CP6 Euler, Three-dimensional model for varying heat capacity ratio, Kuldeep Singh, S.Gopalkrishnan, G.R.Shevare, IIT Bombay, Mumbai, India(paper no. 33)	CP12 Heterogeneously Artificial compressibility based method for two-phase surface tension dominated flows, sourabh P. Bhat, Jadav C.Mandal, IIT Bombay, Mumbai,India.(paper no. 68)

1:00 – 02:00 LUNCH

Session 2

2:00 – 3:30

	2A Chair : Dr R.Krishnamurthy, DRDL,Hyderabad	2B Chair : Dr K.P.Singh
2:00 -- 2:15	CP13 Aerodynamic characteristics of a generic fighter aircraft with air-to-air missiles carried at underwing station vis-a-vis wing tip, Shibin.D.S, Abdul.R., Pathanjali.R.J., Praveen Kumar B., Muralidhar M., Subhendu Saha, ADA, Bangalore, India(paper no. 19)	CP19 Effect of jet on aerodynamics of crew escape vehicle at subsonic flow, C.Babu, G. Vidya, Dipankar Das, V. Ashok, VSSC, Thiruvananthapuram, India(paper no. 29)
2:15 -- 2:30	CP14 An assessment of effects of canard sweep angle on the longitudinal aerodynamics of delta wing aircraft, Shibin.D.S, Kuldeep. S.R., Pathanjali.R.J., Praveen Kumar B., Muralidhar M., Subhendu Saha, ADA, Bangalore, India(paper no. 20)	CP20 Application of Open Source CFD code SU ² to ascent configuration of reusable launch vehicle, Amit Sachdeva, Pankaj Priyadarshi, VSSC, Thiruvananthapuram, India(paper no. 34)
2:30 – 2:45	CP15 Performance evaluation of lips of different profiles on an axisymmetric air intake at subsonic to supersonic speeds, Ram Kumar, Sameer Karania , Satya Prakash, ADA, Bangalore, India(paper no. 40)	CP21 Numerical simulations over launch vehicle in the presence of umbilical tower at lift-off, Amit Sachdeva, Vinod Kumar, Pankaj Priyadarshi, VSSC, Thiruvananthapuram, India(paper no. 35)
2:45 – 3:00	CP16 Prediction of Intake flow in presence of radar screen at the entry pf an S-shaped intake, Aveek Pal, Sameer Karania, Satya Prakash, ADA, Bangalore, India(paper no. 65)	CP22 Computation of Flush Air Data System(FADS) port pressure through CFD and comparison with flight derived data, C Babu, G Vidya, K Manokaran, Jayanta Dhaoya, N Remesh, VSSC, Thiruvananthapuram, India(paper no. 37)
3:00 – 3:15	CP17 Multi-store release simulation using PARANAM mesh free solver based store separation suite, C.K.Niranjajan ¹ , Keshav Malagi ¹ , A.Shikhar Jaiswal ¹ , K.Madhu Babu ¹ , V.Ramesh ¹ , S.M.Deshpande ² , [1]NAL, Bangalore,India, [2]JNCASR, Bangalore, India(paper no 70)	CP23 Numerical investigation on the effect of angle of attack on aerodynamics of a launch vehicle in presence of jet, Sanjoy Kumar Saha, VSSC, Thiruvananthapuram, India(paper no. 48)
3:15 – 3:30	CP18 Aerodynamic coefficients through CFD simulations and flight estimation for a winged body reusable launch vehicle, G. Vidya, K Manokaran, C. Babu, S.Balamurugan, Priyankar Bhandopadhyay, VSSC, Thiruvananthapuram, India(paper no. 28)	CP24 Numerical simulation of arc heated flows, Ved Mukherjee, Padmini Priyadarshini, Kowsik Bodi, Dept. of Aerospace Engineering, IIT Bombay, Mumbai, India (paper no. 24)

3:30 – 4:00 TEA

6:00 – 7:00 CULTURAL PROGRAMME

07:00 – 9:00 CONFERENCE DINNER

Session 3

09:00 – 12:00

09:00 – 09:30	IP1	Title : Applications of CFD at ADA, Mr Satya Prakash, ADA, Bangalore	Chair: Dr J.S.Mathur, CSIR-NAL, Bangalore
	3A Chair : Prof. Nagpurwala, Bangalore		3B Chair : Dr Swathi, CSIR-4PI, Bangalore
09:30 – 09:45	CP25 Pintle nozzle flow field simulation of solid propulsion control systems for missile applications, Sudhakara Reddy A.V., Karunanidhi, S.R., R.Padhi, D.N.Reddy, RCI DRDO Hyderabad, Dept. of Aero. Engg, IISc, Bangalore, India(paper no. 15)		CP31 Effect of inlet turbulence on the performance of an HAN-based monopropellant microthruster supersonic nozzle, K Vijaya shankaran, G Uthaya Sankara Athith, G Sriram, S Chenthil Kumar, Shambhoo, M Janaki Rami Reddy, H.S. Raghu Kumar, C. Rajashekar, J.J. Issac, Propulsion Division, NAL, Bangalore, India.(paper no. 56)
09:45 – 10:00	CP26 Performance loss associated with wake evacuation effect in ED nozzle, Ananthu M Aji, Aravind vaidyanathan, Vishak sasidharan, Dept. of Aero. Engg., IIST, Thiruvananthapuram, India(paper no. 16)		CP32 On the flow past a high blockage V-Gutter flame holder, , Shambhoo, , G Sriram , S Chenthil Kumar, K Vijaya shankaran, H.S.Raghukumar, , M Janaki Rami Reddy, C. Rajashekar, K Ashirvadam, J.J. Issac, Propulsion Division, NAL, Bangalore, India. , Propulsion Division, NAL, Bangalore, India (paper no. 57)
10:00 – 10:30	TEA		
10:30 – 11:00	Vendor Session Presentation by Vendors		
11:00 – 11:15	CP27 Numerical simulation of supersonic flow separation in over expanded planar de-laval nozzle, D.S.Ramaswamy, Aqib Khan, Rakesh Kumar, NIT, Tiruchirappali, IIT Kanpur, India(paper no. 18)		CP33 CFD Optimisation of winglets, Niyam B Joshi, Shreyans Sakhare, M Balasubramanya, Dept. of Mech. Engg., PES Institute of Technology, Bangalore(paper no. 27)
11:15 – 11:30	CP28 Wake decay characteristics of a transonic axial compressor rotor, Q.H.Nagpurwala, Mudassir Ahmed, Turbomachinery Consultant, Safaran Engineering Services Pvt. Ltd., Bangalore, India(paper no. 22)		CP34 Numerical investigation of flow pattern inside an autoclave, Abinandan K.C., Sashikant Chaudhari, N. Shanmugapriya, J Ramaswamy Shetty, Manabendra M. De., Dept of Mech. Engg. SIT Tumamuru, CSMST-NAL, Bangalore India(paper no. 60)
11:30 – 11:45	CP29 Numerical analysis of unsteady interactions in a centrifugal compressor, Kishore Kumar, S Ganesan, Raghuram N Govardhan, GTRE Bangalore, IISc Bangalore, India(paper no. 26)		CP35 Design and Optimization of a combustor using CFD, S.V.Ajaicimhan, C.Kishore Kumar, Natteri M Sudarsan, Dept. of Mech. Engg. Rajalakshmi Engg. College, Chennai & GTRE, Bangalore, India(paper no 62)
11:45 – 12:00	CP30 Predictions of aero-thermal loading of an HPT stator blade of a typical small turbofan engine, Rajesh Ranjan, Kishore Patel, S.M. Deshpande, Roddam Narasimha, JNCASR, Bangalore, India(paper no. 31)		CP36 Numerical studies on the effect of blade fillet in an axial turbine stage, R. Prathapa Nayaka, S.N. Agnimitra Sunkara, Nilotpole Kalita, D.C.Mark Vailshery, PR Division NAL Bangalore India(paper no 71)

12:00 - 1:00 LUNCH

Friday, August 11, 2017

Session 4

1:00 – 3:00

	4A Chair: Satya Prakash, ADA, Bangalore	4B Chair: P.Manjunath, CSIR-NAL, Bangalore
1:00 -- 1:15	CP37 A Numerical study on the effect of stacking aerofoils at different lean angles on the secondary flow behavior and performance of a typical turbine stage, David John R, Bharathan R.D., Sharad Kapil, S.V.Ramana Murthy, D Kishore Prasad, GTRE, Bangalore, India(paper no. 8)	CP45 Computation of supersonic flow with and without cavity for mixing enhancement, Ashfaque A. Khan, P.J.Paul, PR Division -NAL, Bangalore & Dept. of Aero. Engg. IISc Bangalore, India(paper no. 44)
1:15 -- 1:30	CP38 Numerical simulation of flow over a re-entry crew module, S. Ratnavel, K. balagi, K.Vijaya Sankaran(paper no. 14)	CP46 Techniques for simulating multiple propellers using OpenFOAM software, K Veena, V. Asha, C. Arshad shameen, T.N. Venkatesh, CTFD-NAL, Bangalore,India(paper no. 47)
1:30 – 1:45	CP39 Numerical Investigation of aerodynamic drag reduction using vortex generators, Anand V, Elangovan L, Sreenivasan M., Avinash Kumar R, Mahalingam College of Engg. And Tech. Pollachi, PSG Institute, Coimbatore, India(paper no. 17)	CP47 Computational investigation of diffuser augmented wind turbine-3D analysis with a cycloidal profile, Kanaka Muthu, Shamala shamsuddeen, Ganesh T, G.N.Kumar, V.Y.Mudkavi, CSMST-NAL,VTU-Mysore,NITK-Surathkal & 4PI-CSIR, India(paper no. 59)
1:45 – 2:00	CP40 Numerical Simulation of supersonic flow separation in over expanded planar de-laval nozzle, D.S. Ramaswamy, Aqib Khan, Rakesh Kumar, NIT & Tiruchirappali, IIT Kanpur, India(paper no. 18)	CP48 Response surface methodology based optimization of aerodynamic package of a FSAE car, Dharmendra Yadav, P.S.Kulkarni and Siddharth Ghiya, Thapar University, Patiala & IISc Bangalore, India(paper no. 63)
2:00 – 2:15	CP41 An upwind KFVS method for the SU ² suite, Shiraz Khan, N.H.Maruthi, S.M. Deshpande, IIT Madras & JNCASR Bangalore, India(paper no. 38)	CP49 3D numerical Investigation of insect-sized flapping wings under different frontal inflow conditions, Manabendra M.De., J.S.Mathur, S.Vengadesan, CSMST,CTFD-NAL, Banaglore & IIT Madras, Chennai, India(paper no. 67)
2:15 – 2:30	CP42 Prediction of heat transfer distributions in transitional hypersonic flows, Sreekanth Raghunath, David J.Mee, Nimesh Thakor, Tarandeep Singh, Gopalan Jagadeesh, University of Queensland, Brisbane, Australia & IISc, Bangalore, India(paper no. 41)	CP50 Empirical formulation of droplet size for a multiplex fuel injector using CFD, Aditya Ghodgaonkar, Adhvik J shetty, Anurag surpaneni, P.S.Kulkarni, RV College of Engg. & IISc Bangalore, India(paper no. 73)
2:30 – 2:45	CP43 Calculation of a potential vortex hazard index at cruise-level, Saravanakumar J., Arshad Shameen C. T.N.Venkatesh, CTFD-NAL, Bangalore, India(paper no. 43)	CP51 Study of effect of inner iteration on solution of an incompressible flow inside lid driven cavity, siddu patil S.B., Kartik M., Singh K.P., SIT Tumkur, UPES Dehradun, Emeritus Scientist ADA, Bangalore India(paper no. 72)
2:45 – 3:00	CP44 CFD Analysis of mechanical thrust vectoring control system of missile, Umesh kulkarni,	CP52 Reacting flow CFD simulations to optimize the dilution zone of straight flow annular combustor

Ravindra Shende, A.K.Gangrade, Zeus Numerix Pvt. Ltd. Pune & K.J. somaiya College of Engineering, Mumbai.(paper no. 23)	Ranjith P V, Muthuselvan G, Muralidhara H S, Propulsion Division, NAL, Bangalore (paper no. 66)
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3:00 – 3:15 TEA

Chair : Prof. S.M.Deshpande, JNCASR, Bangalore

3:15 – 3:45 VALIDICTORY LECTURE : CFD A tool for UAV Development, SelvaRaj K, ADE, Bangalore

3:45 – 4:00 CLOSING SESSION