

NAFED 07 - 30th April, 2023

08:30 - 9:30 Hrs Registration

**Inaugural session : 09:30 - 10:45 Hrs
(Venue: Hall-A, Lecture Complex)**

10:45 - 11:15	Introduction of Keynote Speaker	Shri. P V Anil Kumar, Head FSDD,VSSC
	Keynote address	Prof. T G Sitharam ,Chairman, AICTE

High Tea : 11:15 - 11:35 Hrs

11:35 -12:15	Presentation on FEAST ^{SMT}	FEAST ^{SMT} Team
12:15 -12:30	FEAST ^{SMT} MoU: IMPRINT modules	Prof. Sachin Singh Gautam, IIT Guwahati
12:30 -12:50	Invited Talk 1: Fatigue failure analysis using CDM and XFEM	Prof. Indra Vir Singh, IIT Roorkee
12:50 -13:10	Invited Talk 2: A multiphysics approach to the design and analysis of a fusion reactor	Shri. Vinay Menon, Institute for Plasma Research, Ahmedabad

Lunch: 13:10 - 13:50Hrs

**Inauguration of Poster Session: 13:50 - 14:00 Hrs
Introductory Remark: Dr. B Santhosh, VSSC
Inauguration: Prof. Naresh Bhatnagar, Dean R&D, IIT Delhi
(Venue: Hall-A, Lecture Complex)**

14:00 -14:20	Invited Talk 3: Adaptive finite element method for the obstacle problem	Prof. Kamana Porwal IIT Delhi
--------------	---	----------------------------------

**Session-1A: 14:20 - 15:50 Hrs (Venue: Hall-A, Lecture Complex)
Session Chair: Smt. Beena A P, VSSC
Rapporteur: Prof. Souvik Chakraborty, IIT Delhi**

1	Finite element simulation of composite pylon tube using FEAST ^{SMT} 2022	K.Amudhan Mepco Schlenk Engineering College Sivakasi
2	Structural analysis of test vehicle crew module interface adaptor using FEAST ^{SMT} software	Mali Somanath Nandu VSSC
3	Configuration dependency of natural frequencies for two-link flexible manipulator	Sandeep Kumar IIT Delhi
4	Automation of parametric FE model generation of lattice composite cylinders using FEAST ^{SMT} software 2022	Mukul Sahu URSC
5	Design qualification of polyimide pipeline used to convey propellants in cryogenic stages of launch vehicles	Waris Khan LPSC
6	Structural analysis of a typical thermal boot for launch vehicle applications	Mohammad Mehreen Sana VSSC

7	Thermo-structural analysis of Bi-metallic adaptor	Adarsh Kumar Sahu VSSC
Session-1B: 14:20 - 15:50 Hrs (Venue: Hall-B, Lecture Complex) Session Chair: Shri. Sundar B, VSSC Rapporteur: Smt. Geena George, VSSC		
8	Thermal analysis of welding of motor chamber for hybrid sounding rocket using moving coordinate system	Abhishek Kumar VSSC
9	Thermal response analysis of TPS sandwich for scramjet combustion chamber using FEAST ^{SMT}	Rahul V L VSSC
10	Launch vehicle equipment bay thermal analysis for long duration missions using FEAST ^{SMT}	Aayushi Deohans VSSC
11	Thermal analysis of hatch door for a reentry capsule using FEAST ^{SMT}	Walke Prabodhini Shreemant VSSC
12	Thermal analysis of mixing head assembly of semicryo engine for brazing operation	Ullekh Pandey VSSC
13	Thermal analysis of a gridfin for a crew-escape vehicle	Divyansh Prakash VSSC
14	Thermal analysis of ogive payload Fairing of a launch vehicle	Philip George VSSC
15	Thermal analysis of quartz-tungsten infrared heaters with annular cooling	Manokaran K VSSC
Tea :15:50-16:00 Hrs		
Session-2A: 16:00-17:30 Hrs (Venue: Hall-A, Lecture Complex) Session Chair: Prof. Rushdie Ibne Alam, IIT Delhi Rapporteur: Shri. Anoop P, VSSC		
16	Proof pressure test analysis of cryogenic tank using FEAST ^{SMT}	Jesna Rose K A LPSC
17	Structural assessment of drum roller of thin film casting machine	Vinu K S VSSC
18	Dynamic analyses of spacecraft and an equipment using FEAST ^{SMT} 2022	Malarvizhi S N, Josephine Kelvina Florence S URSC
19	Design and analysis of a support structure for acoustic test of a typical ϕ 4m class flight hardware	Suman Sharma HSFC
20	Structural analysis of test setup of payload adaptor for LVM3 using FEAST ^{SMT} Software	Abhishek Parida VSSC
21	Investigation of the dynamic amplification factor applicable for transient loads on a MDOF System using FEAST ^{SMT}	Nirmal Ramachadran VSSC
22	Optimization of a stiffened interstage structure of a launch vehicle using differential evolution algorithm in FEAST ^{SMT}	Manash Kumar Bhadra, Vinod G VSSC
Session-2B: 16:00 - 17:30 Hrs (Venue: Hall-B, Lecture Complex) Session Chair :Shri Vasudevan Unni, VSSC Rapporteur: Smt. Jancy Rose, VSSC		
23	Phase-Field modeling of fracture in functionally graded plates	Anna Mariya Shajan BITS Pilani, Hyderabad

24	Higher order, structure preserving discretizations of Maxwell's equations	Archana Arya IIT Delhi
25	An efficient computational method for phase field fracture modelling	U. Meenu Krishnan IIT Roorkee
26	The computational implementation of two-stage radial return method for hydrostatic stress-dependent coupled elasto-plastic damage model on epoxy	Yenike Sharath Chandra Mouli IIT Kanpur
27	Unified design-analysis workflow and computationally efficient solution using isogeometric elements	Philip Luke Karuthedath IIT Roorkee
28	Nonlinear dynamic analysis of laminated composite plates under blast loading using finite element method	Vasant Matsagar IIT Delhi
29	Crack analysis in piezoelectric materials using scaled boundary finite element method using a micromechanical model	Srinivasagan M IIIT, Kancheepuram, Chennai

Display of Digital Posters: 14:00 -17:30 Hrs (Venue: Foyer)

30	Numerical investigations in free vibrations of multilayered sandwich structures	Sandeep M Shiyekar D Y Patil College of Engineering Akurdi, Pune
31	Proposal for provisioning FEAST ^{SMT} software as a cloud service	Kalaiselvan K, Asvija B, Sridharan R C-DAC Bangalore
32	Three-dimensional large deformation IGA formulation for contact-impact problems with friction	Sumit Kumar Das, Vishal Agrawal and Sachin Singh Gautam IIT Guwahati
33	Study of representative volume element morphologies using python scripting	Srihari Dodla IIT (BHU) Varanasi
34	Tensile crack modeling of concrete subjected to cyclic loading	Mahendra Kumar Pal IIT (BHU), Varanasi
35	Finite elements in 21st century: an interplay of analysis, geometry and topology	Kaushik Kalyanaraman IIT Delhi
36	Simulation of self-healing mechanisms in concrete using phase field method	Krishnendu Sivadas Chandu Parimi and Raghu Piska BITS Pilani, Hyderabad
37	Large deformation hyperelastic material modelling in FEM using updated Lagrangian framework	Albert Shaji, S Sai Kumar and N. Muthu, IIT Guwahati
38	Development and implementation of robust thin-walled open section beam finite element in FEAST ^{SMT} - A new project proposal for development and integrating new features in FEAST ^{SMT}	Aditya Shyamrao Deshpande, and Bhriugu Nath Singh IIT Kharagpur
39	Development of a computer program SLOSH++ for slosh analysis using finite element method	Sarath Chandran Nair S, Kodati Srinivas, Vasudevan R, Asraff A. K, LPSC

Panel Discussion : 17:30 - 18:00Hrs

Chairman : Dr. V Ashok , Deputy Director, VSSC (Aero)