

PROGRAMME SCHEDULE

Day 2 : 17 December 2019 (Tuesday)

Time (hrs)	Event	Venue
0900 – 0945	Plenary Session (PS IV)	IC & SR Auditorium
Technical Session – I		
0945 – 1115	1A : Synthesis of HEMS (D-001 – D-006)	IC & SR Auditorium
	1B : Modeling & Simulation (H-001 – H-006)	Hall I
	1C : High Explosives (F-001 – F-006)	Hall II
	1D : Combustion Study (B-001 – B-006)	Hall III
	1E : Rocket Propellant Study (E-001 – E-006)	Annex Hall
1115 – 1130	Tea Break	IC & SR
Technical Session – II		
1130 – 1330	2A : Synthesis of HEMS (D-007 – D-014)	IC & SR Auditorium
	2B : Insensitive & Green Propellant (A-001 – A-008)	Hall I
	2C : Quality Assurance & Detection of Explosives (I-001 – I-008)	Hall II
	2D : Pyrotechnics & Expls. (C-001 – C008)	Hall III
	2E : Rocket Propellant Study (E-007 – E014)	Annex Hall
1330 – 1415	Lunch	IC & SR
1415 – 1500	Plenary Session (PS V)	IC & SR Auditorium
1500 – 1545	Plenary Session (PS VI)	IC & SR Auditorium
1545 – 1600	Tea Break	IC & SR
Technical Session – III		
1600 – 1730	3A : Synthesis of HEMS (D-015 – D-020)	IC & SR Auditorium
	3B : Nano Materials (K-002 – K-006)	Hall I
	3C : High Explosives (F-007 – F-012)	Hall II
	3D : Combustion Study (B-007 – B-012)	Hall III
	3E : Rocket Propellant Study (E-015 – E-020)	Annex Hall
1900 – 2200	Delegates Dinner	Le Meridian, Chennai

Oral Presentation Schedule

Day 2 : 17 December 2019 (Tuesday)

Venue: Auditorium, IC & SR

All the presentations should be submitted before 1730 hrs on 16-12-2019

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session I : 0945-1115 hrs Session Title: Synthesis, Characterization, Structural Analysis of HEMS			
1.	D-001	Design and Synthesis of N-N Bonded Energetic Binder for High Energy Applications. <i>Harish Keerthi, Nitesh Singh, Balaka Barkakaty</i>	0945 - 1000
2.	D-002	Development of Novel Fluoro/Fluoro-Nitro Energetic Binders for High Energy Applications <i>Saheli Dey & Balaka Barkakaty</i>	1000 – 1015
3.	D-003	Synthesis, Characterization and evaluation of 4-Nitrophenyl functionalized hydroxyl terminated polybutadiene (NPHTPB) and its applications in Sheet explosive formulations <i>C.S. Pantc & Shaibal Banerjee</i>	1015 – 1030
4.	D-004	Novel oxidizers as a potential replacement of Ammonium Perchlorate <i>Vandana Jaiswar, Arvind Kumar, Rohit Sherawat, Arindrajit Chowdhury, I. N. N., Namboothiri, Neeraj Kumbhakarna</i>	1030 – 1045
5.	D-005	Acoustic Shock Wave Emissions from Laser Induced Breakdown of High Energy Materials: Time and spectral domain studies <i>Manikanta Elle, Rajendhar Junjuri and Prem Kiran Paturi</i>	1045 – 1100
6.	D-006	Synthesis and characterisation of novel and promising 1,2,4,4-tetranitropyrazolidine- 3,5-dione for High Energy Density Materials Application <i>Rajasekhar Koorella, Raatalu Nayudu and Ramkoti Gugulothu.</i>	1100 – 1115

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Venue: Auditorium, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session II: 1130-1330 hrs Session Title: Synthesis, Characterization, Structural Analysis of HEMS			
1.	D-007	Design and synthesis of polynitro propellanes for explosive applications <i>Nagarjuna kommu, Pampuram Aravindu, Ashutosh Parimi, Anuj A. Vargeese</i>	1130 – 1145
2.	D-008	Montmorillonite Impregnated with Bismuth Nitrate: A mild and efficient reagent for the synthesis of gem-dinitro compounds from oximes <i>Rajasekhar Koorella, Raatalu Nayudu and Ramkoti Gugulothu</i>	1145 – 1200
3.	D-009	Development of the energetic materials genome approach for accelerating the discovery of the advanced energetic materials with desired properties <i>Victor s. Abrukov, Alexander N. Lukin, Michael V. Kiselev, Darya A. Anufrieva, Charlie oommen, V. R. Sanalkumar, Nichith Chandrasekaran, Rajaghatta Sundararam Bharath, Amrith Mariappan</i>	1200 – 1215
4.	D-010	Effect of Organic Solvent on Morphology & Polymorphism of HMX Processed by SAS. <i>Mahesh Kumar, Tirupati Sharma, Nitin Rehdu, Ramesh Kumar, Gurvinder Kaur, P K Soni, N Mukherjee</i>	1215 -1230
5.	D-011	Development of Promoters for Hypergolic Reactions <i>Ajay Kumar Chinnam, Kangcai Wang, Natan Petrutik, Eswaravara Prasadarao, Komarala, Avital Shlomovich, Olga Shamis, Daniel Shem Tov, Muhamed, Sućeska, Qinghua Zhang, Qi-Long Yan, Roman Dobrovetsky, and Michael Gozin.</i>	1230 – 1245
6.	D-012	Syntheses, characterization and energetic properties of <i>closo</i> -(B ₁₂ H ₁₂) ₂ ⁻ salts of alkylmethylimidazolium derivatives <i>Muddamarri Hanumantha Rao and Krishnamurthi Muralidharana</i>	1245 – 1300
7.	D-013	Synthetic Transformations of Allylic Moiety to Energetic Azides <i>R.Vijayalakshmi, JK Nair and SD Kakade</i>	1300 – 1315
8.	D-014	Synthesis of High Performance High Explosive: Dihydrazinium Di (nitramino) Furazanate (DNAF) <i>R. Vijayalakshmi, P. Karabal, S. Radhakrishnan, J.K. Nair and S.D. Kakade</i>	1315 – 1330

Day 2 : 17 December 2019 (Tuesday)

Venue: Auditorium, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session III: 1600-1730 hrs Session Title: Synthesis, Characterization, Structural Analysis of HEMS			
1.	D-015	Coated boron for propellant/High Explosive applications: A viscosity study Sanjeevani Sonawane <i>M. Suresh, S. Radhakrishnan, J. K. Nair, S. D. Kakade</i>	1600 – 1615
2.	D-016	4-Bromo-3,5-dinitro-1-(trinitromethyl)-1H-pyrazole: A key synthon for novel High Explosives <i>P. Sadaphale, S. Radhakrishnan, J. K. Nair and S. Kakade</i>	1615 – 1630
3.	D-017	Effects of crosslinker on nitrate ester plasticized polyester pre polymer based polyurethane network <i>MSSNM Santosha, VS Sadavartea, D Bhowmika, SM Pandea, PS Kulkarnib</i>	1630 – 1645
4.	D-018	Polynitro Aryl-Pyrazole/Imidazole Derivatives: Synthesis, Characterization, And Energetic Studies <i>Vangara Srinivas, N. Kommu, M. Balaraju, Akhila K. Sahoo</i>	1645 – 1700
5.	D-019	Feasibility study for synthesis of 2, 4-Dinitro-2, 4-diazapentane (DNDA-5) <i>J Singh, S K Singh, S S Adhav, P A Sagar, A K Mandal and R K Pandey</i>	1700 – 1715
6.	D-020	Synthesis and Evaluation of Polynitrocubanes as HEMs <i>Neela Kishore Babu and Telugu Yedukondalu</i>	1715 - 1730

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Venue: Hall – I, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session I : 0945-1115 hrs Session Title: Modelling & Simulation			
1.	H-001	Unsteady Heat Transfer through Gun Barrel in an Internal Ballistic Cycle <i>Pratik Raj, H.S. Panda and Amitesh Kumar.</i>	0945 - 1000
2.	H-002	Response function of Ammonium Perchlorate <i>Chaitanya V., P.A. Ramakrishna</i>	1000 – 1015
3.	H-003	Closed-Loop Thrust Control of a Wax-Aluminium-Based Hybrid Motor <i>Anandu Bhadrán, P A Ramakrishna, Joel M Geroge</i>	1015 – 1030
4.	H-004	Effect of explosive charge shape and initiation point on deformation of rolled homogeneous armour (RHA) steel plate <i>Pankaj K Choudha, Mayuri Patil, A Kumaraswamy</i>	1030 – 1045
5.	H-005	Numerical Analysis and Experimental Assessment of Detonation Transfer Joint of Explosive Trains in Launch Vehicles <i>Shete Mayuresh Kailas, Bishwajyoti Dutta Majumdar, Piyushkanti Kar, Anupam Ramachandran, Sheeju Chandran, Purushotaman P, Baby Abraham, Rajarajan R</i>	1045 – 1100
6.	H-006	Establishing a relation between impeller torque, batch size and viscosity for a three blade planetary mixer in case of highly viscous fluids <i>Deepak Chauhan, Ashish Jauhari, S. C. Bhattacharyya</i>	1100 – 1115

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – I, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session II: 1130-1330 hrs Session Title: Insensitive & Green Propellant			
1.	A-001	Spray Characteristics of Pure and Metallized Green Gel Propellants <i>Siddharth Behal and Mohan Varma</i>	1130 – 1145
2.	A-002	Performance of Hypergolic Ionic Liquids as Replacements of Hydrazine <i>Umakant Swami, Arindrajit Chowdhury</i>	1145 – 1200
3.	A-003	High Performance ‘Green’ Monopropellant Based on Ammonium dinitramide (ADN) for Reaction Control Systems: Developmental Challenges <i>S. Reshmi, Santhosh. G, S.N.Ram, Narender Kumar, R. Rajeev</i>	1200 – 1215
4.	A-004	RAM Processing of Explosives at CCDC-AC <i>Eric R. Beckel*, Paul E. Anderson, Christopher A. Pizzo, Karl D. Oyler, Natasha M. Khatri, Eugene Chen, Ross Nellums, and Jon Kosak</i>	1215 -1230
5.	A-005	Pressure dependent phase transformations in energetic material BDNAPM <i>Rajitha Rajan, K. Nagarjuna, Anuj A. Vargeese, V. Srihari, V. Venkatesan, T. R. Ravindran</i>	1230 – 1245
6.	A-006	Synthesis of 1-ethyl 3 methyl imidazoliumdinitramide as a green substitute for hydrazine for propellant application <i>Bismibasheer, Vijayalakshmi K.P. *, Rajeev R. and Benny K. George</i>	1245 – 1300
7.	A-007	Evaluation of Copper (I) 5-Nitrotetrazolate (DBX-1): An Environmentally Benign Primary Explosive <i>M. Anniyappan*, P.U. Karabal, K.V. Varma, J.K. Nair and S.D. Kakade</i>	1300 – 1315

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – I, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session III: 1600-1730 hrs Session Title: Nano Materials			
1.	G-002	Engineering Level IM Test Results for 155mm Extended Range XM1128 HE Projectile <i>Keyur Patel</i>	1600 – 1615
2.	K-002	Laser initiation of high explosives by using gold nanoparticles as photo-absorbing additive <i>Macharla Arun Kumar, Pallavi Sharma, Ritu Daipuriya, Anuj A. Vargeese</i>	1615 – 1630
3.	K-003	Novel Micro- and Nanofuels: Production, Characterization, and Applications for High Energy Materials <i>Alexander Vorozhtsov, Alexander Zhukov</i>	1630 – 1645
4.	K-004	Studies on Nanonization of Barium Promoted Copper Chromite and Process Intensification <i>Abhishek Kumar, P.M Jadhav, Arti Pant, Hima Prasanth and R K Pandey</i>	1645 – 1700
5.	K-005	Preparation and characterization of spin coated Graphene for high energy capacitor application in solid state slapper detonator system <i>S.K.Sinha, Rohit Kumar Sinha and Mohit Kumar</i>	1700 – 1715
6.	K-006	Burning Rate and other Characteristics of Nano Nickel Ferrite Supplemented HTPB based Composite Propellants <i>Sunil Jain, A.P Mahajan, Garima Gupta, V.H. Khire & K. Balasubramanian</i>	1715 – 1730

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – II, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session I : 0945-1115 hrs Session Title: High Explosives			
1.	F-001	Mechanism for Bulk Production of Free Flowing Desensitized Fine RDX <i>Harish Kumar, D K Urkude, Jasmeet Singh</i>	0945 - 1000
2.	F-002	Code for selection of C-H-N-O based Aluminized Explosives for enhanced blast applications. <i>Jaspreet Kaur Narang, Dharendra Gupta, N. Mukherjee</i>	1000 – 1015
3.	F-003	Desensitizing studies of Energy Energy CoCrystal (EECC) of RDX:CL20 and its coated forms. <i>Satish Ture, Veerabhadragouda B Patil, Anuj A Vargeese, V Kameswara Rao, T V Chowdary, A.N. Gupta and Venkataraman Abbaraju</i>	1015 – 1030
4.	F-004	Cocrystallization of CL-20: Influencing parameters on polymorphic transition. <i>J.Venkata Viswanath, P.Vijayadarshan, T.V. Chowdary, Amarnath Gupta, A.Venkataraman</i>	1030 – 1045
5.	F-005	PAX-52 Hand Moldable Explosive. <i>Steven Nicolich & John Centrella</i>	1045 – 1100
6.	F-006	Prediction of Naval Ship Responses to Underwater Mine Blast with Plastic Bonded Explosive <i>Abhay K. Mahanta and P.K. Pattnayak</i>	1100 – 1115

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – II, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session II: 1130-1330 hrs Session Title: Quality Assurance & Detection of Explosives			
1.	I-001	A Quality Control Tool to Study the Influence of Aluminium powder Variation at Premix Level Propellant Slurry by Thermal Characterization <i>CH Devi Vara Prasad et.al,</i>	1130 – 1145
2.	I-002	Quality Perspective on achieved Propellant System Characteristics - Pair SRM's in GSLV-Mk III Missions <i>Niroopkumar.J et.al,</i>	1145 – 1200
3.	I-003	Detection of Explosive Residues on Metallic Surfaces Using Laser Induced Breakdown Spectroscopy Technique <i>Abdul Kalam Shaik, Linga Murthy Narlagiri, Venugopal Rao Soma</i>	1200 – 1215
4.	I-004	Implementation of Process Failure Mode and Effects Analysis on Propellant Processing To Improve Propellant Batch Repeatability <i>Ashutosh Sharma, G Sathesh Kumar, S Das, T V Jagadeeswar Rao</i>	1215 -1230
5.	I-006	A novel method for the estimation of catalytic ions: Copper and Iron in Propellant Systems <i>Naresh Konduru et.al,</i>	1230 – 1245
6.	I-007	Harmonizing Testing Laboratories of Military Explosives with International Standard ISO/IEC 17025:2017 for Enhanced Quality Assurance <i>U Thanigai Velan, T K Varadarajan and S S Kakade</i>	1245 – 1300
7.	I-008	Stand-off detection of explosives by spectroradiometer using far-IR characteristics. <i>Prashant Kulkarni et.al,</i>	1300 – 1315

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – II, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session III: 1600-1730 hrs Session Title: High Explosives			
1.	F-007	Experimental study of Fragment distribution for detonation of 81mm mortar under buried condition <i>Meeta Baghel, Nayan Bhati, R. K. Singh, T.A.Khan, Priyavrat Sharma, Pawan Kr. Yadav, Parveen Kumar, Rajan Kumar, R K Tanwar</i>	1600 – 1615
2.	F-008	New family of secondary high-performance energetic materials of nitropyrrroles <i>Vikranth Thaltiri, Kurumurthy Chavva, Pradeepta K. Panda</i>	1615 – 1630
3.	F-009	Optimization of Pressing Parameters for Compaction of HMX Based Aluminized Explosive and Its Blast Performance Evaluation <i>Dhirendra Gupta, Ashwani Kumar, Meenakshi Bhatt Kala, Ritu Daipuria, Rajeev Kumar, Niladri Mukherjee</i>	1630 – 1645
4.	F-010	Studies on Booster Charge Design for Initiation of Secondary Explosive. <i>Santosh Kumar, V K Singh, A G Nagarkar & R K Sinha</i>	1645 – 1700
5.	F-011	Studies on RDX with improved insensitive characteristics and its application in Polymer Bonded Explosive Compositions <i>M. Suresh, J. Saji, M.K. Singh, S Radhakrishnan, MB Talawar and R.K. Sinha</i>	1700 – 1715
6.	F-012	Non-Contact Spatial and Temporal Domain Quantification of Post Detonation Fireball Parameters for High Energy Materials <i>Vivek Mahto, Debasish Pradhan, Rajendra Shrikant Deodhar , Devyani Kishor Jadhav</i>	1715 - 1730

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – III, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session I : 0945-1115 hrs Session Title: Combustion Thermal & Ballistic Property Studies			
1.	B-001	Study on Performance of Swirling Oxidizer Injection on the Post Combustion Chamber of Hybrid Rocket Motor <i>Bala Vignesh D and Rajiv Kumar</i>	0945 - 1000
2.	B-002	The effect of the structure of the ammo/bamo energetic copolymers on thermal properties <i>Nina V. Kuznetsova, Vladimir A. Petrov, Timur I. Mukhametshin</i>	1000 – 1015
3.	B-003	Friction Sensitivity of Different Composite Solid Propellants based on Passive and Active Binders and Correlation with Thermal Properties and Burning Rate <i>Ehtasimul Hoque, Chandra Shekhar Pant, Sushanta Das</i>	1015 – 1030
4.	B-004	In-situ estimation of aluminium agglomeration in solid propellant combustion <i>Robin Rathi, Mrinmoy Biswas, M. Ratnam, S. Ganesan, S.R.Chakravarthy, K.Jayaraman</i>	1030 – 1045
5.	B-005	Combustion behaviour of sandwich propellants containing RDX <i>K.Gnanaprakash, Dharshana singh, S.R.Chakravarthy , K.Jayaraman , Rohit, Arvind kumar; Ananthram</i>	1045 – 1100
6.	B-006	Comparison of Pressure Coupled Combustion Response of a Composite Solid Propellant by T-Burner Method and Laser Doppler Velocimetry Method	1100 – 1115

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – III, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session II: 1130-1330 hrs Session Title: Pyrotechnique & Civil Explosives			
1.	C-001	Advantages of Natural Binders over Conventional Binders on the Combustion Characteristics of KNO ₃ /KClO ₃ based Pyrotechnic Mixtures <i>Tribhuvan Kumar Pathaka, et.al</i>	1130 – 1145
2.	C-002	Performance prediction of Pyrogen igniters through Mathematical Modeling <i>Priyanka Chaudhary, et.al</i>	1145 – 1200
3.	C-003	Combustion Characteristics and Performance Studies of AlB12 / KClO ₄ Pyrotechnic System for Igniter Application <i>Sukeshni Rawal, Manasa Kumar Das, Arti Pant, Seema Dilip Kakade and Pawan Kumar Khanna</i>	1200 – 1215
4.	C-004	Cap Based Ignition System for High Energy Case-Bonded Composite Propellant <i>Shrikant Ghogale, Sukeshni Rawal, S A Phatak, S M Kalbhor and KPS Murthy</i>	1215 -1230
5.	C-005	Studies on FOX-7 based sheet explosives <i>M K Singh, S K Jangid, G Pandit, V J Solanki, M B Talawar and R K Sinha</i>	1230 – 1245
6.	C-006	Studies on Process for Preparation of Small Caliber Flexible Linear Shaped Charge <i>Prashant Agarwal, V K Singh, N K Singh, CN Ghavate, A G Nagarkar & R K Sinha</i>	1245 – 1300
7.	C-007	Studies on Conical & Hemispherical Shaped Charges as a Demolition Device for Buried Mines <i>N.H. Naik, Santosh Kumar, AG Nagarkar, RK Sinha, KPS Murthy</i>	1300 – 1315
8.	C-008	Investigation of Manganese based Pyrotechnic Time Delay Formulation <i>P Saha Chowdhury, S V Pedgaonkar, P R Arya</i>	1315 – 1330

Day 2 : 17 December 2019 (Tuesday)

Venue: Hall – III, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session III: 1600-1730 hrs Session Title: Combustion Thermal & Ballistic Property Studies			
1.	B-007	Thermal response study of insulation for solid rocket motor through simulation of hot gas flow with regressing propellant burn surface <i>Mrinmoy Biswas, Shekhar Singh, Ch. Vijaya Saradhi, P.V.G Brahmanandam</i>	1600 – 1615
2.	B-008	Determination of Kinetic Parameters for Rapid Pyrolysis of Ammonium Perchlorate <i>Prathamesh Phadke, Rohit Sehwatb, Arvind Kumarb, Sudarshan Kumarc, Neeraj Kumbhakarna, Arindrajit Chowdhurya</i>	1615 – 1630
3.	B-009	Solid propellant burn rate behaviour -Study on catalyst nature and fine oxidiser loading <i>P.S.Sathiskumar, Vinay Paliwal, VM Lakshmi, Sojan P, S Umasankar</i>	1630 – 1645
4.	B-010	Graphene oxide - Copper chromite Blends as catalysts for thermal decomposition of AP in solid propellant formulations. <i>P.B. Soumyamol, Supriya N, S. Reshmi, K.P. Vijayalakshmi and R. Rajeev</i>	1645 – 1700
5.	B-011	Thermal decomposition behavior and compatibility of octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine with polyester- based polyurethanes containing different curatives <i>Rajesh Kumar, Arjun Singh, Pramod Kumar Soni, Vasundhara Singh , N. Mukherjee</i>	1700 – 1715
6.	B-012	Prediction of Calorific Data using Nitrocellulose <i>R K Jadhav, Vasudha Kaul, SA Sonone, S Roy</i>	1715 - 1730

Day 2 : 17 December 2019 (Tuesday)
Venue: Annex Hall, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session I : 0945-1115 hrs Session Title: Rocket Propellant Studies			
1.	E-001	Throttling of a Fuel Rich Propellant Using Controlled Kerosene Injection <i>Ankush Kumar Mishra, Dr. P.A. Ramakrishna</i>	0945 - 1000
2.	E-002	Reduction of HCL Concentration in Combustion Products of AP based Solid Propellant using Metal Additives <i>Uma Vellaisamy, Shelly Biswas</i>	1000 – 1015
3.	E-003	Studies on liner system for Solid rocket motors - Improvement in Interface properties with ZincOxide tetrapod <i>Ajithkumar H, Shashi bhushansingh, Ganesan M, Sandhya G Nair, Ratheesh S, Suraj S, Renjith Devasia</i>	1015 – 1030
4.	E-004	A Study on Grind ability of Three different series of AP to Achieve Specified Particle Size Distribution and Ballistic properties of Agni Motor for proposed new AP—AG Series <i>Pradhan SK, Suresh Babu KV, Srinivas Babu N, Kanakaraju P, Dr. Ramana Reddy T V Syed Hamed A</i>	1030 – 1045
5.	E-005	Design of High Thrust-Short Duration Solid Motor with High Burning Rate Propellant <i>Prasanth C, Kiran Pinumalla, Khadar Voli Kalluru, Deepak Sharma, Jeenu R, Krishnadasan C K and Levin G</i>	1045 – 1100
6.	E-006	Improvements of Thermomechanical and Interfacial Characteristics in EPDM Thermal Insulation Through Novel Chemical Approach <i>Abhijith TV, Ramakrishna S, Shashi B Singh, Ganesan M, Tushar Bhatt, Suraj S</i>	1100 – 1115

Day 2 : 17 December 2019 (Tuesday)
Venue: Annex Hall, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session II: 1130-1330 hrs Session Title: Rocket Propellant Studies			
1.	E-007	Surface modified iron oxide nanoparticles as burn rate booster in composite AP based solid rocket propellants <i>Veerabhadragouda B Patil, Satish Ture, T. V. Chowdary, A. N. Gupta, A. Venkataraman and Channabasaveshwar V Yelamaggad</i>	1130 – 1145
2.	E-008	Study of mechanical and interface behavior of fast setting polyurethane inhibitor used in large solid propellant rocket motors <i>Himanshu Shukla, B Munirathinam Munirathinam and A Balamurali</i>	1145 – 1200
3.	E-009	Wax Mandrel Demonstration Trials for Development of Complicated Solid Propellant Grains <i>G Sathesh Kumar, Nikunj Rathi, T V Jagadeeswar Rao</i>	1200 – 1215
4.	E-010	Advanced Energetic Binder Propellant Systems: A Comparison with Conventional Binder <i>C M Thorat, G Sathesh Kumar, R S Patil, S C Bhattacharyya</i>	1215 -1230
5.	E-011	Development of Soluble Mandrel to achieve complex grain geometry rocket motor <i>Mukesh Jain, Nitin Kumar, S Mukherjee, Bipin Kumar, P Gawande, P Bar, DR Kshirsagar, P K Adak</i>	1230 – 1245
6.	E-012	Effects of natural ageing on the mechanical and interface properties of composite solid propellants <i>Rani Mathammal B et.al</i>	1245 – 1300
7.	E-013	Eutectic Alloy Based Collapsible Mandrel Design, Propellant Processing and Static Test Evaluation <i>Avtar Singh, Ajay N Patil, Amit Kumar, Arvind Kumar, Manoj Gupta</i>	1300 – 1315
8.	E-014	Extruded Boron based Fuel Rich Propellant for Ramjet Application <i>S.R. Gore, R.N. Patkar, A.K. Mishra, J.G. Bhujbal, and S.M. Pande</i>	1315 – 1330

Day 2 : 17 December 2019 (Tuesday)
Venue: Annex Hall, IC & SR

S.no.	Paper ID.	Title of the Paper	Time (hrs)
Session III: 1600-1730 hrs Session Title: Rocket Propellant Studies			
1.	E-015	Development of Castable Cool Gas Generating Propellant using Triaminoguanidinium Nitrate (TAGN) <i>Yogesh Kumar Singh, B. HariHaranath, P. Purushothanam and Mohan M</i>	1600 – 1615
2.	E-016	Development of Castable Cool Gas Generating Propellants for Launch Vehicle Applications <i>Yogesh Kumar Singh, B. Hariharanath, P. Purushothanam and Mohan M.</i>	1615 – 1630
3.	E-017	Development of Reduced Smoke Inhibitor Formulation for Extruded Double Base Sustainer Propellant for Anti-Tank Missile <i>KG Bhalerao, LV Gaikwad, PK Divekar, B. Narasimhulu, PP Vadhe and KPC Rao</i>	1630 – 1645
4.	E-018	Study on Shelf Life Evaluation of Liner Formulation Developed for EPDM as Insulator for Case Bonded Rocket Motor <i>LV Gaikwad, KG Bhalerao, PK Divekar, , RK Mahalle, PP Vadhe and KPC Rao</i>	1645 – 1700
5.	E-019	Study of Expandable Graphite Effect on Hybrid Fuel Regression Rate <i>Silky Elanjickal and Alon Gany</i>	1700 – 1715
6.	E-020	Effect of solid loading on propellant properties using spherical Aluminium as fuel <i>Dr. Lakshmi VM, M Dev Anand, Nikhil PS, Arun S, Satish Mahto, Umasankar S</i>	1715 - 1730

Posters Schedule (Venue: Hall 4, IC & SR)

Day 2 : 17 December 2019 (Tuesday)

All the Posters for Day 2 (17th December 2019) should be on the panels before 0900 hrs

S.no	Paper ID	Title of the Paper & Authors
II. COMBUSTION, THERMAL & BALLISTIC PROPERTY STUDIES		
1.	PB-007	Laser Doppler Velocimetry with Servo-Mechanism to Determine Admittance and Pressure Coupled Response Function of Solid Propellant Combustion <i>Rajendra Rajak, S.R.Chakravarthy, K. Jayaraman, B. S. Subhash Chandran</i>
2.	PB-008	Influence of Acoustic Pressure Oscillations on Mean Burning Rate of Solid Propellant <i>B. Kathiravan, Rajendra Rajak, C.Sethilkumar, , M. Thirumoorthy, S.R. Chakravarthy, K.Jayaraman</i>
3.	PB-009	A combustion response model for sandwich propellant <i>H. K. Zinjala, S. R. Chakravarthy, S Anantharamz, M Pandu Ranga Sarman, and D. Singh</i>
4.	PB-010	Thermal and morphological parameters of crystal habit modified ammonium perchlorate <i>Suchithra C*, Chithra A, Roopa Dimple, Dr. Rajeev R, Kavya Sasankan</i>
5.	PB-011	Studies on Burning Rate Scale Factor of Acoustic Emission Strand Burner and BEM for Composite Propellant Formulations <i>Nitin Kumar, Ganesh Dombe, Mukesh Jain, P K Adak, N P N Rao, K P S Murthy</i>
6.	PB-012	Studies on the sensitivity and thermal behavior of DOP coated CL-20 explosive <i>M K Singh, S K Jangid, G Pandit, V J Solanki, M B Talawar and R K Sinha</i>
II. SYNTHESIS, CHARACTERIZATION & STRUCTURAL ANALYSIS OF HEMS		
1.	PD-007	Efficient Synthesis and Exploration of Energetic Properties of 1-Methyl-2,3,4,5-Tetranitropyrrrole <i>Vikranth Thaltiri, Shanmugapriya V, Pradeepta K. Panda</i>
2.	PD-008	Ageing Studies of Advanced Energetic Propellants <i>Amit Kumar, Prakash V Chavan, Vaibhav S. Sadavarte, Santosh Mada, Shrikant M Pande</i>
3.	PD-009	Study of mechanical properties of composite propellant containing RDX at different temperatures and strain rates <i>Kamakshi Gupta, Jayesh Upadhyay, Arvind Kumar, SD Kakade, Priyesh More</i>
4.	PD-010	Process Development and Optimization of Dinitro-diaza- alkanes (DNDA-57) <i>J Singh, S S Adhav, P A Sagar, S K Singh, A K Mandal and R K Pandey</i>
5.	PD-011	Synthesis, Characterization and energetic applications of Polyphosphazene Binders <i>Ramu Gudaa, Krishnamurthi Muralidharana</i>
6.	PD-012	Poly-formaldehyde as a novel burn rate moderator for Extruded Double Base Propellant <i>A K Mishra, R N Patkar, S R Mane, S R Gore, S M Pande and M Gupta</i>
7.	PD-013	Development of Simple, Safe and Cost Effective Purification Method for Nitrate Esters <i>V H Khire, D R Kshirsagar, Siddhartha R, Somraj, Sudhir, Ajit Maurya, Arvind Kumar</i>

S.no	Paper ID	Title of the Paper & Authors
III. ROCKET PROPELLANT STUDIES		
1.	PE-010	Characterisation of Cure Shrinkage, Stress Free Temperature and Cure Kinetics of Active Binder Based High Energy Propellant by Pressure Measurement in Closed Curing <i>Ganesh Dombe, Sudhir, Deepak Kumar, N K Yadav, P K Adak and KPS Murthy</i>
2.	PE-011	Analysis of Tubular Propellant Grain Configuration for Achieving Improved Neutrality of Pressure-Time Profiles <i>Sunil Jain, Vaibhav Agrawal, HP Sonawane, Avinash Chander, NPN Rao, VH Khire & K. Balasubramanian</i>
3.	PE-013	Studies on Development of Composite Solid Propellant Formulation Using Isoprene Rubber Binder System <i>Sidharth Raveendran, Sudhir, D R Kshirsagar, Ajit Maurya, Somraj, V H Khire, Manoj Gupta & ChetanBhongle</i>
4.	PE-014	Development of Safe and Reliable Fixtures for Processing and Confined Curing of Composite Propellant and its Validation <i>V. Venu, Ajit Maurya, M D Hake, Sidharath Raveendran Sudhir, P K Adak & Arvindkumar</i>
5.	PE-015	Development of HTPB-Kaolin based Inhibitor Formulation for High Burn Rate Gas Generator Composite (GG) Propellant <i>PK Divekar, KG Bhalerao, LV Gaikwad, B. Narasimhulu, PP Vadhe and KPC Rao</i>
6.	PE-016	Development of Liner Formulation for High Energetic (NEPE) Class of Propellant in Case Bonded Rocket Motor <i>KPC Rao, KG Bhalerao, PK Divekar, LV Gaikwad, B Narsimhulu, PP Vadhe and SM Pande</i>
IV. HIGH EXPLOSIVES		
1.	PF-007	Evaluation of Metallised Polymer Bonded Explosive Compositions for Warhead Applications <i>S. Giju, M. Suresh, J Saji, N Rahujade, M B Talawar and R K Sinha</i>
2.	PF-008	Performance Estimation and Evaluation of Fuel Rich Explosive Formulations for High Blast Impulse Applications <i>J. Saji, M S Katore, M B Talawar, R.K.Sinha and K.P.S. Murthy</i>
3.	PF-009	Technology of Polymer Bonded Explosives <i>RK Sinha, M Suresh, SK Jangid and KPS Murthy</i>
4.	PF-010	Application of Natural rubber based sheet explosive formulation for controlled demolition <i>G Pandit, S K Jangid, M K Singh, V J Solanki, M B Talawar and R K Sinha</i>
5.	PF-011	Warm Isostatic Press: A Safe, Novel Technique for High Density Pressable High Explosives compositions <i>Purabi Garai, Anita Mathew, A G Nagarkar, R.K. Sinha & K P S Murthy</i>
6.	PF-012	Large calibre warhead filling by in -situ pressing technology <i>Dr. Purabi Garai, Anita Mathew, A G Nagarkar, R K Sinha & K P S Murthy</i>

S.no	Paper ID	Title of the Paper & Authors
V. MODELING AND SIMULATION		
1.	PH-007	Additive effect of ethylene glycol on morphology of ammonium perchlorate: a theoretical insight <i>Md Abdul Shafeeuulla Khan, A. K. Nandi, J. K. Nair and S. D. Kakade</i>
2.	PH-008	Development of Mathematical Expression for Inhabited Building Distance for UNHD 1.2 <i>Prabhanjan Kumar Thakur, Rajesh Kumar Tanwar</i>
3.	PH-009	Estimation of Optimum Casing Thickness of Cylindrical charge for Maximum Range of Fragments <i>Prabhanjan Kumar Thakur, Rajesh Kumar Tanwar</i>
4.	PH-010	Prediction of Detonation Velocity of Advanced High Performance Polymer Bonded Explosives by Using Empirical Approaches <i>P. P. Vadhe, N.H. Naik, U.S. Prasad, R.K. Sinha, M. Gupta and K.P.S. Murthy</i>
VI. QUALITY ASSURANCE & DETECTION OF EXPLOSIVES		
1.	PI-009	Non-Destructive Evaluation of Pyrodevices for Aerospace Applications Using Radiography <i>Remakanthan Sasidharan Pillai and Moideenkutty K K</i>
2.	PI-010	Development of a Handheld Device for Identification of Explosives <i>RM Roy, SR Nayak, J Anthony, S Thiyagu, SD Kakade</i>
3.	PI-011	Identification and quantification of components of high energy solid propellant by RP HPLC technique <i>Sanjeevani Sonawane, N. T. Agawane, S. Radhakrishnan, J. K. Nair, S. D. Kakade</i>
4.	PI-012	Design and Development of Innovative Tool for inspection of Internal Serrations in 81 mm Smoke Grenade <i>D Debnath, K B Jadhav, S M Mali, S P Patil, C R Daware, A K Vishwakarma</i>
5.	PI-013	Particles size analysis using laser diffraction – application to propellant materials <i>Rajesh EK, Arathy CP, Dr. Lakshmi VM, Umasankar S</i>
6.	PI-014	Development of thickness measurement & linear profiling system for specimen of explosives and small components <i>Anirudha Sane, Bikash Ghose, C. Gururaja Rao</i>
7.	PI-015	Qualification of nitrile butadiene rubber used as polymer fuel binder for high energy composite propellant <i>Sudhir, Sidhrath Raveendran, S. Nandgopal, Somraj, D R Kshirsagar, A P Mahajan</i>
8.	PI-016	Optimization of the Method for Multiple Tensile Bond Strength (TBS) Specimen Preparation by Implementation of Attachment Fixture <i>Rohit Kumar Mahalle, SS Londhe, JG Bhegde, Upendar Kumar and KG Bhalerao</i>
9.	PI-017	Methodologies of Interpretation of Various Defects in Digital X-ray Radiographs of Solid Rocket Propellants for Development of ADR Software <i>Deepak Patil, Bikash Ghose, C. Gururaja Rao</i>

S.no	Paper ID	Title of the Paper & Authors
VII. SAFETY & DISPOSAL TECHNIQUES		
1.	PJ-001	Blast evaluation comparison study on polyurea coated Steel Fibered Laced Reinforced Concrete (SFLRC) and plain SFLRC composite slabs <i>M K Reddi, Anil Kumar, R K Singh, Rajesh Mishra, Kapil Garg, T A Khan, R K Tanwar</i>
2.	PJ-002	Hazard Classification of Signals Railway Track <i>Neelam Saxena, Hemlata Gautam, H L Yadav</i>
3.	PJ-003	Synthesis of nano-TiO ₂ particles, fibers and nano-TiO ₂ -graphene composite by solgel method: A comparative study for removal of trinitrotoluene <i>Bharti, Ajay Kumar Shaw, Ashok Singh Rawat, Pramod Kumar Rai</i>
4.	PJ-004	Challenges involved in the disposal of waste propellant and life expired solid propellant motors <i>Lakshmi Kanth R V, Ramesh V, Samson T, Mathew P Daniel, Remakanthan S, Nallaperumal M, Umasankar S</i>
5.	PJ-005	An integrated fuzzy based approach in allocating risk priority values in FMEA for explosive processing units <i>Sreejesh.K, Jitender Kumar, Dr. S.C. Bhattacharyya</i>
6.	PJ-006	Engineering Control Measures for Implementing Electrical Safety at Explosive Facility <i>N. Vijay, S Manickavasagan, P Ravinder Goud, CVS Murthy</i>
7.	PJ-007	Safety Enhancement for Machining Large Size Solid Rocket Motor in Vacuum Chip & Dust Collection System (VCDCS) <i>P. Siva Kumar , PVS. Rao</i>
VIII - NANO MATERIALS		
1.	PK-001	Thermo physical properties of HTPB based polymer-clay nanocomposites catalyzed composite propellants <i>Kavita Ghosh, R K Kalal, Jayesh Upaddyay, Amit Kumar, Arvind Kumar, Shaibal Banerjee, Manoj Gupta</i>
2.	PK-002	Chemical Synthesis of Aluminium Nanoparticles <i>Billakanti Srinivas, Dasari Sai Hemanth Kumar, Vepa Kameswara Rao and Krishnamurthi Muralidharan</i>
3.	PK-003	Influence of La ³⁺ ions on Structural and Electrical properties of Cobalt Nanoferrites by Sol-gel method <i>A.Rajeshwari, I.Kartharinal Punithavathy</i>
4.	PK-004	Impact of Manganese doped Bismuth ferrite microcube particles as a storage material for supercapacitor application <i>Hemalatha Kuzhandaivel, Yogapriya Selvaraj, Sornalatha Manickam and Karthick Nallathambi</i>
5.	PK-005	X-ray study of Fe ₂ O ₃ nanoparticles prepared by chemical route technique <i>Jithender Ladad and Sesha Sai Kumar Vemula</i>
6.	PK-006	Exploring single replacement reaction for synthesis of Fe, Co, Ni, Cu and Zn, nanometal catalysts for catalytic thermal decomposition of ammonium perchlorate <i>Parvathy C, Sreeja B, Rajeev R</i>