HEMCE-2019

12th International High Energy Materials Conference & Exhibit

16-18 Dec., 2019

Indian Institute of Technology Madras, Chennai, India

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SHAR - CHENNAI CHAPTER

First Announcement
Call for Papers

Theme

"Exploring the innate inclusive potentials of High Energy Materials"

Important Dates

Registration Starts	: 15 August, 2019
Submission of Extended Abstracts	: 01 September, 2019
Acceptance of Abstracts	: 15 October, 2019
Submission of Full Papers	: 15 November, 2019
Registration Closes	: 18 November, 2019

HEMSI

High Energy Materials Society of India (HEMSI) is a non-profit professional body founded in 1983 with Head Quarters at HEMRL (Pune). Its objective is to promote, propagate and encourage basic and applied research in the whole gamut of High Energy Materials (HEMs) including Propellants, High Explosives & Pyrotechnics all over the world. The society provides a unique platform to discuss, share, exchange, interact and realize these objectives by organizing international conferences. The 12th International High Energy Materials Conference & exhibit (HEMCE-2019) will disseminate the latest information in the area of HEMs amongst Academicians / Scientists / Researchers / Professionals / Industrial leaders working in area of HEMs. The conference also includes an exhibition displaying state of the art products, methods, services and devices related to HEMs, which will provide B2B interaction amongst the participants. Scientists and technologists from India and abroad will participate in the conference. Research papers presented in the conference will be compiled in the form of proceedings.

The Organizers & Venue

IIT Madras is the venue for 12th International High Energy Materials Conference & Exhibit (HEMCE-2019) organized by High Energy Materials Society of India (HEMSI), SHAR-Chennai Chapter in association with Satish Dhawan Space Centre (SDSC), SHAR and Indian Institute of Technology, Madras (IITM), Chennai.

IIT Madras, which is nestled in the lush green surroundings of the Guindy National Park, has had the privilege of being one among the few academic institutions in the country to nurture and carry out research in HEMs. It had established experimental test facilities and other equipment as early as 1980s. Today, it has to its credit the distinction of publishing its research findings in the top-rated journals world-wide and also interacting with the industries on problems of national importance.

Sriharikota

Sriharikota, SHAR-Chennai chapter of HEMSI is organising HEMCE-2019. Sriharikota is an island surrounded by the Bay of Bengal at the east and Pulicat lake on the west side at the east coast of South India, 80 km north of Chennai, 100 km south of Nellore, AP and 80 km east of Tirupati. Pulicat lake is visited by a plethora of vibrant migratory birds like Greater Flamingos, Pelicans and Storks in winter and Sriharikota Island itself is home to diverse flora and fauna.

Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota, Spaceport of India, is responsible for launching various Indian Space Vehicles (PSLV, GSLV-MkII, GSLV-MkIII) for satellites (Remote Sensing, Communication) as well as deep space missions (Chandrayaan, Mangalyaan).

SHAR is a hub for various high energy materials used in the rocketry and possess state of the art facilities for producing, storing and servicing huge quantities running into several tons of solid propellants, liquid propellants that include both earth storable and cryogenic propellants, etc. SHAR is also developing infrastructure for semi-cryo propellants. With this mammoth growth of high energy materials production, SHAR has achieved the phenomenal maturity and is poised to involve the industry in the realization of High energy materials.

Conference Theme

Right from the era of Nobel, the field of high energy materials underwent evolutionary morphological changes with an aim to achieve better. In this process, the high energy materials field has undergone many developments. At one hand, the theoretical understanding and developing the relevant technologies uses combinatorial chemistry for design of materials, mathematical simulation for combustion and its engineering, testing using advanced chemical analysis probes, experimentation for understanding the realities of making the materials. On the other hand, the engineering for large scale production needs understanding the stability of materials and their behavior with respect to storage, bulk handling, rheology, safety, waste disposal, process easiness, automation etc. This holistic, inclusive thinking is the need of the hour and hence the “Exploring the innate inclusive potentials of High Energy Materials” is the theme selected.

Call for Papers

The extended abstract for the proposed papers must be limited to 500 words. It should include statement of the problem, scope of the experimental method, brief discussion of the results obtained and important conclusions drawn. Title of the abstract should be in bold title case (font size 14). Name of the authors and their affiliation in the title case (font size 12) should follow the title. Subtitles should be in bold italic (font size 14). The text is required to be in font size of 12. Font style should be Times New Roman and line spacing should be 1.5.

Extended Abstracts of the papers are required to be sent electronically (email:hemce2019@gmail.com) or can be uploaded in the website (https://www.hemce2019.in) on or before the deadline. Papers will be selected by a panel of referees on the basis of the contents of extended abstracts.

Authors of selected papers will have to submit full text in camera ready form for publication. The detailed instructions will be posted on website. Authors are required to include new and original research material. Inclusion of work published earlier need to be duly acknowledged. Authors should certify that the paper has not been presented at any Meeting/ Workshop/Symposium or communicated to any journal. Abstracts and text must be unclassified. Responsibility to obtain requisite clearance from the Institution/Sponsoring Agencies rests with the author(s).

Focus Areas

- Rocket propellants: Solid, Earth Storable, Cryo, Semi-Cryo, Hybrid Propellants
- Synthesis, characterization & evaluation of new energetic materials for various applications
- Development, Scale-up & Manufacture of advanced HEMs
- Nano Energetic Materials for HEM application
- Modeling and simulation, structural analysis, reaction pathways and mechanisms
- Thermal decomposition, combustion and detonation
- Pyrotechnics and their applications
- Insensitive & Green HEMs / Munitions
- Gun propellants and propulsion systems
- Advances in civil explosives
- Explosive Detection Techniques and devices
- Quality control and assurance of HEMs
- Safety, Hazards, waste management, Environmental studies and disposal technologies of HEMs
- Structural Analysis of HEMs
- Ageing studies
- High Explosive formulation and devices

Partons

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Dr. G Satheesh Reddy, Chairman DRDO	Prof. Bhaskar Ramamurthi, Director, IIT Madras

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Dr. NikunjRathi, IIT Madras	Prof. P. A. Ramakrishna, IIT Madras, Convener
Prof. G. Rajesh, IIT Madras	

Registration Fee

Indian Delegates Rs.7,000	Foreign Delegates $ 300
Life Members (Indian) Rs.6,000	Life Members (Foreign) $ 250
Students: Rs.2,500	Students (Foreign): $ 100

Registration fee can be paid through DD / Multicity Cheque / Digital Transfer.

Registration Details

A/c Name : HEMSI SHAR CHENNAI CHAPTER

A/c No. : 10499672899

IFSC Code : SBIN0001982

Bank : State Bank of India

Branch : Sriharikota

Souvenir & Exhibit

Souvenir will be released during the inaugural function with the collection of abstracts of technical papers, Invited talks and advertisements. It is an ideal platform for all industries to advertise their products / services.

Tariffs for advertisements

Front Cover Inside	:	Rs.40,000/-	Full Page	:	Rs. 20,000/-
Back Cover	:	Rs.30,000/-	Half Page	:	Rs. 15,000/-
Back Cover Inside	:	Rs.25,000/-	Half Page (B/W)	:	Rs. 10,000/-

Exhibition of Products / Technologies related to High Energy Materials is also being organized during the conference.

Poster: Rs. 10,000/-

Stall Tariff Single (10'X10'): Rs. 50,000/- **Double (10'X20'):** Rs. 75,000/-

Sponsorship Platinum: Rs. 10,00,000/- **Gold:** Rs. 5,00,000/- **Silver:** Rs. 3,00,000/-

Website : https://www.hemce2019.in

Contact

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Venue