

14th

International High Energy Materials Conference and Exhibits

on 1-3 February 2024

*"Expedition towards excellence
in energetics"*

HEMCE

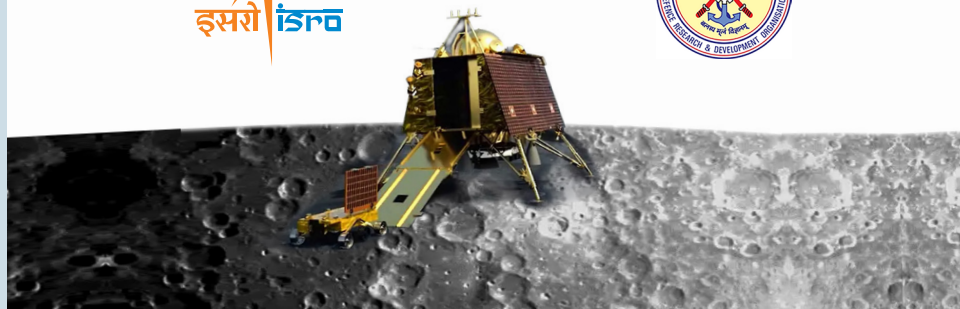
2024

www.hemce2024.in



Organized by
High Energy Materials Society of India
Thiruvananthapuram Chapter

in collaboration with
ISRO & DRDO



THE CONFERENCE

High Energy Materials Society of India (HEMSI) is a professional body consisting of scientists and engineers, passionate in science and technology pertaining to High Energy Materials (HEM) including propellants, high explosives and pyrotechnics. HEMSI is organizing the 14th International High Energy Materials Conference and Exhibits (HEMCE 2024), at Thiruvananthapuram, Kerala, India, during 01 – 03 February 2024.

HEMSI founded in 1983 at Pune, has been in the forefront in showcasing the latest and the best in HEM. HEM is an exciting engineering and technology domain with proprietary designs and products. In the last twenty years, research and application in the field of HEM have advanced significantly due to several factors including advances in complementary domains, availability of new materials, better assessment and modeling techniques and demands from new operational requirements. These advancements and the current demands call for detailed understanding of this field to permit more effective use of established materials and new materials with special properties as well as to aid future-proofing through innovation in an age of disruption.

Since 1998, High Energy Materials Society of India has been organising international conferences at various venues in India, to deliberate on the developments in HEM. The 14th International High Energy Materials Conference and Exhibits (HEMCE 2024) will provide an opportunity for the proponents of HEM technology, to present their results, learn about the needs, share and exchange knowledge and contribute for the future of energetic materials, processes and systems. The conference will be a congregation of academicians, researchers, professionals, startup companies and industry leaders working in this domain. The conference will also showcase state of the art methods, services, products and devices. It is expected that HEMCE-2024 will emerge as a professional platform enabling strong links with industry and academia.

THE ORGANISERS

HEMSI has more than 1500 active members with good representation from the Centres of Indian Space Research Organisation (ISRO), Defense Research and Development Organisation (DRDO), India and from the elite academic institutes. HEMSI has regional chapters at Thiruvananthapuram, Chennai-SHAR, Hyderabad, Chandigarh - Delhi and Jagadapur in addition to its parent chapter at Pune. HEMSI has established its eminent presence within the country and outside with eight national and eight international seminars and conferences. Deliberations in the conferences have always been successful in addressing the entire R & D spectrum, providing both in-depth knowledge and alternative perspectives in the fields of pyrotechnics, propellants, high explosives and related areas.

The conference is organized by High Energy Materials Society of India, Thiruvananthapuram Chapter under the auspices of Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, the lead Centre of Indian Space Research Organisation (ISRO) under the Department of Space (DoS), Government of India. VSSC, named after Dr. Vikram A Sarabhai, the astute visionary and father of Indian Space Programme, pioneers in space technology research and spearheads the launch vehicle programme of the country. During the last fifty years, VSSC has established its strong presence in the field of propellants, explosives and pyrotechnics with a myriad of systems for launch vehicles and satellites. The Centre has an excellent team of researchers and application scientists to deliver the ultimate requirement of HEM for the Indian Space Programme.

CONFERENCE THEME

Central theme of this conference is "Expedition towards excellence in energetics". The conference seeks to explore new research results, developments, applications and trends in the field of energetic materials. Thrust areas addressing the theme include many long-standing research goals such as increased performance and safety, also reducing environmental and health hazards. Special attention is given to thermally stable explosives, insensitive energetic materials and nano high energy materials, new applications of HEM, advanced methods in production as well as analysis, characterization and performance prediction.

FOCUS AREAS

- Synthesis, characterization, testing and kinetics of HEMs
- Advanced trends in HEMs: Green, Nano energetic materials, Energetic Metal Organic frameworks (EMOFs), Energetic co-crystals, HEDOs, highly regressive fuels/additives etc.
- Advances in commercial/military explosives and related developments
- Combustion, propellants, propulsion and ancillary technologies
- Gun propellants and propulsion systems
- Development of new explosive devices, technologies & systems
- New propulsion concepts using HEMs
- Disruptive technologies in R&D of HEMs
- High Energy Materials and systems for human spaceflight
- Modeling, simulation, AI & ML in HEMs
- Detonics & shock loading of materials
- Blast effects and mitigation techniques
- Manufacturing, processing and scale up - advanced methods
- Quality control, lessons learnt & life time demonstration of HEMs
- Advanced explosive detection and experimental techniques
- Explosive Safety, transportation, disposal techniques & regulations

PLENARY AND INVITED LECTURES

Technical content of the conference will be enriched with plenary lectures by eminent scientists in the area of HEM. Invited lectures on topics listed in the focus areas will precede the presentation of contributed papers. Thematic discussions related to all the focus areas will also be conducted. Programme details of plenary and invited lectures will be announced shortly.

CONTRIBUTED PAPERS

Researchers working in the area of HEM are requested to contribute their research findings by way of contributed research papers for the conference. Such papers will have to conform to any of the broad focus areas listed and should be unpublished bonafide work. Papers will be listed for oral/poster presentation in sessions scheduled based on the number of papers received in each category. Authors are advised to send the abstracts at the earliest to be considered for oral presentation. Papers received after the deadline will not be considered. Oral presentation will be scheduled for a duration of 10-12 minutes including discussion. There will be two or three separate poster sessions, depending upon the total number of papers received.

Proceedings of the conference will be brought out as an edited volume and will be released at the conference. Authors are requested to submit the extended abstracts and the full papers to meet the printing schedule. For any queries related to the conference please mail to - info@hemce2024.in

CALL FOR PAPERS

Authors should submit abstracts in Microsoft^(R) Word and/or pdf formats. The abstracts should contain the title of the paper, author(s) name, affiliation and text of the abstract and email id of the corresponding author (format is available in the website). Abstracts should include a statement of the problem, scope of experimental methods, brief discussions of the results obtained and important conclusions. All abstracts should be uploaded to the conference site www.hemce2024.in on or before the deadline stipulated in the website. Authors of accepted papers are required to submit the full paper in camera-ready format for publication in the proceedings. Details and instructions for submitting full manuscript will be posted on website. Manuscripts shall be uploaded in the appropriate section at www.hemce2024.in.

For any queries related to papers please mail to- technical@hemce2024.in

EXHIBITION

Exhibition is an integral part of High Energy Materials Conference and Exhibits. The exhibition is expected to showcase industrial products and services in the field of HEM. The conference offers a gateway for industries/startups engaged in the processing, production, characterization, application, modeling, hazard mitigation and safety of HEM. This will be a golden opportunity to network with about 500 professionals and academicians in the field.

Stalls will be issued on first come first serve basis. Each air-conditioned stall having a minimum area of 3m x 2m will be charged Rs.1,00,000. Stalls will be covered on three sides with pre-laminated boards and will contain one table, two chairs and a 5A power supply. The conference secretariat will facilitate third party support for any additional requirements. The exhibitors will be offered two complimentary registrations and a complimentary listing in the souvenir. Exhibitors are eligible for 25% concession on the full-page advertisement charges in the souvenir.

For any queries related to exhibition please mail to- exhibition@hemce2024.in

SOUVENIR

A commemorative souvenir will be brought out on the occasion. The souvenir will be made available to all the registered delegates, invitees and exhibitors. It will be a good opportunity for organisations and industries to advertise their products and services in the souvenir which will be read and preserved by the participating delegates. In addition to advertisements, the souvenir will host sponsored features on industries subject to editorial clearance. The souvenir will be printed on good quality paper, in color. Advertisement and features should be provided in print ready high quality pdf format. All materials should be uploaded to www.hemce2024.in.

For any queries related to souvenir please mail to- souvenir@hemce2024.in

Advertisement tariffs

Back cover	Rs. 2,00,000
Front Cover inside	Rs. 1,50,000
Back Cover inside	Rs. 1,00,000
Full Page	Rs. 80,000
Half Page	Rs. 50,000

SPONSORSHIP AND BUSINESS OPPORTUNITIES

Associated industries and institutions are requested to support HEMCE 2024 by sponsoring the conference events. Three levels of sponsorships are available. Depending on the nature of sponsorship, the conference will provide any or a combination of business opportunities which include complimentary registration, business publication in the conference kit, company logo in conference documents, website and at the venue, opportunity for business presentation at sessions, complimentary pages in the souvenir and complementary stall at the exhibition. Institutions and industries are encouraged to sponsor the conference and avail the business opportunities offered.

For any queries related to sponsorship and business opportunities please mail to - finance@hemce2024.in

Sponsorship Tariffs

Platinum sponsorship **Rs.10,00,000 + GST**

(Privileges: 20 minutes business presentation, full page advertisement in souvenir, two exhibition stalls (combined/separate), logo & branding display in stage/website, 10 free delegate registration)

Gold sponsorship **Rs. 5,00,000+ GST**

(Privileges: One full page advertisement in souvenir, one exhibition stall, logo display in website and branding display at the conference hall, 5 free delegate registration)

Silver sponsorship **Rs.3,00,000+ GST**

(Privileges: One full page advertisement in souvenir, logo display in website and branding display at the conference hall, 3 free delegate registration)

IMPORTANT DATES

First announcement	July 30, 2023
Registration begins	September 10, 2023
Submission of ext. abstract	September 30, 2023
Intimation of acceptance	October 15, 2023
Submission of full paper	November 15, 2023
Registration closes	January 15, 2024

PARTICIPATION BY REGISTRATION

All participants of the conference are expected to register for the conference. Researchers, scientists, technologists, academicians, executives, professionals from industries, startups and government are expected to be among the prominent delegates participating in the conference. Presenting authors of contributed papers should register as soon as the acceptance is communicated to them. The registration fee is mandatory for all delegates except in the case of invitees. Registered delegates are eligible for conference materials, entry to sessions and exhibition halls, refreshments, lunch and conference dinner. Spouses are not eligible for conference kit and will not have access to technical sessions.

Registration can be made online by entering the required personal and payment details. The registration process will be completed only after the payment details are verified at our end. Written communication of government nominations send by post will also be considered for payment authorization, in the case of delegates from government organisations. The conference secretariat may be contacted in case of difficulty in online registration.

For any queries related to registration please mail to- registration@hemce2024.in

Registration fees	(Indian)	(Foreign)
Participating delegates	Rs. 10000	USD 450
Life members of HEMSI	Rs. 8000	
Spouse registration	Rs. 3000	USD 200
Students	Rs. 3000	USD 200

PAYMENTS

Payments are acceptable as core banking cheques, demand drafts or online transactions. Cheque number, DD number or online transaction number must be cited in the online registration forms and covering letters for reconciliation, if required. Uncited transaction will not be accounted for. Payment can be made either by cheque/DD to **HEMCE 2024 payable at SBI, Thumba, IFSC Code SBIN0002279** or through online to account number **42243627920**. Name of the remitter should be written on the instrument.

For any queries related to payment please mail to- payments@hemce2024.in



Scan the QR Code for payment

TRAVEL AND ACCOMMODATION

Expenditure for travel and accommodation is to be borne by participating delegates. Local pooled-transport for attending the conference within the city limits will be provided by the conference secretariat.

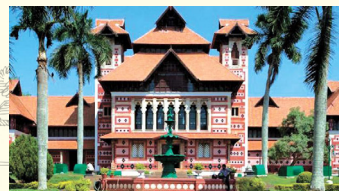
For any queries related to travel please mail to- transport@hemce2024.in

February is the end of tourist season in Thiruvananthapuram and those who are desirous of hotel accommodation are encouraged to book their accommodation in advance. Prospective delegates may use the HEMCE 2024 hotel link to avail concessional rates for the conference. The conference secretariat will not accept payment for accommodation. A few guesthouse rooms are available for release on first come first serve basis preferably for student delegates.

For any queries related to accommodation please mail to- accommodation@hemce2024.in

Thiruvananthapuram – Capital of God's Own Country

Thiruvananthapuram (Trivandrum), the capital of Kerala – God's own country, is a beautiful seaside city located on the west coast of India near the extreme south of the mainland, which Mahatma Gandhi has referred once as the "Evergreen City of India". The city houses many government offices, organisations and companies and is also a major academic hub. Major tourist attractions in Thiruvananthapuram include the Sree Padmanabhaswamy temple, Kovalam beach, Padmanabhapuram palace, Ponmudi hill station and Shangumugham beach. Weather in February is usually very pleasant with average temperature around 26°C.



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