ABOUT ASM INDIA NATIONAL COUNCIL

ASM International is a premier professional society of metallurgists, material scientists and technologists with a membership of over 30000 worldwide and international HO at USA. ASM offers excellent opprotunities to its members to interact and also provides wealth of information on metals, alloys, composites, ceramics, polymers and electronic materials through its handbooks, books, engineering software and CD-ROMs and information sharing network. ASM India National Council's vision is to bring various Materials professional in the country together and help promote and improve the quality of the materials research in the country. Eventually the society would like to rope in other Asian countries to promote a strong Asia Pacific Material research environment.

ABOUT DMRL

Defence Metallurgical Research Laboratory (DMRL) was established at Hyderabad in 1963 to produce complex metals and materials needed by the Indian Defence Industry. Over the yeas, the laboratory has acquired a special status as a premier centre for R&D in metals, alloys, ceramics and composites. Since its inception, the laboratory has developed and established a number of frontline technologies in the area of metallurgy and materials science. An infrastructure of advanced experimental facilities has evolved over decades. The developments at DMRL has led to the creation of new technology and production centres in the country.

ABOUT HYDERABAD

Hyderabad, famously known as Pearl City, is the capital and the largest city in the state of Telangana. The city boasts of a rich history spanning more than 400 years and with an exciting cultural heritage including arts, literature, architecture and diverse cuisines. It is a tourist paradise with numerous historical monuments and museums. The climate in Hyderabad during September is mild.

For more details : www.telanganatourism.gov.in

RELEVANCE

The conference is of relevance to basic and applied researchers, academicians, design engineers, material developers especially those who are engaged in the research and development of materials for applications in various defence systems.

ORGANIZING COMMITTEE

CHIEF PATRONS

Dr. G Satheesh Reddy, Secretary DD(R&D) and
Mr. V L Sridharan, Chairman, ASM India National Council

PATRONS

Dr. S V Kamat, DG (NS&M), DRDO
Dr. Tessy Thomas, DG (Aero), DRDO
Mr. MSR Prasad, DG (MSS), DRDO
Dr. N Eswara Prasad, Director, DMSRDE
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Dr. A K Tiwari, Vice Chairman, ASM India National Council
Dr. G Padmanabham, Director, ARCI
Mr. Dinesh Kumar Likhi, C&MD, MIDHANI
Dr. Dinesh Srivastava, CE, NFC, Chairman IIM Hyd Chapter

CHAIRMAN

Dr. Vikas Kumar, Director, DMRL

Co-CHAIRMAN

Dr. G M Reddy, Assoc. Director, DMRL
Mr. Pradip Goyal, Member, ASM India National Council

Convener

Dr. Mithun Palit, DMRL

Co-Convenor

Dr. Kartik Prasad, DMRL
Mr. P K Aurora, Member, ASM International

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International Conference on

ADVANCED MATERIALS AND PROCESSES FOR DEFENCE APPLICATIONS

ADMAT 2019 Mat Def

"Harnessing Materials Innovation for National Security"

September 23-25, 2019
Courtyard by Marriott, Hyderabad, India

Organized by
Defence Metallurgical
Research Laboratory

ASM INDIA NATIONAL COUNCIL

Under the Aegis of
ASM India National Council

IIM Metallurgy Materials Engineering

Co-Organized by
Indian Institute of Metals, Hyderabad Chapter

Website: www.admat2019.in

ABOUT ADMAT 2019 MatDef

India is an emerging economy with advanced strategic competence in defence, space and atomic energy. These strategic areas have witnessed several path breaking technologial achievements and also offer innumerable scope to become market for potentially state-of-art futuristic technologies. Materials technologies are most important in strategic systems and serve as a backbone for any futuristic development. In view of these idea of initiating a conference series ADMAT has been conceived to promote scientific interactions among research laboratories, industries and academia to accelerate and advance the development of materials for strategic need.

In line with the last ADMAT 2017, which was designed primarily with a theme of materials for space, the present ADMAT 2019 MatDef conference is being planned to discuss and brainstorm the current and futuristic trends in materials tehcnologies for defence applications. As a premiere laboratory with global reputation, Defence Metallurgical Research Laboratory (DMRL) has aptly been chosen for organizing the conference in association with ASM India National Council. The conference will host eminent personalities in the related field as Plenary and Invited speakers and will also offer researchers and students to present their work as oral presentations and posters.

The event is expected to have participation of experts from around the world and offers a wonderful opportunity to exhibitors (institutions and businesses in Materials Technologies for Defence Applications) to showcase their products and services to a specialist audience gathered for the Conference.

INNOVATION PAVILION

The conference is proposed to host an allied event, a contest called innovation pavilion. Under graduates, Masters and PhD students of various institutes around India can participate in this contest. The team of students can host a poster, interactive isplay or any demonstration material to highlight the innovative idea/research which are essentially directed towards the applications in defence related systems. The teams are required to submit their entries in the form of a synopsis to the website for initial scrutiny by an expert committee. The best innovation(s) will be awarded during the conference. Please find the details in the conference website.

CALL FOR ABSTRACTS

Prospective authors intending to participate in this conference are requested to submit their abstracts online through website. The topics for ADMAT 2019 are related to Materials Technologies for Defence applications, such as, but not limited to:

Materials for Aerospace and Missiles Applications:

- Modern and futuristic materials for aeroengine
- Light-weight materials for aerospace applications
- High temperature materials and coatings
- Materials for missile applications
- Composite materials for airborne structures and missiles
- Evaluation of mechanical properties and microstructures
- Structural health monitoring, non destructive evaluation and life prediction

Materials for Armour, Armaments and Combat Vehicle:

- Metallic and composite materials for armour applications
- Materials for armaments and related systems
- Modeling and simulations of armour systems
- High strain rate and ballistic testing of armour & armaments

Materials for Naval Platforms and Systems:

- Matallic and composite materials for naval platforms
- Corrosion protection and protective coatings
- Coatings for functional applications
- Mechanical properties evaluation for naval conditions

Smart and functional materials for defence systems:

- Materials for magnetic, electronic, photonics, thermo-electric, shape-memory & microwave applications
- Materials for various sensors and actuators of various defence systems
- Materials for energy storage: battery, supercapacitor, solid oxide fuel cells

Modern and futuristic materials processing techniques for defence systems:

- Special welding techniques for defence use
- Metal forming techniques for components of defence use
- Special solidification techniques for defence applications
- 3D printing and other additive manufacturing processes for defence applications
- Processing & machining techniques for composite materials
- Process modeling for material processing techniques

Futuristic trends in defence related materials:

- Integrated computational materials engineering (ICME)
- Flexible and printable electronics and 2D materials
- Bio-mimic and bio compatible materials
- Soft matter (foams, porous systems etc.) engineering

EXHIBITION

The exhibition will offer the opportunity for industries & businesses related to materials technologies for defence to showcase their products and services to a specialist audience gathered the conference. Over 500 delegates participated in ADMAT 2017 SkyMat. Even large participation is expected for ADMAT 2019 MatDef, given the importance of the theme and location. The conference venue provides adequate resources for the exhibition. The details will be uploaded in the conference website.

SPONSORSHIP AND OPPORTUNITIES

Associated industries and institutions are requested to support ADMAT 2019 MatDef by sponsoring the conference events. 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, complimentary pages in the souvenir and complementary stall at the exhibition. The details will be posted in the conference website soon.

IMPORTANT DATES

Abstract submission closes: 30th May 2019
Notification of acceptance of abstract: 30th June 2019
Decision on oral/poster presentation: 15th July 2019

REGISTRATION

Foreign Delegate Academia/R&D/Industry	US $ 450
Indian Industry/Corporate	Rs. 12,000
Indian Academia/Govt./R&D Labs	Rs. 10,000
Foreign Students	US $ 300
Indian Students	Rs. 5,000
Accompanying Person Foreign	US $ 100
Accompanying Person Indian	Rs. 2,500

*Taxes : 18% GST applicable in addition to above

ACCOMMODATION

Accommodation is available at special discounted rates not to exceed INR 4500 (all inclusive) at the conference venue, Courtyard by Marriott, Hyderabad. Rooms have been blocked at the same hotel and will be available on first come first served basis for conference delegates. More information on the list of hotels for the ADMAT 2019 MatDef will be provided shortly on the conference website.