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Second Circular



National Seminar

on

Special Purpose, Strategic and Futuristic Materials for High Technology Sectors

October 16-17, 2008

**Venue : Hotel Residency Tower
Press Road, Trivandrum**



Organized by

**THE INDIAN INSTITUTE OF METALS
Trivandrum Chapter
www.iimtm.org**

Emerging programmes of our nation's high technology sectors such as space, atomic energy and defence mark a phase of transition. Having successfully established technology for the entire range of expendable launch vehicles, space sector is embarking upon reusable launch vehicles and laying thrust on new technologies like semi-cryogenic engine, mainly for low-cost access to space. Ambitious manned space mission too is on the anvil. Air breathing engine development is set to revolutionize the rocket technology for defence and space. In atomic energy field, the latest nuclear reactors are called upon to work under increasingly more severe conditions of irradiation, temperature and pressure.

Advanced materials constitute the key to the fruition of the above emerging programmes. These materials are immensely application-sensitive as they are intended to serve special purposes in sophisticated systems. In many cases, their composition and properties are specially tailored to meet the performance-critical requirements of the mission. Further, most of these materials, are not available in international markets. On the horizon, we also have exotic materials such as nano-structured, functionally gradient, smart materials etc., which offer revolutionary potential in terms of enhanced efficiency and precious saving in weight and volume of the system. Thus, the emerging scientific and technological milieu of the high technology sectors presently poses fresh and formidable challenges to the material scientists in the country.

The present two day National Seminar on "Special Purpose, Strategic and Futuristic Materials for High Technology Sectors" is aimed at providing a platform to the researchers and engineers from R&D organizations, academic institutions and industries who are actively involved in the above-said areas in order to consolidate the gains and evolve a collective approach to work towards meeting the present and future requirements of special purpose, strategic and futuristic materials for high technology sectors.

Located at the south-western tip of India, Thiruvananthapuram, which is also known as Trivandrum is a calm and quiet city and is the capital of the Kerala state. Thiruvananthapuram has a long coastline full of coconut trees, and is a much sought after tourist destination. It has grown into a centre for research activities and is known internationally. Some of the prestigious organisations situated here are Vikram Sarabhai Space Centre (VSSC) & Liquid Propulsion Systems Centre (LPSC) of ISRO, National Institute of Interdisciplinary Science and Technology (NIIST) of CSIR, Sree Chitra Tirunal Institute of Medical Sciences, Tropical Botanic Gardens and Research Institute, Centre for Earth Science Studies, Rajiv Gandhi Centre for biotechnology and Centre for Development of Advanced Computing. Other organisations in Kerala involved in Titanium related activities include Indian Rare Earths Ltd., Travancore, Titanium Products Ltd. and Kerala Minerals and Metals Ltd.

For sight seeing, there are Palaces, Lakes, Beaches, Museum, Zoo and Safari Parks. Sree Padmanabhaswamy temple is well known and is situated at the heart of the city. Kanyakumari is about 90 km, south of Thiruvananthapuram.



The city is centred on Railway Station with a radius of 5 km. It has excellent public transport system, taxis and auto-rickshaws for travel. Airport is 10 km away. The climate in the month of September is pleasant with a

maximum of 34°C and a minimum of 22°C.



Mail To

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Invited Speakers

Theme

Theme of the Seminar intends to cover following topics:

- ODS Alloys and Intermetallics
- Superalloys and Special Steels
- CMCs and C-C Composites
- Ultra High Temperature Ceramic Composites
- Advanced Alloys of Ti, Al, Cu, Mg and Be
- Thermal Barrier Coatings
- Functionally Gradient Materials and Coatings
- Ultrafine Grained / Nano Structured Materials
- Smart Materials
- Materials for Manned Space Mission and Environmental Protection in Space
- Advanced Materials Processing and Characterization Techniques for the above Materials

Following invited speakers have confirmed their participation:

1. Dr. P.V. Ananthapadmanabhan, BARC, Bombay (Thermal Barrier Coatings)
2. Dr. Ajay Ghosh, NIIST, Trivandrum
(Organic Smart Materials by Self assembly Approach)
3. Shri. M.R. Ajith, VSSC, Trivandrum (TPS Materials for Re-entry Missions)
4. Dr. K. Bhanusankara Rao, IGCAR, Kalpakkam (ODS alloys)
5. Dr. Bhanu Pant, VSSC, Trivandrum (Titanium alloys and Intermetallics)
6. Prof. Indradev Samajdar, IIT - Bombay
(Advanced materials characterisation Techniques)
7. Shri. N.R.V. Kartha, BrahMos Aerospace, Trivandrum
(Vacuum Brazing in Cryogenic Engine Fabrication)
8. Dr. Kishore T. Kashyap, PESIT, Bangalore (Aluminium Nano Composites)
9. Dr. Madan Gopal Krishnan, BARC, Bombay (Smart Materials)
10. Dr. A.K. Mukhopadhyay, DMRL, Hyderabad
(Advanced Aluminium alloys for Aerospace Structures)
11. Prof. B.S. Murty, IIT - Madras (Nanomaterials)
12. Shri. K. Ramesh, MIDHANI, Hyderabad (Materials Processing)
13. Dr. G. Rohini Devi, DRDL, Hyderabad (High Temperature Composites)
14. Dr. Sandip Ghosh Chowdhury, NML, Jamshedpur
(Texture Evolution During Large Strain Deformation)
15. Dr. Satyajit Shukla, NIIST, Trivandrum
(Semiconducting Nanocrystalline Titania as a Photocatalyst)
16. Dr. Srikanth M. Joshi, ARCI, Hyderabad (Functionally Graded Coatings)
17. Dr. M. Sundararaman, BARC, Bombay (Superalloys)
18. Dr. K.G. Suresh, IIT-Bombay (Intermetallics for Magnetic Refrigeration)
19. Dr. G. Venkatanarayana, VSSC, Trivandrum (Materials for Manned Mission)

Call for Papers

The seminar will feature lectures from distinguished invited speakers from R&D and academic institutions and industries, and contributory papers by research workers based on their original work. A separate session on industry, academic and R & D interaction is also planned. An extended abstract of the proposed contributory paper (between 300-500 words) should reach us by post or by e-mail before Sep 10, 2008. The intimation regarding the acceptance of the paper will be communicated to the authors by September 15, 2008.

Abstracts and Technical papers should be sent to:

Dr. S.V.S. Narayana Murty
Convener, Technical Committee,
Special Materials Division/MMG,
Vikram Sarabhai Space Centre (VSSC),
Trivandrum- 695 022.
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Registration

Interested participants are requested to fill in the attached registration form and send it along with the registration fee before September 30, 2008. Registration of at least one author of the contributed paper accepted for presentation is compulsory.

Details of registration fee is given below:

Member of IIM	:	Rs. 1500/-
Non-Member of IIM	:	Rs. 2000/-
Student Member of IIM	:	Rs. 750/-
Students	:	Rs. 1000/-
Company Registration	:	Rs. 5000/-

The registration fee shall be paid by Demand Draft drawn in favour of "Secretary, IIM-Trivandrum Chapter", payable at Trivandrum.

Hotels of all ranges are available in Trivandrum. Hotel accommodation can be booked for the participants on request indicating the tariff range.

Accommodation

Correspondence

All correspondence shall be addressed to:

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Registration Form

Please register the following names for the National seminar on "Special Purpose, Strategic and Futuristic Materials for High Technology Sectors" to be held on 16-17 October 2008 at Hotel Residency Tower, Press Road, Trivandrum.

1. Name (in block letters) :

2. Address :

Telephone:

Email :

3. IIM Membership No. :
(For IIM Members only)

4. Registration Fee :

5. Accommodation Required : Yes/No

Tariff Range: Rs.

Room: AC/Non AC/Single/Double

6. Food : Veg/ Non Veg.

Date:

Signature