



B.S. Abdur Rahman

**Crescent**

Institute of Science & Technology  
Deemed to be University u/s 3 of the UGC Act, 1956  
GST Road, Vandalur, Chennai 600 048

**One Day National Seminar on  
“High Performance Materials and Its Characterization for Aerospace and  
Mechanical Engineering Applications”**

**On November 15th, 2023**

**Organized by**

**Department of Mechanical Engineering, BS Abdur Rahman Crescent  
Institute of Science and Technology**

**In Association with Aeronautical Society of India (AeSI), Chennai Branch.**

**Convenors**

**Dr. H. Siddhi Jailani,**

Dean/SMS.

**Dr. A.S.Selva Kumar,**

Professor and HOD,  
Department of Mechanical Engineering,  
BS Abdur Rahman Crescent Institute of  
Science and Technology, Chennai.

**Coordinators**

**Dr. K.Mohamed Bak, Asst Professor**

**Dr. S. Jeavudeen, Asst. Prof. (Sel.Grade)**

Department of Mechanical Engineering  
School of Mechanical Sciences,  
BS Abdur Rahman Crescent Institute of  
Science and Technology, Chennai.

**Resource Persons:**

**Dr. D. SATHIA NARAYANAN,**

Scientist F,  
National Institute of Ocean Technology (NIOT),  
Ministry of Earth Sciences, Chennai.

**Dr. S. RAJENDRA BOOPATHY,**

Emeritus Professor (AU-FRG),  
Dept. of Mechanical Engineering,  
CEG Campus, Anna University, Chennai.

**Dr. K. KALAICHELVAN**

Professor,  
Dept. of Ceramic Technology,  
ACT Campus, Anna University, Chennai.

**PREAMBLE**

The Department of Mechanical Engineering has organized one day National Seminar on “High Performance Materials and Its Characterization for Aerospace and Mechanical Engineering Applications” ” held on 15.11.2023 at **B. S. Abdur Rahman Crescent Institute of Science and Technology**, Chennai, in Association with **Aeronautical Society of India (AeSI), Chennai Branch**.

Total 48 students registered for this seminar including external and internal participants.

## Brochure of the Seminar

<p><b>ABOUT THE WORKSHOP</b></p> <ul style="list-style-type: none"> <li>High-performance engineering materials are a category of materials specifically designed and developed to meet the demanding requirements of various engineering applications. These materials play a crucial role in enhancing the performance, reliability, and efficiency of products and systems in industries such as aerospace, automotive, civil, electronics, and more.</li> <li>In addition to these characteristics, high-performance engineering materials may also be designed to meet specific industry standards and regulations. Engineers and material scientists continually research and develop new materials to meet the evolving needs of various sectors, enabling innovations and advancements in technology and manufacturing.</li> <li>Workshops that focus on teaching common characterization techniques and their advanced applications can be highly valuable in this field.</li> </ul> 	<p><b>PATRONS</b></p> <p>Prof. Dr. T. Maragasan, Vice-Chancellor          Dr. N. Thajuddin, Pro Vice-Chancellor          Dr. N. Raja Harshini, Registrar          Dr. C. Senthil Kumar, Chairman, A&amp;E, Chennai Branch</p> <p><b>CONVENERS</b></p> <p>Dr. H. Siddhi Jalland, Dean/SME          Dr. A.S. Subramanian, IROD/Mechanical</p> <p><b>COORDINATORS</b></p> <p>Dr. K. Mohamed Rizk, Asst. Prof. / Mechanical          Dr. S. Jeyarajaseen, Asst. Prof. (Sol. Gr.) / Mechanical</p> <p><b>RESOURCE PERSONS</b></p> <p><b>DR. D. SATHI ANANDARAMAN,</b>          Scientist F,          National Institute of Ocean Technology (NIOT),          Ministry of Earth Sciences, Chennai.</p> <p><b>Dr. S. RAJENDRA BOOPATHY,</b>          Emeritus Professor (AU-FRG),          Dept. of Mechanical Engineering,          CEG Campus, Anna University, Chennai.</p> <p><b>Dr. R. KALACHESIAN</b>          Professor,          Dept. of Ceramic Technology,          ACT Campus, Anna University, Chennai.</p>	<p style="text-align: center;">One Day National Seminar          on</p> <p style="text-align: center;"><b>HIGH PERFORMANCE MATERIALS AND          ITS CHARACTERISATION FOR AEROSPACE          AND MECHANICAL ENGINEERING          APPLICATIONS</b></p> <p style="text-align: center;"><b>(HPMCAMA'23)</b></p> <p style="text-align: center;"><b>15<sup>th</sup> NOVEMBER 2023</b></p> <p style="text-align: center;">Organized          by</p> <p style="text-align: center;"><b>DEPARTMENT OF MECHANICAL          ENGINEERING</b></p> <div style="text-align: center;">  <p><b>Crescent</b>  <small>Institute of Science &amp; Technology</small></p> </div> <p style="text-align: center;">In Association with</p> <div style="text-align: center;">  <p><b>AERONAUTICAL SOCIETY OF INDIA (A&amp;SI)</b>          (Chennai Branch)</p> </div>												
<p><b>ABOUT THE INSTITUTION</b></p>  <p>Crescent Institute of Science &amp; Technology (founded in 1958) is a renowned institution in India for its quality in teaching and research. The institution is committed to focus on three dimensions of higher education viz., quality teaching, innovative research and appropriate applications of knowledge through extension, outreach and consultancy activities. The institution is located on the Chennai - Tiruchirappalli National Highway, 7 km from Tambaram and 12 km from Vandalur Railway Station and 17 km from the Chennai International Airport.</p>	<p><b>ADDRESS FOR THE CORRESPONDENCE</b></p> <p>Dr. K. Mohamed Rizk, Assistant Professor          Dr. S. Jeyarajaseen, Asst. Prof. (Sol. Gr.)          Department of Mechanical Engineering,          Crescent Institute of Science and          Technology, Chennai, Tamilnadu, India.          Email: mohamedk@cpicrescent.edu.in</p> <p><b>REGISTRATION</b></p> <p>Student and Research Scholar : Rs. 200          Faculty and Industry Delegates : Rs. 400          A&amp;E Members : Rs. 100</p> <p>Note: Students must bring their college ID &amp;          A&amp;E membership ID at the time of participation.          Registration is compulsory.</p> <p><b>REGISTRATION LINK</b></p> <div style="text-align: center;">  </div> <p style="text-align: center;"><a href="https://t.me/cpcreg2023">https://t.me/cpcreg2023</a></p> <p><b>IMPORTANT DATES</b></p> <p>Last date for Registration : 14.11.2023</p> <p><b>ACCOUNT DETAILS</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">BANK NAME :</td> <td>INDIAN OVERSEAS BANK</td> </tr> <tr> <td>BRANCH :</td> <td>VAANDALUR</td> </tr> <tr> <td>ACCOUNT NO :</td> <td>193701000049388</td> </tr> <tr> <td>ACCOUNT NAME :</td> <td>Department of Mechanical</td> </tr> <tr> <td>ACCOUNT TYPE :</td> <td>SAVINGS</td> </tr> <tr> <td>IFSC :</td> <td>IOBA0001437</td> </tr> </table>	BANK NAME :	INDIAN OVERSEAS BANK	BRANCH :	VAANDALUR	ACCOUNT NO :	193701000049388	ACCOUNT NAME :	Department of Mechanical	ACCOUNT TYPE :	SAVINGS	IFSC :	IOBA0001437	<div style="text-align: center;">  <p><b>Crescent</b>  <small>Institute of Science &amp; Technology</small></p> </div> <p style="text-align: center;">One Day National Seminar          on</p> <p style="text-align: center;"><b>HIGH PERFORMANCE MATERIALS AND          ITS CHARACTERISATION FOR AEROSPACE          AND MECHANICAL ENGINEERING          APPLICATIONS</b></p> <p style="text-align: center;"><b>(HPMCAMA'23)</b></p> <p style="text-align: center;"><b>15<sup>th</sup> NOVEMBER 2023</b></p> <p>Full Name : .....</p> <p>Designation : .....</p> <p>Institution : .....</p> <p>Address : .....</p> <p>Mobile : .....</p> <p>E-mail : .....</p> <p>Registration Fee : .....</p> <p>Proof Attached after payment : .....</p> <p>Kindly send the registration form along with the Payment proof to the organizer.</p> <p>Registration includes Refundments and workshop kits.</p> <p style="text-align: center;"><b>Target Audience</b></p> <p>This seminar is open to Faculty members, Research scholars, UG and PG students, and Industry professionals in the relevant disciplines.</p> <p>Date : .....</p> <p>Place : .....</p> <p style="text-align: right;">Signature of the Applicant</p>
BANK NAME :	INDIAN OVERSEAS BANK													
BRANCH :	VAANDALUR													
ACCOUNT NO :	193701000049388													
ACCOUNT NAME :	Department of Mechanical													
ACCOUNT TYPE :	SAVINGS													
IFSC :	IOBA0001437													

**Internal participants Fee: NIL**

## Invitation of the Seminar



The seminar started with recitation of Qirath. The seminar coordinator, Dr. K. Mohamed Bak, extended a warm welcome to the attendees, and Dr. A. S. Selvakumar, HoD – Mechanical and Dr. H. Siddhi Jailani, Dean (SMS), offered their felicitations thereafter.

### **Session I:**

The guest of this seminar **Dr. D. Sathia Narayanan, Scientist F**, National Institute of Ocean Technology, Chennai has presented the topic on “**High Performance Materials and its applications**”.

His lecture focused on:

- The performance of advanced materials, including hybrid composites, titanium alloys, aluminum alloys, and high-performance coatings.



## Session II:

**Dr. S. Rajendra Boopathy, Emeritus Professor, Department of Mechanical Engineering, College of Engineering Guindy, Anna University, Chennai** has presented the topic on **“Effect of welding processes on ferrite content, microstructure and mechanical properties of super duplex stainless steel 2507 welds”**.

The emphasis of his lecture was on

- Welding procedures and post-weld heat treatment.
- Microstructure, and mechanical properties of super duplex stainless steel (SDSS) 2507 welds.



### **Session III:**

**Dr .K Kalaichelvan, Professor, Department of Ceramic Technology has presented the topic on “Testing of Materials and Ceramic Matrix Composites for Aerospace and Mechanical Engineering Applications”.**

His presentation focused on:

- Ceramic matrix composites (CMCs) intended for applications in aerospace and mechanical engineering.
- The various testing methods such as
  1. Mechanical Testing,
  2. Fatigue Testing,
  3. Toughness Testing,
  4. Specialized Testing for Ceramic Matrix Composites.



All the session were informative to the faculty members and participants. The seminar was concluded with the vote of thanks by Dr. S. Jeavudeen – coordinator of the event.

**Total number of students registered: 48**

**External Participants: 04**

**Internal Participants: 44**

**AeSI Members : NIL**

<b>S.NO</b>	<b>STUDENT NAME</b>	<b>COLLEGE NAME</b>
1	W.JENSLIN	AC TECH CAMPUS, ANNA UNIVERSITY
2	ABINESH Y	TAGORE ENGG COLLEGE
3	SIVA BALAN M	TAGORE ENGG COLLEGE
4	SRIJITH SARAVANAA	TAGORE ENGG COLLEGE
5	Dr.MD JAVEED AHMED, ASST PROFESSOR	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
6	SRI RAM S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
7	FARIH FYZAL KARATTIYATIL	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
8	MOHAMED HANNAN	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
9	BHARANI DHARAN N	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
10	G KISHORE	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
11	MOHAMED ABDUL AZEEZ	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
12	ZULFEQUR AHMED KHAN	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
13	KAMALESH R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
14	GNANESH G	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
15	PRASANA RAM J	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
16	KISHORE KUMAR V	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
17	SRI RAM KUMAR V	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
18	ARNOLD SAMSON	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY

19	RAJA RAM R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
20	B.GUGAN	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
21	MANIKANDAN K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
22	MAFAZ AHMED A	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
23	LOGESH P T	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
24	AAKASH M	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
25	MOHAMED ASHIQ K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
26	GOWTHAM S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
27	HAMEED FAYAZ H	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
28	MOHAMED MOHSIN B	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
29	KAVIN NILAVAN I	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
30	RAVI RAJ S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
31	KAMESH J	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
32	PRAVEEN G	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
33	TIMOTHY R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
34	VASANTH KUMAR K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
35	MOHAMED HASEEB Z	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY

36	THOMSON Y	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
37	PERAISOODAN VISWANATH	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
38	MOHAMED SHAHIL AKTHAR	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
39	MOHAMED SHABAN K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
40	MANIKANDAN G	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
41	ROHAN S	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
42	RAGUL K	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
43	MOHAMED ZUBER I	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
44	FARHAN MOHAMED	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
45	MOHAMED ZAFAR	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
46	MOHAMED MALIK ALI	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
47	MOHAMED DANISH MUSTAFA	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY
48	PRADEEP R	BS ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY



## Sample Certificate:



# Certificate of Participation

has participated in One Day Seminar on “**High Performance Materials and its Characterization for Aerospace and Mechanical Engineering Applications**” held on 15.11.2023 at Department of Mechanical Engineering, B. S. Abdur Rahman Crescent Institute of Science and Technology, Chennai.

\_\_\_\_\_  
Dr. K. Mohamed Bak  
Dr. S. Jeavudeen  
COORDINATORS

\_\_\_\_\_  
Dr. A.S. Selvakumar  
HOD/MECH

\_\_\_\_\_  
Dr. H. Siddhi Jailani  
DEAN/SMS