



4th CONFERENCE & EXPO **HEAT TREATMENT** & SURFACE ENGINEERING

INDIA'S LARGEST

EXPO

2023 | **September**
28 - 30

CALL FOR PAPERS

150+ Technical papers
500+ Delegates
Workshop Series
70+ Exhibitors
5000+ Business Visitors

Supported by



Venue: Chennai Trade Centre,
Chennai, India

Your gateway to India's thriving

Heat treatment and Surface Engineering Industry

International Conference & Expo with participation from Industry, R&D and Academia in Heat Treatment and Surface Engineering

ABOUT



ASM International is the world's largest association of materials engineers and scientists, dedicated to informing, educating, and connecting the materials community to solve problems and stimulate innovation around the world.

As the world's largest and most established materials information society, ASM engages and connects the professionals to a global network of peers and provides access to trusted materials information through reference content and data, education courses, international events, and research.

The society is serving as an engineering and scientific community, "led by its members, guided by the members need and fuelled by members participation. ASM International 30000+ members worldwide, connected to Materials community as Engineers, Managers, Scientists, Equipment manufacturers and Suppliers. The society consists of 100 + professional and student chapters in 85 countries around the world. Members work primarily with metals, but also with Structural Polymers, Ceramics and Composites. Nearly 20 awards are presented yearly, to individuals and organizations, for their outstanding achievements in the materials industry, which include the Distinction of ASM Fellow, bestowed on individuals for their outstanding contributions in Material Science and Engineering. (For more detail visit www.asminternational.org)

ASM INTERNATIONAL CHENNAI CHAPTER

ASM international Chennai chapter (ASMICC) was Inaugurated on the year 1985 and led by various stalwarts by contributing to the chapter through conducting various programs. Chennai chapter was duly recognized by the ASM Head Quarters with the prestigious Chapter Excellence Award in the year 2000-2001, the First Award of its kind given to a chapter outside USA. The Chennai Chapter has received many five star and chapter awards for several years recognizing its outstanding activities. The Chennai Chapter of ASM International provides tailor made in house courses to suits specific organizations and updating latest developments by technical lectures, Courses, National & International seminars and workshops (for more detail Visit www.asmchennaichapter.com)

FOURTH HT & SE 2023

The three-day Conference and Expo on Heat Treatment and Surface Engineering will host about **500+ delegates** from India and Abroad. More than **150+ high quality technical papers** are expected to be presented at the conference Over 5000+ business visitors are expected for the conference and expo. The event includes various plenary and keynote speakers from Different parts of the world. The event will be **co-organized and sponsored** by leading industries, companies, government organizations and professional associations from India and abroad. There will be a **workshop series** on the theme of advanced material, special heat treatments and innovative surface treatments.

ORGANISING COMMITTEE

CHAIRMAN

Dr.U.Kamachi Mudali

Trustee : ASM INTERNATIONAL
Vice Chancellor : VIT BHOPAL UNIVERSITY

CO-CHAIR CONFERENCE

Prof. M.Kamaraj

Indian Institute of Technology Madras

CO - CHAIR EXHIBITION

N. Sampathkumar

MD , Ambattur Metal Treaters

CONFERENCE - HT

CONVENER

G.S.Shankar

Caterpillar India Pvt Ltd

CO-CONVENER

Dr.Sushantha Kumar Panigrahi

Associate Professor, IIT Madras

CO-CONVENER

S.Srinivasan

Ashok Leyland Ltd

CONVENER

Prof. Srinivasa Rao Bakshi

IIT Madras

CO-CONVENER

Dr. T.M.Sridhar

University of Madras

CONFERENCE - SE

EXHIBITION

CONVENER

R. V. CHARI

MD, GH Induction India Pvt Ltd

SOUVENIR

CONVENER

S. P. Rajinikanth

Director, Ambattur Heat Treaters

TREASURER

R.J.Venkatesh

Savita Oil Technologies

WHY HT & SE ?

CONNECTING BUYERS - PROFESSIONALS - ATTENDEES

The objective of HTSE 2023 is to bring together industry professionals, senior executives, managers, engineers and researchers, heat treatment Professionals, tool makers and users, suppliers of heat treatment and surface engineering plant and equipment, as well as academicians from and all over the world. The Conference and exhibition are aimed to create an opportunity for display and exchange of technical information and updates at an international level among the specialists involved in heat treatment and surface engineering.

BENEFITS FOR STUDENT / YOUNG PROFESSIONALS

Research Students, Young professionals pursuing / working in Manufacturing and Metallurgy will have an opportunity to meet major players in heat treatment and surface engineering world. Expo floor will have displays and hands on demonstration, which will allow glimpse to latest technologies.

EXHIBITOR PROFILE

- Advanced Heat Treatment Processes and Furnaces.
- Commercial Heat Treating Services.
- Conversion coatings.
- Heat Treat Processing Compounds and Solutions.
- Heat Treat Processing Controls and Instrumentation.
- Industrial Heat Treatment Process Materials.
- Machining and Metal Cutting Equipment.
- Material stamping, forging, castings etc.
- Material processing and Components manufacturing.
- Material testing/Characterisation Equipment Services and Supplies.
- Metal Forming Equipment.
- Nano and Advanced coatings.
- Plating and Painting Protection.
- Plants and machineries.
- PVD and CVD coatings.
- Steel and Alloy making
- Surface modifications and coatings
- Surface Treating, Shot blasting, Burnishing and Pickling.
- Surface Analysis Cladding and Hard Facing
- Thermal spraying
- Thermal Processing of Non-Metals (ceramics, polymers & composites)
- Welding and Joining Equipment
- Wear and Corrosion Resistant Coatings.

VISITOR PROFILE

MANUFACTURERS OPERATIONAL AND MAINTENANCE PERSONNEL FROM:

Aerospace, Automotive, Auto components, Industrial Furnace, Iron & Steel, Mining & Construction Equipment, Material handling and Earth Moving Machinery and Equipment, Railway Coaches, Army Tanks, Aircraft and Aerospace parts, Process Control, Testing and Measuring Instruments, Heat Treatment Processing Chemicals, Quenching Oils and Suppliers to OEM

Bridges, Roads, Tunnels, Buildings, Ship Building, Coal Mines, Cement Plants, Ceramic and Chemical Industries, Nuclear and Hydro Power Projects and more.



ABOVE LIST IS ONLY INDICATIVE BUT NOT EXHAUSTIVE !

CALL FOR PAPERS

ABSTRACT

Abstracts submitted for consideration should include at least **250 words** with full particulars such as the topic for which the paper is being submitted, the proposed title, conclusions, significance of the paper, and details of author and co-authors(s) with names, company, affiliation, complete address, and e-mail address.

FINAL MANUSCRIPT

Please visit the official website **www.asm-htse.com** for more information. Full Length papers will be requested after abstract acceptance and selected papers presented will be published as a conference proceeding. Speakers should register in advance to present in the conference. The official language of 4th HTSE Expo and Conference 2023 will be English. Guidelines and details will be made available at the website.

IMPORTANT DATES

Last Date for abstract submission: 30th April 2023

Intimation of acceptance of abstract: 31st May 2023

Submission of final manuscripts: 15th July 2023

Last date for registration (Author Registration with copyright to confirm papers for Proceedings): 15th August 2023

Please send your Abstracts to : conf@asm-htse.com

For further details contact :

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Abstracts are currently being solicited for (but not limited to) the following topics

- Additive Manufacturing and Powder Metallurgy
- Applied Technology / Processes and Applications
- Automotive Light weighting
- Carburizing, Nitriding, Nitro carburizing and post oxidation
- Coatings and Surface Modification
- Composite Materials & Structures
- Emerging and Sustainable Materials & Processes
- Electro and Electroless Plating
- Failure Analysis
- Forming and Thermo mechanical Processing
- Functional and Aesthetic coatings
- Furnaces, Inspection & Testing, Control of defects
- Gas and Plasma Nitriding
- Heat Treatment Principles, Process Control & Atmosphere
- Heat treatment of Ferrous and Non-Ferrous alloys
- Heat Treatment Problems and Trouble shooting
- Induction Heating and applications
- Low Temperature Surface Hardening of Stainless Steel
- Organic and Inorganic Paints
- Quenching Media and Distortion Control
- Residual stress
- Sol-Gel Coatings
- Surface Engineering Applications
- Vapour Deposition Techniques
- Vacuum Processes and Technology
- Welding & Joining

PARTICIPATION

SUPPORT OPPORTUNITIES

Foreign - USD with 18% GST

Category	Included benefits	Rate (INR)	Inclusive of GST (INR)	Rate in USD
Platinum	<ul style="list-style-type: none"> Logo in website , conference souvenir, exhibition directory, backdrop in conference hall, exhibition invitation 2 page profile in conference souvenir, 2 full page advt. in exhibition directory 36 SQM booth Free registration for 5 delegates 	10,00,000	11,80,000	23600
Gold	<ul style="list-style-type: none"> Logo in website , conference souvenir, exhibition directory, backdrop in conference hall, exhibition invitation 1 page profile in conference souvenir, 1 full page advt. in exhibition directory 18 SQM booth Free registration for 4 delegates 	5,00,000	5,90,000	11800
Silver	<ul style="list-style-type: none"> Logo in website , conference souvenir, exhibition directory, backdrop in conference hall, exhibition invitation 1 page profile in conference souvenir, 1 full page colour advt. in exhibition directory 12 SQM booth Free registration for 2 delegates 	3,00,000	3,54,000	7080
Lunch / Dinner / Cultural	<ul style="list-style-type: none"> Logo in website, full page colour advt. in conference souvenir, full page colour advt. in exhibition directory 9 SQM booth Free registration for 2 delegates In dining area during lunch 	2,00,000	2,36,000	4720
High tea Technical session	<ul style="list-style-type: none"> Free registration for 1 delegate 1 advt. display in technical session. 	1,00,000	1,18,000	2360

EXHIBITORS

Category	Included benefits	Rate (INR)	Inclusive of GST (INR)	Rate in USD
12 Sq.m	<ul style="list-style-type: none"> 12 Sq.m (3M x 4M) booth 2 delegates registration provided 1 full page profile in exhibition Directory 	1,50,000	1,77,000	4720
9 Sq.m	<ul style="list-style-type: none"> 9 Sq. m (3M x 3M) booth 2 delegates registration provided 1 full page profile in exhibition directory 	1,12,500	1,32,750	3540

Note:

- Booth space is also available in multiples of 12 and 9 Sq.m.
- Each booth is provided with a desk, 2 chairs, spotlight and stall facia
- Early bird discount of 10% is available with full payment on or before 30th April 2023

PARTICIPATION

ADVERTISEMENT IN SOUVENIR

Foreign - USD with 18% GST

Type	Category	Rate (INR)	Inclusive of GST (INR)	Rate in USD
Advertisement	Back cover – colour	50,000	59,000	1180
	Front / Back inside cover – colour	40,000	47,200	944
	Full page - colour	25,000	29,500	590
	Half page - colour	15,000	17,700	472

A souvenir will be published to commemorate the event. This will carry articles by eminent experts on contemporary topics related to the conference and information about sponsors, exhibitors, advertisements etc. This will be widely circulated to academic and research institutions, professional societies, Government bodies and Industrial establishment in India and abroad.

DELEGATE REGISTRATION

Type	Category	Rate (INR)	Inclusive of GST (INR)	Rate in USD
Delegates	Individual	15,000	17,700	590
	ASM / Government Organizations / Academic Institutes / Contributory Authors	12,000	14,160	472
Student	Individual	5,000	5,900	118
	MA Chapter member / ASM Student Members	3000	3000	59

REGISTRATION INCLUDES

Conference souvenir.
Technical events.
Conference Kit.
Lunches and Banquet Dinner during the conference.
Cultural programs

PAYMENT OPTIONS

Online payment.
Bank transfer.
Cheque / DD. – In favour of
“ASM INTERNATIONAL CHENNAI CHAPTER”
For any queries contact: admin@asm-htse.com

BANK DETAILS

ACCOUNT NAME	ASM INTERNATIONAL CHENNAI CHAPTER
ACCOUNT NUMBER	032494600000404
BANK NAME	YES BANK
BRANCH	ANNA NAGAR, CHENNAI – 600 102
MICR CODE	600532006
IFS CODE	YESB0000324
SWIFT CODE	YESBINBB

PAST CONFERENCES

HTSE 2013



ASM International – Chennai Chapter organized India's First International Conference & Exhibition on **Heat Treatment and Surface Engineering 2013 (HT&SE 2013)** during May 16-18, 2013 at Chennai Trade Centre, Chennai, India.

Three - day International Conference on Heat Treatment and Surface Engineering (Including the popular series **27th Surface Modification Technologies - SMT 27**) hosted around 300+ delegates from India and abroad. More than 65+ high quality technical papers and 50+ exhibitors were presented at the Conference.

HTSE 2016



2nd HEAT TREATMENT AND SURFACE ENGINEERING & AUTOMOTIVE MATERIALS AND MANUFACTURING Conference and Expo 2016, Chennai Trade Centre during May 12 – 14, 2016

Three - day International Conference and Expo on Heat Treatment and Surface Engineering hosted **500+ delegates** from India and Abroad. More than **100+ high quality technical papers** and **60+ exhibitors** were presented at the conference. Over **3000+ business** visitors were at the conference and expo.

6th ACHTSE 2020



The three-day 6th Asian Conference and Expo on Heat Treatment and Surface Engineering hosted about 400+ delegates from India and Abroad. More than 140+ high quality technical papers were presented at the conference and over 5000+ business visitors attended the Expo. The conference featured 13 Keynote Lectures, 53 Invited Lectures, 27 Contributory Lectures and 44 Technical Posters spanning several areas such as advances in carburizing, carbo-nitriding, gas nitriding, plasma nitriding, vacuum heat treatment, gas sensors, advanced quenchants, thermal spray coatings, solution and suspension precursor thermal spray coatings, CVD and PVD coatings, electro- and electroless plating, biomedical coatings, to name a few. Sixty-four (64) presenters were from Industry and research organizations, while 29 were from academia. There were 14 presentations by woman delegates and we hope to have increased women participation in the future conferences. The delegates were represented from countries such as USA, Belgium, Hungary, Spain, Germany, Romania, Ireland, UK, Canada and host India. The conference was supported by 15 sponsors in the Platinum, Gold and Silver categories. The exhibition featured 46 industries from reputed Indian and overseas manufacturers of Furnaces which include Vacuum HT, Induction heating equipment, Plasma nitriding, Nitrocarburizing, Sintering, Process control Instruments, Furnace accessories, High alloy fixtures, Heat treatment Service Providers, Metal Powders and Metallography & Testing equipment manufactures in addition to Specialty Quenching Media

About Chennai



Chennai is the capital of Tamil Nadu and is India's fourth largest metropolitan city, the third largest economy and the second most industrialised state in south India. Chennai has a diversified economic base covering sectors like automobile, light engineering, textile, petrochemicals, leather, heavy engineering, defence, space, nuclear, etc. Chennai is the automotive capital of India and often referred as the Detroit of Asia with major automobile giants having their manufacturing hub here. Recent estimates of the economy of the Chennai Metropolitan Area is around US\$79 to 86 billion, \$200 billion with industrial zones; PPP GDP, ranking it from fifth most productive metro area of India, and the third highest by GDP per capita. Chennai has a market share of around 30% of India's automobile industry and 35% of its auto components industry. At current prices, Tamil Nadu's gross state domestic product (GSDP) is estimated to be Rs. 24.85 trillion (US\$ 320.27 billion) in 2022-23. The state's GSDP increased at a CAGR of 11.27% between 2015-16 and 2022-23. The state introduced the 'Industrial Policy 2021' to achieve an annual growth rate of 15% in the manufacturing sector while attracting investments worth Rs. 10 lakh crore (US\$ 137.8 billion) and creating employment opportunities for 20 lakh people by 2025. Tamil Nadu ranked first in terms of foreign tourist arrival and second in terms of domestic tourist arrival in 2019. Chennai is journey into timeless India, a kaleidoscope of moods, rich in treasures of history, from temples and shrines to forts and palaces, the landscape of the past merging easily with the present retaining much of its traditional charm, this 350-year-old city is the gateway to south India. San Thome Basilica, St Mary's church, Government Museum, Kapaleeshwar temple, Parthasarathy temple are some of the many sights in Chennai. HT&SE 2023 conference and expo will take place in Chennai Trade Centre, one of the most modern and state-of-art exhibition Centres in India.

About Venue



Chennai Trade Centre

Mount Poonamallee High Road, Nandambakkam, Chennai - 600 089

Refer www.chennaitradecentre.org