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- New dates for postponed conferences
- Call for Papers for HTSE Tools&Dies conf confirmed
- Obituary Božidar Liščić
- 6th Asian Conf on HTSE held in Chennai, India
- New IFHTSE member from Mumbai, India



MCHTSE 2020
2021
ISTANBUL

All preparations for this conference are done, but due to the measures and global disruptions caused by the coronavirus (Covid-19) pandemic, the Organizing Committee has decided that the 4th Mediterranean Conference on Heat Treatment and Surface Engineering is to be postponed to 26-28 May 2021.

The information and current status of our sponsors who support the conference, our authors who submitted papers and all the guests and participants who registered are kept in our system.

Koray Yavuz, MCHTSE'2020 Organizing Committee, Chair

www.mchtse2020.com
info@mchtse2020.com
mchtse2020



New dates for postponed conferences:

European Conference on Heat Treatment, Antwerp, Belgium:

→ November 30 – December 02, 2020

6th International Conference on Steels in Cars and Trucks, Milan, Italy:

→ January 14-18, 2021

4th Mediterranean Conference on Heat Treatment and Surface Engineering:

→ May 26 – 28, 2021

Confirmed – Call for papers open:

4th Int'l Conference on HTSE of Tools and Dies,
October 28 -30, 2020, Hangzhou, China

see p.2

CALL FOR PAPERS

4th International Conference on Heat Treatment and Surface Engineering of Tools and Dies



www.HTSE-TD.com

Venue:

Liangzhu Dream Town, Hangzhou, China

Date:

October 28-31, 2020

Organizers:

International Federation for Heat Treatment and Surface Engineering (IFHTSE)
China Heat Treatment Association (CHTA)



The technical topics include, but are not limited to the following:

- * Tools and dies toward intelligent manufacturing
- * Heat treating of tools and dies
- * Advanced surface engineering
- * Simulation and modeling
- * Steel design and development for tools and dies
- * Advanced heat treating and surface treating equipment

Preliminary Schedule

10/28, Wednesday	Registration
10/29, Thursday	Opening Plenary Session
10/30, Friday	Technical Sessions Closing
10/31, Saturday	Plant visits

Information:

Tool and die manufacturing is a decisive indicator of manufacturing competitiveness, as tools and dies can directly affect product quality and performance. The conference will cover research and development within the scope of heat treating and surface treating of tools and dies, ranging from materials and technologies to essential equipment.

The organizing committee kindly invites you to submit abstracts and manuscripts to any tool- and die-related topic. The work should be original and has not been published elsewhere.

Companies will additionally get the opportunity to present themselves by being a sponsor or exhibitor. We will be pleased to discuss your exhibiting requirements.

The conference will take place in Liangzhu Dream Town in Hangzhou, China. Besides attending the conference, you will have the opportunity to savor the beauty of autumn and explore the Liangzhu culture which is the last Neolithic jade culture in the Yangtze River Delta of China and was listed as the world cultural heritage in 2019.



Jade Cong

Important Dates:

- 05.31.2020 Deadline for the submission of abstracts (150-200 words)
- 07.31.2020 Deadline for the submission of papers
- 07.31.2020 Deadline for early registration

❖ To submit an abstract, please e-mail it to chta@chta.org.cn.

Response to COVID-19:

CHTA understands that there is concern about the coronavirus and we want you to know that we are closely monitoring the public health situation related to this pandemic and taking action to support our members and colleagues during this uncertain and challenging time. Further notice will be announced at least one month in advance if changes to the conference have to be made. Should you have any questions, please feel free to contact CHTA (chta@chta.org.cn) or Dr. Fuyao Yan (fyan@hit.edu.cn).

Božidar Liščić †

IFHTSE mourns the death of our former President and IFHTSE Fellow Prof. Božidar Liščić.

He was known worldwide as the leading expert on quenching, which was the field where he contributed both ground-breaking scientific findings and most widely applied technological innovations for decades.

Born in 1929 in Croatia, he graduated in mechanical engineering and joined the machine-tools factory “Prvomajska”, starting as head of the heat treatment department, and became the technical director of that factory at only 32 years of age. Subsequently, as a lecturer in heat treatment at the



University of Zagreb, he established a well equipped heat treatment laboratory which soon became a leading heat treatment education and research facility.

At the time, there existed numerous empirical formulas and tables to predict the necessary quenching intensity to achieve a certain hardness in a certain depth of cylindrical samples. However, they were insufficient to determine the necessary cooling characteristic, and to assess the resulting stresses and deformations. Liščić realized that this was because those techniques did not account for the variation of the heat flux during the different phases of quenching, and for the point of maximum heat transfer given by the particular quenching medium. So he developed a method to measure the temperature gradient near the surface of the workpiece, thus monitoring the heat flux continuously, through the whole temperature range of the quench.

In 1975 he received the PhD in material science from the University of Zagreb for his doctoral thesis “Depth of Hardening as Function of Steel Hardenability and of Quenching Parameters”. His open-mindedness and international con-

nections showed as early as then: he performed part of the experiments at the Max-Planck Institut für Eisenforschung in Düsseldorf, Germany, and the other part in the laboratory in Zagreb, in collaboration with Swiss and American industrial companies. In 1978 he published his classical paper “Der Temperaturgradient auf der Oberfläche als Kenngröße für die reale Abschreckintensität beim Härten“ (*The Surface Temperature Gradient, a Key Indicator for the real Quenching Intensity during Hardening*) in Germany’s “Härtereitechnische Mitteilungen”.

His innovation was widely applied in industry when a special quench probe known as Liscic/Nanmac probe was developed for measuring and recording the quenching intensity in workshop conditions in cooperation with the American company NANMAC. Based on the results with this probe, the laboratory in Zagreb was commissioned to examine the quenching intensity of their polymer solutions by world-leading producers in USA, UK and Germany. Using the further developed IPSEN-Liscic sensor, the company IPSEN of Kleve, Germany, presented „Flux Control“ in 1995, a computer aided system for measuring the quenching intensity and calculation of the heat transfer coefficient with High Pressure Gas Quenching in vacuum furnaces.

Božidar Liščić was a full professor at the faculty for mechanical engineering in Zagreb from 1982 to 1999, and he was also always active on a global level. He was not only a visiting professor in Cincinnati, Ohio, USA, but he served also as UNDP (United Nations Development Programme) expert for heat treatment in as many as nine extended stays in Israel, India, Egypt, Turkey, Bangladesh, and Pakistan, to help those countries with the building of the respective industry and the training of students.

In view of his strong dedication to the international community, in 1977 Božidar Liščić was invited by Urs Wyss, the first Secretary General of the then IFHT, to establish an international committee on quenching, the Technical Committee „Scientific and Technological Aspects of Quenching“. Liščić was the chairman of the committee for the following 23 years. The outcome of that activity was, among others, the International Standard ISO-9950 “Industrial Quenching Oils, Determination of Cooling Characteristics, Nickel-alloy Probe Test Method”. The ASTM Standards D 6200-97 for quench oils and D 6482-99 for aqueous polymer quenchants are also based on the work of the IFHTSE Quenching Committee, whose activities were joined with those of the ASTM Quenching Committee upon initiative of Božidar Liščić.

Under his leadership, the committee also planned and elaborated the handbook "Theory and Technology of Quenching", edited by B. Liščić, H.M. Tensi, W. Luty (Springer Verlag 1992, 2nd edition with Lauralice C. F. Canale and George E. Totten Taylor&Francis 2010). In two most influential classic handbooks, Liščić wrote the chapter on quenching: Eckstein, „Technologie der Wärmebehandlung von Stahl“ (1987), and Totten und Howes, „Steel Heat Treatment Handbook“ (Dekker 1997, 2nd edition Taylor&Francis 2007). He published more than 100 scientific papers.

Even after his retirement, he initiated IFHTSE's Liquid Quenching Database (LQDB) and was an active participant in the Quenching Research Centre (QRC) of the University of Zagreb, which brings together local scientists with world-known experts from institutes and industry, in development and education of theory and technology of quenching.

His incessant commitment to international cooperation culminated in his service as IFHTSE President 2004-2005. He was always willing if not eager to share his findings and experiences with colleagues, and discuss them vividly and passionately, but always in a most cooperative and constructive spirit. He was open to answer questions and give advice, and particularly active in the education of students and young researchers and professionals. His many invited keynote lectures were the highlight of international conferences in Australia, Austria, Germany (given in impeccable German), Hungary, India, Japan, Ukraine, Slovenia, and USA. With deep gratitude for this service to the Federation he was appointed IFHTSE Fellow in 2011, "In recognition of his numerous past and ongoing developments in the quenching and heat treatment of steels and for his tireless support of global knowledge transfer for the global heat treatment community".

He was a member and Fellow of ASM (USA), where he co-founded the Heat Treatment Society, and of AWT (Germany), who bestowed him with the Adolf-Martens-Medal, their highest award.

Few persons were and are as truly globally present, and such a strong node in the network of our community as he was. We are grateful to have enjoyed the company of, and cooperation with, this cosmopolitan gentleman.

6th Asian Conference on Heat Treatment and Surface Engineering



This Conference was organised in Chennai, India, by our member association ASM Chennai Chapter.



Opening ceremony: Lighting the Lamp

A tradition in India to start any event with an auspicious note
From the left: Dr. U. Kamachi Mudali, Chairman of the Conference;
Dr. Stefan Hock, IFHTSE Secretary General; Shri M. C. Sampath, Minister for
Industries, Government of Tamil Nadu; Shri N. Sampathkumar, Co-chair,
Exhibition; Shri G.S. Shankar, Convenor of the Conference

The three-day Conference and Expo hosted about 250 delegates from India and abroad. 140 technical and scientific 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, heat treatment quality, gas sensors, advanced quenchants, thermal spray coatings, solution and suspension precursor thermal spray coatings, CVD and PVD coatings, electro- and electro-less plating, biomedical coatings, to name a few.

64 presenters were from industry and research organizations, while 29 were from academia.

With Chennai being the “Automotive Capital” of India, questions of practical implications in industrial production were a key area covered. There were 14 presentations by woman delegates and the organisers hope to have increased women participation in the future conferences.



Dr. U. Kamachi Mudali, chairman of the conference, giving his welcome address



Dr. Imre Felde, IFHTSE treasurer, giving his keynote lecture “On the Bio-inspired computational methods and AI technics supporting Heat Treatment processes”



Shri M. C. Sampath, Minister for Industries, opening the exhibition

The foreign delegates represented countries such as USA, Belgium, Hungary, Spain, Germany, Romania, Ireland, UK, and Canada.

The exhibition featured 46 industrial companies 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 manufactures.



Indian dance show at the social evening

As part of the event two concurrent Workshops were organized on the topics “Coatings and Thin Films” which had 60 participants and the Workshop on “Component Failure Analysis and Case Studies” which had 65 participants.

Unfortunately, the conference came to be held during the beginning of the worldwide coronavirus crisis. While India was hardly affected at the time, China, Japan, and Korea were, and for their citizens travelling to India was not possible. The first five Asian IFHTSE Conferences on HTSE had been held in those countries which are big players in the respective industry. Thus, the international character of the event was given by the presence of experts from Europe and America. Still, also from these regions some speakers could not attend. So some of the invited lectures could not take place, but since a large number had been planned, there was still plenty of opportunity to hear re-



The authors' explanation of their posters attracted an attentive audience

owned experts giving most instructive insights into their respective fields.

The organisers reacted quickly to update and rearrange the programme so that the conference proceeded undisturbed, and moreover in an excellent setting as to the technical aspects of visual and acoustic presentation.

May the Asian associations in IFHTSE continue the series of Asian HTSE Conferences to strengthen their network in this most dynamic region of the world!

New IFHTSE member association

We are glad and proud to announce that ASM India Chapter of Mumbai have joined IFHTSE.

They are based in Mumbai, India, and since the foundation in 1979 they organize technical courses on subjects like Heat Treatment, Welding, Metallurgy for the Non-metallurgist, Metal Forming, Stainless Steels, Non-ferrous Metals, Thermal Spraying, etc; under the Continued Education Programme for engineers and technocrats. Other activities include Conferences, Workshops and Exhibitions on recent developments in Materials Processing, Materials Application Engineering, Heat Treatment, Equipment, etc. at National and International levels. Over the last three decades, they have organized many international conferences along with expos like TRANSMAT 2004, MELTMETECH 2012, etc.

In October this year, they will hold the 14th edition of their Heat Treat Show started in 1991.

The exhibition is in conjunction with a conference, which focuses on heat treatment the main areas being automation, quenching techniques, instrumentation, equipment's, processing, new insulating materials, futuristic processing like induction, plasma, laser, etc., failures and their analysis, micro-structure analysis of heat treated materials, and many more.

The exhibition showcases latest developments in heating equipments and accessories related to heating (electric, gas, oil, etc.) combustion equipments, heating elements, insulating materials, robotics, artificial intelligence with respect to heat treatment.

The exhibition and conference is co-located with another event called MET which is focussing on materials and processing for Defence, Transportation (ROAD, RAIL, AIR & SEA), and Energy.

The event is taking place in the heart of Mumbai, the commercial capital of India, from 13th to 15th of October 2020 at Bombay Exhibition Centre, NESCO Complex, Mumbai, India.

Find out more at: asmindiachapter.org!

All member associations are invited to submit their conferences in English language to be featured here!

Forthcoming Conferences

2020	SEP	14-17	International Materials Applications & Technologies	Cleveland	USA		
2020	SEP	8-12	5th International Conference on Thermal Process Modelling and Simulation (ICTPMS)	Cavtat-Dubrovnik	Croatia	https://hdtoip.fsb.hr/	
2020	OCT	13-15	14th HTS Int'l Exhibition and Conference	Mumbai	India	https://www.htsindiaexpo.com/	
2020	OCT	20-22	Härterei-Kongress [languages: German/English]	Cologne	Germany	http://www.awt-online.org/haertereikongress.html	
2020	OCT	28-30	4th Int'l Conference on HTSE of Tools and Dies	Hangzhou	China	http://www.htse-td.com/htse-td/index.shtml	
2020	NOV/ DEC	30-02	European Conference on Heat Treatment	Antwerp	Belgium	https://www.a3ts.org/echt2020/call-for-papers/	
2021	JAN	14-18	6th International Conference on Steels in Cars and Trucks	Milan	Italy	https://www.sct-2020.com/	
2021	APR	26-28	European Conference on Heat Treatment and 2nd QDE - International Conference on Quenching and Distortion Engineering	Berlin	Germany		
2021	MAY	26-28	4th Mediterranean Conference on HTSE	Istanbul	Turkey	http://mchtse2020.com	
2021	OCT	26-28	Härterei-Kongress [languages: German/English]	Cologne	Germany	http://www.awt-online.org/haertereikongress.html	
2021	NOV	23-25	27th IFHTSE Congress	Yokohama	Japan		
2022			28th IFHTSE Congress and European Conference on Heat Treatment	Salzburg	Austria		