

- IFHTSE Congress in Salzburg, Austria
- Three Awards:  
Fellowship, Medal, and  
Honorary Presidency
- Two Tom Bell Young Author awards and  
four IFHTSE Poster awards given
- 19 pictures

## 27<sup>th</sup> IFHTSE Congress held in Salzburg, Austria

After two and a half years without an IFHTSE event with physical presence, the 27<sup>th</sup> Congress in Salzburg, Austria, finally united as many as 161 experts from 22 countries for 81 oral presentations, including 4 keynote lectures, and 12 posters to review the latest findings and innovations in Heat Treatment and Surface Engineering.

### Extensive Programme



The technical programme was structured in 23 sessions plus one special Symposium dedicated to the renowned researcher Sören Segerberg who passed away last year ([IFHTSE Bulletin 2021-05](#)). Steel was specially featured this time with four sessions, and then there were eight sessions

on Surface Engineering and 11 on Heat Treatment.

### Three Awards: Fellowship, Medal, and Honorary Presidency

During the time of the pandemic no awards had been given, but some awards were decided - decided to be given not online but in person once this is possible.

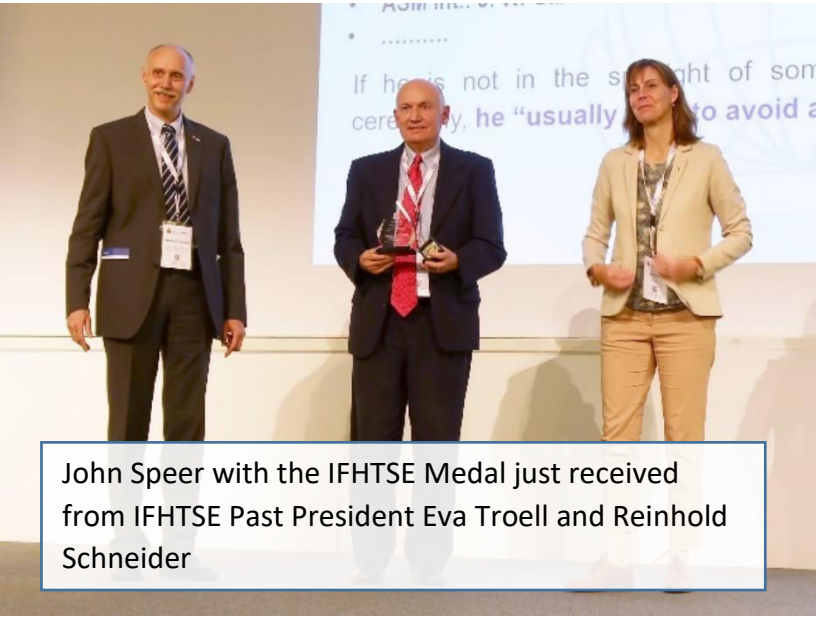


Acceptance speech of new IFHTSE Fellow Hans-Werner Zoch

The IFHTSE Fellowship was awarded to **Hans-Werner Zoch** ([IFHTSE Bulletin 2021-03](#)) “FOR HIS FAR-SIGHTED COVERAGE OF NOVEL FIELDS IN RESEARCH AND TECHNOLOGY AND FOR HIS SUSTAINED LEADERSHIP GIVING HEAT TREATMENT AND SURFACE ENGINEERING A STRONG POSITION IN THE RESEARCH LANDSCAPE AND FIRM LINKS TO NEIGHBOURING FIELDS”.

He served as IFHTSE President 2010-2011 and director of our member Institute IWT in Bremen, Germany. Prof. Zoch is well known internationally for his in-depth knowledge of the heat treatment of bearings and gear parts but also for his manifold leading activities to support, develop and guide the networks that link related institutions and organizations, be it IFHTSE, research networks or funding institutions. One of his outstanding achievements was certainly the integration of the institute IWT into Germany’s Leibniz Research Association, which was achieved under his supervision.

**John G. Speer** of the Colorado School of Mines was awarded the IFHTSE Medal ([IFHTSE Bulletin 2021-02](#)) “FOR HIS LIFE-TIME ACHIEVEMENT IN PHYSICAL METALLURGY, DEVELOPMENT AND HEAT TREATMENT OF ADVANCED STEEL CONCEPTS FROM THEORY TO PRACTICAL APPLICATION, WITH PARTICULAR FOCUS ON HIS LEADING ROLE IN THE DEVELOPMENT OF THE QUENCHING AND PARTITIONING PROCESS”.



John Speer with the IFHTSE Medal just received from IFHTSE Past President Eva Troell and Reinhold Schneider

Prof. Speer is best known in the community for the introduction of Quenching & Partitioning, both into scientific thinking as well as preparing the path for its industrial application. For one decade he has also been heading and expanding the activities of ASPPRC, the Advanced Steel Processing and Products Research Center at the Colorado School of Mines, a unique research institute financed by

renowned steel producers, suppliers and users from Asia, the Americas and Europe.

Both awardees, Hans-Werner Zoch for the IFHTSE-Fellowship and John G. Speer for the IFHTSE-Medal, share not only an outstanding international performance as scientists and academic teachers in their respective fields, but have also a long history of research and management experience in industry, thereby highlighting the close connection of theory and practice in heat treatment and surface engineering.

**Zoltán Koloszáry** of Romanian company Plasmatherm was appointed IFHTSE Honorary President ([IFHTSE Bulletin 2021-01](#)) “FOR HIS OUTSTANDING LEADERSHIP TO IFHTSE AND HIS DEDICATED, SUCCESSFUL AND LONG-TERM SERVICE AS ITS PRESIDENT AND TREASURER”.

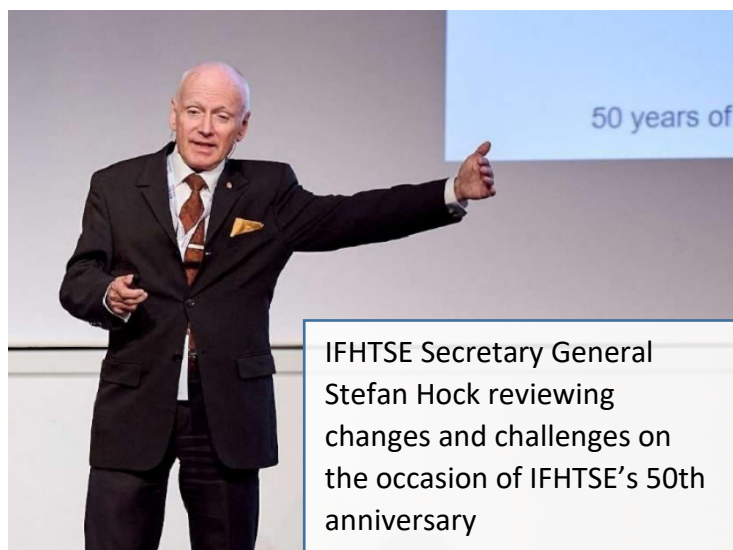
He served as IFHTSE President 1998-1999 and subsequently as treasurer for many years. It is for the first time in thirty years that IFHTSE appoints a Honorary President.



New IFHTSE Honorary President Zoltán Koloszáry receiving the plate from laudator Scott MacKenzie

## Keynote lectures

IFHTSE was officially founded just fifty years ago, in Salzburg of all places. On this occasion Secretary General **Stefan Hock** recalled the Federation’s activities, the tremendous technological changes, and the varying working conditions due to the political environment.



IFHTSE Secretary General Stefan Hock reviewing changes and challenges on the occasion of IFHTSE’s 50th anniversary

Computer, internet, and new media give us the chance to exponentially increase the pace at which we gather and share information, but they also create new pitfalls and new biases we must safeguard against. Mastering the inevitable turn away from fossil energy is a matter of life or death for our industry.

**John G. Speer** gave a deep insight in the structure and property control of martensitic steels by the initial austenite microstructure as well as the tempering response and the presence and behavior of retained austenite.

He considered heat treatment pathways including quenching and partitioning of automotive sheet steels, quenching of thicker sections, and induction hardening and tempering.



**Tirumalai S. Sudarshan** of Materials Modification Inc (USA) presented “The Kaleidoscope of Surface Engineering”. He provided an overview of the significant implications that Surface Engineering has had in society and the most recent impact it has had technologically along with several significant contributions from chemistry.

IFHTSE Vice President **Massimo Pellizzari** emphasized “The importance of Heat Treatment in Additive Manufacturing of tool steels”. Additive manufacturing produces finer microstructures and similar mechanical properties compared to conventional routes. In most cases a suitable heat treatment is necessary to recover the as-built microstructure produced by the rapid solidification to optimize the final properties and release the internal stresses.



# Everything it takes for a successful Congress

IFHTSE President Masahiro Okumiya presenting his work on surface nitriding of aluminium



At the symposium dedicated to the late researcher Sören Segerberg ([IFHTSE Bulletin 2021-05](#)), a commemorative plaque was given to his son Peter



Sightseeing walk to admire Salzburg's historical gardens and grand baroque buildings

Enjoying Mozart's music in his home town



## For the first time: Two Tom Bell Young Author Awards

IFHTSE gives this award for the best paper presented at an IFHTSE Congress by a speaker under 35 years of age. It consists in free participation at the following Congress, including travel and accommodation. This time two candidates were equally ranked and the jury decided to give, for the first time ever, the award to both these top candidates.

Simona Kresser of the Upper Austria University of Applied Sciences in Wels, Austria, studied “The Effect of Cooling Rate on Quenching & Partitioning (Q&P) in Martensitic Stainless Steels”.

She had picked a very complex and extensive subject matter, studying quite a range of different alloys and heat treatments. The bulk of results so obtained would be hard for the audience to overlook and comprehend. But with cunning presentation techniques and skill she perfectly succeeded.



Pedro José de Castro of IWT, Bremen, Germany, presented an “Energy efficient manufacturing chain for advanced bainitic steels based on thermo-mechanical processing”. He convinced the jury with the highly innovative approach of great practical potential and his inexhaustible knowledge of this field, far beyond his actual project, which he brilliantly deployed in an intense discussion with top experts after his talk.

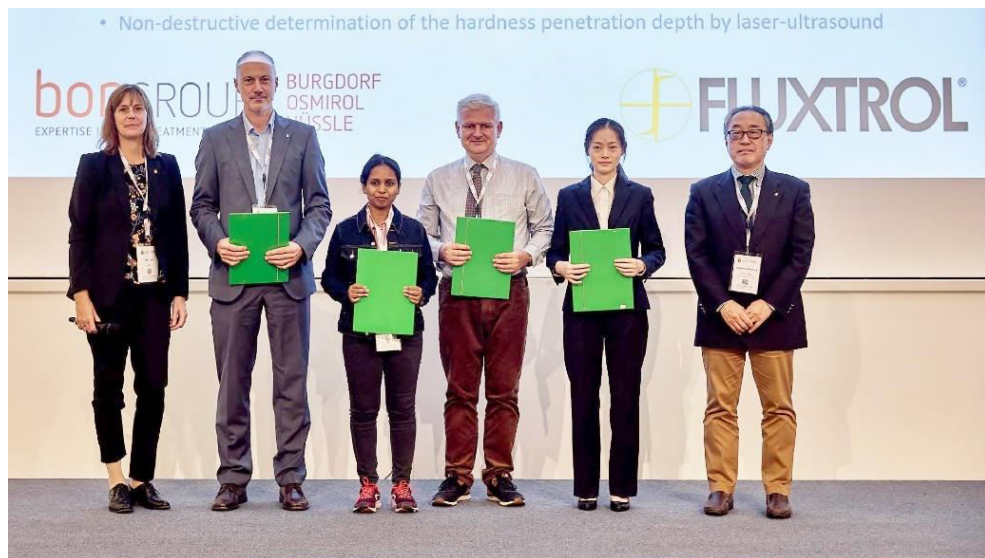


IFHTSE President Masahiro Okumiya and IFHTSE Vice President Massimo Pellizzari congratulate the Tom Bell Young Author Awardees. Obviously, they are very happily looking forward to their free trip and participation at the next IFHTSE Congress in Japan in November 2023!



Vivid discussions at the posters, in this case the one of Edgar Scherleitner which won one of the four poster awards

Four poster awards were sponsored by the companies [Burgdorf](#) of Germany and [Fluxtrol](#) of the US. They were given to



Anupama KASHYAP, IIT Roorkee, India

Darko LANDEK, University of Zagreb, Croatia

Jiaxin PENG, Kansai University, Japan

Edgar SCHERLEITNER, Research Center for Non Destructive Testing, Austria

IFHTSE President Masahiro Okumiya, closing the Congress: "See you again in Yokohama, November 2023, for the 28<sup>th</sup> IFHTSE Congress!"



# Forthcoming Conferences

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

<b>2022</b>	<b>NOV</b>	<b>2-4</b>	<b>HTS - 14th International Exhibition and Conference on Heat treatment</b>	<b>Mumbai</b>	<b>India</b>	<a href="http://www.htsindiaexpo.com">www.htsindiaexpo.com</a>	
<b>2023</b>	<b>APR</b>	<b>24-27</b>	<b>5th International Conference on Heat Treatment and Surface Engineering of Tools and Dies</b>	<b>Hangzhou</b>	<b>China</b>	<a href="http://htse-td.allconfs.org/meeting/index_en.asp?id=6861">http://htse-td.allconfs.org/meeting/index_en.asp?id=6861</a>	
<b>2023</b>	<b>MAY</b>	<b>29-31</b>	<b>European Conference on Heat Treatment</b>	<b>Genova</b>	<b>Italy</b>	<a href="https://www.aimnet.it/ec/ht2023.htm">https://www.aimnet.it/ec/ht2023.htm</a>	
<b>2023</b>	<b>OCT</b>	<b>17-19</b>	<b>Heat Treat 2023</b>	<b>Detroit</b>	<b>USA</b>	<a href="https://www.asminternational.org/web/heat-treat">https://www.asminternational.org/web/heat-treat</a>	
<b>2023</b>	<b>NOV</b>	<b>13-16</b>	<b>28th IFHTSE Congress</b>	<b>Yokohama</b>	<b>Japan</b>	<a href="https://jsht.or.jp/ifhtse2023/">https://jsht.or.jp/ifhtse2023/</a>	
<b>2024</b>	<b>SEP</b> <b>OCT</b>	<b>30-3</b>	<b>29th IFHTSE Congress</b>	<b>Cleveland</b>	<b>USA</b>		