THIRD ANNOUNCEMENT AND CALL FOR PAPERS

10th INTERNATIONAL SYMPOSIUM ON STEEL BRIDGES
For A Green Planet

STEEL BRIDGES ISTANBUL 2022

20-22 September 2022

Organised by
Turkish Constructional Steelwork Association (TUCSA)
in coordination with European Convention for Constructional Steelwork (ECCS)

Dear colleagues,

It is our great pleasure to invite you to the 10th International Symposium on Steel Bridges *For A Green Planet* to be held on 21-22 September 2022 in Istanbul, which has been organised by ECCS members under the umbrella of European Convention for Constructional Steelwork since 25 February 1988.

Turkish Constructional Steelwork Association (TUCSA) organized the "8th International Symposium on Steel Bridges: Innovation and New Challenges" during the 2015 annual meetings of The European Convention for Constructional Steelwork (ECCS) held in Turkey. Now at 2022, once more Turkey is proud to announce and host the 10th International Symposium STEEL BRIDGES with the motto "*For A Green Planet*" to encourage innovations and new approaches on the field. In parallel with the symposium the below listed activities will also be performed;

20 September 2022	Technical tour to the 1915 Çanakkale Bridge (Optional)
21 September 2022	European Steel Bridges Awards Ceremony
21 September 2022	Gala Dinner and 30th Anniversary of TUCSA
22-23 September 2022	ECCS Annual Meetings - for invited members only

As stated at the Background and Scope section below, Istanbul is one of the best places to organise the bridge symposium which is a natural bridge between Europe and Asia in addition to having five long span suspended steel bridges over the Bosphorous, Izmit Bay and the Dardanelles, including the 1915 Çanakkale Bridge with the largest midspan of 2023 meters in the world. This symposium gave us the opportunity and mission to organize and announce the 10th international symposium for architects, structural engineers, designers, steel fabricators and builders as well as environmental psychologists, urban planners and environmentalists to discuss new horizons on steel bridges.

We sincerely hope you will join us on 20-22 September 2022 in Istanbul.

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Scientific Committee Chair
Head of Civil Engineering Department
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H. Yener GÜR'EŞ
Organising Committee Chair
President of TUCSA and
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BACKGROUND AND SCOPE

Bridges…are all about interlinking and connectivity

From the very beginning structural art has always been of prime importance to the cultures of societies. Besides the historical marvels as ziggurats of Mesopotamia, pyramids of ancient Egypt, acropolises and theatres of ancient Aegean civilizations, bridges, aqueducts of Romans, cathedrals of medieval Christianity, great mosques of Islamic culture, yurds of nomads and thatching techniques of the primitive cultures as well as wooden structures of far eastern cultures should equally and easily be mentioned under this context.

In the course of time there has always been urges for mankind, communities to connect themselves with other places and people and attempt to overcome difficulties exposed by the natural and/or manmade environment, spanning and traversing over certain obstacles such as rivers, valleys, constructional objects and others. The simple solution was “Bridge”. Gradually the distances that seemed impossible to encompass began to get achieved by the development of diverse Technologies on design, construction and material production fields.

Bridges have fascinated mankind over time. They have been symbols of art and science, good architecture, engineering and trade skill. They have also symbolized links between people, communities, and nations. Strategic and tactical bridges have been of importance for exercising power. Bridge building has therefore been a high-ranked profession. First bridges were stone and wooden bridges, including natural bridges, single stone plates, rope bridges and wooden beams crossing a brook. Up to the eighteenth century, the building of bridges was a typical skilled trade, based on experience of generations. The people involved had developed an admirable understanding of the forces of nature. On the basis of this they had developed empirical rules of construction to lean on.

About the middle of the 18th century bridge construction began to assume a more scientific aspect than before. Production of iron and steel in commercial scale gave new possibilities. The first iron bridge Coalbrookdale Bridge was built in 1779. This bridge was a turning point in engineering history because it changed the course of the Industrial Revolution by introducing iron as a structural material and it is still used.

Although the first record of western use of iron in bridges was about 1779, the rise of iron to a dominant position as a structural material was in the period of 1830 to 1880. Iron trusses replaced the wooden bridges. Cast iron was first used in arch bridges. A combination of cast iron for compression members and wrought iron for tension members was first used in truss structures, but from 1840 onwards, especially for railroad bridges, wrought iron was used solely.

Bridge building activity increased rapidly with the introduction of the railway all over the world and progressive metallurgical advancements. Consequently, steel became an unrivalled structural material in the 20th Century throughout the world. Seemingly the most recent century will be the age of structures considering steel of prime importance.

Main motive of the Symposium is that there is still much to do to develop and promote steel in construction industry by considering developments in technology, effects of global warming and climate changes. It seems that mankind’s abilities are becoming ready to bring them and the like into reality. Therefore, design is important. Designing visions, structures, construction means and materials to create new and yet healthy and sound environment is also important. And steel is the futuristic material to continue shaping and “connecting” our common urban or metropolitan lives under ever growing human population challenges.

TOPICS AND KEY DATES

The Symposium will cover innovations and new challenges in the field within the themes as given below:

1. Aesthetics & architecture
2. Assessment and evaluation
3. Bridge computer technology & analysis

4. Bridge monitoring
5. Bridge maintenance
6. Safety and serviceability
7. Codes
8. Corrosion effects and protections
9. Design for durability
10. Seismic behaviour
11. Economic steel bridges
12. Environmental impact
13. Fabrication & construction
14. Field testing
15. Health monitoring
16. High performance materials
17. Highway bridges
18. Railway bridges
19. Pedestrian bridges
20. Historical bridges
21. Restoration
22. Strengthening and rehabilitation
23. Replacement
24. Case studies
25. New technical and material concepts
26. Service life prediction
27. Sustainability and decarbonisation

KEY DATES

19 July 2022	Deadline for Submission of Abstracts
29 July 2022	Notification of Acceptance to Authors
19 August 2022	Deadline for Submission of Full Papers
29 August 2022	Final Acceptance

SUPPORTERS AND COMMITTEES

(See https://sbis.tucsaevents.org/committees.html)

REGISTRATION FEES AND OPTIONALS

(See https://sbis.tucsaevents.org/registration.html)

OTHER DETAILS

More information can be found at the following pages;
- For the **symposium**, click (https://sbis.tucsaevents.org/index.html/),
- For the **registration**, click (https://sbis.tucsaevents.org/registration.html),
- For the **abstracts**, click (https://sbis.tucsaevents.org/abstract.html),
- For the **sponsorship**, click (https://sbis.tucsaevents.org/docs/SBIS_Sponsorship.pdf).