

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

8th INTERNATIONAL SYMPOSIUM ON

STEEL BRIDGES: INNOVATION & NEW CHALLENGES 2015

(SBIC-2015)



14-16 September 2015

Organised by

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

Co-Organisers

European Convention for Constructional Steelwork (ECCS)
Karabuk University (KU)
Turkish Association for Bridge and Structural Engineering (TKIC)
Yeditepe University (YU)

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CAOK - Czech Constructional Steelwork Association, Czech Republic
CMM – Portuguese Steelwork Association, Portugal
DSI – Dansk Stalinstitut, Denmark
FCSA – Finnish Constructional Steelwork Association, Finland
ILTM – Industrie Luxembourgeoise de la Technologie du Metal, Luxembourg
MAGESZ – Hungarian Steel Association, Hungary
NSA – Norsk Stalforbund, Norway
OSTV – Österreichischer Stahlbauverband, Austria
SBI – Stålbyggnadsinstitutet (Swedish Institute of Steel Construction), Sweden
SCMF – Syndicat de la Construction Metallique de France, France
SNS – Samenwerkende Nederlandse Staalbouw, Netherlands
SZS – Stahlbau Zentrum Schweiz, Switzerland
UNICMI – National Union of Metal Construction and Building Envelope Industries, Italy
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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.

Expressions similar to these were again mentioned while introducing the theme of the Symposium on “Steel Structures” held at 2010 during the annual meetings of The European Convention for Constructional Steelwork (ECCS) in Turkey. Now at 2015, once more Turkey is proud to announce and host the Annual meeting of ECCS which will be held at 2015 in İstanbul. Again, it is planned to organize an international Symposium, this time on STEEL BRIDGES to encourage innovations and new approaches on the field.

Main motive of the Symposium is that there is still much to do to develop and promote steel in construction industry, e.g. where urban research and studies eventually propound “Vertical Cities” to control physical propagation and expansion of cities for the sake of sustainability and preservation of fertile lands, in which new levels of “bridging” the settlements may come into considerations. It is a well known fact that some 21st Century architects and urban planners have such utopian schemes. And 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.

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 three steel bridges over Bosphorous. This symposium gave us the opportunity and mission to organize and announce the 8th 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.

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

- Aesthetics & architecture
- Assessment and evaluation
- Bridge computer technology & analysis
- Bridge monitoring
- Bridge maintenance
- Safety and serviceability
- Codes
- Design for durability
- Seismic behaviour
- Economic steel bridges
- Environmental impact
- Fabrication & construction
- Field testing
- High performance materials
- Highway bridges
- Railway bridges
- Pedestrian bridges
- Historical bridges
- Restoration
- Strengthening and rehabilitation
- Replacement
- Case studies
- New technical and material concepts
- Service life prediction
- Sustainability

KEY DATES

31 October 2014	Deadline for Submission of Abstracts
16 January 2015	Evaluation of Abstracts, Request for Final Papers
17 April 2015	Deadline for Submission of Final Papers
29 May 2015	Final Acceptance

REGISTRATION FEE

The *registration fee* covers admission to the sessions, the proceedings book (or CD), coffee breaks, lunches for three days, Symposium Dinner, technical tour to the bridges/sites. In the case of *Accompanying Persons*, three days sightseeing in Istanbul with lunches and museum visits instead of the sessions and proceedings book (or CD).

	<i>Before 01 August 2015</i>	<i>Beginning on 01 August 2015</i>
ECCS and TUCSA Members	450 €	525 €
Non Members	500 €	575 €
Students	225 €	275 €
Accompanying Persons	300 €	300 €