

## Conference Venue

The conference will be held in one of the oldest cities of Russia, Kazan, at the new international conference hall hotel Korston, which is very convenient and well equipped for conferences in terms of facilities, transportation and proximity to other hotels.



Kazan, the city with a mysterious name and with more than a thousand years history, is situated on the green open spaces of Eurasia in the land of forests, lakes and fields cultivated from the earliest times in the place where the small Kazanka River flows into the largest European Volga River.



Kazan is situated on the left bank of the Volga approximately in its middle, on the intersection of earth-based and air communications. The Kazanka River and Kaban Lake divide the city into three parts. Kazan is situated 780 kilometers to the east of Moscow. Time zone is UTC/GMT+3, the same as in Moscow.



Kazan is one of the industrial, scientific and cultural centers of the Volga Region. The history of Kazan is associated with many world-renowned figures, like the father of non-Euclidian geometry, Nikolai Lobachevsky; the writer, Leo Tolstoy; the discoverer of the Antarctic, Ivan Simonov; the founder of organic chemistry, Alexander Butlerov; a father of modern linguistics, Ivan Baudouin de Courtenay; the discoverer of electron spin resonance, Evgeniy Zavoisky.

## Registration

All attendees, including invited speakers, are strongly advised to register in advance of the Conference. The registration fees are as follows:

Registration Fee	Prior to 26 February 2012	After 26 February 2012
Full Delegate	520 EUR	570 EUR
Student Delegate	300 EUR	350 EUR
Accompanying Person	150 EUR	200 EUR
ESIS members discount 50 EUR		

All registered delegates are entitled to one copy of the book of abstracts, CD-ROM with full-papers, attend all technical sessions, early-bird and welcome receptions, refreshments, lunches and conference dinner. Accompanying Persons are entitled to early-bird and welcome receptions and conference dinner.

European Structural Integrity Society



First Announcement  
and Call for Papers



*Fracture Mechanics  
for Durability, Safety  
and Reliability*

## 19th European Conference on Fracture



[www.ecf19.ru](http://www.ecf19.ru)  
[ecf19@acadenergo.ru](mailto:ecf19@acadenergo.ru)

Kazan Scientific Centre of the Russian Academy of Science  
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## Organizing Committee

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## Important Dates

Submission of Abstracts	15 December, 2011
Notification of Acceptance	15 February, 2012
Deadline for Early Registration	15 March, 2012
Submission of Full Papers	15 April, 2012
Conference	26-31 August, 2012

## Further Information

Full information about the conference can be found in  
the ECF19 web site, at the following address:

<http://www.ecf19.ru>

## Scientific Topics

ECF19 will be the nineteenth in a series of biennial international conferences held by the European Structural Integrity Society (ESIS). The objective of the conference is to promote research and scientific communication on durability, reliability and safety of engineering materials, components and structures. The conference topics will focus on all important aspects of fracture and fatigue:

- ◆ Fracture mechanics current state (models, criteria, testing, engineering methods); especially – multiaxial/mixed mode fracture, dynamic fracture, multicyclic loading, multi-scale material structures, nano-structured materials, fracture mechanics of biomaterials, fatigue and fracture under variable amplitude loading, damage based fracture models, in-plane and out-of-plane constraint effects, damage and fracture under dynamic loading
- ◆ Fracture processes under the action of physical fields and chemically active media
- ◆ Methods for residual lifetime evaluation and prediction, engineering risk assessment, risk analysis in safety problems, structural integrity assessment
- ◆ Fracture diagnostics and monitoring. New equipment and technologies for monitoring the technical state of potentially dangerous structures and diagnostics of structural materials ageing
- ◆ Fracture mechanics and metrology of strength and fracture resistance characteristics of structural materials accounting for their multiscale structure (from nano- to macroscale)
- ◆ Fracture mechanics application in different fields of industry (aircraft; shipbuilding; nuclear; gas and oil industry; energetics; micro- and nano-electronics; scale effects at fracture; durability, safety and reliability of complex technical systems; non-destructive testing and evaluation of structural components
- ◆ Case histories
- ◆ Fracture mechanics in design of fracture resistant materials and components, materials of high-strength and high-fracture resistance in modern structures
- ◆ Fracture mechanics in engineering codes; virtual fracture analysis and testing
- ◆ Fracture mechanics of geomaterials and natural objects

## International Scientific Committee

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## Technical Exhibition

The Organizing Committee invites companies and individuals to participate in a Technical Exhibition. ECF 19 will provide facilities for presenting equipment, software and services related to the main topics of fracture mechanics. Companies and individuals interested in presenting software, apparatus or any other kind of material at the Technical Exhibition should inform the Conference chair of their intention as soon as possible.