



# ETN's 10<sup>th</sup> International Gas Turbine Conference

## THE ROLE OF GAS TURBINES IN A CARBON-NEUTRAL SOCIETY

14-15 October 2020, Le Plaza Hotel in Brussels, Belgium

### CALL FOR PAPERS

The IGTC-20 Conference Advisory Board welcomes submission of Papers in the following gas turbine research areas and application fields:

- **Technical papers** describing technology advances and innovative solutions
- **Review papers** giving a comprehensive technology overview of the past 2 years
- **Case study papers** describing recent experiences

Submitted research papers and application oriented papers should demonstrate a high importance and interest to the gas turbine user community and be related to one or several of the five categories below.

ETN's [R&D Recommendation Report](#) provides more details of the relevant R&D topics.

The highlighted topics of each category include, but are not limited to:

<p><b>Decarbonisation and emissions reduction</b></p> <ul style="list-style-type: none"> <li>• Power-to-X-to-power technologies</li> <li>• Retrofit and newly built H<sub>2</sub> power plants</li> <li>• Integration of GT hybrid solutions</li> <li>• GT advanced cycles (wet cycles, sCO<sub>2</sub>, exhaust gas recirculation, hybrid cycles, integration of storage solutions, heat pumps etc.)</li> <li>• Environmental life cycle assessment</li> <li>• Emission reduction on existing gas turbines</li> <li>• Decentralisation and distributed generation</li> <li>• Carbon capture and storage</li> <li>• ....</li> </ul>	<p><b>Flexibility</b></p> <ul style="list-style-type: none"> <li>• Extended fuel spectrum (hydrogen, biomass, ammonia, LNG/LPG...)</li> <li>• Operational GT flexibility</li> <li>• Maintenance flexibility</li> <li>• Emission at flexible load and cycling</li> <li>• Efficiency at partial and minimum load conditions</li> <li>• Reliability (material and life impact)</li> <li>• Plant and system flexibility</li> <li>• ....</li> </ul>
<p><b>Digitalisation</b></p> <ul style="list-style-type: none"> <li>• Condition monitoring and lifying</li> <li>• Digital engine modelling, digital twins</li> <li>• Plant and system integration</li> <li>• Integration in virtual power plant</li> <li>• Data management, architecture &amp; security</li> <li>• ....</li> </ul>	<p><b>Asset optimisation through life cost</b></p> <ul style="list-style-type: none"> <li>• Overall system efficiency</li> <li>• Condition-based maintenance</li> <li>• Extension of service intervals and total engine life</li> <li>• Component lifying</li> <li>• Predictive maintenance</li> <li>• Sensors &amp; instrumentation</li> <li>• New component developments</li> <li>• Additive manufacturing and repair</li> <li>• ....</li> </ul>
<p><b>Economic, policy, market</b></p> <ul style="list-style-type: none"> <li>• Economic impact on technical solutions in line with the market conditions and policy framework</li> <li>• System analysis</li> <li>• Emissions legislation</li> <li>• Regulatory framework</li> <li>• ....</li> </ul>	

### DEADLINES

<b>Submission of abstracts: 7 January 2020</b>	<b>Notification of abstract acceptance: 6 February 2020</b>
<b>Submission of final papers: 29 April 2020</b>	<b>Notification of paper acceptance: 19 June 2020</b>

### Submission of abstracts:

An abstract of maximum 400 words should be submitted in a Word document by email with the title “**Abstract**” to [nk@etn.global](mailto:nk@etn.global) by **7 January 2020**. When your abstract is submitted correctly, you will receive a confirmation email.

### The abstracts must contain:

- Title of the paper;
- Names, affiliations, and full addresses of all authors;
- Up to five keywords in descending order of importance;
- Language: All abstracts must be written in high quality English and authors of selected papers must be able to present their topics in English.

The Conference Advisory Board will only select abstracts of promising high quality papers. Authors of the accepted abstracts will be invited to submit a final paper.

### Final acceptance:

The final acceptance of the paper is based on a positive review by the Conference Advisory Board. The Conference Advisory Board may also give comments to improve a paper, which must be implemented before final submission of the paper.

Accepted papers will appear in the conference proceedings available in electronic format at the conference. Authors of the accepted papers must present their paper in respective technical sessions, and will be expected to submit their PowerPoint presentation 1 month before the conference.

A reduced conference fee will be given to presenters of the accepted papers.

### About the conference

The International Gas Turbine Conference is a well-established and renowned biennial conference. Its objective is to raise the awareness of gas turbine (GT) technology development needs – from operators’ perspectives – and to explore and exchange ideas with GT experts from the whole value chain attending from all continents. It also provides the opportunity to meet and discuss with policy makers the role of gas turbines in future energy scenarios. The conference highlights the energy market outlook in Europe and in key markets globally, as well as presents and disseminates current R&D activities and latest achievements for flexible, efficient, reliable and environmentally sound gas turbine technology.

The **keynote sessions and panel discussions** will address critical issues related to climate change mitigation in the context of the different and fast changing markets. Special attention will be given to increased operational flexibility, fuel flexibility, retaining reliability and lower emissions for both single cycle and combined cycle operation. Energy policies that set boundary conditions and initiatives for GT technology development in Europe and globally will be presented, followed by panel discussions with distinguished experts and high-level policymakers.

In parallel **technical sessions**, critical research and development activities necessary for the advancement of GT technology, from operational, environmental and cost perspectives will be addressed. Recent GT technology and new, innovative solutions will be presented. The technical sessions will combine research initiatives, case studies and reports of real case applications, with the aim to give a balanced view of current developments and future needs for research in GT applications.

### Who will be present?

GT users (utilities and oil & gas), OEMs, equipment and service providers, universities and R&D institutes, consultancies and policymakers

#### Organiser

ETN Global  
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#### Conference management and Call for Papers

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For conference updates and further details:

[etn.global/events/igt-20/](http://etn.global/events/igt-20/)

**We very much look forward to  
welcoming you at the IGTC-20!**

#### Conference Advisory Board IGTC-20

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- Jafar Alzaili, City, University of London
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