

76° ATI National Congress

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¹ATI Associazione Termotecnica Italiana

ATI conference series has a long and rich history. ATI (Associazione Termotecnica Italiana) since 1946 is the Italian association connecting academics, and professionals who operate in the energy conversion field, promoting research, innovation and knowledge transfer among universities, research centers and industries.

This special volume contains contributions from the 76° ATI National Congress conference held virtually in Rome in September 2021 as 2020 congresss for the prolongation of the covid emergency.

ATI cooperates and interacts with other associations, such as AICARR (Italian association of heating and cooling conditioning systems), ANTA (Italian association of Thermo-technics and Aero-technics), CTI (Italian thermo-technical committee) and UIT (Italian Thermo-fluid dynamic association). Such a network shares the common goal of increasing the relevance and public discussion on energy management and energy conversion systems.

The first ATI National Congress was organised in 1946 in Torino. ATI 2021, virtually hosted again in Rome by ATI Sezione Lazio and ATI Nazionale, proudly continued this tradition, building on the foundations that were laid over more than 70 years ago. This 76th edition of the congress series was attended by more than 300 participants. The conference featured more than 120 papers distribute along 12 virtual sessions.

The overarching objective of the ATI 2021 conference, in a similar vein as the previous editions, has been to provide a forum for the exchange of ideas and recent results of research activities developed around The Ecological Transition and the applicative goals of the ATI National Congress series have broadened over the recent editions beyond traditional ones.

The conference was chaired as in the previous edition, by Prof. Alessandro Corsini, and Prof. Livio de Santoli in his role of President of ATI Association.

The present volume collects up-to-date contributions in the following fields: sustainability, renewable energy technologies, cogeneration and trigeneration systems, e-mobility, energy management and smart energy systems, energy storage technologies, energy savings in civil and industrial applications, heat transfer and applied thermo-fluid-dynamics, indoor air quality, ICEs, Turbomachineries and fluid power technologies.

The volume represents an outstanding state of the art of the topics related with energy. The volume provides very interesting insights and perspectives for current and future methodological and technological developments.

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