**Dutch Section of the Combustion Institute**

**WEBINAR 19**

**Friday April 26, 2024, 13:00-14:00 (CET)**

**From non-premixed combustion in industrial furnaces to lean premixed combustion in gas turbines:**

**a comprehensive review, updates, and reflections on low-emission combustion applications and project management**

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**ABSTRACT:**

Over the past three decades, High Temperature Air Combustion (HiTAC), Moderate or Intense Low Oxygen Dilution (MILD), Flameless or Distributed combustion have emerged as leading technologies for fossil fuel conversion in industrial furnaces, enabling energy conservation and emission reduction. Concurrently, lean premixed combustion has gained dominance in the gas turbine industry with various iterations at prominent companies. In recent years, there has been an increasing focus on ultra-low emission and Hydrogen combustion technology due to stringent standards. This lecture provides a concise history of these combustion concepts and technologies along with their industrial applications and engineering considerations. Additionally, it presents some research updates and reflections during project management in the fast-changing market.