

# **SOFC system: from stack to large industrial plants**

Prof. Massimo Santarelli  
Department of Energy, Politecnico di Torino (Italy)

Energy systems based on solid oxide fuel cells are becoming a real element of the future energy portfolio. The approach to the market is going on, especially at the level of microCHP and distributed CHP applications. The interest relies especially in the high electrical efficiency, the good potential of heat recovery, the significant reduction of contaminant emissions, and the good fuel flexibility.

In this context, the lectures have the following aim:

- 1) Description of the SOFC technology, from cell to stack to system
- 2) A deep insight into application of SOFC systems at the industrial level (distributed CHP applications), especially in case of adoption of a not conventional and renewable fuel such as biogas