

Liquid Atomization, Spray, and Fuel Injection in Aircraft Gas Turbine Engines

SHORT COURSE

Instructor: Dr. Bruce Chehroudi

7-8 July 2018 | Cincinnati, OH

Atomization of liquids is at the heart of operations of many of the devices we use on a daily basis. In the aerospace industry, the engine thrust, efficiency, and the emission levels are directly related to the performance of the liquid fuel injector designs. For this reason, R&D activities in this area have intensified in the past two decades in a quest to design and operate efficient and low-emission gas turbine engines. It is imperative then that individuals involved in research, design, and operation have the requisite knowledge and training to choose intelligent and innovative approaches when it comes to liquid fuel nozzle and its optimum performance.

This two-day course provides an understanding of the processes of liquid atomization and spray formation and relating this understanding to fuel injection systems and emission of pollutants in modern engines. The approach in this course is to build sufficient background through introduction of a consistent and widely-used terminology in sprays and atomization. Justifications, reasons, and purposes of the liquid atomization and spray formation are discussed along with presentation of different designs of atomizers and nozzles employed in various industries. Characterization methods of sprays are discussed after the definition and meaning of different averaged liquid droplet diameters are touched on. Droplet size measurement devices are covered and examples are shown.

PRICING

Standard Rate <i>Non AIAA Members</i>	\$700
Early AIAA Member Rate <i>Until 18 Jun</i>	\$500
AIAA Member Rate	\$600

REGISTER: propulsionenergy.aiaa.org/Liquid-Atomization-Spray-and-Fuel-Injection/

In conjunction with



9-11 July 2018 | Duke Energy Convention Center | Cincinnati, OH

