Associazione Italiana di Aeronautica e Astronautica
A.I.D.A.A. – APS
Via Salaria 851 – 00138 – Rome – Italy

www.aidaa.it

Founded in 1920
Member of:
International Astronautical Foundation (IAF)
International Council of Aeronautical Sciences (ICAS)
Council of European Aerospace Societies (CEAS)

AIDAA Educational Series and Academy

Introduction to Combat Aircraft Performance

10 December 2024

Overview and General Information:

Modern combat aircraft design is governed by a careful balance of aerodynamic and propulsion performance, which are pushed to the limit. The blending of different specifications, often in opposition, is one of the most complex tasks in Aeronautical Engineering, especially with the requirement to integrate the now mandatory requirements of signature reduction requirements. Attendees will learn to quantify combat aircraft performance, and how different machines can be compared and relatively classified as superior/inferior. The short course will also explore common airframe solutions to achieve specific performances.

Learning Objectives:

- Kinematics performance analysis.
- Energy Manoeuvrability and Specific Excess Power theories.
- Tactical engagements analysis (Within Visual Range Engagemets).
- Introduction to combat aircraft aerodynamics.

Target audience

Doctoral and post-graduate students, aerospace and defence industry professionals, and military officers.

Dates and times:

10 Dec. 2024 time: 13:00 – to 16:00

Speaker

David Bacci is a Senior Research Fellow at the University of Oxford, with experience in Acoustic and Thermofluid-dynamics. He also holds a position of Visiting Research Fellow in Military Aircraft Design at Cranfield University (Defence Academy of the United Kingdom)

His research interests range from combat aircraft development (weapons bays aero-acoustic, combat performance evaluation, integration of aerodynamic design with radar and infrared signature requirements) to next-generation turbojets (acoustic and thermal analysis, thermal management, cooling).

He is an active consultant in projects of 5^{th} and 6^{th} generation combat aircraft and operates as a technical advisor within the UK aerospace industry (Rolls-Royce, British Aerospace)

Registration and Contacts

This course is part of the 2024 institutional activity for AIDAA members. The **registration** requires the purchase of one of the packages described here LINK, and the completion of the online form available here LINK.

Course platform: Webex, a link will be sent via email as the registration is complete.

At the end of each course, **attendance certificates** will be sent to participants via email.

For further info, please, contact academy@aidaa.it

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