

Florean Florin Gabriel

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WORK EXPERIENCE

7 JAN 2009 - CURRENT Bucuresti, Romania

RESEARCHER I COMOTI - ROMANIAN RESEARCH & DEVELOPMENT INSTITUTE FOR GAS TURBINES

As a specialist in the **Gas Turbine Department**, my role primarily focuses on the **design**, **optimization**, **and testing of combustion chamber components** for gas turbine engines. I am responsible for ensuring that these components meet stringent thermal, mechanical, and efficiency requirements in high-temperature environments. My key activities include:

1. Design and Development of Combustion Components:

- Spearheading the development of advanced combustion chamber liners and flame stabilizers.
- Utilizing additive manufacturing (AM) to create components with complex geometries, such as cooling channels and graded porosity structures.
- Investigating the effects of **surface roughness** inherent to AM on heat transfer and combustion performance.

2. Thermal and Fluid Dynamics Analysis:

- Performing **computational fluid dynamics (CFD)** and **finite element analysis (FEA)** to simulate heat transfer, airflow, and combustion dynamics within the chamber.
- Optimizing cooling techniques, such as **film cooling** and **transpiration cooling**, to enhance component longevity and efficiency under high thermal loads.

3. Experimental Testing and Validation:

- Leading the design and execution of **laboratory-scale experiments** to validate the performance of combustion components, focusing on heat transfer, flame stability, and emissions reduction.
- Collaborating with cross-functional teams to **integrate sensors and dynamic components** for real-time monitoring and control of combustion processes.

4. Research and Innovation in Combustion Technology:

- Conducting research on alternative fuels (e.g., hydrogen) and their impact on combustion stability, emissions, and efficiency.
- Exploring the use of **surface treatments** and **material innovations** to improve the thermal and structural performance of combustion chamber parts.

5. Project Management and Collaboration:

- Overseeing multiple research projects, from concept development to experimental testing, ensuring that project milestones are achieved.
- Collaborating with industry partners, research institutions, and internal teams to drive innovation in combustion chamber design and performance optimization.

1 OCT 2003 – 1 DEC 2008 Bucuresti, Romania

TECHNICAL MANAGER RR TURISM.SRL-

Privat, Investments

EDUCATION AND TRAINING

2009 – 2014 Iasi, Romania

PH.D ENGINEER (SINCE 2014) Gheorghe Asachi" Technical University of Iasi - Faculty of Mechanical Engineering

Website https://www.tuiasi.ro/ | Level in EQF EQF level 6

1998 – 2003 Bucuresti, Romania

AIRCRAFT ENGINEER Polytechnic University of Bucharest- Faculty of Aerospace Engineering

Website https://upb.ro/facultati/facultatea-de-inginerie-aerospatiala/ | Level in EQF EQF level 6

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production Spoken interaction		
ENGLISH	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DRIVING LICENCE

Driving Licence: AM
Driving Licence: B1
Driving Licence: B

MANAGEMENT AND LEADERSHIP SKILLS

Project Coordination

- Coordinator for co-financing agreement nr.54EU/20.10.2009 -,,Turboshaft Engine Exhaust Noise Identification"
- Coordinator of project PN-III-P2-2.1-PED-2021-0969 (722PED)

Link https://comoti.ro/h2postcomb/

PUBLICATIONS

Publication Details

Scopus profile: https://www.scopus.com/authid/detail.uri?authorld=39861295300&origin=resultslist Google Scholar profile: https://scholar.google.com/citations?user=aO1VMO0AAAAJ&hl=en