

**AIRBUS**

In partnership with AIRBUS under  
the AGUPP program (Airbus Global  
University Partnership Program)



Institut Mines-Télécom  
Business School  
In partnership with  
IMT Business School  
in Evry

## AEROSPACE MATERIALS DESIGN, MANUFACTURING & INNOVATION MANAGEMENT

Economic success in aerospace depends on the ability to develop management strategies for R&D and technology transfer. In the competitive sector of aerospace materials, tomorrow's engineers will develop multiphysics, multiscale approaches for generating innovation at the crossroads of scientific and managerial disciplines.

### SKILLS ACQUIRED

- ✓ Mastering basic materials science
- ✓ Mastering materials science and engineering applied to aerospace
- ✓ Understanding aerospace industrial sector
- ✓ Understanding strategies and methodologies for innovation management
- ✓ Acquiring an entrepreneurial spirit, ability to take into account economic, quality, competitiveness, productivity and business requirements
- ✓ Acquiring the ability to lead a complex project in compliance with quality procedures
- ✓ Acquiring a strong ability to work in R&D, industrial organisation in an international context

### CAREER OPPORTUNITIES

- ▲ R & T operations manager
- ▲ Engineer / consultant intellectual property
- ▲ Engineer with client, supplier and/or research laboratories interfaces
- ▲ Engineer / consultant – valuation/technology transfer

Materials Industry

Aeronautical

Space

Transport

Students can also pursue with a PhD.



1 semester in a business school near Paris: engineering and management dual skill



**DURATION:** 2 years including a semester-internship

**INTAKE:** September

**LANGUAGE:** English



**MODE:** Full time on campus

**LOCATION:** Albi and Evry, France

**ACCOMODATION:** For all students



**TUITION FEES:**

18 000€ for 2 years  
(10 950€ for European applicants)

**APPLICATION DEADLINE:**

June

# SYLLABUS

The program is composed of 4 teaching units including an integrated and global approach addressing **the specificity of the aerospace industrial sector**, material sciences, mechanical engineering **and business and innovation management**. Two academic semesters are taught at IMT Mines Albi and one is taught at IMT Business School. Skills and competencies acquired will be used for the master thesis in industry or research.

## FOCUS | 1

### AEROSPACE ENGINEERING

- ▲ Market, technical and economic analysis
- ▲ Architecture, structure and performance of airplanes, launchers and satellites
- ▲ Aerospace project management, quality management, certification and environment rules for sustainable development
- ▲ Aerodynamics and flight dynamics
- ▲ Manufacturing
- ▲ Space techniques and materials in space environment
- ▲ Innovation in aerospace

## FOCUS | 2

### MATERIAL SCIENCES AND MECHANICAL ENGINEERING

- ▲ Strategy for selecting & tailoring materials
- ▲ Modelling & simulation in mechanics of materials
- ▲ Additive manufacturing
- ▲ Advanced manufacturing processes
- ▲ Diagnostic and control of materials & structures
- ▲ Advanced manufacturing processes
- ▲ Microsystems
- ▲ Surface engineering

## FOCUS | 3

### INNOVATION MANAGEMENT

- ▲ Principles of management (introduction, business simulation, multidisciplinary team management, soft skills, international negotiation)
- ▲ Innovation management (R&T, technology competition models, technology intelligence, organisation & tools, scientific and technological partnership, innovation measure & metrics, intellectual properties, rights & strategy, technology intelligence with patents)
- ▲ Project management (designing innovation project, press review)
- ▲ Business management (strategy, value chain, firm network, human resource management, intercultural management, business ethics, supply chain management)

## FOCUS | 4

- ▲ 6-month MSc thesis in industry and/or a research laboratory

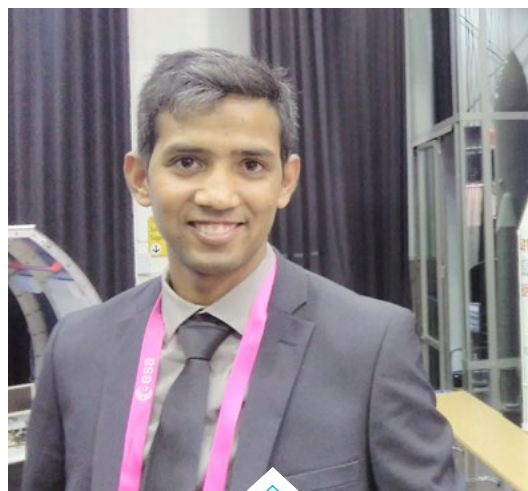
## ADMISSION REQUIREMENTS

Bachelor's degree or equivalent in sciences or engineering with one of the following related major:

- ▲ Material sciences
- ▲ Mechanical engineering
- ▲ Aerospace engineering

**English:** B2, IELTS 6, TOEIC 750 or equivalent.

Professional experience is highly welcome.



*I acquired various skills in aerospace manufacturing, simulation, design methodologies for aerospace structures, as well as I have also acquired skills in project management and innovation for aerospace industry through the master's courses and projects given to us by Airbus. I will strongly recommend joining this program.*

Muhammad, Indian alumnus

## CONTACT

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## APPLICATION

[inscriptions.mines-albi.fr](https://inscriptions.mines-albi.fr)

## WEBSITE

[www.imt-mines-albi.fr/en](http://www.imt-mines-albi.fr/en)

