



Military
University
of Technology



Faculty of Mechatronics,
Armament and Aerospace



INTERNSHIP on AEROSPACE TECHNOLOGY

MILITARY UNIVERSITY OF TECHNOLOGY

FACULTY OF MECHATRONICS, ARMAMENT AND AEROSPACE



Country Poland	Institution Military University of Technology	Internship on Aerospace Technology	ECTS ?
--------------------------	---	--	-------------------------

Service ALL	<p>Minimum Qualification for Lecturers</p> <ul style="list-style-type: none"> • Officers or civilian Lecturers: <ul style="list-style-type: none"> ○ English: Common European Framework of Reference for Languages (CEFR) Level B2 or min. NATO STANAG 6001 Level 3. ○ Thorough knowledge of particular technologies in aerospace. ○ Adequate knowledge of new trends in research and study on new technologies in aerospace.
Language English	

<p style="text-align: center;">Prerequisites for international participants:</p> <ul style="list-style-type: none"> • English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. • At least 1 year of national (military) higher education. • Students with aerospace technology background. 	<p style="text-align: center;">Goal of the Module</p> <ul style="list-style-type: none"> • General knowledge of aeronautics and astronautics technologies in terms of avionics systems, aircraft construction and maintenance. • Practical application of technologies in aeronautics and astronautics including avionics systems, aircraft construction and maintenance. • Theoretical aspects of control and measurement systems, sensors and actuators, construction of the airframe, propulsion system, procedures of aircraft maintenance.
---	---



2 months / total 200 h / 156 h with supervisor

- Fundamentals of control theory in MATLAB / LabVIEW / Quanser / Festo
- Design and simulation of mechatronic systems in MATLAB-Simulink
- PCBs design methodology in Altium Designer
- Rapid prototyping in LabVIEW
- Modelling and reconstruction of airframe structure in CAD
- Fundamentals of aircraft designing
- Some issues of airframe aircraft maintenance
- Some issues of aeronautics and astronautics technologies

1
w
e
e
k

- Fundamentals of flight simulators
- Fundamentals of aerospace construction technologies
- Fundamentals of aerodynamics and thermodynamics
- Fundamentals of air armament systems
- Fundamentals of robotics
- Fundamentals of design, manufacture and maintenance of mechatronic system
- Some issues of constructions of special military systems.

1
d
a
y

Important dates

The practices curriculum is uploaded on the EMILYO
website

Period of practice:

from 13 September – until 12 November 2021

Deadline for application:

30 June 2021

Courses of Higher Studies in the Faculty

- Full-time, part-time BSc and MSc courses:
 - Mechatronics
 - Aeronautics and Astronautics
 - Safety Engineering
 - Unmanned Systems Engineering
- Full-time and part-time PhD courses :
 - in Mechanics
 - in Construction and Operation of Machines



- ✓ Avionics (c, m)
- ✓ Fixed and rotary wings aircrafts (c, m)
- ✓ Aircraft armament (m)
- ✓ Aircraft propulsion systems (c)



(m) – military, (c) - civilian



Specialties of Mechatronics degree course

- ✓ Industrial automatics and robotics (c)
- ✓ Computer technologies in mechatronics (c)
- ✓ Mechatronics systems engineering (c)
- ✓ Weapon and ammunition construction (c)
- ✓ AA missile systems operation (m)
- ✓ Radioelectronics of AA missile systems (m)
- ✓ Armament and electronics (m)
- ✓ Rocket artillery (m)
- ✓ Ammunition (m)



(m) – military, (c) - civilian

- ✓ Technical safety engineering (c, m)
- ✓ Public safety engineering (c, m)



(m) – military, (c) - civilian



- ✓ Robots and autonomous vehicles designing (c)
- ✓ Unmanned aerial vehicles engineering (c)



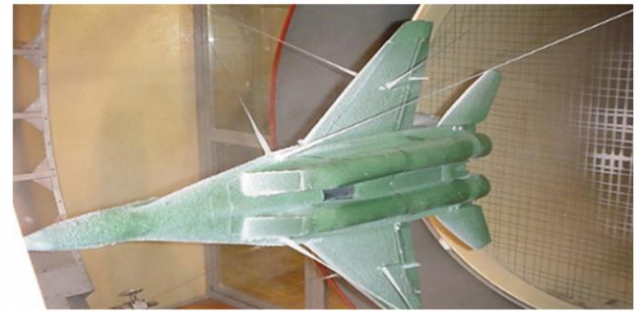
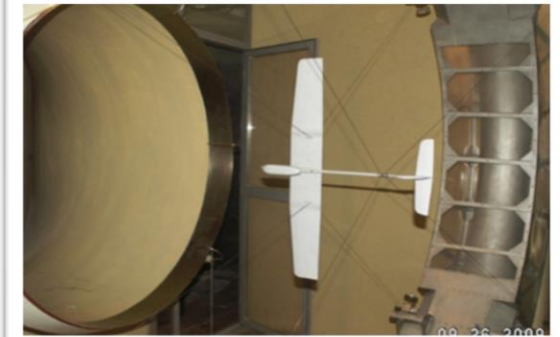
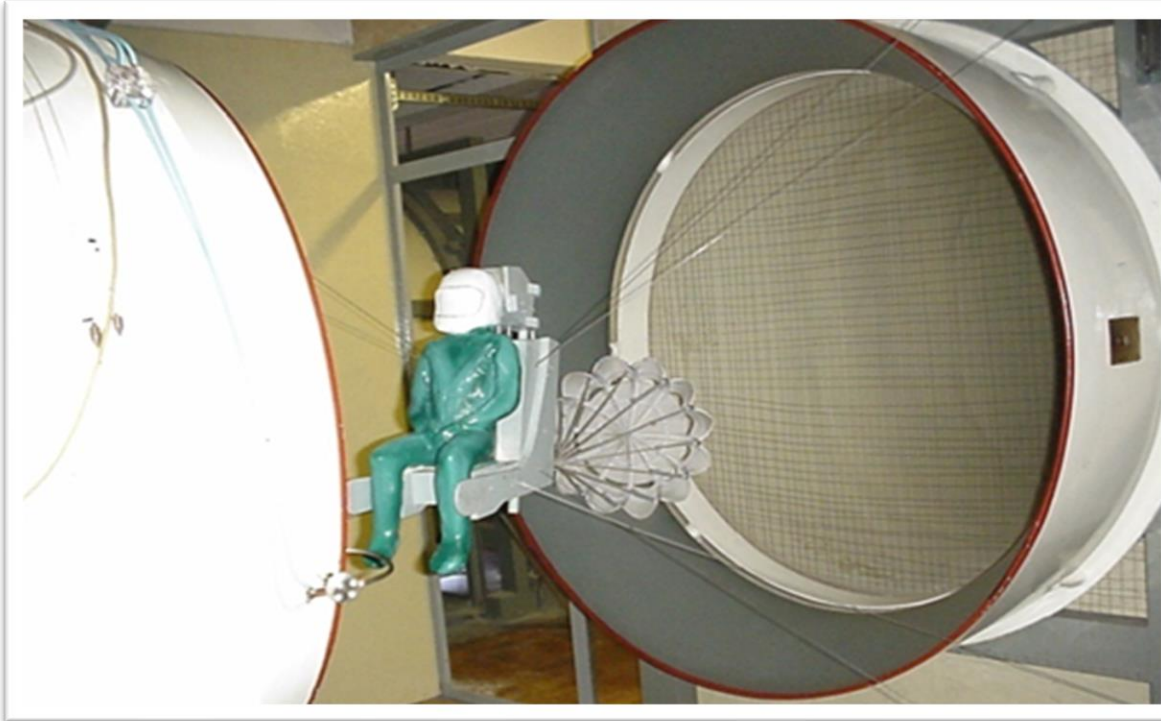
(m) – military, (c) - civilian



Military
University
of Technology

Aerospace Technology Institute Aerodynamics Laboratory

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Aerospace Technology Institute UAV Laboratory

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Aerospace Technology Institute Endurance Research Laboratory

Faculty of Mechatronics,
Armament and Aerospace

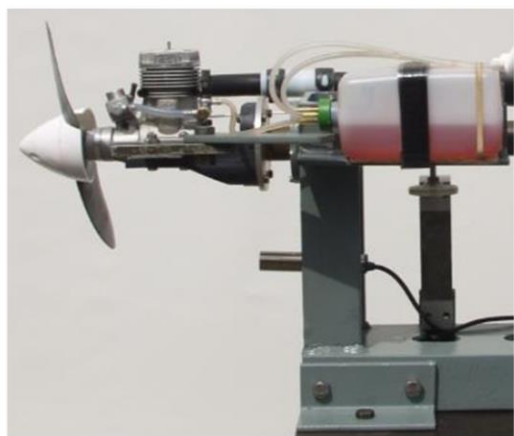




Military
University
of Technology

Aerospace Technology Institute Aircraft Propulsion Systems Laboratory

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Aerospace Technology Institute
Avionics Laboratory

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Aerospace Technology Institute Flight Simulators Workshop

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Airshed

Faculty of Mechatronics,
Armament and Aerospace







Military
University
of Technology

Airshed - practice

Faculty of Mechatronics,
Armament and Aerospace







Military
University
of Technology

Airshed - practice

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Airshed - practice

Faculty of Mechatronics,
Armament and Aerospace





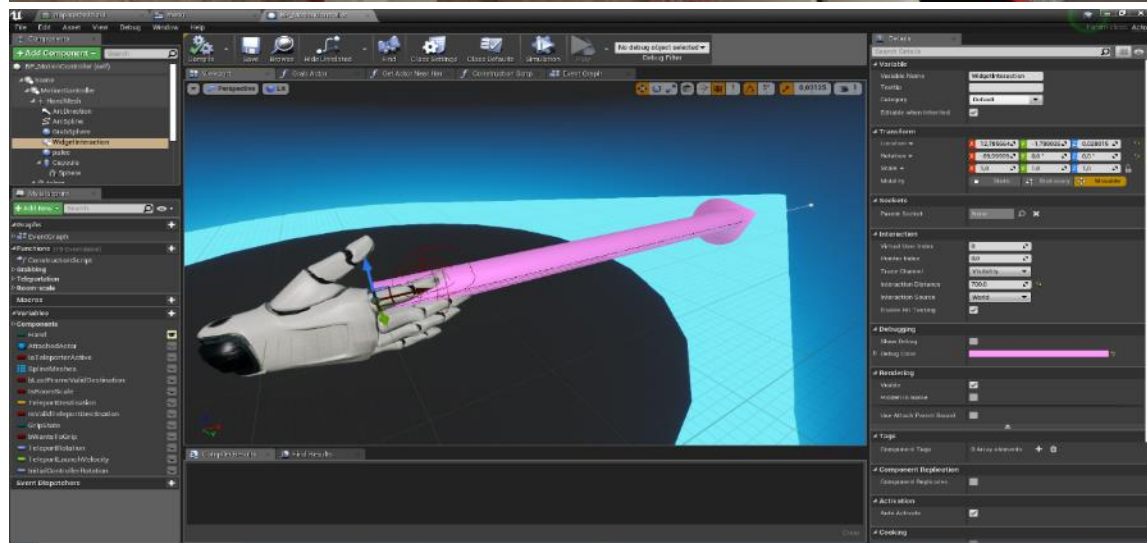
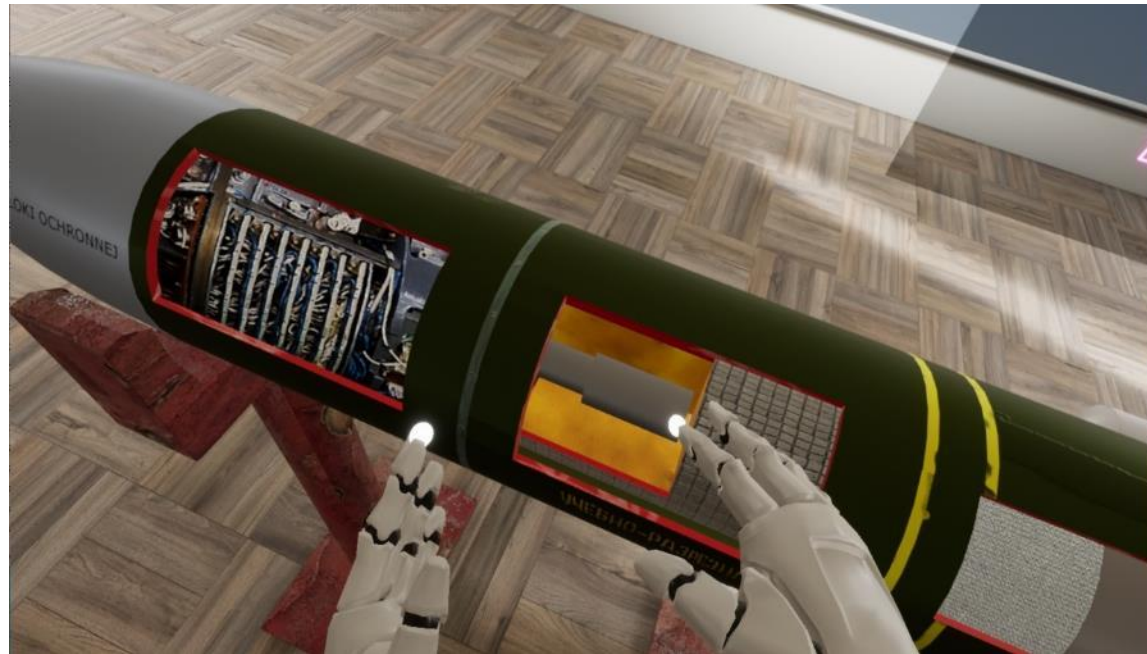


Military
University
of Technology

Air Armament Laboratory

Faculty of Mechatronics,
Armament and Aerospace





Robotics Workshop

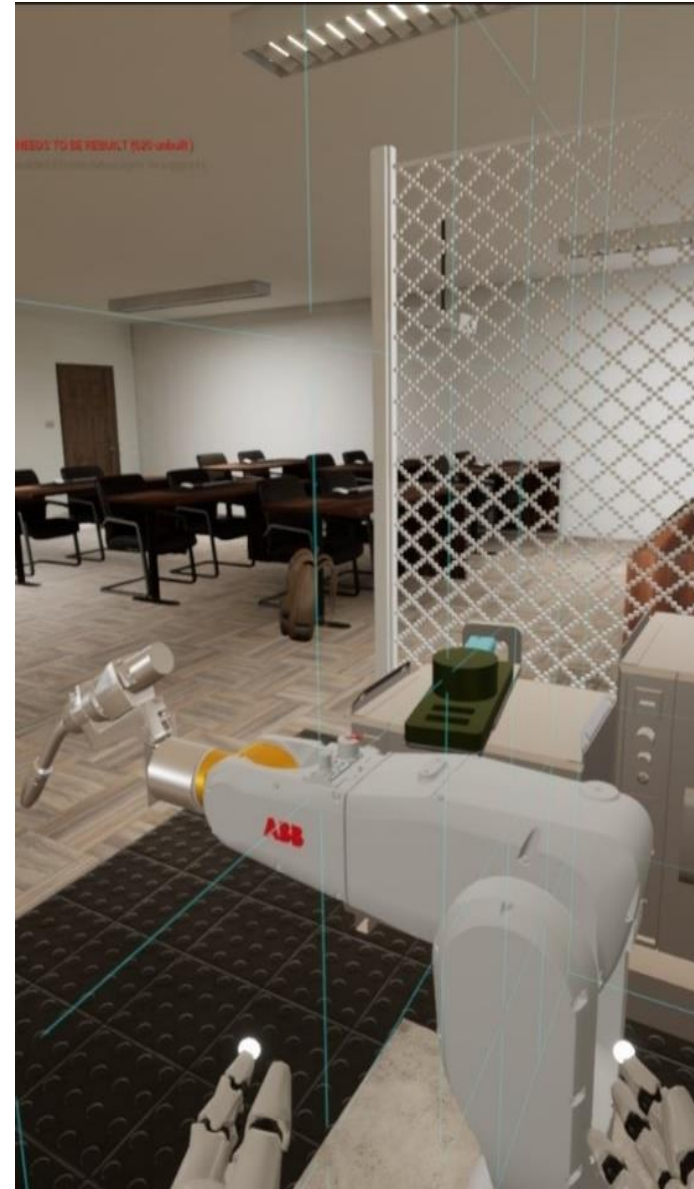




Military
University
of Technology

Virtual Robotics Workshop

Faculty of Mechatronics,
Armament and Aerospace





Military
University
of Technology

Institute of Mechatronics and Missile Systems

Workshop of Intelligent Buildings

Faculty of Mechatronics,
Armament and Aerospace

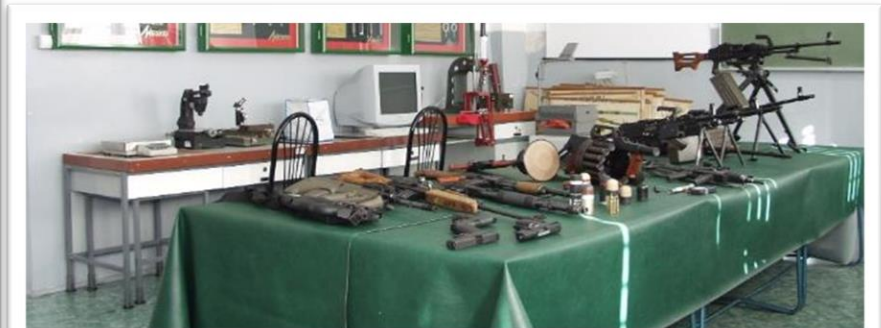




Military
University
of Technology

Institute of Armament Technology Small Arms Laboratory

Faculty of Mechatronics,
Armament and Aerospace





- ✓ Autumn 2018 – Bulgaria
- ✓ Winter 2019 – Bulgaria
- ✓ Autumn 2019 – Romania / Hungary / Bulgaria



Save the date

The practices curriculum is uploaded on the EMILYO
website

Period of practice:

from 13 September – until 12 November 2021

Deadline for application:

30 June 2021

Thank you for your attention!

