BASSEM DAHROUG

PhD, Mechatronics Engineer

https://bdahroug.github.io/ | bdahroug@gmx.com | Toulouse, France

EXPERIENCE

Robotics Engineer - Control & Mechatronics

ROVIAL Space

03/2023 – present | Toulouse, France

Participation in the development of unprecedented Robotics and AI solutions for Space Applications

- contribute to the design and development of ROVIAL's robots hardware and control;
- contribute in the printing, integration, assembly and manufacturing of the robotic module and components, and in the experimental proof of concept prototype.

Mechatronics Engineer

AMAROB Technologies

06/2021 – 11/2022 | Besançon, France

Participation in different innovative projects

- design, simulation, manufacturing, and programming of mechatronic devices, in particular, the micro-robotic systems dedicated to intracorporeal laser surgery that AMAROB proposes;
- validation of the devices developed with AMAROB's collaborators, including partner hospitals and AMAROB's customers.

EDUCATION

Ph.D. in Engineering Sciences

UBFC (Université Bourgange Franche-Comté)

11/2014 – 02/2018 | Besançon, France

Dissertation: *Minimally Invasive Surgery in the Middle Ear: a guided micro-robotic system to efficiently remove cholesteatoma*.

Joint M.Sc. in Mechatronics and Micro-Mechatronics Systems

ENSMM (Ecole National Supérieur de Mécanique et des Microtechnique) and EPI (Escuela Politécnica de Ingeniería de Gíjon)

09/2012 – 09/2014 | Besançon, France and Gíjon, Spain

Total score 15 out of 20 at ENSMM, and 7 out of 10 at EPI Master thesis: *Design, modelling and control of a contactless modular conveyor*.

B.Sc. in Mechanical Engineering

AAST, College of Engineering Studies and Technology, Mechantronics Depart.

09/2011 – 09/2006 | Alexandria, Egypt

Graduation project: *Mobile robot control for parking manoeuvre*.

SKILLS & KNOW-HOW

Mechatronic design	●●●●●
Robotics	●●●●○
Automatic control	●●●●○
Scientific programming	●●●●○
Mechanics	●●●◐○
Electronics	●●●◐○
Robotic experimentation	●●●●●
Analysis, synthesis and solving problems	●●●●○
Oral and writing communication	●●●●○
Organization, rigor and autonomy	●●●●○
Project Collaboration	●●●◐○

COMPUTER SKILLS

3DExperience | Solidworks | CATIA V5 | FreeCAD | G-code

C/C++ | ViSP, OpenCV | PCL, VTK | Python, Java | JS, HTML, CSS | micro-controller | Ladder

Matlab/Simulink | Octave

KiCAD | Egale | Proteus

Webots | CMSOL Multiphysics | Blender

Linux | Windows

LANGUAGES

English | French

Arabic | Spanish