Curriculum vitae

PERSONAL INFORMATION

Tudor George Alexandru

STUDIES APPLIED FOR

BSc in Robotics and MSc in Industrial Engineering

WORK EXPERIENCE

01/10/2019–Present

Teaching Assistant

Politehnica University of Bucharest, Bucharest (Romania)

- Computer Aided Engineering for robots and manufacturing systems using ANSYS Products.
- Pneumatic, hydraulic and electric drives for mechatronics (general principles and sizing).
- Member of 3 student scientific session boards.

04/08/2016–30/05/2020

Aerospace Stress Engineer

Expleo Romania (Assytem Technologies), Bucharest (Romania)

- Static and dynamic validation of prototype aircraft engine components.
- T300 concessions for Narrow-body Pylon structures.
- Calculation and dossier update for primary and secondary structures – transport aircraft.
- Update of static certification for Pylon structures – Russian runways load cases.

04/04/2016–04/08/2016

Internship program

Assystem Romania, Bucharest (Romania)

- CEFORA Foundation Private Scholarship for developing skills in the field of aerospace stress engineering (6 months).

EDUCATION AND TRAINING

01/10/2017–Present

PhD. Studies

EQF level 8

Politehnica University of Bucharest, Bucharest (Romania)

- Machine learning generalization of the embedded systems cooling workflows for facilitating the smart retrofitting of computer control units employed in industrial engineering environments.

01/10/2015–01/10/2017

MSc. degree in Industrial Engineering

EQF level 7

Politehnica University of Bucharest, Bucharest (Romania)

- Management of Virtual Industrial Enterprises study programme
  - Main subjects: Computer Aided Engineering software (ANSYS Mechanical, ANSA+Meta Post), Material flow simulation (Witness Horizon), Design and optimization of databases (IBM Data Studio), Business Process Simulation (IBM Business Modeller).
  - Occupational skills: simulation of heat transfer in power electronics using ANSYS Icepak, experimental heat transfer studies, ECO-Design.

15/02/2015–16/07/2016

ERASMUS+ Mobility

EQF level 6

Patras University of Greece, Patras (Greece)

- One semester mobility at the Patras University of Greece - Department of Mechanical Engineering and Aeronautics
  - Main subjects: Diploma Thesis, Specific methods of finite elements (LUSAS Solver), Design with failure tolerance, Ergonomics, Robotics, Advanced manufacturing technologies
  - Occupational skills: study of the thermal displacements in machine tools spindle units using the Finite Element Method.

01/10/2011–01/10/2015

Bachelor of Science Degree in Robotics

EQF level 6

Politehnica University of Bucharest, Bucharest (Romania)

- Main subjects: Material technologies, Strength of materials, Computer Aided Design (CATIA V5), Computer Aided Engineering (ANSYS Workbench), Technical English, Machines and manufacturing systems.
- Occupational skills: simulation of welding processes, design of alternative bearing units for high speed machinery.

PERSONAL SKILLS

Mother tongue(s): Romanian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
	Certificat de Competenta Lingvistica UPB				

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

- The ability to describe a problem in a technical manner gained during the Erasmus mobility.
- Good **communication** skills in **English** gained during my professional experience at Assystem Technologies.
- **Presentation skills** gained throughout my academic experience.

Organisational / managerial skills

- Problem solving skills gained as a **Technical specialist** at Assystem Technologies.
- Leadership (responsible of a team of 3 people).
- The ability to meet deadlines gained as **team leader**.

Job-related skills

- Good knowledge of **Aerospace Airframe certification** and **Pylon Concession** processes.
- Good command of **Microsoft Office** Tools (**Excel with VBA, Word, PowerPoint**).
- Advanced user of **FEA Pre-processors** (**MSC Patran, HyperWorks Suite, Beta CAE ANSA, ANSYS Mechanical APDL and Workbench**).
- Good knowledge of **FEA Solvers** for **Implicit Linear** and **Non-Linear** analysis (**ANSYS, SAMCEF, Nastran**)
- Intermediate user of **Proprietary stress software** and tools (**ISAMI Analyst**, Pleiade, Toscane)
- Two **research papers** published on behalf of Expleo Romania for improving engineering workflows based on automated procedures.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

- Advanced Microsoft Office skills
- Independent user of Computer Aided Design Software (AutoCAD, CATIA V5, ProENGINEER Wildfire)