

Somayeh Vatanparast - [2021]



Education

PhD student in Industrial and Management Engineering, Sapienza university of Rome (2020-2023), SSD : ING-IND/16

*Master's in mechanical engineering (Sapienza of university)2017
2020*

master thesis “Topology optimization in Selective Laser Melting” under the supervision of professor Boschetto (alberto.boschetto@uniroma1.it). I deeply investigated Topology Optimization methodologies to create lighter and complex components as a great solution for maximizing the functionality and allow the fabrication via additive manufacturing technologies. Particular emphasis was given to new design method aiming to employ the enormous freedom in construction of complex shape, to expand the design limits with regards to traditional manufacturing techniques.

B.Sc. in Mechanical Engineering (Manufacture & produce),2007, Tehran Polytechnic (Amir Kabir University of Technology).

B.Sc. Project Subject, An Investigation on Reverse Engineering of motor jet compressor Blades (made of Titanium alloy) under the supervision of professor Razfar (mr.razfar@gmail.com)

This was a pioneer research focused on motor blades, working under crucial condition including corrosion, erosion, cracking and so on. The Introduction in the industry of the reverse engineering technique solves the problem of blade maintenance/substitution providing the 3D model for an existing part in order to examine the measurement, material, anomalies and as well providing missing technical documents.

Experience

In A.Y 2020 /2021 I provided help for lessons, exercises and exams to:

- ❖ Prof. Boschetto in the course Additive manufacturing and the production system (master degree in mechanical engineering, Sapienza University of Rome), SSD: ING-IND/16
- ❖ Prof. Bottini in the course Tecnologie di additive manufacturing (Master degree in management engineering, Sapienza University of Rome), SSD: ING-IND/16
- ❖ Prof. Bottini in the course laboratorio di Additive manufacturing (master degree in mechanical engineering, Sapienza University of Rome), SSD: ING-IND/16

At Biosunpharmed company, which has been engaged at manufacturing pharmaceutical plant projects,

I was manager assistant in:

- ❖ Tracking and monitoring projects activities
- ❖ Evaluating technical documents of all running projects
- ❖ Communication with all Contractors and Reviewing of contracts
- ❖ Reviewing technical drawings
- ❖ Project control

At Iran Space research center

- scholar, executive manager, and designer
- Worked on project about mas properties measurement instruments (CG &MOI)
- Worked on project about civil drones for environmental and agriculturesystems as scholar and project manager.
- Worked on project about On-Condition-Maintenance of aircraft specificallyfocused on corrosion of parts made of metal.

At Talash group

- Engineering assistance of design heating system and piping system forbuildings

At Turbine Machine ME.CO,

- Engineering assistance of “reverse engineering”
- Worked on manufacturing of motor jet blade.
- Worked on project about making engineering certificate for productions“Mehvarsazan

At Iran Khodro.”

- Engineering assistance of designing control gages.

software

- ❖ Project Management
- ❖ CATIA
- ❖ Solid Works
- ❖ Inspire Solid Thinking
- ❖ Autodesk Netfabb
- ❖ Mishmixer
- ❖ Ansys Additive
- ❖ Magic materiliase

Language

- ❖ English (IELTS)
- ❖ Italian (level 2)
- ❖ Turkish
- ❖ Persian (native)
- ❖

Ability to:

- ❖ work in multitasking, in dynamic and pressured environments.
- ❖ work effectively both independently and in a team.
- ❖ manage multiple projects simultaneously, defining workflow priorities based on needs.
- ❖ quickly exploit new ideas and integrate them into existing plans.

Publication

Boschetto A., Bottini L., Macera L., Vatanparast S., Veniali F.

Monitoring of powder bed through digital image processing in Selective Laser Melting.
AITEM 2021 XV Convegno dell'Associazione Italiana delle Tecnologie Manifatturiere
Milano, 1-3 settembre 2021 (in print)

Boschetto A., Bottini L., Macera L., Vatanparast S., Veniali F.

Preliminary application of Convolutional Neural Network to the classification of metallurgical defects in AM parts. AITEM 2021 XV Convegno dell'Associazione Italiana delle Tecnologie Manifatturiere Milano, 1-3 settembre 2021 (in print)