



ME3: VIRTUAL PROTOTYPING

Track 3

Contacts:

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ME3: Skills you will acquire...

After graduating, you will have developed numerous **advanced technical skills**. For example, you will be able to:

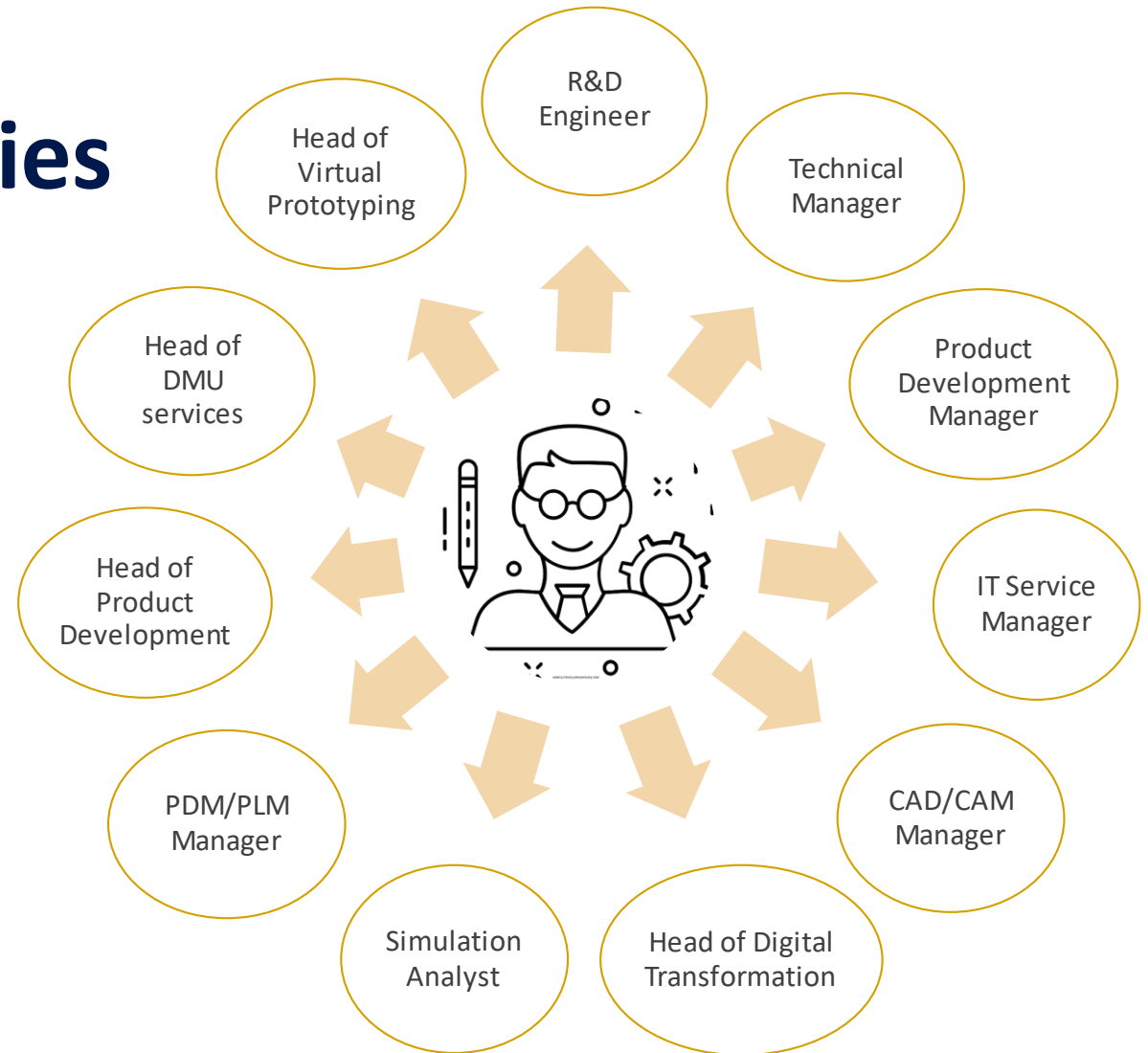
- Master virtual, mixed and augmented reality;
- Learn how to use virtual and physical prototyping tools;
- Learn how to test and validate design solution;
- Practice reverse engineering;
- Use human simulation in ergonomic design;
- Design tools for systematic innovation;
- Use of AI for design automation;
- Learn about human factors in design.



ME3: Career Opportunities

After graduating, you will be able to pursue your career (not only, but also) in:

- **R&D;**
- **Manufacturing;**
- **Mechanics and Installation;**
- **Electronics and Automation;**
- **Industry 4.0 Transformation;**
- **Consulting.**



ME3: Track Mandatory and Elective Courses

38 ECTS

Track Mandatory Courses
20 ECTS

Track Elective Courses
18 ECTS

COURSE TITLE	SEM	ECTS
Virtual Prototyping	1	10
Modelling of Mechanical Behaviour Of Materials A	1	10
Track Elective Courses I		6
Human Modelling In Engineering	1	6
Methods and Tools for Systematic Innovation B	1	6
Design Methods	2	6
Computer Vision and Reverse Engineering	2	6
Metodi Sperimentali per la Diagnostica Strutturale (IT)	2	6
Track Elective Courses II (2 out of 11 courses available)		12
...	1-2	6
...	1-2	6
Max. 1 course to be chosen from Group OPEN	1-2	6

For further information click here:

https://www8.ceda.polimi.it/manifesti/manifesti/controller/extra/RegolamentoPublic.do?jaf_currenWFID=main&EVN_DEFAULT=evento&aa=2020&k_corso_la=483&lang=EN

ME3: Examples of Master's Thesis



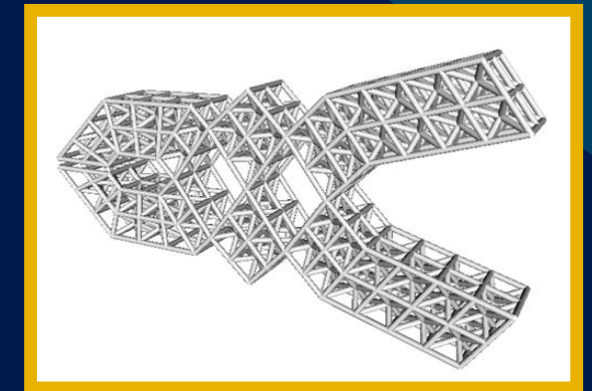
Augmented Reality -
remote maintenance



Driving simulator



Haptics for product
experience design



Design for Additive
Manufacturing: lattice
structures

ME3: Partners

Universities & Research Centres

KU LEUVEN
TUM
 TECHNISCHE UNIVERSITÄT MÜNCHEN
Imperial College London
Georgia Tech
TU Delft
 Virginia Tech
TU/e Technische Universiteit Eindhoven University of Technology
ETH zürich
CHALMERS UNIVERSITY OF TECHNOLOGY
 清华大学
 SHANGHAI JIAO TONG UNIVERSITY

Companies

BMW
Ferrari
polini motori®
 trasforma il meglio in massimo
AgustaWestland
 A Finmeccanica Company
PT
YAMAHA
ASCO numatics
ABB
Whirlpool
Electrolux
FESTO
seko
KONG ITALY
EMERSON