



# MACH40 Manufacturing for the Digital Age

2020-11-11

Pedro Arrazola: pjarrazola@mondragon.edu















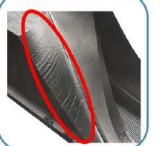
## **Preparing our workforce for the Digital Age**

Can you imagine a world of zero defect machining?



Poor Surface Finish







Good Surface Finish









## Artificial Intelligence in machining

Data Analysis: Conventional versus AI

#### Conventional data analysis

### Domain knowledge



- Experience
- Technical dependencies
- Historical quality data



Program/ Rules

Decisions based on domain knowledge

#### Data analysis via AI

#### Process data



E.g. current, pressure, temperature, ...





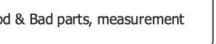


Decisions based on historical data

## **Quality data**



E.g. Good & Bad parts, measurement results



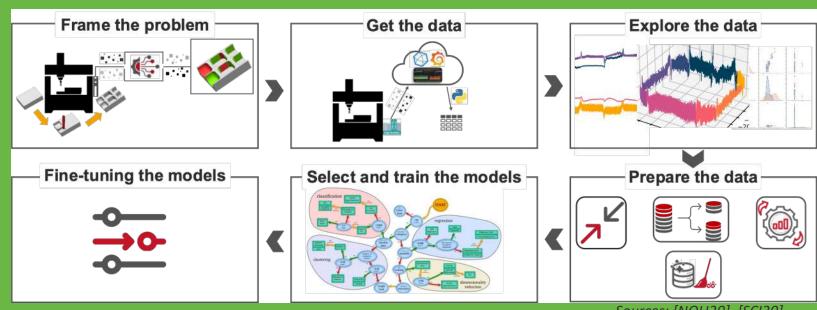






## Artificial Intelligence in machining

Data Analysis: Conventional versus Al



Sources: [NOU20], [SCI20]







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What a reproducing for

My learning nuggets

GUIDED LEARNING PLATFOM, (eit)

Geometric dimensioning and tolerancing (GD&T)

This presentation covers an important aspect of machining processes, which is the term Machinochilly. This term hashcally resears the ease at which a material can be machined.

21. Oct. 2020 □ lofo ♀ Any ► 40 min.

25 min. Nov. 2020 ☑ Info ② Any 🖰 25 min.

Modelling of Chip Formation Process

27. Sep. 2020 talo Q Arr C Smir.

1 4. Nov. 2020 Stoffs Any C Marile.

Process stability: forced vibrations, chatter

Manufacturing

Q X Fitters

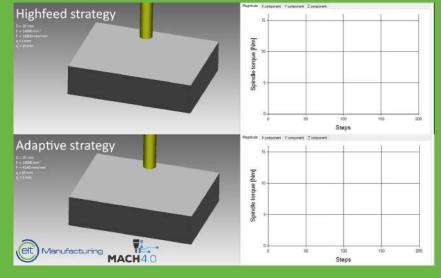
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## **Guided Learning Activity: Artificial Intelligence in machining**

ARTIFICIAL
INTELLIGENCE









# A more sustainable and competitive Europe

- Better quality products
- Increased efficiency
- Reduced waste, pollution and lower energy consumption







