



**POLITÉCNICO  
DE LEIRIA**

**CIIC**  
COMPUTER SCIENCE  
AND COMMUNICATION RESEARCH CENTRE

**Jornadas**  
Computação Científica **2021**



# SMART IoT Ecosystem for Ceramics 4.0

- António Pereira -



CIIC  
COMPUTER SCIENCE  
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Jornadas  
Computação Científica 2021



VLM consultores

CeDRI

Research Centre in  
Digitalization and Intelligent Robotics



UNIVERSITY OF  
LIMERICK  
OLLSCOIL LUIMNIGH

# STC 4.0 HP - New Generation of Stoneware Tableware in Ceramic 4.0 by High Pressure Casting Robot work cell

POCI-01-0247-FEDER-069654

COMPETE  
2020

PORTUGAL  
2020



UNIÃO EUROPEIA

Fundo Europeu  
de Desenvolvimento Regional

# Ceramics 4.0



1

Robotics

2

Cloud Computing

3

Digital Twins

4

Ubiquitous Computing

5

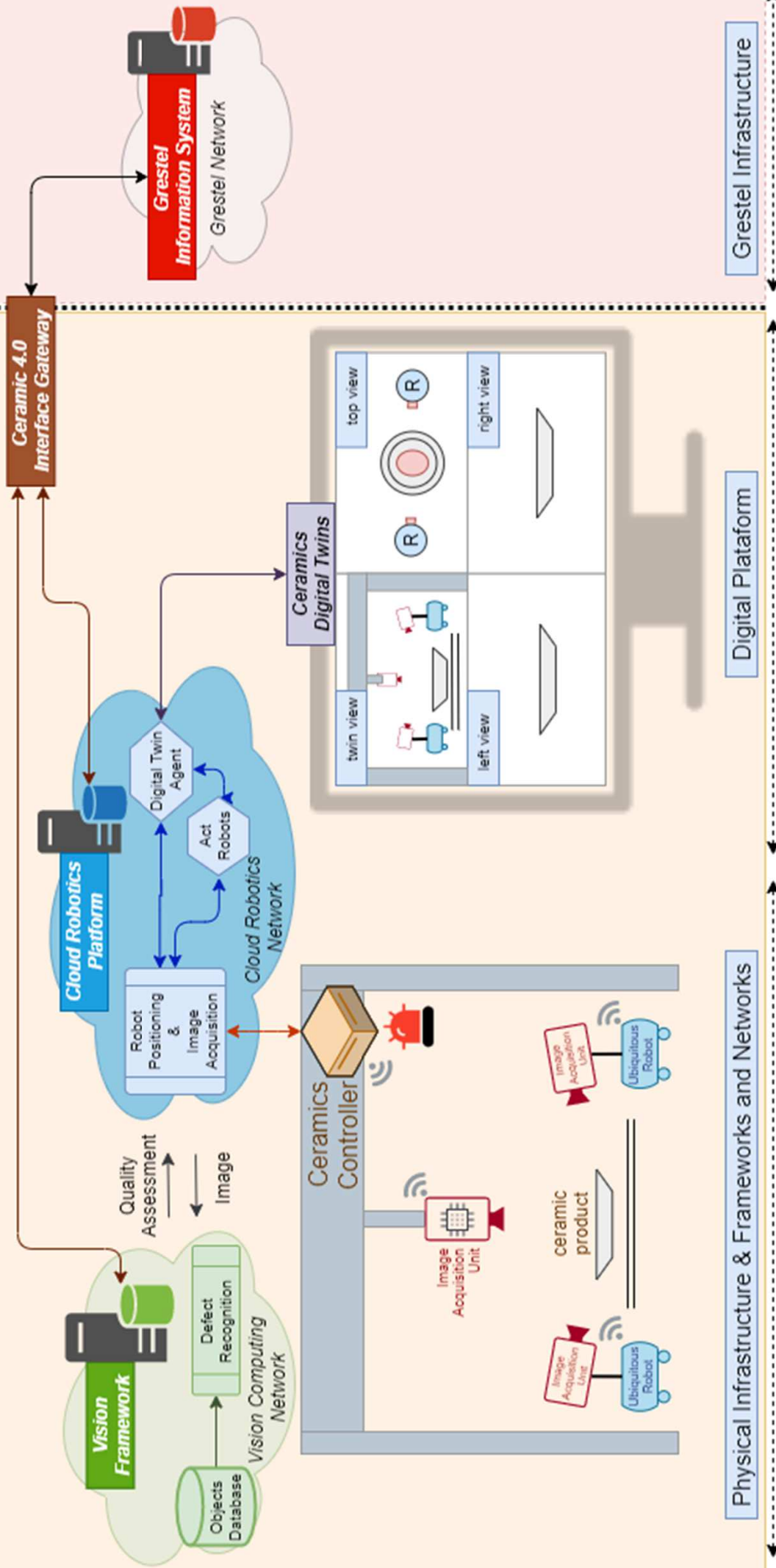
Artificial Intelligence

6

Computer Vision

# IPLeiria CIIC Implementation

Grestel



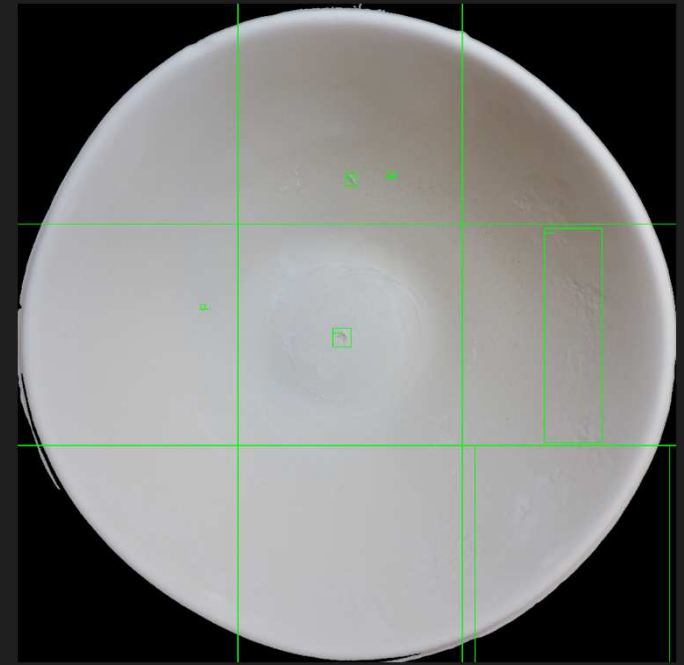
# Preliminary Results



No Defect



Multiple Defects



Multiple Defects

# CONTRIBUTIONS

Digitalization of  
Ceramic 4.0  
Industry sector

Smart IoT  
Ecosystem for  
Ceramics

Ubiquitous  
robotics concept  
applied in  
tableware

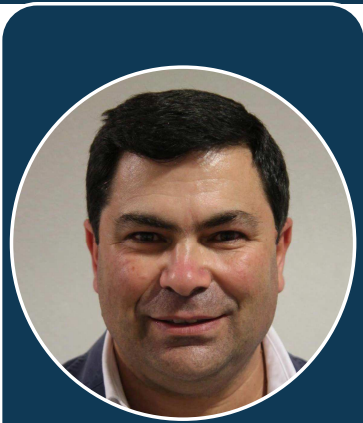
Digital twins  
concept applied  
to ceramic 4.0  
industry

Developing of an  
integrated  
management quality  
control model for  
stoneware tableware  
production

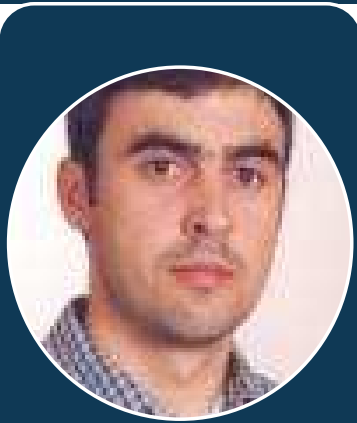


Ceramics Industry, with a strong component of versatility, productivity, quality, environmentally friendly, contributing to an efficient workplace

# IPLEIRIA CIIC TEAM



António  
Pereira



Nuno  
Costa



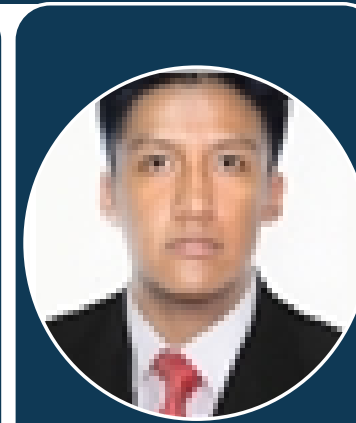
Nuno  
Rodrigues



Paulo  
Costa



Luis  
Frazão



Esteban  
Cumbajin