UNIVERSITÀ DEGLI STUDI FIRENZE

AREA
**SERVIZI ALLA DIDATTICA**

**DOTTORATO**

Finanziato dall'Unione Europea NextGenerationEU

MUR Ministero dell'Università e della Ricerca

# DOCTORAL PROGRAMME IN INDUSTRIAL ENGINEERING

## CYCLE XXXVIII

**Academic year 2022/2023**

### FINAL RANKINGS

In accordance with the D.R. n. 1173 (prot. n. 210702) signed on 29th September 2022 by the Rector of the University of Florence:

D.M. 352/2022 - Scholarships co-funded by Companies

**Analysis of possible technical and economic scenarios for the application of hydrogen in hard-to-abate companies and energy communities**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | ADEMOLLO | ANDREA | 88/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Analysis and Development of Environmentally Sustainable Subtractive Processing**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | MAURYA | SUNIL | 83,70/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Application of ML and AI algorithms for the development of advanced techniques in monitoring & control of natural gas distribution networks**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | SILEI | MATTIA | 88,50/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Design, Engineering and Industrialisation of Mechanical Solution for Marine Litter Collection in Ports**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | LAZZERINI | GUIDO | 92/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Pyrolysis process modelling and experimentation for circular carbon and raw material recovery in hard-to-abate industries**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | MINIATI | ALESSIO | 93/100 | Position with scholarship |
| 2. | SANAD | AMR MOATAZ MOHAMED KADOUSALLA | 89,50/100 | Eligible |

D.M. 352/2022 - Scholarships co-funded by Companies

**Numerical modelling for improving the energy efficiency of HVAC&R components**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | GIUNTI | LORENZO | 87/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Robotic Systems for surgery and rehabilitation**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | MAGGI | LORENZO | 86,30/100 | Position with scholarship |
| 2. | BARSACQ | ALICIA | 81,70/100 | Eligible |

D.M. 352/2022 - Scholarships co-funded by Companies

**Study of embrittlement phenomena in hydrogen pipelines (hydrogen transport) and analysis of possible internal coatings with polymeric materials to contain the same phenomenon**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | MESHRAM | NITIN | 91,30/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Study of CO2 sequestration systems on thermal and MCI machines and implementation of solutions for carbon dioxide methanation with a view to energy transition. and H2 as a tool for sustainable power generation**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | GIUSTI | EMANUELE | 90,70/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Study and Development of Micro-CAES Systems for Off-Grid Applications**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | TUMMINELLO | DARIO | 88,80/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Pressure gain combustion for efficiency improvement in gas turbines**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | TEMPESTI | CLARETTA | 92,35/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Development of innovative approaches for the control of pollutant, noise and CO2 emissions in heat engines for motorbike applications**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | ANTICAGLIA | ALESSIO | 93,30/100 | Position with scholarship |

D.M. 352/2022 - Scholarships co-funded by Companies

**Development of models for techno-economic assessments of coupling renewable energy and energy storage systems**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | TRAVAGLINI | RICCARDO | 91,30/100 | Position with scholarship |
| 2. | GALLI | CLAUDIO | 83/100 | Eligible |

D.M. 352/2022 - Scholarships co-funded by Companies

**Development of integrated power generation systems based on the combined use of H2 from renewable sources**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | GALLI | CLAUDIO | 86/100 | Position with scholarship |
| 2. | TRAVAGLINI | RICCARDO | 85,30/100 | Eligible |
| 3. | MAHMOOD | MUHAMMAD ATIF | 68,70/100 | Eligible |

D.M. 352/2022 - Scholarships co-funded by Companies

**Development of advanced fluid-structure interaction calculation solutions by creating ANN systems for defining optimal geometry on multi-physics domains**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | DEIANA | GIULIO | 88/100 | Position with scholarship |

D.M. 352/2022 – Scholarships co-funded by Companies

**Development of advanced solutions for the thermal management of turbomachinery operating with unconventional fluids**

| | SURNAME | NAME | FINAL SCORE | RESULT |
|---|---|---|---|---|
| 1. | SETTIMELLI | LORENZO | 91,70/100 | Position with scholarship |
| 2. | BROCCHI | SOFIA | 88,20/100 | Eligible |

D.M. 352/2022 - Scholarships co-funded by Companies

**Development, validation and application of virtual sensors for real-time monitoring of gas turbine operations**

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| Not assigned |

Florence, 29th September 2022