DIMITRIOS CHOLIDIS

Production Engineer and Management

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EXPERIENCE

Participated in the international youth leadership organization AIESEC

Inventory control and product tracking operations in Inventus Services

EDUCATION

##### Production Engineer and Management

##### Technical University of Crete GPA

* Integrated Master's Degree 7.46 / 10

PROJECTS

### **Photovoltaic Parks: Trends and Prospects**

2023 Technical University of Crete

* Researched types and components of existing photovoltaic (PV) parks and systems
* Used LINGO software to optimize production planning for a hypothetical PV manufacturing facility
* Analyzed EU climate and land cost data to evaluate implementation scenarios in Chania and Larisa using Electre 1
* Completed a techno-economic analysis to determine the most efficient PV park configuration

#### **Harnessing Wave Energy for the Sustainable Port Development**

2025 Diploma Thesis – Production Engineering and Management, Technical University of Crete

* Focused on transforming a conventional port into a modern, energy-independent facility
* Explored the integration of wave energy systems as a primary renewable energy source
* Evaluated multiple scenarios using HOMER PRO, enhanced with custom Python code
* Applied a custom Genetic Algorithm for optimizing system configurations
* Assessed the performance of Wave Energy Converters (WECs) and Hybrid Renewable Energy Systems (HRES)
* Demonstrated the potential of wave energy to improve port sustainability

COMPETITIONS & ACHIEVEMENTS

Academic

* Participated in national mathematics competitions (Euclid, Thales)
* Competed in the national chemistry competition (2018)
* Took part in the European engineering competition (EBEC)

Athletic

* National Kickboxing Champion (2012)
* Multi-time National Boxing Champion (2015–2018), including 1st place and Best Athlete award in 2018
* 2nd place at International Boxing Tournament in Armenia (2016).

COURSES & SEMINARS

“Twin Digital and Green Transition to a Resilient Economy”, Technical University of Crete 2022

“I&E Deep Dive Intensive Course 2025”

**Seminar courses within the Production Engineering and Management degree**

* 3D Object Scanning
* 3D Object Printing

Publications

Enhancing Port Energy Autonomy Through Hybrid Renewables and Optimized Energy Storage Management
[**https://doi.org/10.3390/en18081941**](https://doi.org/10.3390/en18081941)

**Energy Transition Framework for Nearly Zero-Energy Ports: HRES Planning, Storage Integration, and Implementation Roadmap**

[**https://doi.org/10.3390/su17135971**](https://doi.org/10.3390/su17135971)

SUMMARY

Mechanical Engineer with hands-on experience in renewable energy systems, sustainable infrastructure, and energy optimization. Specialized in photovoltaic, wind, wave, and tidal technologies, with expertise in techno-economic analysis, system modeling, and environmental assessment. Proficient in Python and LINGO for custom optimization. Experienced in designing hybrid systems and implementing clean energy solutions in real-world projects. International academic background with a focus on data-driven design and decarbonization strategies.

SKILLS

Experience with photovoltaic, wind, wave, and tidal energy technologies

Problem-Solving and Critical Thinking

Programming and Analytical Skills

Techno-Economic and Environmental Assessment

Adaptability and Continuous Learning

Communication and Team Collaboration

Project Management and Organizational Skills

Languages

English

Proficient



 Greek Native

SOFTWARE

AutoCAD, AutoCAD Fusion, Siemens NX

MATLAB, SPSS, LINGO, Microsoft Office

Homer PRO, Python, C

INTERESTS

BOXING

RENEWABLE ENERGY

Energy Innovation & Clean Tech

Environmental Sustainability

Maritime Technology