



## **MSc by Research in Electrical and Electronics Engineering (offered in Greek language, for Greek students)**

### **Master Theses completed (2018-2023)**

#### **Electrical Engineering - Energy**

1. Optimal design of small hydro power plant  
Sarantopoulou, Vasiliki-Eleftheria (UNIWA, 2023-02-20)
2. Optimal design based on finite elements for low rpm electric generator suitable for small hydroelectric power plants  
Moschoudis, Angelos (UNIWA, 2023-03-14)
3. Optimization of photovoltaic energy production using embedded systems and IoT technologies  
Spyrou, Christoforos (UNIWA, 2021-01-29)
4. Intelligent control of DC motor drive systems using fuzzy logic controllers  
Petratos, Spyridon (UNIWA, 2020-09)
5. Small scale hybrid electric power system: the case study of the control house for the grounding electrode station of the bipolar high voltage direct current link for Attica-Crete connection in Stachtoroi islet  
Deligianni, Panagiota (UNIWA, 2021-01)
6. Power transformers fault diagnosis  
Rokani, Vasiliki (UNIWA, 2020-09)
7. Energy saving methodologies in wireless sensor networks  
Evangelakos, Emmanouil-Andreas (UNIWA, 2023-07)
8. Artificial intelligence techniques for fault diagnosis and prediction  
Galanos, George (UNIWA, 2021-07-21)

#### **Communications – Signal Processing – Control**

1. Kalman Filters and their application in motion detection and tracking  
Charkoftakis, George (UNIWA, 2020-02)
2. Development of optimization schemes for wireless sensor networks  
Tarnaris, Konstantinos (UNIWA, 2022-02-22)
3. Fiber Bragg Gratings (FBG's) as sensors and optical networks elements  
Poulakos, Panagiotis (UNIWA, 2021-02)
4. Ad-hoc LPWAN and 5G networks for the support of automated smart-city applications  
Trigkas, Athanasios (UNIWA, 2023-02-28)
5. Study on mutual coupling optimization between elements in MIMO antennas  
Douka, Maria (UNIWA, 2020)
6. Investigation of the Substrate Integrated Waveguide - (SIW) technologies for low cost millimetre wave 5G applications via smart antennas  
Kontorinakis, Efstratios (UNIWA, 2020-12-18)

7. Wireless Sensor Networks (WSNs) with emphasis on the development of control algorithms for improvement of their dynamic behavior  
Nakas, Christos (UNIWA, 2021-07-01)
8. Flexible electronic structures for real time vital signs monitoring via biosensors  
Pikasis, Panagiotis (UNIWA, 2022-04)
9. Correlation of electrical signals (PSC) and acoustic emissions (AE) in Alphas specimens stress experiments until fracture  
Agalianos, George (UNIWA, 2022-02-24)
10. Design, installation and experimental operation of a station for the detection of presmeismic electromagnetic disturbances  
Malkotsis, Philopoemen (UNIWA, 2022-10-19)
11. Time series analysis of electromagnetic measurements from ground-based stations network for the detection of disastrous geophysical phenomena signatures  
Politis, Dimitrios (UNIWA, 2020-04)
12. Wearable systems, multifunctional materials and flexible structures  
Repoulas, Aristides (UNIWA, 2020-02-24)

### **Computer Systems – Algorithms & Applications**

1. Development of an artificial intelligence algorithm for auto-learning the player strategy for the Dominion board game  
Angelopoulos, George (UNIWA, 2021-02-05)
2. Optimization of feedforward neural networks techniques for solving differential equations  
Kaloutsa, Vasiliki (UNIWA, 2020-05)
3. Access and authorization management for the internet of things using services based on Blockchain technology  
Polychronaki, Maria (UNIWA, 2022-09-22)
4. Extraction, analysis and visualization of educational data from e-learning platforms  
Siafis, Vissarion (UNIWA, 2021-02)
5. Use of distributed ledger technologies in real time monitoring systems  
Christidis, Ioannis (UNIWA, 2023-07-20)
6. Electromagnetic interference in electronic circuits  
Katsara, Vasiliki (UNIWA, 2022-03-03)
7. Peer-to-peer, collaborative human-machine interaction  
Toumanidis, Lazaros (UNIWA, 2020-04)