

Available Diploma Thesis topics (Feb 2024)

ID	Title	Proposed Supervisor	Comments
Thesis_1_E_U	Integrating Chatbot Technology with AR/VR for Enhanced Operational Guidance in Industry 4.0 Environments	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_2_E_E	Advancing Generative AI for Enhanced Personalized Content Creation and Analysis (Project POLIGEN) Analysis (Project POLIGEN)	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with RealAI
Thesis_3_E_E	PV Plant Production Nowcasting	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_4_E_E	PV Plant Production Forecasting	Charalampos Z. Patrikakis	The thesis is proposed by ENEA, located in Portici (NA, Italy). The ENEA research team is credited with European leadership in the development of, and data processing from, pervasive monitoring systems for environmental, energy, and critical infrastructure applications.
Thesis_5_E_E	PV Plant Anomaly Detection	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_6_E_E	IA for IoT: Air Quality Sensors in-network Calibration	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_7_E_U	Engaging Ethics and AI in the Exploration of Data Spaces: Balancing Technological Advancements with Moral Imperatives.	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_8_E_U	Federated Learning	Charalampos Z. Patrikakis	The thesis is proposed from CNR.
Thesis_9_E_E	Improving algorithms, explainability, information retrieval and accuracy measurement for real-world PJF CV extraction and ranking	Charalampos Z. Patrikakis	The thesis is proposed by Fiven .
Thesis_10_E_E	Real-world chatbot performance measurement and self-training	Charalampos Z. Patrikakis	The thesis is proposed by Fiven .

Thesis_11_E_E	Real-time sentiment analysis in real-world chatbot conversations	Charalampos Z. Patrikakis	The thesis is proposed by Fiven .
Thesis_12_E_E	NLP and classification algorithms for mail dispatching	Charalampos Z. Patrikakis	The thesis is proposed by Fiven .
Thesis_13_E_U	A Trustworthy AI Approach to Navigating the Regulatory Framework in the Defence Domain	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_14_E_E	AIML : Automating Interpretation and explainability of machine learning models	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with RealAI
Thesis_15_E_U	Intelligent Chatbots in Support of Specialized Technical Operators: Performance and Ethical Implications	Charalampos Z. Patrikakis	Thesis offered in the context of collaboration with University of Naples Federico II
Thesis_16_I_U	Emotion Recognition in Special education: Case studies in ADHD and Autism	Feidakis Michail	Contact the supervisor for details on the Thesis
Thesis_17_I_U	Emotion Recognition in Distance Learning: Case studies deploying video, audio or text analysis.	Feidakis Michail	Contact the supervisor for details on the Thesis
Thesis_18_I_U	Deep learning Computer vision with accelerators for road safety	Kachris Christoforos	Contact the supervisor for details on the Thesis
Thesis_19_I_U	Comparison of Optimizations methods for Accelerating LLMs	Kachris Christoforos	Contact the supervisor for details on the Thesis
Thesis_20_I_U	Comparison of Deep Learning computer vision frameworks in the cloud	Kachris Christoforos	Contact the supervisor for details on the Thesis
Thesis_21_I_U	Security enhancement of AI applications using Blockchain technology	Xevgenis Michael	
Thesis_22_I_U	Optimizing GPU-Accelerated Infrastructure Management through Kubernetes and Kubeflow: A Scalable Approach for AI Workloads	Xevgenis Michael	
Thesis_23_I_U	Autoencoder algorithms for time series anomaly detection	Cantzos Demetrios	
Thesis_24_I_U	Combination of SVM classifiers and deep learning algorithms	Cantzos Demetrios	
Thesis_25_I_U	Machine learning algorithms with low memory requirements during training	Cantzos Demetrios	
Thesis_26_I_U	Blind audio source separation	Cantzos Demetrios	
Thesis_27_I_U	Development of a fuzzy system for ship collision alert system	Zacharia Paraskevi	
Thesis_28_I_U	Development of a fuzzy navigation system for an autonomous robot	Zacharia Paraskevi	

Thesis_29_I_U	Optimization of a fuzzy navigation system using Genetic Algorithms.	Zacharia Paraskevi	
Thesis_30_I_E	Development and Evaluation of AI-Powered Educational Assistant	Leligkou Eleni-Aikaterini	Thesis offered in the context of collaboration with an enterprise
Thesis_31_I_E	Large Language Models for manufacturing applications	Leligkou Eleni-Aikaterini	Thesis offered in the context of collaboration with an enterprise
Thesis_32_I_E	Non-textual Control of a Large Language Model	Leligkou Eleni-Aikaterini	Thesis offered in the context of collaboration with an enterprise
Thesis_33_I_E	LLM Based IoT Device Control	Leligkou Eleni-Aikaterini	Thesis offered in the context of collaboration with an enterprise
Thesis_34_I_U	Searching for Dark Matter with Deep Learning	Grigoris Nikolaou	Contact the supervisor for details on the Thesis
Thesis_35_I_U	Enhancing Operational Sensor Networks: Anomaly Detection with AI	Grigoris Nikolaou	Contact the supervisor for details on the Thesis
Thesis_36_I_U	Autonomous Navigation of Wheeled Robots using Deep Reinforcement Learning: Towards Efficient and Adaptive Robotics Solutions	Grigoris Nikolaou	Contact the supervisor for details on the Thesis
Thesis_37_I_U	AI Applications for Personalized Mental Health Interventions	Grigoris Nikolaou	Contact the supervisor for details on the Thesis
Thesis_38_I_E	Leveraging Machine Learning for Data-Driven Decision Making in Learning Management Systems	Grigoris Nikolaou	Thesis offered in the context of collaboration with an enterprise
Thesis_39_I_E	Embracing Digital Transformation with AI in Fintech	Grigoris Nikolaou	Thesis offered in the context of collaboration with an enterprise
Thesis_40_I_E	AI in Aquaculture: An Exploration of Machine Learning in Optimizing Fish Farming Practices	Grigoris Nikolaou	Thesis offered in the context of collaboration with an enterprise
Thesis_41_I_E	Real-Time Posture Evaluation during Exercise: A Machine Learning Perspective	Grigoris Nikolaou	Thesis offered in the context of collaboration with an enterprise
Thesis_42_I_U	Self-supervised learning for wearable activity/gesture recognition	Kasnesis Panagiotis	
Thesis_43_I_U	Transferable Action and State Embeddings for Deep Reinforcement Learning	Kasnesis Panagiotis	
Thesis_44_I_U	Using Deep Learning for Autonomous Drone Tracking of Vehicles	Piomalis Dimitrios	