

Creating Tomorrow's Business Solutions with Generative AI

Day 1: Introduction to Generative AI and LLMs (Dr Michalis Christofi)			
9:00	–	10:45	Session 1 (1h & 45 mins): Introduction to Generative AI <ul style="list-style-type: none"> • What is Artificial Intelligence and its different subcategories? • The evolution from Data Science to Generative Artificial Intelligence • Recent breakthroughs and hype surrounding Generative AI
10:45	–	11:00	<p style="text-align: center;">Break (15 mins)</p>
11:00	–	12:45	Session 2 (1h & 45 mins): Technical characteristics of Generative AI <ul style="list-style-type: none"> • What are Deep Neural Networks, Generative Adversarial Networks (GANs) and Transformers • What are Large Language Models (LLMs), how are they built and how do they work? • Generative AI Issues related to compliance, privacy and ethics • Case study: European Commission and Robustness and Explainability in AI.
12:45	–	13:30	<p style="text-align: center;">Lunch Break (45 mins)</p>
13:30	–	15:15	Session 3 (1h & 45 mins): How to Use text-to-text Generative AI <ul style="list-style-type: none"> • Examples of Large Language Model platforms • Prompt Engineering: Context and asking the right questions • Demo: Using LLMs to generate content. • Case study: the case of OpenAI
15:15	–	15:30	<p style="text-align: center;">Break (15 mins)</p>
15:30	–	17:15	Session 4 (1h & 45 mins): How to Use text-to-image Generative AI <ul style="list-style-type: none"> • Examples of text-to-image platforms and how to use them • Generate personalized marketing content, email marketing, and social media posts, for improved customer engagement and conversion rates. • Case study: the case of Dall-E and midjourney • Evaluation (Διαμορφωτική): online assessment

Day 2: Using Generative AI to build business solutions and fuel growth (Dr Michalis Christofi)			
9:00	–	10:45	Session 1 (1h & 45 mins) – Generative AI / LLMs for Natural Language Processing <ul style="list-style-type: none"> • General applications <ul style="list-style-type: none"> • Text Summarization • Text Classification • Dialogue Management • Conversational AI • Text Generation • Question Answering • Customer Support: Chatbots and virtual assistants powered by Generative AI to provide 24/7 customer support, improving response times and user satisfaction. • Retrieval-Augmented Generation (RAG) for internal operational efficiency and customer support • Targeting the right audience & getting the right message out <ul style="list-style-type: none"> • Content Translation and Localization: how to use Generative AI to adapt content for different languages and cultural contexts. • Case Study: Chatbots and virtual assistants powered by Generative AI
10:45	–	11:00	<p style="text-align: center;">Break (15 mins)</p>
11:00	–	12:45	Session 2 (1h & 45 mins) Data Augmentation and Enhancement <ul style="list-style-type: none"> • Data Generation lab: use Generative AI to create synthetic data to supplement real datasets, thus aiding in machine learning model training and improving accuracy. • Image Enhancement: Upscale images, remove noise, or enhance details, for. medical imaging, and e-commerce.
12:45	–	13:30	<p style="text-align: center;">Lunch Break (45 mins)</p>
13:30	–	15:15	Session 3 (1h & 45 mins) Using Generative AI for Code Development <ul style="list-style-type: none"> • Boosting coding efficiency with Generative AI <ul style="list-style-type: none"> • Checking quality of code • Finding Bugs • Optimizing code • Demo of test data and testing code generation
15:15	–	15:30	<p style="text-align: center;">Break (15 mins)</p>
15:30	–	17:15	Session 4 (1h & 45 mins) – Using Generative AI in Education <ul style="list-style-type: none"> • How Generative AI tools can be used for learning • Creating learning examples • Delving deeper into subjects • Case Study: eLearning and Generative AI • Final Evaluation (Απολογιστική)

Day 3: Consulting Sessions

Electi Consulting's team will circulate a questionnaire to the companies ahead of time in order to assess the tech maturity of the company (e.g., existence of data and their quality, information systems used, culture etc.), the challenges faced and future goals. The team will then arrange a meeting and will visit the physical premises of interested companies to:

- Share the material prepared on how to apply Generative AI specifically to the industry vertical the company operates in.
- Discuss use-cases relevant to the business
- Formulate potential strategies and paths (including project planning advice) for the application of Generative AI in the company
- Recommend pilot projects involving Generative AI the company can start working on or solutions currently on the market the company can investigate further and possibly adopt.