

Training Course: Artificial Intelligence Tools in Education, Educational Robotics, and STEM

Course Venue: **Drama, Greece**

Wi-Fi: **Available at the Venue**

1st Day: Coding Basics with Scratch

- **9:00 - 9:30 | Welcome, Course Introduction, and Objectives**
Ice-breaker activity and initial assessment.
- **9:30 - 11:30 | Understanding the Basics of Coding**
Introduction to Scratch Programming: Learn the coordinate system, animations, and basics of computational thinking.
Activity: Create a mini-project using Scratch, such as an interactive story.
- **11:30 - 12:00 | Coffee Break**
- **12:00 - 13:30 | Game Development with Scratch & introduce tools like Minecraft Education**
Application: Using Scratch for simple game development and classroom examples.
Activity: Participants create a game or classroom tool using Scratch, and share their projects.
- **13:30 - 14:00 | Group Reflections**
Sharing insights and challenges from Scratch programming.

2nd Day: Introduction to AI Tools in Education

- **09:00 - 09:30 | Recap of Day 1 & Introduction to AI**
Overview of AI and its applications in education.
- **09:30 - 11:30 | Exploring AI Tools and Ethical Considerations**
Showcase of AI Tools: Adaptive learning, automated grading, and other educational AI applications.
Discussion: Introduction to AI ethics, with a focus on data privacy and bias.
- **11:30 - 12:00 | Coffee Break**
- **12:00 - 13:30 | AI Project Creation**
Hands-on Activity: Participants design a lesson plan or classroom project incorporating AI tools.
Focus: Communication, collaboration, and personal development.
- **13:30 - 14:00 | Group Reflections**

3rd Day: Robotics Workshop

- **09:00 - 09:30 | Recap of Day 2 & Robotics Introduction**
Brief introduction to educational robotics and its classroom applications.
- **09:30 - 11:30 | Robotics Project Workshop**
Hands-on Activity: Build and program a simple robot with guidance.
Project: Create a classroom-oriented project using robotics (e.g., object sorting or line-following tasks).
- **11:30 - 12:00 | Coffee Break**



- **12:00 - 13:30 | Scenario-Based Robotics Programming**
Activity: Participants design training scenarios with their robots, simulating real-world applications.
- **13:30 - 14:00 | Group Reflections**

4th Day: STEM and STEAM Methodologies

- **09:00 - 09:30 | Recap of Day 3 & Introduction to STEAM**
Explanation of the STEM/STEAM approach and its importance in education.
- **09:30 - 11:30 | STEM Workshop**
Hands-on Activity: Explore the STEM methodology through group exercises, integrating science, technology, engineering, and math.
Focus: Incorporating artistic elements (STEAM) to enhance creativity.
- **11:30 - 12:00 | Coffee Break**
- **12:00 - 13:30 | Application of STEM in Classroom Contexts**
Group Collaboration: Design a mock lesson plan or curriculum using the STEM/STEAM methodology.
Activity: Teams share and discuss their lesson ideas.
- **13:30 - 14:00 | Group Reflections**

5th Day: Arduino Integration & Course Wrap-Up

- **9:00 - 10:45 | Introduction to Arduino for Education**
Activity: Collaborative project integrating Scratch and Arduino, such as a simple classroom monitor or automation task.
- **10:45 - 11:30 | Knowledge Sharing**
Each participant shares their favorite tool or technique from the week and plans for implementation.
- **11:30 - 12:00 | Coffee Break**
- **12:00 - 13:30 | Evaluation, Feedback, and Course Conclusion**
Participants complete an assessment questionnaire, provide feedback, and share suggestions.
- **13:30 - 14:00 | Certificate Distribution and Farewell**

