



**SUPPORTING RESEARCH,  
DEVELOPING MINDS.**

**INTELLIGENT TEACHING  
FRAMEWORKS:  
FOUNDATIONS OF AI  
APPLICATIONS FOR EDUCATORS**

**CERTIFICATE PROGRAM - FALL 2024**

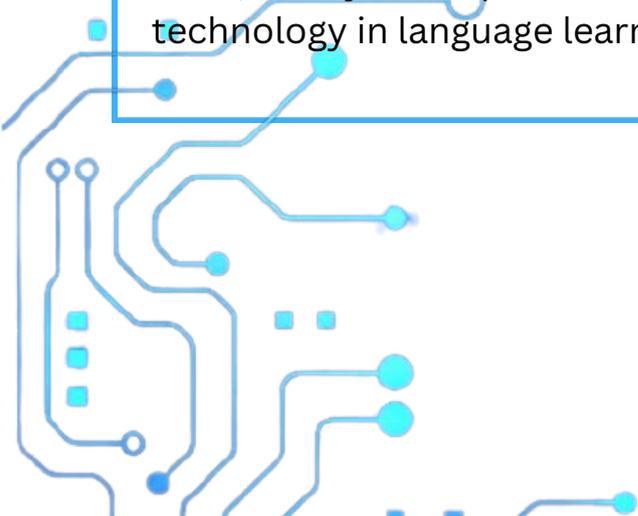




Shiny Christy is a distinguished educator and the Head of Sustainability and Innovation, as well as Moral Education and Social Studies, at a premier school in Dubai. An advocate for Sustainable Development Goals (SDG) 4 and 17, she embodies Aristotle's adage, "education of the mind without education of the heart is no education at all." Shiny holds the CELTA from Saint Mary's University, Canada and an M.Phil in English Language Teaching with a focus on behavioral sciences in the classroom, alongside certificates from the Harvard Graduate School of Education in "Education Redesign" and Concordia University, Portland in "Innovation in Education." Shiny has presented papers on AI and its impact in the classroom at Birmingham University's action research forums, showcasing her varied credentials in AI and innovation within the UAE. As a mentor for YSEALI WEDU Water Management, she continues to lead initiatives in sustainable practices.

Her educational philosophy is shaped by influential figures such as H.H Sheikh Zayed, Sir Ken Robinson, Sugata Mitra, Nammalvar, Koen Timmers, Malala Yousafzai, and Jane Goodall, as well as the indigenous people of Tamil Nadu. Shiny actively volunteers for the UN Digital Literacies Program in India and contributes to international environmental and public policy organizations such as UNESCO, EcoResolution, Connect with Nature (WWF-Emirates), Operation Smile, Climate Action Project, and the World's Largest Lesson.

Her teaching repertoire includes English, Global Perspectives, Social Sciences, and Moral Education for international schools in India, Indonesia, Singapore, and the UAE, across Cambridge International Examinations, AQA, and Edexcel curricula. In her numerous leadership roles, Shiny champions the integration of emotional intelligence with technology in language learning as a vital approach for future education.



## Course Overview

This foundation course delves into the integration of artificial intelligence (AI) within teacher training frameworks by the Emirates, with a particular focus on integrating sustainable development and inclusivity. Participants will critically analyze the potential of AI to enhance pedagogical methodologies in most subjects, ensuring alignment with the United Nations Sustainable Development Goals (UNSDG) and effectively addressing the needs of learners with Special Educational Needs and Disabilities (SEND). By synthesizing theoretical insights, practical applications, and case study analyses, educators will cultivate the requisite skills to leverage AI for the advancement of innovative, inclusive, and sustainable educational practices both at school and cluster level.

## Course Objectives

### Explore EdTech AI Tools

Educators will examine a variety of educational technology tools powered by AI that are designed to align with the school curriculum. This exploration will enable teachers to understand the potential and limitations of these tools in an educational setting.

### Support Classroom Instruction with AI

The course will demonstrate how AI can be leveraged to support and enhance classroom instruction. Educators will learn how to utilize AI for data analysis, progress tracking, differentiation, inclusion, collaboration, and feedback, thereby addressing emerging educational challenges.

### Integrate AI into the Curriculum

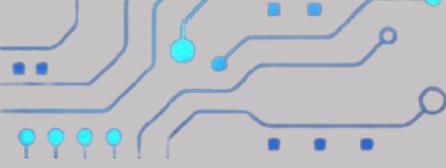
Participants will gain practical skills in seamlessly incorporating AI technologies into the school curriculum. This integration aims to enhance student learning outcomes and accelerate progress, making education more scalable and inclusive.

### Engage in Informed Discussions

Educators will engage in discussions about the value, contributions, and limitations of digital technologies in teaching and learning, both in the present and future contexts. These discussions will foster a deeper understanding of how AI can transform educational practices.

### Create a Pressure-Free Learning Environment:

AI tools will be used to create a supportive and pressure-free learning environment, particularly for students who lack confidence in their speaking abilities. This aspect of the course emphasizes the importance of personalized and inclusive learning experiences.



## Learning Outcomes

Upon completion of this course, educators will be able to -

- **Implement** AI tools to organize and analyze educational data, benefiting all stakeholders including schools, families, and language learners.
  - **Utilize** AI to create differentiated and inclusive learning experiences that cater to individual student needs.
  - **Enhance** student engagement and progress through increased practice opportunities facilitated by AI.
  - **Apply** AI-driven solutions to facilitate both in-person and online language instruction, creating a personalized and effective learning environment.
  - Course Structure:
- 

*The course will include a combination of lectures, hands-on workshops, and collaborative projects. Educators will have the opportunity to -*

### **Explore Frameworks and Blueprints**

Educators will explore various frameworks and blueprints for integrating AI into their classrooms. These sessions will provide practical guides and templates that can be customized to fit different educational contexts and student needs.

### **Work with Real-World AI Tools and Applications**

Engage with cutting-edge AI tools, learning how to apply them effectively in classroom settings. This hands-on experience will enable teachers to directly see the impact of AI on student learning and engagement.

### **Develop Strategies for Integration**

Collaborate on developing strategies for incorporating AI into existing curriculum frameworks. This includes identifying key areas where AI can enhance teaching and learning outcomes.

### **Participate in Peer Discussions and Feedback Sessions**

Engage in peer discussions to share experiences, challenges, and successes in using AI in education. These sessions will provide valuable insights and foster a community of practice among educators





## Course Meeting

Every Alternate Saturday -2 hours- Virtual - On Zoom -In English

## Certificate

At the conclusion of the 5th workshop series, participants will be awarded a Certificate of Excellence based on the following criteria

100% Workshop Attendance : Participants must attend all 15 hours of the workshop series.

- Completion of In-Workshop tasks- Successful completion of all individual and group assignments during the workshops.
- Active Contribution to Decision Forum: Demonstrated active participation and valuable contributions to the decision-making forum.
- Action Research Presentation: Presentation of an action research plan to implement AI integration in their classroom.

# Session 1

## Objective

To understand the foundational concepts of AI and its relevance to education, with a focus on the UAE's AI strategy, SEND (Special Educational Needs and Disabilities), SEL (Social Emotional Learning), and UNSDGs (United Nations Sustainable Development Goals).

### UAE Artificial Intelligence Strategy 2031

- Overview of the strategy and its implications for the educational sector.
- Discussion on how this strategy provides a universal blueprint for learning in the UAE.
- Alignment with UNSDGs

### Focus on Goal 4 (Quality Education) and Goal 10 (Reduced Inequalities).

- Exploration of how AI can contribute to achieving these goals in the context of education.
- Introduction to SEND and SEL

### Explanation of Special Educational Needs and Disabilities (SEND).

- Overview of Social Emotional Learning (SEL).
- Discussion on the role of AI in supporting SEND and SEL learners.

## Active Learning Tasks/Activities

- Facilitated discussions on the potential of AI to transform education.
- Collaborative exploration of AI's implications for different aspects of education.
- Case Study Analysis

### Examination of successful AI implementations in schools.

- Identification of key factors contributing to these successes.
- Interactive zone

### Evaluation Tools

- Participation in Discussions
- Monitoring and evaluating active involvement in group discussions.
- Reflective Chats
- Short reflective chats on the potential impact of AI in education and its alignment with UNSDGs.
- Group Presentations

# Session 2

## AI for Inclusive SEL Education and SEND Support - Collaboration

**Objective** To apply how AI can support inclusive education practices and enhance learning outcomes for SEND students in the UAE.

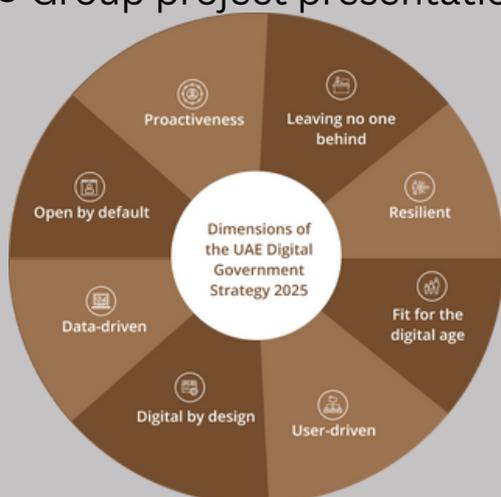
- AI tools and technologies designed to support SEND learners.
- Best practices for implementing AI solutions in inclusive education settings.
- Ethical considerations and ensuring accessibility.
- Case studies of AI supporting SEND learners in various educational contexts.

**Active learning** tasks/activities (that facilitate collaboration, support critical thinking and experimentation):

- Hands-on exploration of AI tools for SEL and SEND support. (Few tools mentioned in the appendix)
- Role-playing scenarios to understand the perspectives of SEND students.
- Collaborative project designing an AI-driven intervention for a specific SEND challenge.
- Peer review and feedback session on proposed interventions - Teachers and LSA in a classroom of 30 students.

Evaluation Tool:

- Practical demonstration of AI tools.
- Group project presentation on an AI intervention for SEL and





# Session 3

## Practical Applications of AI in Teaching and Learning - Impact

### Objective

Develop practical skills for integrating AI into teaching and learning processes.

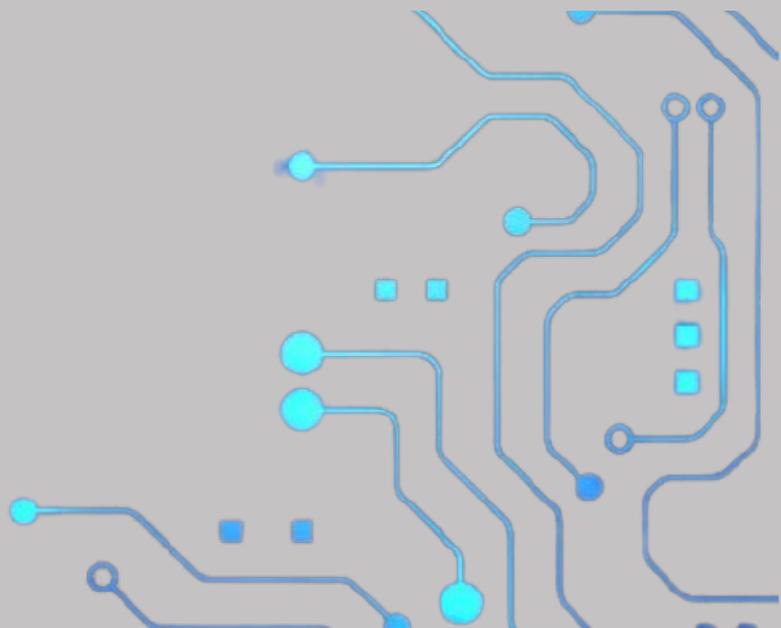
- Overview of AI-driven educational tools and platforms.
- Methods for incorporating AI in lesson planning and classroom management.
- Strategies for using AI to differentiate instruction and provide personalized learning experiences.
- Examples of AI applications across different subjects and grade levels.

**Active learning** tasks/activities (that facilitate collaboration, support critical thinking and experimentation):

- Interactive tutorials on using AI educational tools.
- Group activities to create AI-enhanced lesson plans.
- Simulation exercises to practice classroom management with AI tools.
- Workshop on differentiating instruction using AI analytics.

Evaluation Tool:

- Submission of AI-enhanced lesson plans.
- Peer evaluation of lesson plans.
- Practical assessment through simulation exercises.





# Session 4

## AI for Data Analysis and Student Progress Monitoring - Sustainability of practice

**Objective** Utilize AI for data analysis to monitor student progress and inform instructional decisions.

Content:

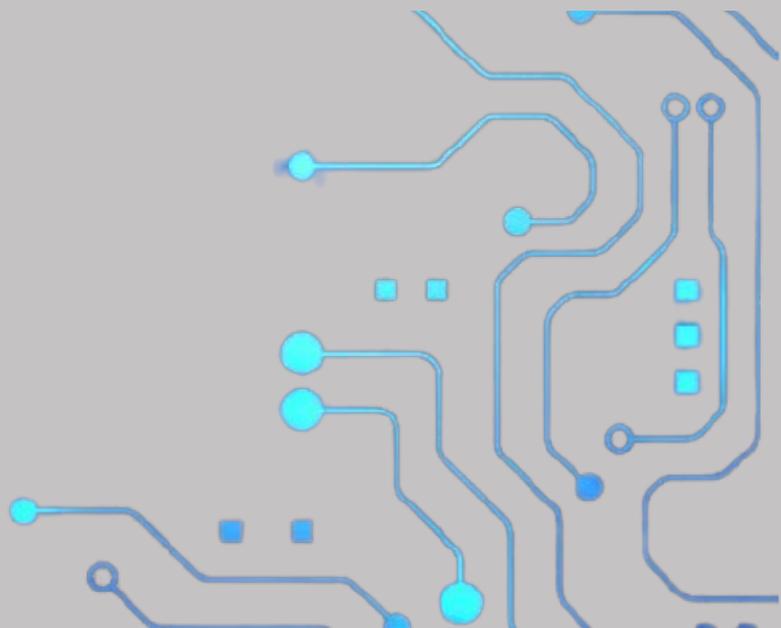
- AI technologies for collecting and analyzing educational data.
- Techniques for using AI to track and assess student progress.
- Creating data-driven interventions to support student learning.
- Ethical considerations in data privacy and security.

Active learning tasks/activities (that facilitate collaboration, support critical thinking and experimentation):

- Data analysis exercises using AI tools.
- Group discussions on ethical data use and privacy concerns.
- Developing data-driven instructional plans.
- Case studies on data-driven decision making in education.

Evaluation Tool:

- Data analysis reports.
- Group presentations on ethical considerations.
- Submission of data-driven instructional plans.





# Checklist

- Reliable internet connection
- Access to AI tools (compatible with the laptops or computers used by teachers and others during the training).
- Journal - Online/Offline

## Resources

### Advanced AI Tools

#### Kognito

Purpose: AI-driven simulations for SEL.

Application: Provides interactive role-play scenarios to help educators and students develop social-emotional skills.

#### Emotion AI by Affectiva

Purpose: Emotion recognition technology.

Application: Monitors and analyzes students' emotional states to provide real-time feedback and support SEL.

#### Cognii

Purpose: AI-based learning and assessment tool.

Application: Provides personalized feedback and tutoring for students, adapting to individual learning needs and supporting SEND.

#### Mursion

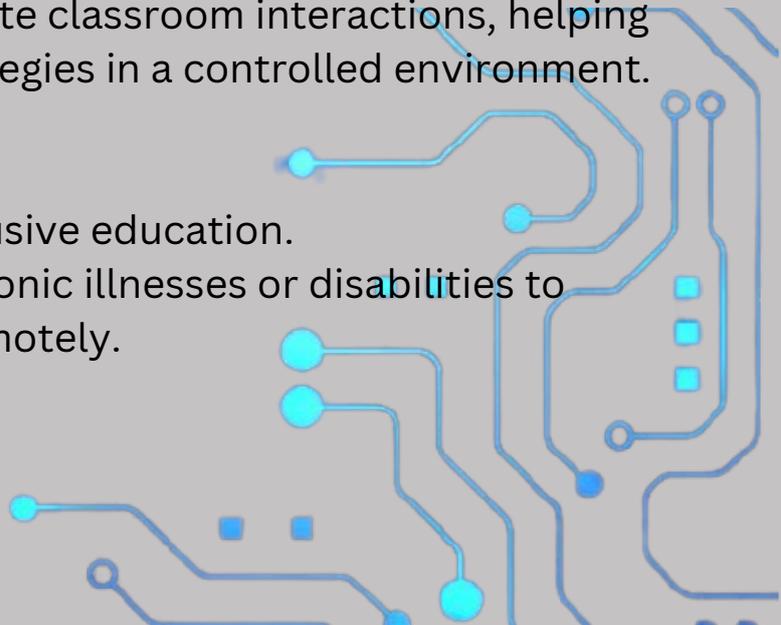
Purpose: Virtual reality simulations for teacher training.

Application: Uses AI avatars to simulate classroom interactions, helping teachers practice SEL and SEND strategies in a controlled environment.

#### Nolsolation's AV1

Purpose: Telepresence robot for inclusive education.

Application: Allows students with chronic illnesses or disabilities to participate in classroom activities remotely.





Adobe  
Firefly



Bing Image  
Creator



Curipod



Bing  
Chat



QuestionWell



ChatGPT



Google  
Bard



Pictory



Magic  
School



Education  
CoPilot



Got  
Feedback



Summarize.  
Tech



Conker



Perplexity



Parlay

Parlay  
Genie



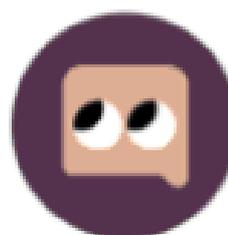
Goblin Tools



FigJam Jambot



Formative AI



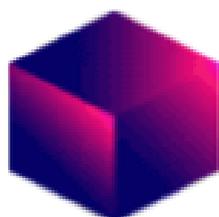
KhanMigo



Diffit



Copy.ai



EduAide.ai



Hello History



Grammarly



Magic Classroom



Nolej



Hey Pi



Quizizz AI



Twee



ChatPDF



## Measurement of New Learning Application and Monitoring

**Learning Journal** -Participants will maintain a journal throughout the course, documenting how they apply new skills and strategies in their teaching practice.

**Self-Assessment Tool** - A self-assessment questionnaire will be administered at regular intervals to gauge participants perceived effectiveness in implementing AI in education.

### **Data Sources for Effectiveness Analysis**

Student Performance Data over the interval of the course. Analysis of student performance data before and after the course to assess any improvements linked to AI integration.

**Observations and Feedback**- Chat box , mentimeter discussion forums - Observations and feedback from peers, mentors, and students to evaluate the impact of AI on teaching and learning.

### **Sharing New Knowledge with Colleagues-**

Peer Sharing Sessions - Participants will be encouraged to share their new knowledge and strategies with colleagues through formal presentations or informal discussions.

Online **RAKTN Platform** An online platform will be provided for participants to share resources, experiences, and insights with a wider community of educators empowered by AI for community goals.

