ROBOTNA

NURTURING SCIENTISTS AND INNOVATORS

ARTIFICIAL INTELLIGENCE PROGRAM

Education kits

LEGO
WeDo 2.0 LEGO education   mindstorms
LEGO education   spike

LUXROBO
MODI CONNECT & CREATE   PyMODI

STEMpedia
quarky   PictoBlox
CODEAVOUR 2022 INTERNATIONAL

UBTECH
Jimu   UKIT

المدرسة الوطنية الأرثوذكسية الشميساني
The National Orthodox School
Shmaisani

Training Programs in Artificial Intelligence

Artificial intelligence ence stands out as one of the most prominent technological innovations in our modern era. **As children represent the future,** defining and guiding their path toward this captivating field becomes a pivotal mission. Children's AI courses are designed to address this urgent need by providing youngsters with a **unique opportunity to explore the realm of artificial intelligence** and learn its diverse applications in an engaging and beneficial manner.

Training Programs in Artificial Intelligence
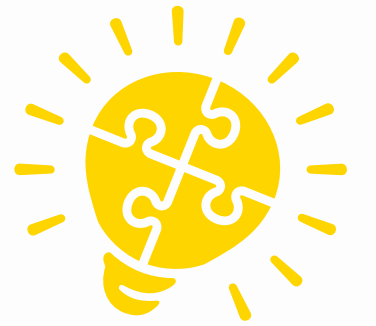
These courses aim to pave the way for children to **grasp the fundamentals of artificial intelligence** and understand how to apply it in problem-solving and the creation of new applications. What sets these courses apart is their **interactive and simplified approach**. They rely on visual programming to make artificial intelligence concepts accessible and clear to children, **without the need for prior knowledge of coding.**

This course is divided into three age groups, catering to the various stages of children's development:

AGE 10 – 11

AI Explorers

At this stage, children begin to explore the fundamentals of artificial intelligence through simplified experiments and activities.
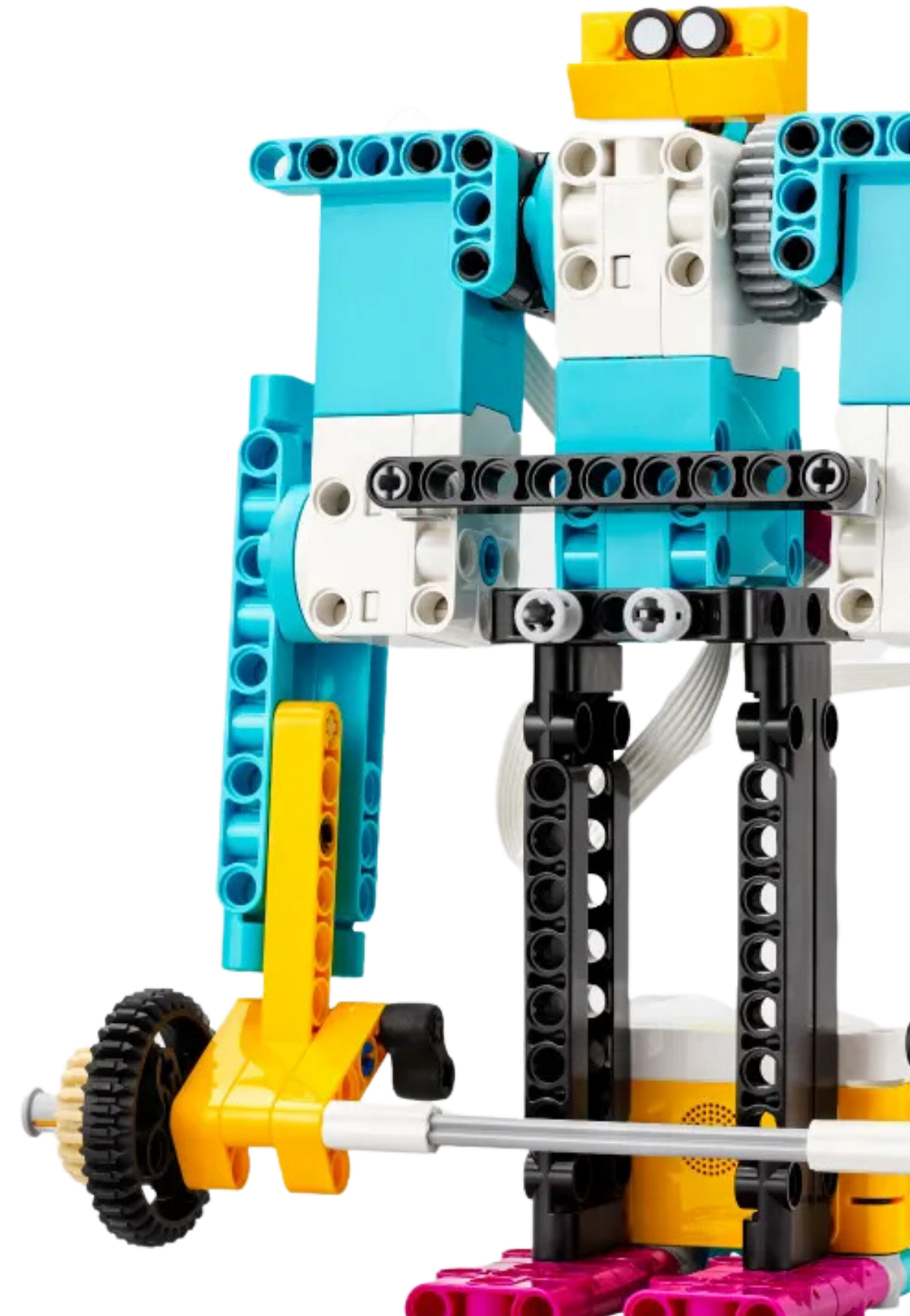
AGE 12 – 14

AI Geniuses

At this stage, children delve deeper into the concepts of neural networks and deep learning.
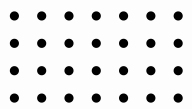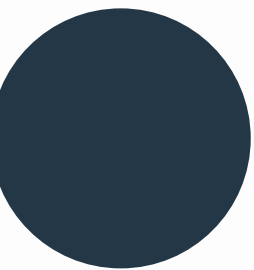
AGE 15 – 16

Ai Titans

At this stage, children take their skills to an advanced level, deepening their understanding of advanced techniques in the field of artificial intelligence.

AI Explorers

For aged 10-11

AI Explorers

For children aged 10-11

The aim of this course is to provide an engaging and enjoyable educational experience for children aged 10 to 11. The goal is to introduce them to the fundamentals of programming using visual programming and apply these concepts in the design of creative projects using PictoBlox software. We will empower children to build simple models using visual programming, helping them grasp programming principles and apply them in an easy and fun manner.

The course content includes:

Introduction to Programming:

An introduction to the basics of programming and its significance, along with an introduction to visual programming languages.

PictoBlox:

Getting acquainted with the PictoBlox interface and its tools. Learning how to create a programming project and add code.

Designing Creative Projects:

Applying programming skills to design innovative projects, such as simple games or interactive stories.

Introduction to Artificial Intelligence:

An introduction to the basics of artificial intelligence and how it is used in our lives. Getting to know the real-world applications of artificial intelligence.

Throughout the course, children will acquire fundamental technological skills and a broader understanding of the world of programming, along with an introduction to artificial intelligence. They will learn **critical thinking, problem-solving, and innovation by applying programming concepts** to their own projects. They will enjoy an engaging and exciting educational experience that **prepares them for a fascinating future in the world of technology.**

AI Geniuses

For ages 12-14
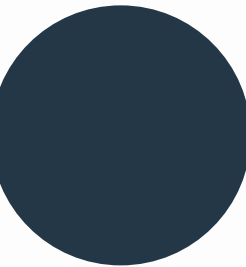
AI Geniuses

For aged 12-14

"The aim of this course is to provide an enjoyable and informative educational experience for the age group of 12 to 14. The goal is to introduce them to programming concepts and the basics of artificial intelligence while teaching them how to use AI tools through PictoBlox software. We will empower young individuals to develop advanced programming skills and apply artificial intelligence techniques to inspiring applications."
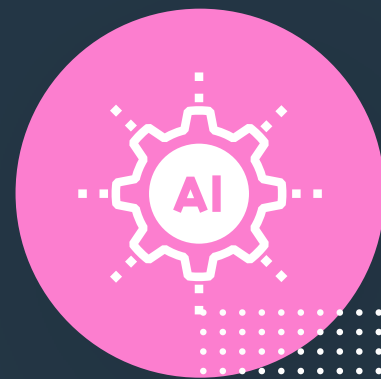
The course content includes:

Advancing in programming and enhancing programming skills

Deepening participants' understanding of programming concepts and transitioning from basic to advanced programming.

Developing advanced programming projects using PictoBlox and harnessing the power of programming to create solutions for problems

Learning to use artificial intelligence tools

An introduction to artificial intelligence concepts and its significance in the modern world.

Learning how to use artificial intelligence tools available in PictoBlox to create simple artificial intelligence models.

Designing and executing advanced-level projects

Applying programming skills and artificial intelligence tools to design innovative and interactive projects.

Developing AI-based models to address specific problems or find solutions for enhancing a particular field.

Ethics and Challenges of Artificial Intelligence

Discussing ethical and responsibility issues associated with the use of artificial intelligence.

Raising awareness among participants about potential challenges and the impacts of artificial intelligence on society and technology.
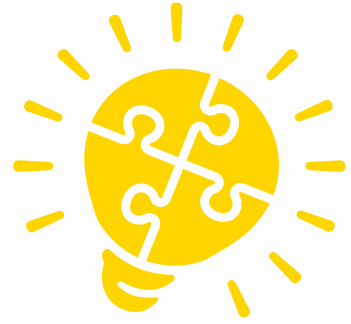
Participants will gain **advanced skills in programming and artificial intelligence**, enabling them to design and implement innovative projects based on AI techniques. They will learn **critical thinking, problem-solving, and innovation using modern technology.** Additionally, they will develop ethical awareness regarding the use of technology and its impact on society.
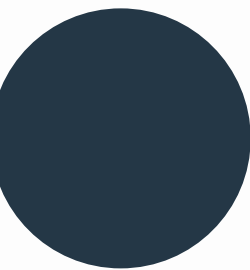
AI Titans

For ages 15-16
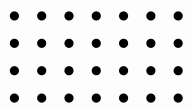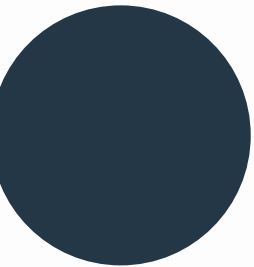
Ai Titans

For aged 15-16

The goal of this course is to provide an intensive and exciting training program for young individuals in the 15 to 16 age group, with the aim of learning how to integrate PictoBlox software with Arduino for the development of innovative electronic control projects. We will empower them to build interactive models and apply artificial intelligence concepts to enhance project functionalities.

The course content includes:

Introduction to PictoBlox and Arduino

Understanding Arduino Concepts and Learning how to connect electronic components.

Introduction to PictoBlox and how to use it for programmatic control of devices.

Programming Arduino using PictoBlox

Learning how to program Arduino using PictoBlox to control motors, servo motors, and more.
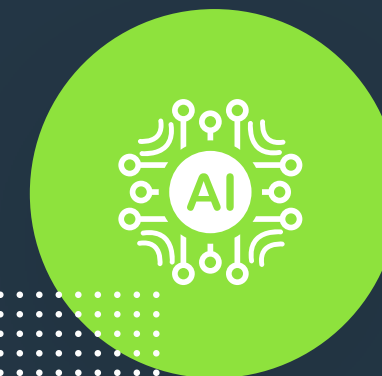
Executing interactive experiments using Arduino and analyzing their results

Applications of Artificial Intelligence in Projects

Introduction to Artificial Intelligence Concepts and How to Utilize it in Developing Electronic Control Projects

Integrating Artificial Intelligence Techniques with Arduino Projects to Enhance System Performance

Designing and Implementing Advanced Projects

Applying the acquired knowledge to design advanced projects that combine Arduino and artificial intelligence techniques

Developing innovative models based on electronic control and advanced technology

Analyzing and Evaluating Projects

Evaluating the performance and efficiency of designed projects and analyzing the achieved results

Discussing the challenges and opportunities in using the integration of PictoBlox and Arduino for developing technological applications

Participants will acquire **advanced skills in programming, electronic control, and artificial intelligence.** They will discover how to apply programming and technology concepts in **real-world projects** that bridge the gap between programming and hardware interaction. This course will empower them to fully leverage the potential of Arduino and artificial intelligence techniques for **developing creative solutions**.
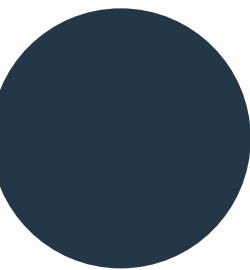
WHAT

do we offer to school?

Services provided to schools through the program

Training equipment

Worksheets

Presentations
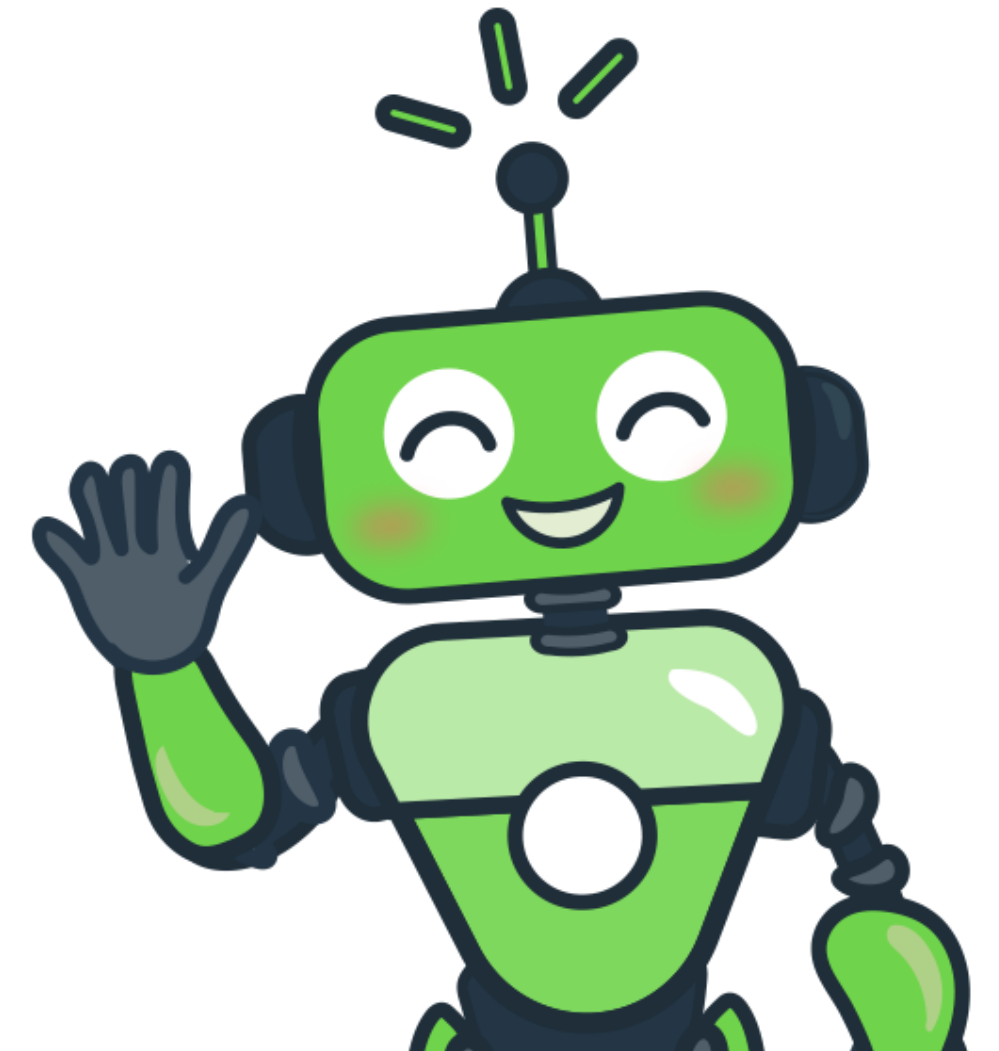
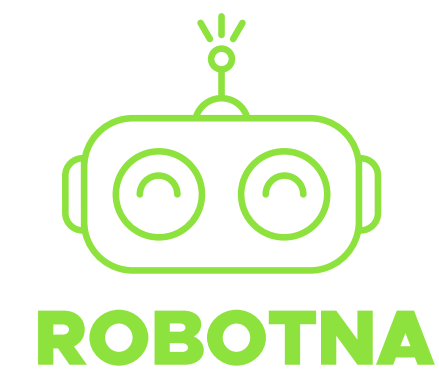**Accredited certificates**

Certified trainers

The course is divided into one session per week

9 WEEKS

KEY PREVIOUS CLIENTS

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