



STEM AI & ROBOTIC LAB WITH SKILL TRAINING

SYNDESMOS PUBLIC SCHOOL PARUMALA, THIRUVALLA.

VACATION PROGRAMME:

We help students fall in love with innovation!



Get Ready for the
Break Through - Junior
Challenge

01 Identify a Problem

02 Think Out of the box

03 Pitch Your Ideas

04 Win Cash Prizes

Looking for an exciting and educational way to keep the students busy during school holidays?
 Enrol them in a fun-filled robotic or coding school holiday programme to give them the best of thrill and knowledge.

Benefits:

Learning new skills

Boosting confidence

Valid and Shareable Certificate

Integrate with YIP

Staying active

Being inspired

Cash Awards

Getting supported

Being flexible

Getting future-ready

CURRICULAM

JUNIOR (5-11 yrs)

Days	Project	Topics Covered
1.	Car	Motion: Rectilinear Motion, Rotational Motion
2.	Giant Wheel	Motion: Circular Motion and Rotational Motion
3.	Swing	Motion: Periodic Motion and its types
4.	Waving Robot	Joints and Linkage
5.	Powder Pounding Machine	Mechanism: Crank and Slider
6.	Engine Valve	Mechanism: Cam and Follower
7.	Geared Car	Working of Gearbox
8.	Scissor Lift	Mechanism: Power Screw
9.	Lift	Rack and Pinion
10.	BREAKTHROUGH-JUNIOR Challenge/Prize distribution/Certificate Distribution	



SENIOR (12-17 yrs)

Days	Project	Topics Covered
1.	Basic Electric Circuit	Introduction to Hydroelectric power plant, Alternating Current and Direct Current, Transformers, Energy Conversion, Working of LED, Working of Switch, Open circuit and Closed circuit.
2.	Doorbell	Introduction to Sound, Working of push button, Piezo-electric effect, Experiment and observed piezo - electricity, Done simple buzzer circuit, Made doorbell circuit and understand the working of doorbell.
3.	Home Wiring	Series connection and Parallel Connection, Fuse in Home, Parallel and Series LED
4.	Secret Codes and Potentiometer	Series connection and Parallel Connection, Encoding and Decoding of message using LED and Buzzer.
5.	Fade the Light	Ohm's law, Resistors and Capacitors in circuit, Resistance Value using Colour Code Method, Effect of resistors and capacitors in Circuit.
6.	Sound Effects	Effect of Resistors and Capacitors in sound systems.
7.	Mighty Motor and Vibrator	Motor: Working of motor, how phone produce vibrations.
8.	Light Dependent Resistor (LDR)	Light Dependent Resistor and its working, Understand the difference between Resistors and LDR.
9.	Fading LED	Understand fading of LED with respect to LDR, Effects by connecting another capacitor in series and parallel, Optical Communication
10.	BREAKTHROUGH-JUNIOR Challenge/Prize distribution/Certificate Distribution.	

Are you AI Ready? Are you Robotics Friendly?

SYNDESMOS in association with
SCHOOL OF ROBOTICS & ARTIFICIAL INTELLIGENCE
from **Gregorian Institute of Technology**
brings in

STEM AI & ROBOTIC LAB WITH SKILL TRAINING

 **Syndesmos Public School, Parumala**
 **15th Apr To 25th Apr 2024**

Age limit: For Juniors (5 years to 11 years)
For Seniors (12 years to 17 years)

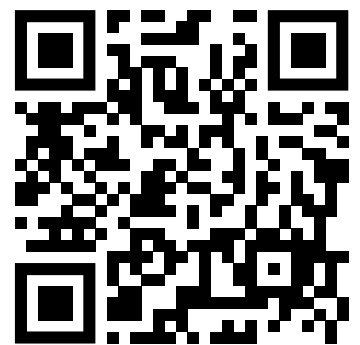
**Registration &
Course Fee: Rs 2000/- Per Head**

Scan & Register Now 

(Curriculum will be different for different age groups)

**On-line registration open till 31st march 2024.*

www.syndesmospublicschool.org



COMPETITIONS & EVENTS



CHILDREN ARE THE PRIORITY
CHANGE IS THE REALITY
COLLABORATION IS THE STRATEGY