SRI.P.MALLAIYAN MATRICULATION HIGHER SECONDARY SCHOOL

KNOWLEDGE IS POWER

TRANSFORMING MINDS, BUILDING FUTURES

STEM STARUP INDIA MISSION



Think Build Innovate Excel

Emerging Career Domains

ARTIFICIAL INTELLIGENCE
Building smart machines for a smarter future.

ROBOTICS
Designing, building and innovating the future.

INTERNET OF THINGS (IOT)
Connecting devices, creating endless possibilities.

CODING
Turning ideas into powerful solutions.

AR & VR
Experiencing learning in a whole new dimension.

DRONE
Exploring skies, expanding horizons.

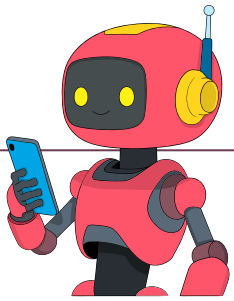
INDUSTRIAL 4.0
Innovate • Automate • Transform

SKILL–BASED LEARNING

EVENT SPONSORED BY

india STEM MISSION

ROBOTICS



Our school offers an Advanced Robotics program that introduces students to the latest technologies used in modern automation and engineering. Students get hands-on experience with sensors, actuators, coding, and intelligent robotic systems. They work on real-world projects that strengthen problem-solving and innovative thinking. The program helps students build confidence in designing and controlling robots for various applications.

ROBOT CREATION & DESIGN SKILLS



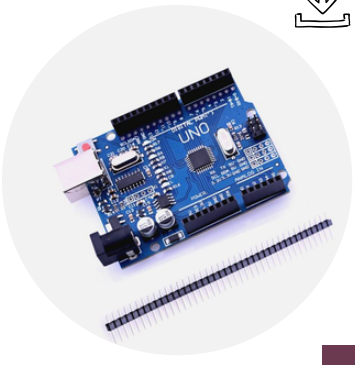
CONTROLLERS



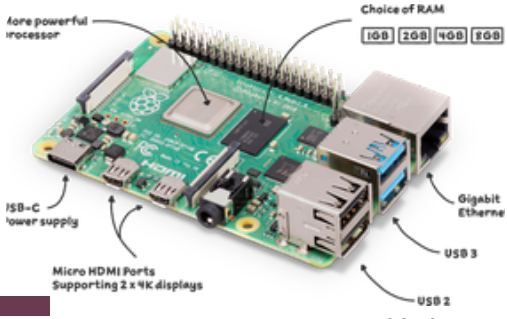
learn about controllers

ARDUINO

Arduino is a compact microcontroller that brings student ideas to life through hands-on innovation. It connects sensors and actuators to build smart and interactive STEM projects. Our students use Arduino to learn coding, automation, and real-world problem-solving skills.

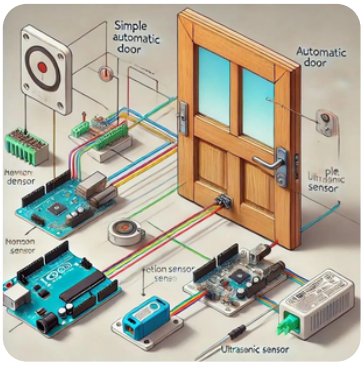


RASPBERRY PI

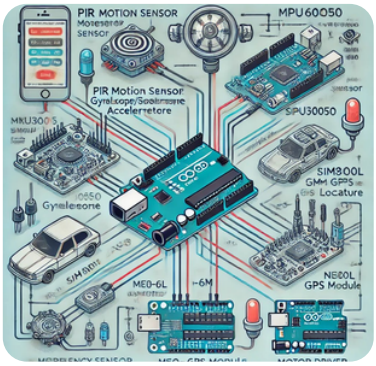


Raspberry Pi is a powerful mini-computer that helps students explore advanced technology concepts. It supports sensors, cameras, and software to build intelligent, real-world STEM projects. Our students use Raspberry Pi to learn programming, AI, robotics, and problem-solving with real computing power.

EMBEDDED CONTROLLER DESIGN







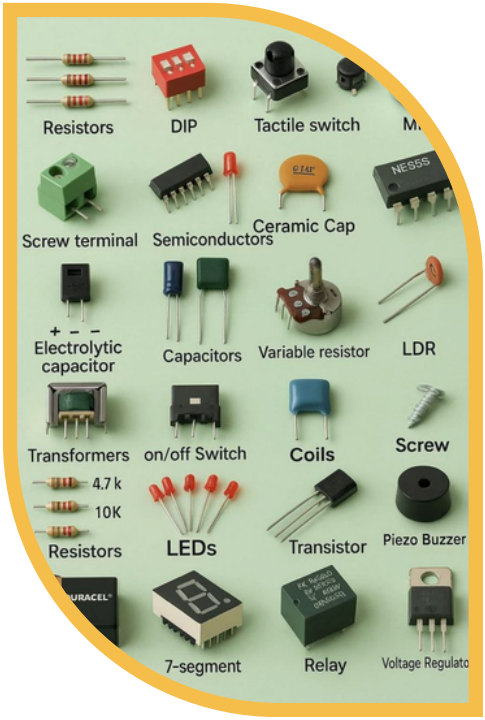


STUDENTS GET IDEA ON

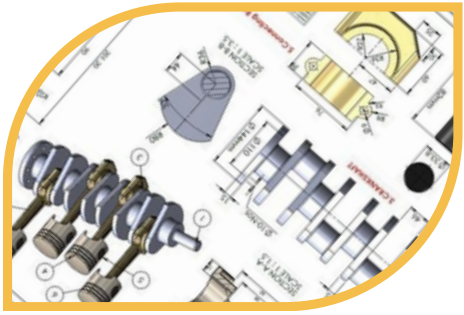
Sensors



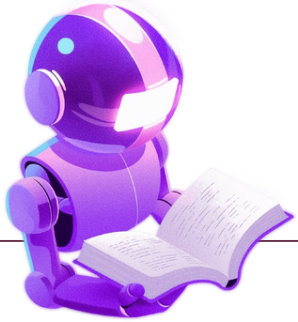
Electronic concepts



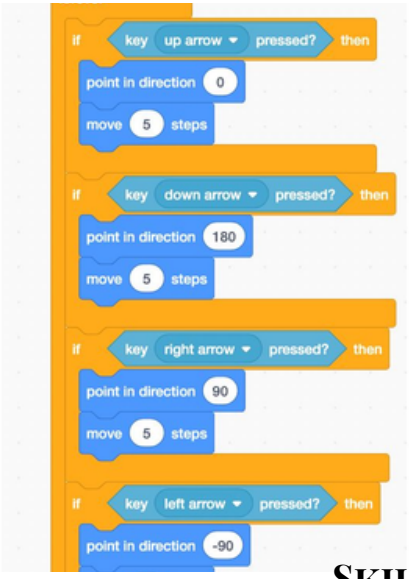
CIRCUIT DESIGN



ARTIFICAL INTELLIGENCE



Our school provides a comprehensive Artificial Intelligence program that helps students explore the future of technology. Through hands-on activities, coding sessions, and real-time problem-solving projects, learners gain a strong understanding of how AI works. We aim to build future-ready skills and inspire students to innovate, create, and lead in the evolving digital world.





SKILL PORTFOLIO

MACHINE LEARNING

- Supervised Learning
- Unsupervised Learning
- Deep Q-Learning (DQL)

DEEP LEARNING

- Neural Networks
- Convolutional Neural Networks (CNN)
- Recurrent Neural Networks (RNN)



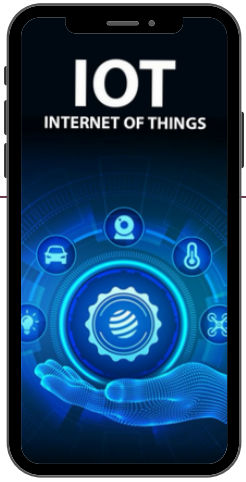
Our students learn to use a wide range of cutting-edge AI tools in the classroom. They explore image processing, data analysis, chatbots, and automation platforms. Each tool is taught through hands-on activities that build real technological confidence.

Students execute their own AI projects, turning ideas into smart, practical solutions.

AI TOOLS

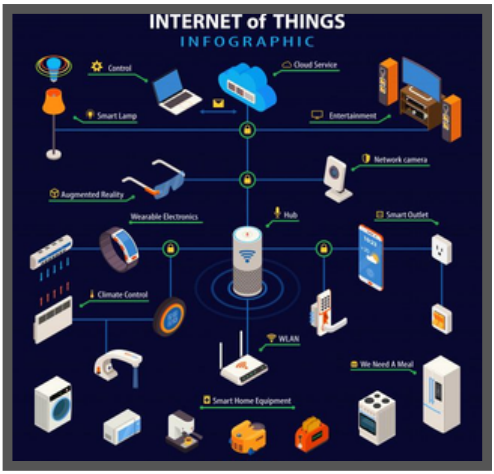


INTERNET OF THINGS









The Internet of Things (IoT) connects smart devices so they can communicate and share data automatically.

It enables real-time monitoring and control of systems like homes, industries, and transportation.

IoT uses sensors, microcontrollers, and cloud platforms to create intelligent, connected solutions.

Students learn how data moves from devices to the internet and back for automated decision-making.

Our IoT projects help students build future-ready skills in smart technology, analytics, and automation.

AR &VR







Augmented Reality (AR) and Virtual Reality (VR) bring learning to life through immersive digital experiences.
AR overlays interactive 3D content onto the real world, enhancing understanding and engagement.
VR transports students into fully simulated environments for realistic hands-on exploration.
These technologies help students visualize complex concepts in science, engineering, and design.
Our AR/VR sessions empower learners with next-generation skills for future-ready innovation.

CODING



Coding technology is the foundation of modern problem-solving and creative design. It teaches students how to turn ideas into working software through logic and algorithms. Learning to code builds critical thinking, debugging skills, and computational thinking. Students use coding to create apps, control robots, analyze data, and bring smart projects to life. Our curriculum introduces languages and tools that prepare learners for real-world tech challenges.

SKILL -SET COVERED



Coding & Programming
Coding for Kids
Scratch Programming
Python for Beginners
App Development for Kids

Graphic Design for Kids
3D Design & Printing
Animation & Cartoon Making
Game Development Basics
Web Designing Basics
AI Coding for Kids



we code

- Scratch – Best for beginners and block-based coding.
- Python – Easy to learn, powerful for apps, AI, and automation.
- JavaScript – Great for web development and interactive projects.

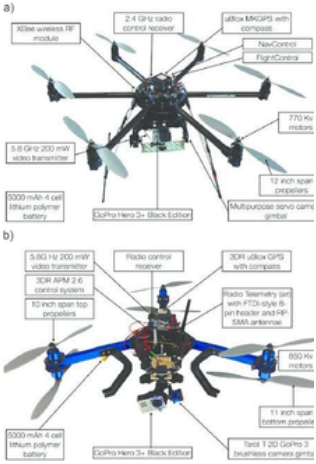


DRONE

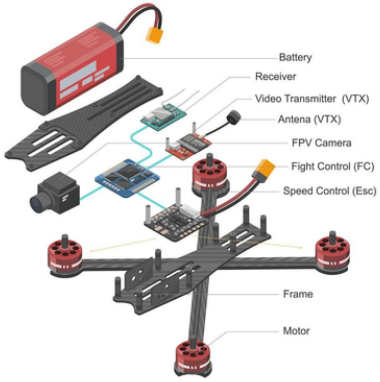


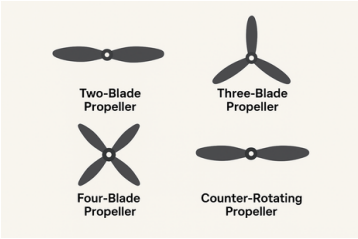
LEARNS THE FUNDAMENTALS OF DRONES

Students learn the fundamentals of drone technology through hands-on activities and real-time experiments. They explore aerodynamics, flight control, sensors, propulsion systems, and safety operations. Learners understand how drones balance, navigate, avoid obstacles, and perform automated tasks. This training builds strong skills in engineering, coding, and modern aerial robotics.

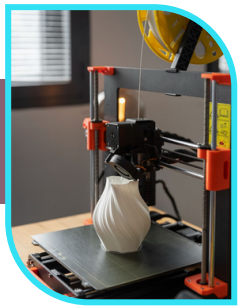






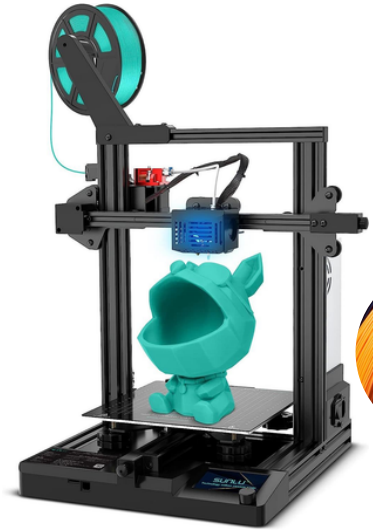


3D PRINTING



Course Overview

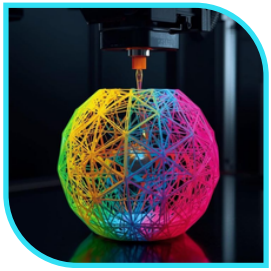
The 3D Printing Course introduces students to modern design and manufacturing technology. Students learn how to create digital models and turn them into real physical objects using a 3D printer.



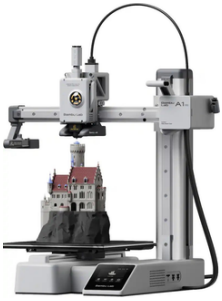


What Students Learn

- Introduction to 3D printing and its applications
- Basics of 3D design (Tinkercad/Fusion 360)
- Understanding STL, slicing, and G-code
- Operating and maintaining a 3D printer
- Safe usage and best practices
- Printing functional models and prototypes



GEOMETRY IN FILAMENT



Recognition and Certification

STEM evaluation will be conducted once every three months to track student progress and skills.

We encourage students to participate in various technical events, both online and offline, to enhance their skills and confidence.

Students who perform exceptionally well in the STEM exam and project work will be honored with the titles Budding Scientist, Junior Scientist, and Young Scientist.

Students will receive recognition and certification for their achievements, motivating them to excel further in STEM learning.


CERTIFICATE

OF RECOGNITION

This certificate is presented to

K.MUTHU ANAND

A STUDENT IN THE ELEVENTH-GRADER AT SRI P MALLAIYAN MATRICULATION HIGHER SECONDARY SCHOOL IN COIMBATORE HAVE ACHIEVED B LEVEL IN THE WORLD ROBOTIC COMPETITION TITLED "SMART OBSTACLE AVOIDING ROBOT " UNDER THE YOUNG SCIENTIST CATEGORY.


CERTIFICATE

OF RECOGNITION

This certificate is presented to

P.ELAYA BARATHI

A STUDENT IN THE ELEVENTH-GRADER AT SRI P MALLAIYAN MATRICULATION HIGHER SECONDARY SCHOOL IN COIMBATORE HAVE ACHIEVED B LEVEL IN THE WORLD ROBOTIC COMPETITION TITLED "SMART OBSTACLE AVOIDING ROBOT " UNDER THE YOUNG SCIENTIST CATEGORY.

Learning Outcomes & Student Benefits

THROUGH OUR SKILL-BASED STEM PROGRAMS, STUDENTS WILL:



- Develop logical thinking, creativity, and problem-solving skills
- Gain hands-on experience with real-world technologies
- Learn coding, electronics, and automation fundamentals
- Build confidence in project presentation and teamwork
- Understand emerging career domains from an early age
- Create a strong skill portfolio for future academic and career growth
- Curriculum aligned with Industry 4.0 & Future Careers
- Hands-on, project-based learning approach
- Expert-designed modules in AI, Robotics, IoT & Coding
- Regular STEM evaluations and performance tracking
- Exposure to competitions, hackathons, and tech events
- Encouragement of innovation, leadership, and creativity
- Safe, structured, and age-appropriate learning environment