



**Proposal**  
to setup  
**ROBOTICS-AI-CODING**  
Lab in Your  
Esteemed School

We mainly believe in "Quality".  
For us, Quality is not just "A standard", it's an Attitude".

### **Introducing ourself:**

Shatrunjay Group started its activities with establishing Shatrunjay Institute in 1997. Since established the main aim was to provide quality education and services to the society. Looking towards the current market requirements it always upgraded and improvised the educational boundaries in different fields. Taking it further we have introduced school level programs in Robotics, Coding, Internet of Things (IOT) and Artificial Intelligence (AI).

### **Why Shatrunjay Group:**

We're committed to preparing the next generation for success in a fast-evolving tech landscape through STEM education. Our engaging curriculum offers hands-on learning in Robotics, AI, IoT, Coding, and AR, fostering problem-solving skills and practical experience for students.

### **What Shatrunjay Group Offers:**

In addition to our current training offerings in Computer Programming, Animations, and Designing, Shatrunjay Group introduces a distinctive and all-encompassing training program specifically designed for schools. This program is centered around Robotics, Artificial Intelligence, Coding, IoT (Internet of Things), and Augmented Reality, and includes the establishment of EI TINKER Labs within school premises. Through these labs, students can engage in experiential learning, gaining practical skills and insights into the latest advancements in technology.

### **Training Methodology:**

Our methodology focuses on experiential learning through hands-on activities and projects, blending theory with practical for a thorough understanding. Training will be conducted in school labs in person with video sessions through our trained instructors. The training will be available in English, Hindi, and Marathi. Students will have assignments and quizzes to reinforce learning and assessment.



We setup a cutting edge  
New Technology Lab in Schools

# EI TINKER LAB

Experiment & Innovations

AI | ROBOTICS | IOT | CODING



## EI TINKER LAB

Empowering students with Robotics, AI, Coding, IoT, and Augmented Reality. Our state-of-the-art labs in schools provide all necessary equipment for hands-on practicals."

# ARIC

THE SCHOOL PROGRAM

- A - Artificial Intelligence (AI)
- R - Robotics
- I - Internet of Things (IOT)
- C - Coding



The ARIC program focuses on nurturing vital technology skills in Robotics, Artificial Intelligence, Coding, Internet of Things, and Augmented Reality among school-level students, aiming for a brighter future through hands-on, activity-based training with a fully practical approach. Our comprehensive annual training curriculum is customized to suit students from Tier 1, 2, and 3 cities, ranging from 1st to 10th grade. The program is available in English, Hindi and Marathi language.

### What Students will learn:

The ARIC curriculum is crafted to foster 21st-century skills in students, including creativity, problem-solving, reasoning, and logical thinking. Students will engage in project-based learning and create applications using Robotics and Coding.

"ARIC: Fueling ambition, igniting innovation, and accelerating achievement."

**A****AI****ARTIFICIAL INTELLIGENCE****R****ROBOTICS****I****IOT****INTERNET OF THINGS****C****CODING**

# ARIC

## The School Program

### AI Artificial Intelligence

- Artificial intelligence (AI) makes it possible for machines to learn from experience, adjust to new inputs and perform human-like tasks such as chess-playing computers to self-driving cars. In our program we introduce students in understanding the AI concept. With hands-on project and activities making students AI learning journey super fun.

### IoT Internet of Things

-The course trains students with latest technology in IoT, Home Automation program where in students can implement the technology at their home and also in smart city development. The Job opportunity for students multiplies and students can look forwards in starting their own business. Students get connected to the fast-developing industry and its needs that helps in better preparation for their challenging career.

### Augmented Reality (AR) The Technology

- Augmented reality (AR) is the real-time use of information in the form of text, graphics, audio and other virtual enhancements integrated with real-world objects. Our 3D AR program will give students a wonderful learning experience.

### Robotics Industry Ahead

- In the Robotics courses students will learn about Basic Electronics, Robotic Components, Mechanical Construction of Robot, Robot Functioning, Coding, Real-Time Applications of Robot, Automatic Robots etc. Students learning the courses will have super edge over others. The courses will also help students in building a prospective career.

### Coding The Future

- Learning Coding at a young age will develop students' reasoning skills, creative thinking, visualization skills, and problem-solving abilities. Coding is also important for students as it helps to increase confidence. Coding empowers students with applicable skills and also empowers them to more confidently face the challenges and opportunities.

"Nurturing Young Minds  
with the right Skills  
to make  
CLEVER MINDS  
into  
INNOVATORS MINDS"

## ARIC CURRICULUM:

The curriculum is designed such that students will develop 21st-century skills such as creativity, problem-solving skills, reasoning skills, and logical thinking. Students will make projects and develop applications with Robotics & Coding.

The foundation level of each grade is segmented into various levels, each tailored to suit the cognitive development of the corresponding age group, thereby varying in syllabus content.

In **Robotics** students will learn about the various robot components, testing the parts, constructing a robot, working on a robot, coding the robot, and designing a robot. At a later stage, students will learn to develop different types of robots.

In **Coding**, students will learn block coding and logic-based coding through which students will develop several apps, games, interactive learning programs, etc.

Coding Projects: More than 100 Coding projects will be explored.

### **Robotics Activities/Projects:**

In Robotics apart from understanding the various components such as Motors, Sensors, Buzzers, Batteries, Breadboards, Arduino, Jumpers, Chassis, and Mechanical construction, students will be trained on Logic Robots and Programmable Robots.

In **Artificial Intelligence (AI)** students will be introduced to the basics of Artificial Intelligence, focusing on understanding its principles, applications in daily life, and ethical considerations. They will learn about AI algorithms, machine learning concepts, and the importance of data in AI systems.

Primary students will delve into **Augmented Reality (AR)** technology through interactive 3D books and over 100 flashcards, gaining hands-on experience with AR concepts. They will engage in interactive sessions exploring alphabets, numbers, rhymes, professions, Indian monuments, cultural elements, and more.

## THE PRESENCE OF THE EI TINKER LAB AND TRAINING IN THE SCHOOLS:

- Netaji High school, Thane
- Miam Girls School, Thane
- B. G. Tilak School, Thane
- S. D. Ochani School, Thane
- SES Khemani English school, Thane
- Maharashtra Mandal English Medium School, Pune
- Goodwill English School, Pune
- Miraj Vidya Mandir, Miraj

**7000 + Students successfully  
trained in ARIC program**



## ARIC COURSE OUTCOME AND ADVANTAGE



Students will develop essential skills such as **Computational Thinking, Problem-solving, Logical Reasoning, and Creative Thinking** across the curricula. The conceptual knowledge and potential advantages they will gain across the training program are summarized in the table below.

Grade	Conceptual Knowledge on	Potential Advantages
Grade-1	<ul style="list-style-type: none"> <li>Hands-on Coding</li> <li>Practical Robotics</li> <li>Augmented Reality Experience</li> <li>Artificial Intelligence Awareness</li> </ul>	<ul style="list-style-type: none"> <li>Exposure to emerging technologies at a young age.</li> <li>Introduction to real-world applications.</li> <li>Creating an curiosity to understand about technology.</li> </ul>
Grade-2	<ul style="list-style-type: none"> <li>Hands-on Coding</li> <li>Practical Robotics</li> <li>Augmented Reality Experience</li> <li>Artificial Intelligence Awareness</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of the role of technology.</li> <li>Enhanced creativity and imagination.</li> <li>Improved problem-solving skills.</li> <li>Introduction to technology and robotics.</li> </ul>
Grade-3	<ul style="list-style-type: none"> <li>Hands-on Coding &amp; Looping Concepts</li> <li>Robotics Classification &amp; Categorization</li> <li>Continued Augmented Reality Experience</li> <li>Artificial Intelligence Importance</li> </ul>	<ul style="list-style-type: none"> <li>Exposure to cutting-edge technology</li> <li>Critical thinking approach &amp; curiosity for evolving technology.</li> <li>Making students ready for hands-on usage of advanced technology.</li> </ul>
Grade-4	<ul style="list-style-type: none"> <li>Hands on Coding &amp; Game Development</li> <li>Logic Vs. Programming Robotics</li> <li>Continued Augmented Reality Experience</li> <li>Understanding Artificial Intelligence based Coding</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced coding proficiency and creativity.</li> <li>Improved understanding of robotics concepts.</li> <li>Continued engagement with augmented reality.</li> <li>Introduction to AI-based coding.</li> </ul>
Grade-5	<ul style="list-style-type: none"> <li>Popular Programming Languages</li> <li>Robotics components &amp; connections</li> <li>Artificial Intelligence fundamentals &amp; applications</li> </ul>	<ul style="list-style-type: none"> <li>Exposure to vast robotics technology.</li> <li>Critical thinking approach &amp; hands on usage of integrated technology.</li> <li>Making students ready for exploring vast potential of AI.</li> </ul>
Grade-6	<ul style="list-style-type: none"> <li>Coding &amp; Story Telling</li> <li>Robot locomotion &amp; electronics</li> <li>Impact of AI &amp; Ethical Considerations</li> </ul>	<ul style="list-style-type: none"> <li>Robot designing</li> <li>Critical thinking approach &amp; hands on usage of integrated technology</li> <li>Ethical and Societal impacts of emerging technology</li> </ul>
Grade-7	<ul style="list-style-type: none"> <li>Coding &amp; Advanced Game Development</li> <li>Robotics &amp; sensors</li> <li>AI, Python &amp; Machine Learning</li> </ul>	<ul style="list-style-type: none"> <li>Robot designing and implementation.</li> <li>Hands on experience on Logic Robotics</li> <li>Students experience and excel their coding skills through different applications.</li> </ul>
Grade-8	<ul style="list-style-type: none"> <li>Understanding App Development</li> <li>Robotics &amp; Embedded Systems</li> <li>AI, Python &amp; NLP</li> </ul>	<ul style="list-style-type: none"> <li>Understanding Robot programming</li> <li>Hands on experience on automating robots</li> <li>Understanding Robotics and AI use in real time applications.</li> </ul>
Grade-9	<ul style="list-style-type: none"> <li>Understanding Apps through Coding</li> <li>Robotics &amp; Microcontrollers</li> <li>AI &amp; Python Libraries</li> </ul>	<ul style="list-style-type: none"> <li>Laying foundation for Robotics Engineering.</li> <li>Laying foundation for emerging AI technologies</li> <li>Understanding Industry 4.0</li> </ul>
Grade-10	<ul style="list-style-type: none"> <li>Coding &amp; App Development</li> <li>Robotics &amp; Emerging Technologies</li> <li>AI &amp; Neural Networks</li> </ul>	<ul style="list-style-type: none"> <li>1. Awareness of robotics and automation career path.</li> <li>Awareness about AI career path.</li> <li>Students are almost ready for future career choices.</li> </ul>

"Making it to the Schools,  
Taking it to the Students"

## EI TINKER LAB SETUP PROPOSAL

1. The program title is "ARIC" the Students Acceleration Program.
2. The ARIC program is for grades from std 1st to 10th.
3. Shatrunjay group will set up the integrated EI TINKER Lab which includes Robotics, Drone, 3D Printer, and 45-inch screen, and will get all the necessary equipment and materials required for the smooth conduct of the training.
4. The training will be conducted during school hours and there will be 2 periods every week for each class.
5. The investment for setting up EI Tinker Lab will be borne by the Shatrunjay Group.
6. Shatrunjay Group will appoint the required number of instructors on its board.
7. Students will be provided with the necessary workbook.
8. Periodic assessment will be conducted for students for the said program.
9. All necessary support and updates related to the program will be provided by us.
10. The monthly progress report will be submitted to the respective institution.
11. We will support the school in its necessary development within its capacity.

## INFRASTRUCTURE

For setting up the EI Tinker Lab and execution of ARIC program following are the requirement to be made available by the respective School:

1. Well painted classroom with around 50 students sitting capacity.
2. The necessary furniture like Tables, Chairs for students and for the instructor.
3. Good speed WIFI connection.
4. Computer lab for Coding sessions.
5. Storage cabinet for electronics and components stocking and safety.
6. Sufficient electric charging points, required number of tube lights and fans.



**EI TINKER LAB**  
Experiment & Innovations  
AI | ROBOTICS | IOT | CODING

*Having a Robotics and AI Lab elevates school recognition significantly and enhances school prestige and innovation.*

**Get EI TINKER LAB Today.**



PROPOSAL BY  
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