INTELLOBLOOM
IntelliSTEM : AI & Robotics Lab

INITIATIVE BY IIT KANPUR ALUMNI

STEM.ORG ACCREDITED EDUCATIONAL EXPERIENCE

IntelliSTEM AI and Robotics Program for Schools

A holistic ecosystem fostering learning, creativity, and innovation through ICT, robotics, AR-VR, AI, and ML for 21st-century skills.









Scan to Watch AI and Robotics Lab Video

www.intellistem.in

Aligned with CBSE/ICSE Skill Subjects and NEP 2020

From the Desks of Leadership: Forging a Legacy of Excellence

Khandesh College Education (KCE) Society has always been more than an educational institution; it is a movement dedicated to the intellectual and moral upliftment of society. As we stand on the brink of a new era, we are proud to introduce a transformative milestone in our journey: the IntelliSTEM AI & Robotics Lab.

Shri. N. G. Bendale, Hon'ble President, KCE Society

विद्यां ददाति विनयं विनयाद् याति पात्रताम् । पात्रत्वात् धनमाप्नोति धनात् धर्मं ततः सुखम् ॥

*The launch of the **IntelliSTEM** AI & Robotics Lab is a commitment to the holistic development of our students. While we provide them with the prowess of Artificial Intelligence and the precision of Robotics, we are equally dedicated to grounding them in strong ethical values. We do not just want to create brilliant engineers; we want to cultivate compassionate leaders who understand that "Vidya" (knowledge) is only complete when paired with "Vinaya" (humility). My message to our students is: Innovate with conscience, and let your character be the compass for your creativity.*

Mr. Gaurav Patil, Managing Director, KCE Center of Excellence (CoE)

योगः कर्मसु कौशलम् ॥ — Bhagavad Gita

*At the **KCE Center of Excellence**, we believe that true skill lies in the perfect execution of knowledge. The **IntelliSTEM** AI & Robotics Lab is designed to move our students from "learning about" technology to "building with" technology.*

We are shifting the paradigm from rote learning to hands-on mastery. By integrating STEM education with real-world robotics, we are preparing our students to be the architects of a digital India. But remember, technology is a tool, not a master. Our initiative emphasizes critical thinking—ensuring that our youth can navigate the future with both technical skill and human empathy. To the aspirants at KCE: The lab is your playground; the future is your canvas. Build something that matters.

A Call to Action

*The **IntelliSTEM** AI & Robotics Lab is now open to all students who dare to dream. We invite you to step into this space of limitless possibility, where your curiosity meets our resources. Together, let us ensure that the next generation of KCE CoE graduates is not only the most technically advanced but also the most ethically grounded and holistically prepared.*

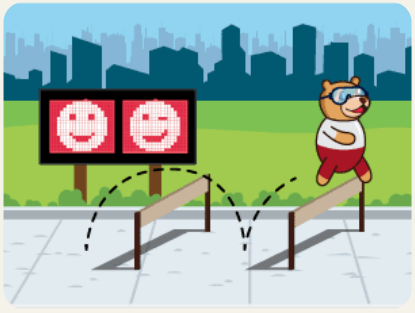
All-Inclusive ICT, AI, and Robotics Program

Our ICT, Coding, AI and Robotics program enables schools and educational institutions to engage in interactive learning. It helps kids aged 6 and above to understand the classroom curriculum of information and communication technology, complex industry-standard AI, building immersive learning experience with AR-VR and robotics concepts in a playful manner through exciting application-based DIY projects.

- **Structured Curriculum with Activity Books**
- **Coding and AI Platform: PictoBlox**
- **Hands-On AI and Robotics Kits: Quarky**
- **Teacher Development Program**
- **Learning and Assessment System**
- **International Competitions and Innovation Festival**



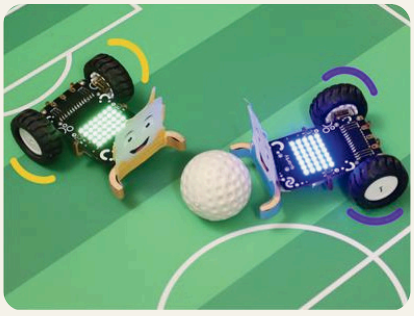
Technologies in Focus to Build 21st-Century Skill Sets



Coding - Block and Python



Artificial Intelligence



Robotics and Electronics



Self-DrivingCar Technology



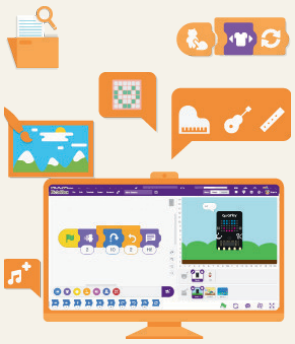
Experiential Learning through 3D and XR Studio



Robot Localization and Automation

Curriculum Aligned with Global Standards

IntelliSTEM provides a year-long curriculum for Classes1-10. These courses are divided in to four stages aligned with NEP 2020 **Section 4.5** and **Section 23**.



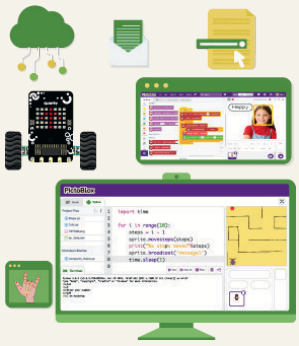
Pre-Primary Class 1-2

- Learning Computer Basics
- Creative Drawing Tools
- Algorithmic Literacy
- Intro to AI and Robotics



Primary
Class 3-5

- Computer Fundamentals
- Game Design
- AI and ML Activities
- Hands-On Robotics



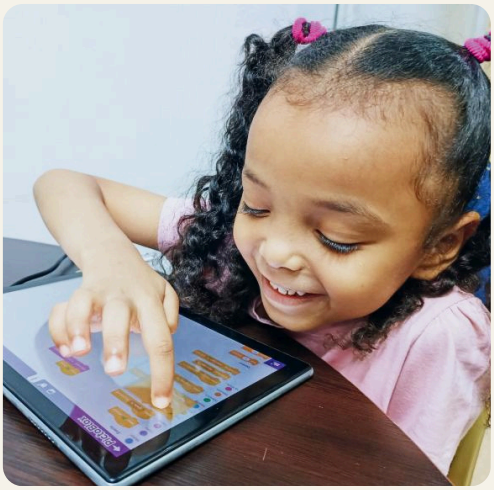
Middle
Class 6-8

- Block and Python Coding
- Artificial Intelligence
- Robotics and Tinkering
- Computational Thinking



Secondary
Class 9-10

- Advanced Coding, AI and ML
- Robotics with Python
- Computer Vision and NLP
- Data Science





Robotics Education for Students in AI Lab, South Korea



AI Lab Setup at Kalyani International School, Pune



Hands-on Learning Session at Seth C.N. Vidyalaya, Ahmedabad

Curriculum and Practical Activity Books

Our course and practical activity books for CBSE are aligned with NEP 2020 guidelines and CBSE **Subject Code 417** fulfilling various objectives like preparing students for an AI-driven economy, experiential learning, skill development, hands-on coding, AI and robotics.



Interactive Coding, AI, and Robotics Books

Class 1 to 10

Coding, AI, and Robotics to foster creativity and innovation with **hands-on activities** and exciting real-world application-based projects. A book aligned with the **CBSE skill subjects**.

HIGHLIGHTS

- Block and Python Coding
- Robotics
- Algorithmic Literacy
- Computational Thinking
- Lab work
- Project Work



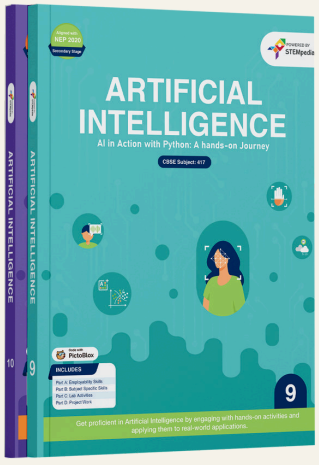
ICT, Coding, AI, and Robotics Books

Class 1 to 8

This curriculum delivers robust education in ICT, coding, AI, and robotics integrating **practical lab activities** with classroom learning for **hands-on mastery**.

HIGHLIGHTS

- Block Coding
- Python Programming
- Robotics
- Worksheet
- Lab Work
- Project Work



Artificial Intelligence Books

Class 9 and 10 **Subject Code - 417**

Artificial Intelligence textbooks and practical activities for CBSE classes **9th and 10th aligned** with **subject code 417**, covering the topics proposed in the **CBSE AI syllabus.**

HIGHLIGHTS

- Python Programming
- Machine Learning
- Data Science
- Worksheet
- Lab Work
- Project Work

Course and Practical Activity

Quarky - The Brain of AI Lab

Quarky is a super fun AI companion that helps in learning new technologies like artificial intelligence and robotics in an engaging and enjoyable way. Kids can create a variety of projects like self-driving car, pick and place robot, walking robots, IoT house and gardening system and much more using Quarky and its DIY Add-on kits.





Learn Industry-Standard Concepts
Understand widely used AI concepts such as ML ,face, object & speech recognition ,etc.



One Kit - Infinite Creations
Make hundreds of interactive real-world applications-based projects.



DIY Kits - Plug and Play
Create advanced projects like Quadruped, Humanoid, IoT House etc. using add-on kits.



Accessible Learning at Home
Code and control all your projects anytime, anywhere using a Smartphone or a tablet.

PictoBlox - AI Software Buddy

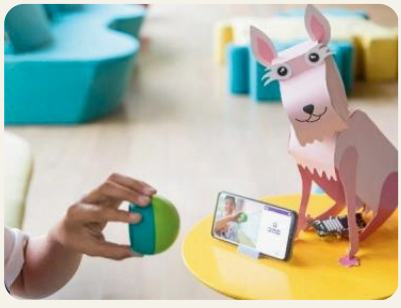
PictoBlox is a Block-based and Python coding software available across all platforms, from smartphones to laptops, that brings hardware-interfacing and AI-learning to your fingertips. It empowers students to make interactive animation sand games, program actions for robots, build AI projects with ML, design 3D models in 3D and XR Studio, create projects based on IoT, and more.



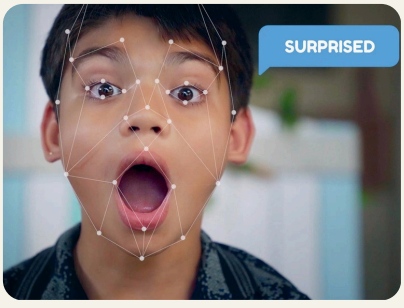
Programmable Using Block Coding and Python

Supports

Exploring Cutting-Edge Technologies with PictoBlox



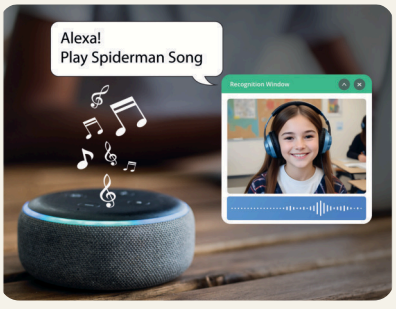
Robot Interaction



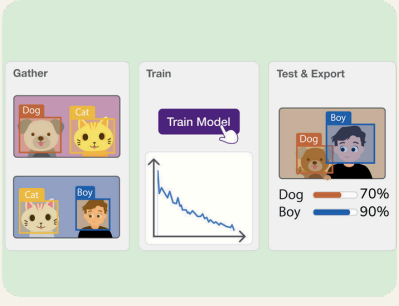
Object and Face Detection



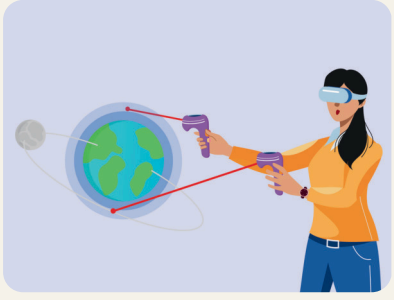
Text Recognition and NLP



Speech Recognition



Machine Learning

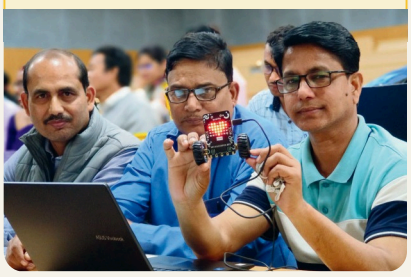


Augmented and Virtual Reality

360° Holistic Teacher Upskilling Program

IntelliSTEM's comprehensive teacher training program empowers educators with hands-on experience in AI, coding, robotics, electronics, drone technology, and 3D-printing, equipping them with the tools to integrate these essential 21st-century skills into their classroom teaching.

Onsite 2-5 Days Teacher Training



International Educator Bootcamp



Skill-Based Workshops/Webinars



Key Features of Teacher Training

- Expert-Led Sessions
- Hands-on Learning and Skill Development



Value for Educators

- Enhanced Teaching Skills
- Career Advancement Opportunities



Teacher Training Outcomes

- Enhanced Classroom Engagement
- Effective Curriculum Mastery



Get a Transformative Learning Experience

Access to AI, coding and robotics teaching resources

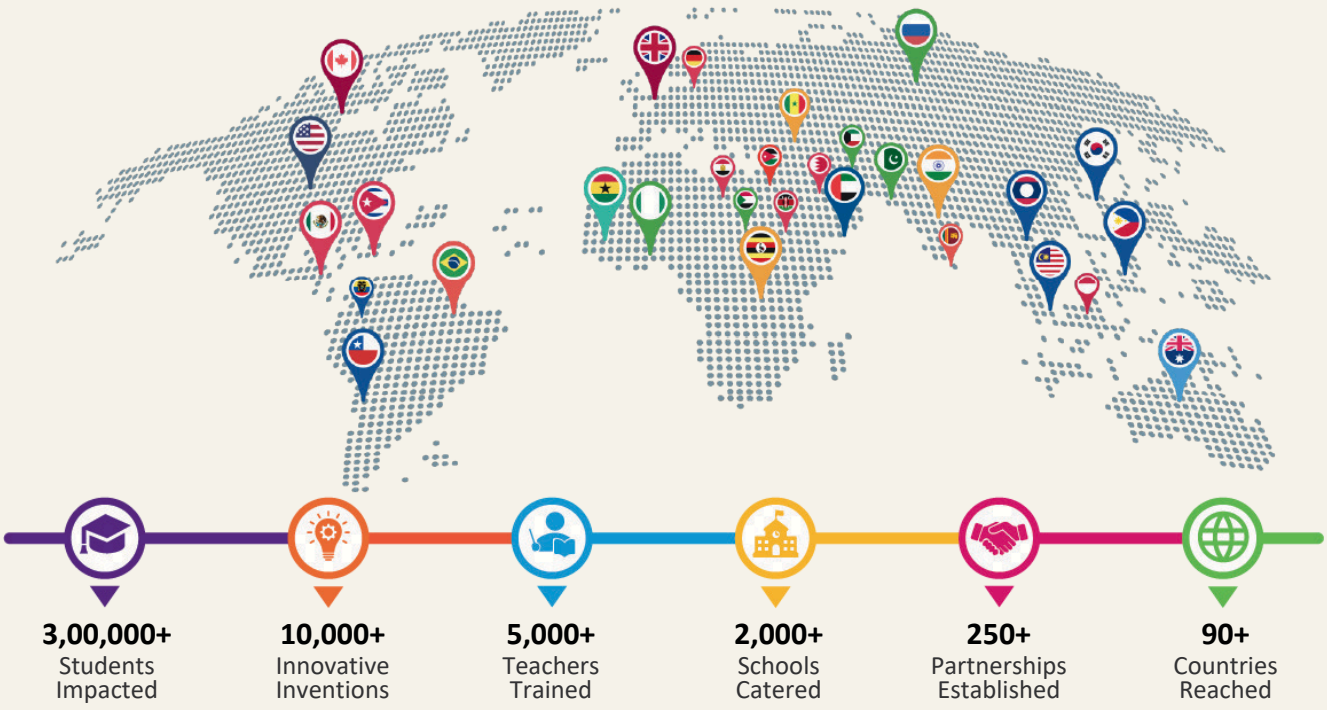
Interact with global community of passionate and visionary educators

Training on coding, AI, ML, XR, robotics and electronics

Badges & Certificates accredited by ARTPARK, and STEMpedia

Codeavour International - The Biggest Innovation Fest for the Next-Gen

Codeavour is an international AI and coding competition that aims to inspire children to unleash their programming potential and create innovative projects. Organized by STEMpedia in collaboration with IntelliSTEM , national and international government bodies and private organizations, Codeavour provides a platform for young minds to show case their skills and passion for technology.



3,00,000+
Students Impacted

10,000+
Innovative Inventions

5,000+
Teachers Trained

2,000+
Schools Catered

250+
Partnerships Established

90+
Countries Reached









Voices that Inspire the Tech Program



In our effort to nurture responsible citizens, AI and algorithmic literacy are crucial. Children must grasp the functions and impacts of these technologies across various domains. Integrating them into classrooms is essential for informed understanding and engagement.

Prof. Dr. Teemu Leinonen, University of Arts Helsinki, Finland



To enhance the logical and analytical reasoning, NEP has introduced coding in the curriculum. We have introduced PictoBlox to our students, which is a block-based and python programming software to learn coding along with AI and robotics.

Divya Khandelwal, Head ICT Department, The Kalyani School, Pune



As a teacher, I have always faced some challenges, especially having to do with block-based coding for grades one and two, but now that PictoBlox Junior has been introduced, it will now be easier. Thanks to the STEMpedia team for this great initiative.

Kelvin Mugo Kinyua, Coding and Robotics Teacher, Lions School, Kenya




उपलब्धि

भारत माता आंग्ल माध्यम शाला में होगी इसकी शुरुआत

आज शुरू होने जा रही राज्य की पहली AI लैब

बिना प्रैक्टिकल विज्ञान है अधूरा

देश के जाने माने रोबोटिक्स एक्सपर्ट करेंगे शुरुआत








SCOOP NEWS Changing Teachers' Lives Everyday, Every way!

EDUCATION

STEMpedia Successfully Completed Codeavour 5.0- India's National Innovation Fest



The Complete Ecosystem for Your School



AI and Robotics Lab Setup

- AI and Robotics Kits: Quarky Kits and its DIY Add-On kits, STEM kits, consumables, and lab decorative. Demo projects
- for showcase.
- Lab layout planning and setup.
- Inauguration of lab to create awareness amongst students and parents.



Teacher Training and Resources

- 2/5 days of on-site capacity building of school teachers on equipment, content, and operation processes, along with year-long hand-holding.
- Teachers will be provided with class-wise teaching material, lesson plans, activity sheets, and assessment guides.
- Participant's Perks: Certificate affiliated with ARTPARK, and STEMpedia for all the participating teachers.



Year-long Support and Service Plan

- 12-month warranty on equipment and extended warranty under annual maintenance.
- Regular teacher upskilling and doubt solving sessions.
- Comprehensive PictoBlox software licensing is available to all students for enhanced learning.
- Online and offline support is available for all types of queries.



Events and Competitions

- Annual Innovation Festival: A uniquely designed in-school event to showcase all projects and inventions developed by students. Participation in International AI, Robotics and
- Coding competitions like Codeavour International.

STEMpedia

Transforming Young Minds into Innovators

IntelliSTEM, *a global experiential learning platform, enables K-12 institutions to foster learning, creativity, and innovation in coding, AI, ML, AR-VR, and robotics. We empower kids 4+ to grasp complex AI and robotics concepts through engaging, real-world DIY projects, building essential 21st-century skills.*

Our Advisory Board



Dr. J.P. Gupta

Chairman Environment Committe, PHDCCI
Director at INDRAX
IIT Delhi Alumni
Univ. of Toronto (PHD)



Shri. N.G.Bendale

Hon'ble President
Khandesh College Education Society, Jalgaon.
M.Sc Agri (Gold Medalist)



Shri. Ajit Patankar

Ex - Head Technology Transfer (TT & CD)
BARC, Mumbai
Management Council Member
PAHSU, Solapur

Our Core Team



Mr. Gaurav Patil

Chief Executive Officer
Director at KCE CoE
Co - Founder & MD at IntelloBloom
NIT Nagpur
KTH Sweden & TU Berlin Alumni



Mr. Vaibhav KB

Chief Technology Officer
CTO at IntelloBloom
BITS Pilani Alumni

Our Inspiration

KCES Jalgaon

Our Growing Schools Network

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