



# SSFH

Shaping Smart & Foresighted Humans

## Technical Stream

GATEWAY TO DIGITAL FUTURE

### Introduction

Welcome to the Technical Stream at SSFH, a unique educational journey designed to equip the next generation with vital tech skills. In this stream, we focus on fostering innovation, creativity, and problem-solving abilities through a comprehensive curriculum preparing students for the challenges of the modern digital world.



## Message from the Stream Leader

“In a rapidly evolving digital landscape, it's more crucial than ever to equip our youth with the skills and knowledge that will enable them to thrive and lead the advancements of tomorrow.



At SSFH, we recognise technology's profound impact on our lives and its immense potential for our future. That's why we've meticulously designed a curriculum that encompasses the most forward-thinking and impactful areas of technology: Programming, Robotics, Artificial Intelligence and Machine Learning, Graphics Manipulation, Web Development, and an exploration of revolutionary tools like ChatGPT.

We believe in a hands-on approach, each session is crafted to spark curiosity and foster a love for technology. Let's unlock the door to endless possibilities together!”

**Kehkashan Saher**  
Technical Stream Leader, SSFH



## SSFH Offerings

	Basic	Intermediate	Advance
<b>Course objective</b>	<ul style="list-style-type: none"> <li>• <b>Scratch Exploration:</b> Interface, Stages, Projects</li> <li>• <b>Coding Fundamentals:</b> Block Connections, Animations</li> <li>• <b>Circuit Basics:</b> Components, Tinkercad Exploration</li> <li>• <b>Intro to Robotics:</b> Arduino UNO, Projects</li> <li>• <b>AI Essentials:</b> Understanding, Machine Learning Concepts</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Scratch Advanced:</b> Game Design, Advanced Animation</li> <li>• <b>Circuits Extended:</b> Complex Simulations, Breadboard Building</li> <li>• <b>Robotics Extended:</b> Sensor Integration, Arduino Programming</li> <li>• <b>AI Extended:</b> Advanced Projects, Machine Learning</li> <li>• <b>Python Start:</b> Basics, Control Structures, Games, Advanced Techniques, Project Work</li> <li>• <b>Web Dev:</b> HTML/CSS</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Arduino Expertise:</b> Complex coding, sensor integration, IoT robotics.</li> <li>• <b>AI Insights:</b> Neural networks, ethical AI, practical applications.</li> <li>• <b>Python Mastery:</b> Advanced libraries, data structures, project coding.</li> <li>• <b>Web Dev Skills:</b> Responsive design, advanced HTML/CSS, WordPress.</li> <li>• <b>ChatGPT Utilization:</b> Innovative AI use, creative solutions.</li> </ul>
<b>Learning outcomes</b>	<p>After completing the course students will be able to :</p> <ul style="list-style-type: none"> <li>• Create Scratch projects</li> <li>• Understand basic circuits</li> <li>• Explore basic robotics</li> <li>• Introductory AI knowledge</li> <li>• Foundational computing skills</li> </ul>	<p>After completing the course students will be able to:</p> <ul style="list-style-type: none"> <li>• Utilize advanced Scratch techniques.</li> <li>• Build and understand complex circuits.</li> <li>• Create projects with Arduino and sensors.</li> <li>• Program using Python and apply its concepts.</li> <li>• Explore AI and ML applications.</li> <li>• create responsive website with HTML/CSS</li> </ul>	<p>After completing the course students will be able to :</p> <ul style="list-style-type: none"> <li>• Master complex Arduino programming and IoT robotics.</li> <li>• Understand advanced AI and ML concepts.</li> <li>• Deepen Python skills</li> <li>• Implement responsive web development.</li> <li>• Effectively utilize ChatGPT for innovative applications and solutions.</li> </ul>
<b>Topics covered</b>	Programming Artificial Intelligence Basics of Circuit Robotics	Programming Artificial Intelligence Basics of Circuit Robotics Graphics Designing Web Development	Programming Artificial Intelligence Robotics Web Development Chat GPT Mastery
<b>Age group</b>	6 to 10	11 to 14	15 to 18
<b>Duration</b>	16 Hours (covered over ___ weeks)	24 Hours	32 Hours

If you are interested to register  
for a course or want to know more

Please send us a message and one of  
our representatives will reach out to you

## CONTACT US



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