



# The CSIT\_TEX

by Faculty of Computer Science  
and Technology

[www.fsktm.edu.my](http://www.fsktm.edu.my)

PROGRAMME MONTH: AUGUST

CSiT @ The CSiT\_TEX Summer Program is a yearly computer science programme run by the Faculty of Computer Science and Information Technology (CSiT), UPM. The programmes are aimed at those with an interest in Python programming and Augmented Reality (AR) and will put emphasis on hands-on learning activities and interactive workshops.

Each of the two immersive, hands-on summer programmes offered has been designed by the faculty with the goal of engaging, educating, and inspiring students who are curious about computer science and its impact. Learning about computer science and how to use computational thinking can help provide new opportunities for the students.

## 1. TAMPERING WITH PYTHON PROGRAMMING

### About the Programme

This 4-day computer program is ideal for students who are curious about exploring the basics of Python programming and are looking for the next step. Through engaging lectures and hands-on activities, students will be introduced to the fundamental principles of Python programming. Students learn how to analyse, design and implement an application.

## 2. RECREATIONAL ACTIVITIES

### About the Programme

This 2-days recreational activities are done for the enjoyment, amusement, and pleasure for the CSiT @ The CSiT\_TEX Summer Programme participants.

## 3. TAMPERING WITH AUGMENTED REALITY

### About the Programme

In this 4-day programme, you will learn the foundation of computer vision and Augmented Reality (AR), and walk out with practical experience that you can immediately implement and use on your next augmented reality project or career. You'll learn how augmented reality systems, in tangent with their areas of application, form a new foundation for design opportunities.

Step into your own AR now at an exciting time of inception to **change the world** in transforming the way we all experience it in the future!

python	
<b>Module 1</b> Full days of interactive learning Learn how to build your own applications Get insights from the current CS students	• Overview
	• Environment Setup
	• Basic Syntax
	• Variable Types
	• Basic Operators
	• Decision Making
	• Loop
	• String
	• List
	• Tuples
	• Dictionary
	• Functions
	• Files I/O
	• Regular Expressions
• Tools/Utilities	

AR	
<b>Module 2</b> Full days of interactive learning. Create a basic VR experience. Use various equipment and be able to run excellent VR Demo's	• Basic AR
	• Examples of AR technologies
	• Software Needed <ul style="list-style-type: none"> <li>◦ Installation – Unity, Vuforia, Blender</li> <li>◦ Creating account &amp; how to use tutorial</li> </ul>
	• AR Demonstration <ul style="list-style-type: none"> <li>◦ Create a simple AR tutorial</li> <li>◦ Convert to APK</li> </ul>
	• Design and create an AR apps <ul style="list-style-type: none"> <li>◦ Type of AR app design to create</li> <li>◦ 3D models</li> <li>◦ Marker</li> </ul>
	• Using Blender (Blender Tutorial) <ul style="list-style-type: none"> <li>◦ Blender tutorial</li> <li>◦ Create own models</li> </ul>
	• Interface for the application <ul style="list-style-type: none"> <li>◦ Buttons to change scene</li> <li>◦ Buttons to exit the application</li> </ul>
	• Import to Unity
	• Adding background sound
	• How to set Video as AR
	• How to set Text as AR
• Completing full apps <ul style="list-style-type: none"> <li>◦ Converting to APK</li> </ul>	

### Programme Inclusive of



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