MCAST IICT 2024/2025

## **Research Aim:**

The research aim is to develop and evaluate a dynamic game environment generation system that responds to the players decisions. Creating new objectives and interactions in real-time while influencing others, to enhance the players immersion and experience.

## **Research Hypothesis:**

A video game that dynamically generates new objectives and new interactions and influences the game environment based on the players actions and decisions in real-time will lead to higher player immersion and satisfaction compared to static or pre-designed game objectives and environment.

## **Research Questions:**

- 1. What algorithms or techniques are most effective in creating a game environment and generating game quests that respond to player decisions in real-time?
- 2. How can player decisions dynamically create objectives and interactions, while influencing the game environment in real time?
- 3. How can a game environment be dynamically generated and altered by player decisions to influence objectives and interactions in real-time?

## **Inspirational Sources:**

- https://ieeexplore.ieee.org/abstract/document/9917383
- https://ieeexplore.ieee.org/abstract/document/4219020
- https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=5101269
- https://link.springer.com/chapter/10.1007/978-3-031-81713-7\_18