# ABSTRACT

Rapid developments in the past few years have made the difficulty of differentiating between the media (images or text) generated by generative adversarial networks (GANs) , Transformers or large language models (LLMs) that closely resemble the real thing has increased, particularly with the remarkable development of GANs or LLMs and the rapid advancement of artificial intelligence. And this started performing this duty better than expected. In the upcoming years, a major development is anticipated. This raises many questions: What if these models are used in a negative and harmful way? What would happen if people used it to create fake images for social media scams? Or how will this affect the level of the educational process for many people by making these models perform academic tasks, making it difficult for the teacher to evaluate students correctly? More and more of these questions and problems can arise as that continue to develop.

So, in this project, we are working hard to help figuring out whether this content (images or text) is generated or processed by powerful AI models (LLMS or GANs) or by human.

# **Project initiation**

## Problem DEFINITION:

Companies like OpenAI, Meta, Microsoft, and Google are racing ahead in AI, particularly in things like transformers, GANs, and LLMs. They're all competing fiercely because they want to lead this tech revolution. Each one knows that AI will shape the future, so they're striving to create the best models that can generate amazing content. For instance, OpenAI has ChatGPT, Meta developed Llama, Microsoft has Bing, and Google created Gemini. It's a race to be at the forefront of this game-changing technology.

New types of AI, like Generative Adversarial Networks (GANs) and Transformers, have made huge improvements in creating realistic images. But because it's getting harder to tell fake AI-generated made images from real ones, there's a rise in problems like fake profiles, scams, and spreading lies. Just like with fake news, we need smart tools to spot these fake images. It's super important to have ways to check if a picture was made by a computer or a person. This helps us keep trust in what we see online.

Large language Models (LLMs) can write things that are exactly like what people write. But it is difficult to know whether words come from a person or a machine. This can be a problem for teachers who are checking whether students have done their own work or used these forms to finish assignments.

These large language models create text that looks almost exactly like what people write. This is great for a lot of things! But it also brings new problems. Therefore, we will make tools to find out whether text was generated by artificial intelligence (LLMs) or by a person.

Open-source technology that generates text and images has become so advanced that it's hard to tell what's made by machines or people. Bad actors use this to create convincing fake content, which makes it super important to have strong systems that can spot the difference between what's made by a machine and what's made by a human.

## Problem Solution :

We will build a website containing our detector models. It contains detector models, which are : A model for detecting images generated using ai, and a special model for detecting images whose features have been manipulated using ai and a text detector model that was generated by ai. We made it a website to make it easier for everyone to use.