Embedded

An **embedded system** is a programmed controlling and operating system with a dedicated function within a larger mechanical or electrical system, often with real-time computing constraints.

Embedded programming is making programs for operating these systems.

**Embedded** software is computer software, written to control machines or devices in embedded systems.

Eg. Systems – Cars, Bikes, etc

Embedded programming languages – C, C++, Rust, Python in automotive embedded systems, like modern cars,

Eg. Calculation of distance travelled, Speed, GPS, Automatic gear change, etc.

AR and VR

**Augmented reality** (**AR**) is an interactive experience of a real-world environment where the objects that reside in the real-world are "augmented" by computer-generated perceptual information, sometimes across multiple sensory modalities, including visual,auditory, haptic, somatosensory, and olfactory

**Virtual reality** (**VR**) is an interactive computer-generated experience taking place within a simulated environment. It incorporates mainly auditory and visual feedback, but may also allow other types of sensory feedback like haptic

Difference is that AR alters pre existing reality using a camera and displays in a screen whereas VR shows a completely virtual reality using a headset.

Eg. AR - Google Sky Map, AcrossAir - AR browser, PokemonGo, Layar - AR interactive browser, Lookator - AR hotspot detector, SpotCrime - AR crime site

VR - Microsoft HoloLens, Vive by valve, Oculus Rift, Oculus VR