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**COURSE:** CSC 406 – HUMAN COMPUTER INTERACTION

**ASSIGNMENT:** ONLINE ASSIGNMENT 5

**QUESTION**

Define Visual Perception and write on the three factors associated with visual perception.

**ANSWER**

Visual perception is the ability to perceive our surroundings through the light that enters our eyes. The visual perception of colors, patterns, and structures has been of interest in relation to graphical user interfaces (GUIs) because these are perceived exclusively through vision. An understanding of visual perception therefore enables designers of computer interactions to create more effective user interfaces.

Brightness: Humans tend to see clearer as the brightness of an image or object increases and the eye reacts to different levels of light differently. Photoreceptors in the eye can sense the intensity of light and adapt accordingly.

Colour: Colour is made up of hue, intensity and saturation. Cone cells in our eyes are sensitive to colour wavelengths which allow us to see objects because, the objects reflect light in the visible spectrum. There are three kinds of cone cells in the eye and they help us see different colours. The blue-sensitive cones are the least numerous. Therefore, it is harder to get a sharp visual impression of something blue than something of other colours. Also, women generally tend to see more colours than men and there is a difference between seeing a colour in isolation and seeing them with other colours around because the eye has to focus.

Size and Depth: The perception of absolute distance has been assumed to be important in the perception of the size of objects and the depth between them. If the distance between the eye and an object is large enough the object will appear smaller. The apparent size or position of any object in one’s field of view is determined by whatever size or distance cues occur between it and adjacent objects. The visual angle subtended by an object on the eye matters because with all other things being equal, the object that subtends the larger visual angle usually appears larger.

In some cases, this is not always the case. For example, if you are looking at your friend and that friend starts walking away from you, the friend does not, at the same time, start to appear smaller even though the visual angle subtended by that friend is getting less and less.