**Night Vision Technology**

**Introduction**

 **Night vision technology, by definition, literally allows one to see in the dark. Originally developed for military use, it has provided the United States with a strategic military advantage, the value of which can be measured in lives. Federal and state agencies now routinely utilize the technology for site security, surveillance as well as search and rescue. Night vision equipment has evolved from bulky optical instruments in lightweight goggles through the advancement of image intensification technology. The first thing you probably think of when you see the words night vision is a spy or action movie you've seen, in which someone straps on a pair of night-vision goggles to find someone else in a dark building on a moonless night. And you may have wondered "Do those things really work? Can you actually see in the dark?"**

**The answer is most definitely yes. With the proper night-vision equipment, you can see a person standing over 200 yards (183 m) away on a moonless, cloudy night! Night vision**

**can work in two very different ways, depending on the technology used.**

**Technology used**

 **Image enhancement**

 **--This works by collecting the tiny amounts of light, including the lower portion of the infrared light spectrum, that are present but may be imperceptible to our eyes, and amplifying it to the point that we can easily observe the image.**

 **Thermal imaging**

 **--This technology operates by capturing the upper portion of the infrared light spectrum, which is emitted as heat by objects instead of simply reflected as light. Hotter objects, such as warm bodies, emit more of this light than cooler objects like trees or buildings**.

 **Applications**

**Common applications for night vision include:**

**Military**

**Law enforcement**

**Hunting**

**Wildlife observation**

**Surveillance**

**Security**

**Navigation**

**Hidden-object detection**

 ***NIGHT VISION TECHNOLOGY***

 ***SYNOPSIS***

 BY

 SUSHIL R S

 TCE

 1PI08TE104