

## Huygen's Principle

Huygen's principle gives an idea about the position of a wave front at a future instant if its position is known at some particular instant. This is based on the following postulate:

"Every point on a wave front acts as a 'secondary' source of disturbance and they will emit secondary waves from it spreading in all directions. The secondary wavelets are spherical and have the same frequency and velocity as the original wave."

Coherence: Coherence is an important property of light. It refers to the correlation between the phase of light waves at one point and

time with the phase of the light waves at another point and time. So two beams of light are said to be coherent if the light beams have no phase difference or a constant phase difference between them.

Coherence effects are mainly divided into two categories :  
temporal and spatial

Coherence Length : The length of the wave train over which it may be assumed to have a fairly sinusoidal character and predictable phase is known as coherence length.

Coherence Time : The time interval during which the phase of the wave train can be predicted reliably is called coherence time.

