In-plane displacement measurement by using double beam method

Agoes Soetijono, author

Abstrak

ABSTRACT
In-plane displacement of an object has been observed by using double beam method. The result of experiment shows that in-plane displacement in orde micro can be detected. The shearing strain, which can be detected, is namely 13.4 μm.

In-plane displacement relates practical with the space change and the number of fringe that is detected by CCD. Based on the experiment and theory about speckle size. It can shown that speckle size can also cause the space change and the number of fringe.

The change of space and number of in line with phase change. So this in-plane displacement can be used to detect phase beam change, which is modulated. And it is detected that the phase change is inverse by proportional with rotation value (a) and the amplitude is consideration with speckle size (Bo).