## ABSTRACT

Interferometric Synthetic Aperture Radar (InSAR) is remote sensing method using image of radar satellite. The radar satellite transmits wave constantly, and then this wave is recorded by sensor after its reflected by target on surface of earth.

Phase image in InSAR satelit lay in between  $(-\pi, \pi]$ , with noise on the image which causes jumping of phase, causing lower quality of image or inappropriate with the original image. So, this required a method to reconstruct image appropriate to obtained absolute phase value by using phase local approximation method to increase the quality of image.

The phase image result by using Phase Local Approximation is good for noise variance 0.001 between 0.05. On this noise variance, the decreases of PSNR value is not too significant.

Keywords : Image reconstruction, Phase Local Approximation, phase image, Interferometric Synthetic Aperture Radar (InSAR), additive gaussian noise, PSNR, MSE.