

Teknik pengukuran profil objek tiga dimensi

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=80049&lokasi=lokal>

Abstrak

The technique of measuring the profile of the surface of a three dimensional object shape is by using structured-light technique, where the object to be measured is placed on flat surface. The source of the light controlled by a fixed pattern at a certain distance and angle is directed to the object. By placing a grating pattern between the object to be measured and the source of the light, so the grating pattern will be projected on the object and then will form an interferometric fringes.

An image resulted from the projecting process is recorded through a camera which produces analog signal, and then is changed into digital image using analog to digital converter. The data of the digital image resulted is analysed by using computer.

The spherical equation of the object to be measured without placing the object on flat surface can be determined by using the least-square method then by using data samples of light lines projected on the object, the light of the object can be measured by subtracting the spherical component of the object measured. By doing so the whole shape of a three-dimensional object can be determined using interpolation.