

## InGaAs based Metal–semiconductor–metal Optoelectronic Mixers

장수환\*

단국대학교

(jangmountain@dankuk.ac.kr\*)

Metal–Semiconductor–Metal Photo–Detectors (MSM–PDs) have traditionally been employed as receiver elements in Opto–Electronic Integrated Circuits (OEIC) for long wavelength telecommunication applications. This work is focused on their non–traditional use as detector elements in Laser Detection and Ranging (LADAR) systems. Important aspect in this application is the range information attached to each pixel of data, which cannot be determined from ordinary imaging. Hence it can be used in collision detection systems in automobiles as well as mobility and surveillance sensors for Robots. Holographic Imaging, terrain mapping, surveying archeological sites can be their other non–military uses.