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# EARLY DETECTION OF BREAST CANCER WITH AN OPTICAL FOURIER DOMAIN SYSTEM USING MICROWAVE SIGNALS AS SOURCE

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Detection of developing breast tumour in women for early treatment in recent times has yielded some results. Yet only developed tumours are detected at the stage where the only treatment method is either to remove or inhibit the growth of tumour which has its effects, possibly leading to loss of human life. Ongoing research, proposes to simulate the growth stages of tumour in human breast for early detection of tumour with an implemented Optical Fourier Domain Imaging (OFDI) system using microwave signals as source by developing breast phantoms mimicking breast composition and determining the thickness of various object sizes embedded in phantom like breast. For now, determination of the depth profile of samples and thickness measurement of sample with OFDI system is demonstrated.

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