

## Ultrasonic tomography : the application of 32 transceivers technique in two phase flow imaging

### Introduction

Electrical Capacitance Tomography (ECT) is a technique for obtaining information about the distribution of the contents of closed pipes or vessels by measuring variations in the dielectric properties of the material inside the vessel. ECT is a tomographic measurement technique which was developed during the late 1980s [5]. Successful applications of ECT include imaging fluidized beds and pneumatic conveying systems [3]. For example, research conducted by Philip William and Trevor York [6] focuses on testing the ECT system with various sizes of insulating rods in air (solids/gas two phase visualization), while Oyvind Isaksen [7] implements ECT system on visualizing gas bubbles in oil (liquid/gas two phase visualization).