Jignesh N. Sarvaiya, Development of an impedance glottograph, M. Tech. Thesis, Department of Biomedical Engineering, Indian Institute of Technology Bombay, 2006.

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Abstract **-** Impedance glottography monitors the time variation of the degree of contact between the vibrating vocal folds during voice production. It is useful for estimation of voice pitch, diagnosis of voice disorders, and as a speech training aid for the hearing impaired. The objective of this project is to develop an impedance glottograph instrument and a microcontroller based laryngeal impedance simulator for testing sensitivity and frequency response of the impedance glottograph hardware. An instrument has been developed to pass a high frequency (~ 400 kHz), low intensity (~ 1.25 mA rms) current through a pair of electrodes held in contact with the skin across the thyroid cartilage. The impedance variations caused by varying contact area between the vocal folds results in amplitude modulated voltage waveform. This waveform is demodulated to get impedance glottogram.