VISVESWARAIAH TECHNOLOGICAL UNIVERSITY

BELGAUM – 590014

K. L. E. SOCIETY'S

B. V. Bhoomaraddi College of Engineering & Technology,

Hubli – 580031

(An Autonomous Institution)

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

A Project Report on

SEGMENTATION AND DISTANCE MEASUREMENT. BETWEEN FACIAL NERVE AND CHORDA TYMPANI

Under the guidance of

Ms. P. G. Sunitha Hiremath

(Associate Professor, Department of ISE, BVBCET, Hubli)

Submitted by

Mr. Akhilesh Kumar	2BV10IS007
Ms. Arpitha B V.	2BV10IS022
Mr. Nitesh Kothari	2BV10IS058
Mr. Prafut Managoli	2BV10IS065

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ABSTRACT

During implantation surgery, identification of facial nerve and chorda tympani is crucial as it is required to preserve the nerve and its function. For safe drilling trajectories, facial nerve and chorda tympani are to be segmented. Distance between facial nerve and chorda tympani is required which assists doctors in knowing the path of trajectory for cochlear implantation. Audiences likely to be interested in our results are the ENT specialists. During ear operation, an electrode is to be inserted in the ear hole. Any damage to the facial nerve and chorda tympani would result in damage to facial expression of the patients permanently. Hence it is required to show the structure of facial nerve and chorda tympani and show the path of trajectory which assists the ENT specialists in carrying out the operation safely.

Keywords :*CT scan images, Cochlear implantation, image registration, ICP.*