**ANTENNAS AND WAVE PROPAGATION**

**LAB ASSIGNMENT 8**

**EXPERIMENT 8**

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**BATCH: 2018-2022**

**DIVISION: G2; EA 3**

**AIM:** Design a rectangular patch antenna and obtain parametric dimensional analysis.

**THEORY:** Optimetrics is a powerful new feature in Ansoft HFSS that provides parametric and optimization capabilities for 3-D RF and microwave design problems. The approach used is very general and allows any design quantity to be parameterized and optimized. It even allows outside programs such as MatLab to be used to drive the optimization. The examples shown indicate the ease with which parametric solutions may be set up and the power of the new optimization capability. Significant applications of Optimetrics include fine-tuning preliminary designs, searching the design space for acceptable designs and the possibility of creating excellent designs from scratch. All of these applications provide good productivity improvements for designers and allow precision designs to be created with minimal cost and time.

**SCREENSHOTS OF THE DESIGN:**

**Graphical user interface, application, table, Excel

Description automatically generated**

**Graphical user interface, chart, box and whisker chart

Description automatically generated**

**Graphical user interface, diagram, application, Excel

Description automatically generated**

**SCREENSHOTS OF THE OUTPUT:**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface

Description automatically generated**

Graphical user interface

Description automatically generated

**CONCLUSION: From this experiment we have understood how to do a Parametric Analysis.**