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# Reciprocal Motor-Generator Project

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CMPE 330  
Electromagnetic Waves and Transmissions  
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# **1 Introduction**

This document serves as the writing and documenting portion of the three-part Reciprocal Motor-Generator Project. The parts consisted of:

- Construction of the motor-generator set
- Description of the motor-generator set
- Evaluation of others' motor-generator sets

## **1.1 Definitions**

By definition, an electric generator is an electrical machine that converts electrical current into mechanical energy. An electric generator is the inverse of an electric generator, as it converts mechanical energy into electrical current.

# **2 History**

## **2.1 Electric Motor**

## **2.2 Electric Generator**

## **2.3 Contribution to Society**

# **3 Physics**

## **3.1 Maxwell's Equations**

## **3.2 Faraday's Law of Induction**

## **3.3 Relating to Coils**

# **4 Construction**

## **4.1 Brainstorming Phase**

## **4.2 Multiple Trials**

## **4.3 Final Model**

## References

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