

# ***ELECTRICAL POWER CONCEPTS***

*Energy conversion between  
magnetic, electrical, and mechanical elements*

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*The book is designed with three goals:*

Surpass the ingredients of the traditional undergraduate power machines text.

Provide the fundamentals for both professional exams – FE and Principles.

Be a ready reference to the application engineer for power systems.

The approach is to understand concepts of energy conversion.

The apparatus is the magnetic effect of an inductor created by a coil of wire.

The application is the common relationships between all machines.

The text is about concepts. It is not the development of a theoretical treatise. It contains the necessary information to successfully apply machines to systems from small scale dc to large scale industrial and utility transmission. The principles exceed the needs for both the Fundamentals-of-Engineering and the Principles-and-Practices exam.

**The material is a work in progress, so items will be added, updated, and modified as the semester progresses. Positive suggestions will result in grade bonus in the form of added points to the quiz section.**

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magnetic, electric, and mechanical.*

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requires additional work.

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