Department of Electrical Engineering techniques

Ministry of Higher Education and

Scientific Research – Iraq

AL-Mustaqbal University

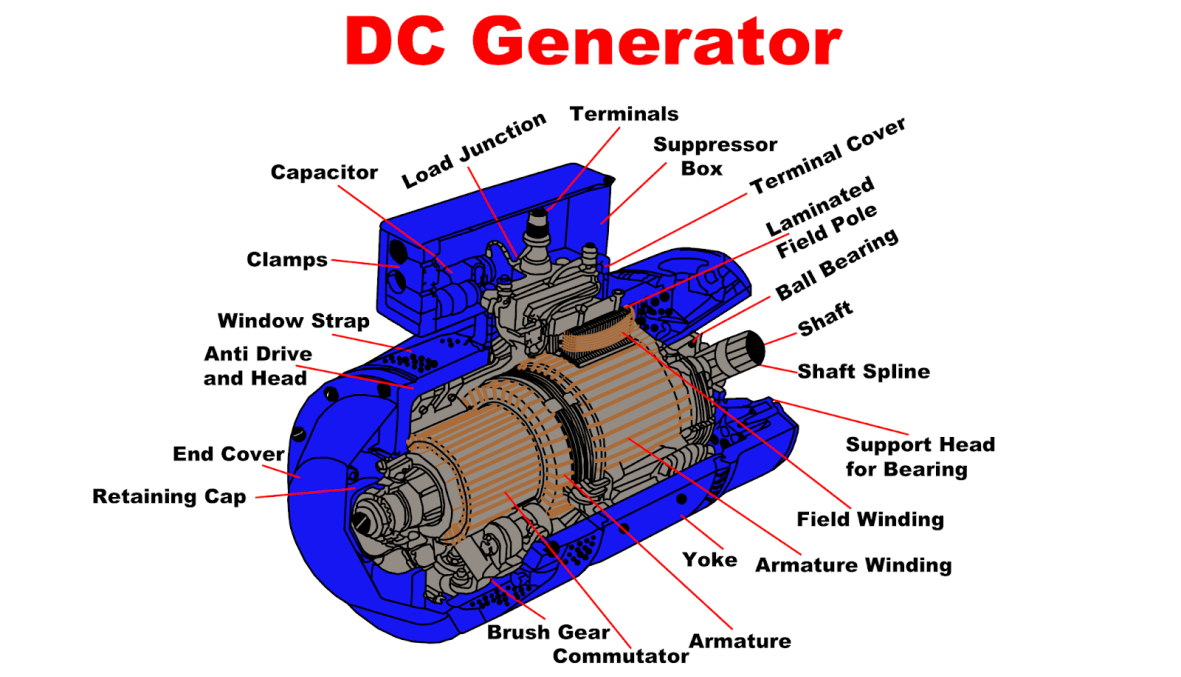
**DC Generators**

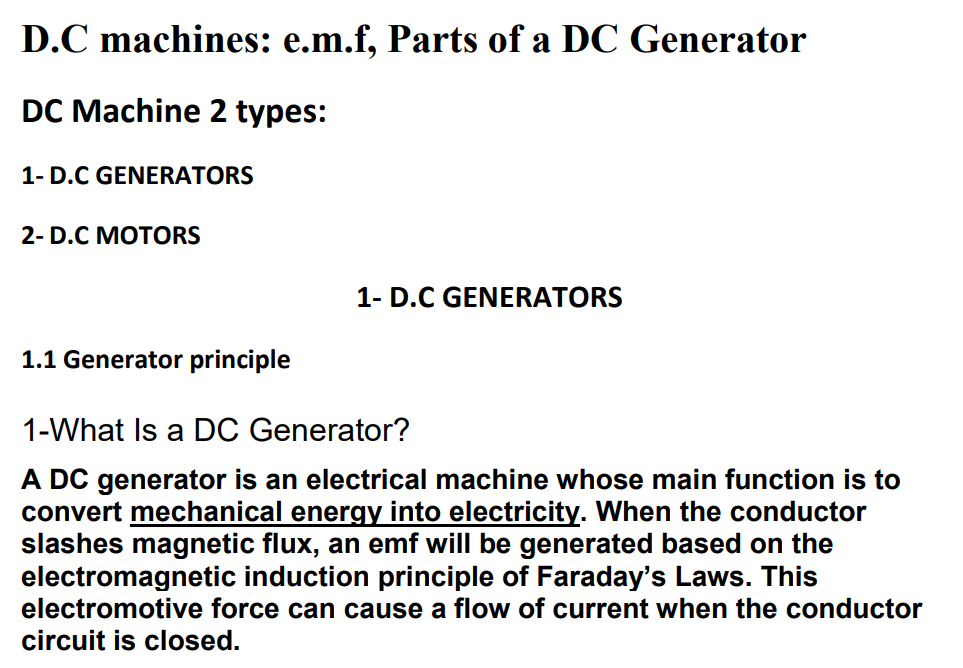
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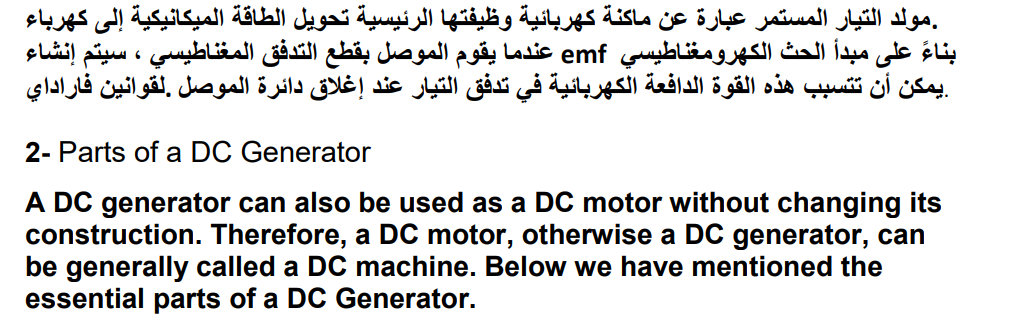
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| **Week 1,2** | **Basic construction of electrical machines**  **Construction of D.C. generator** |

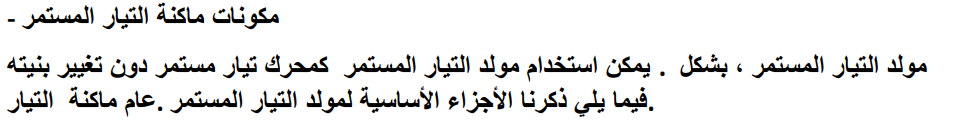
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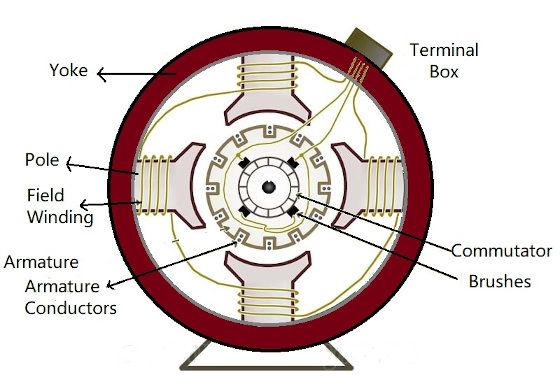
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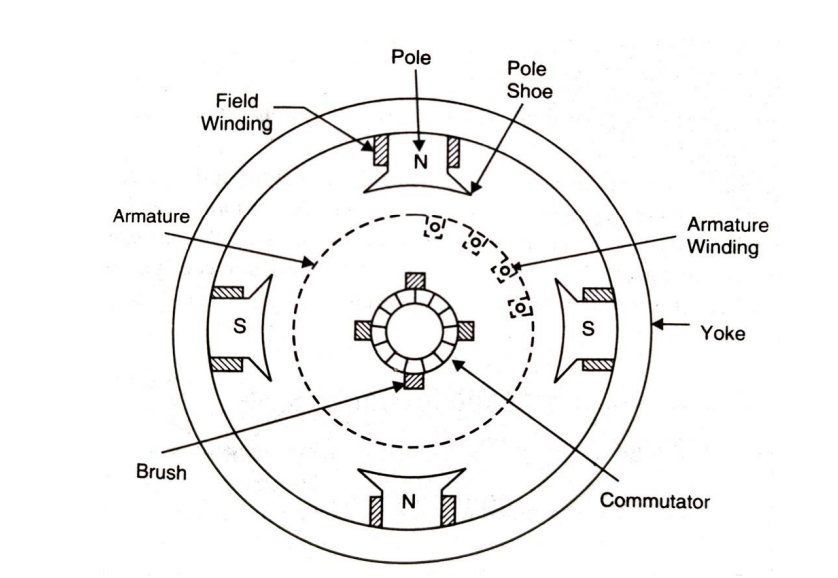


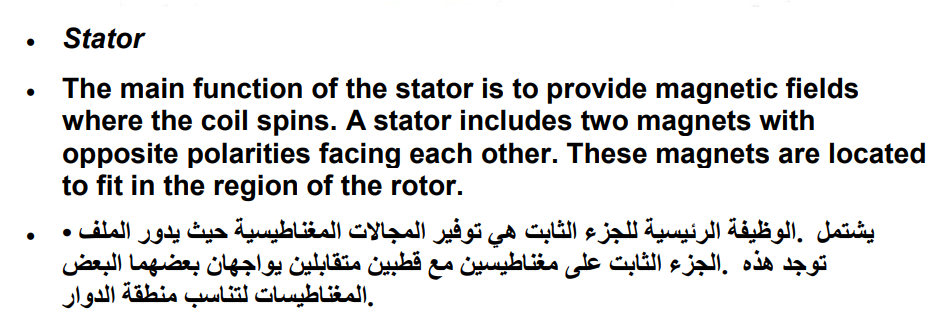
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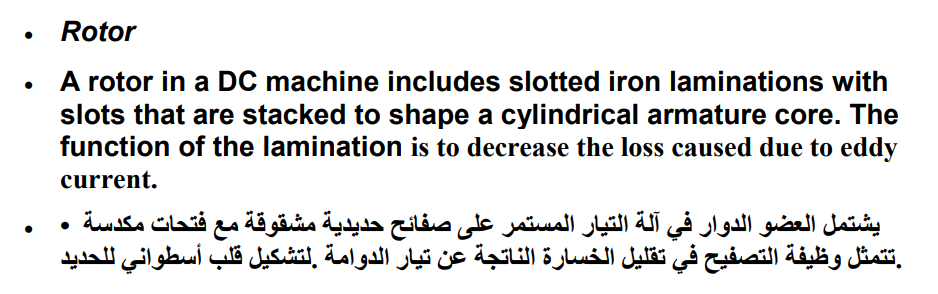
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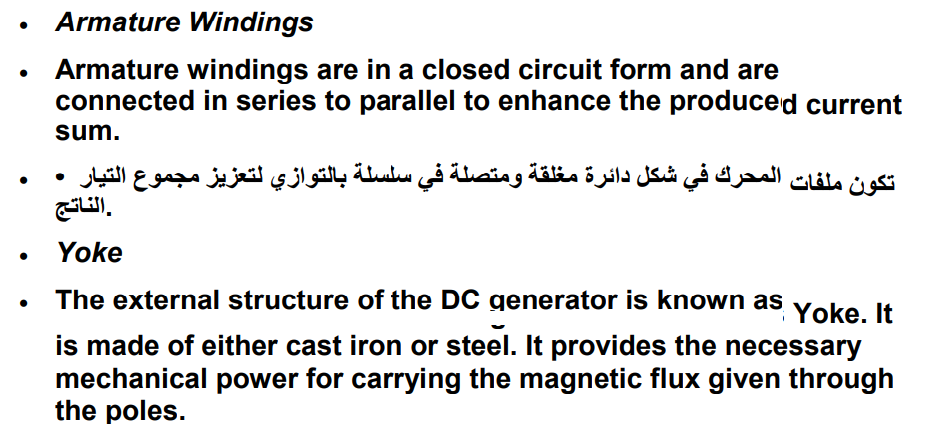
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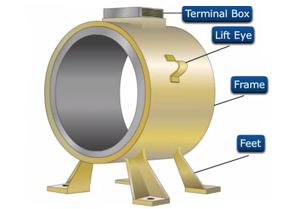


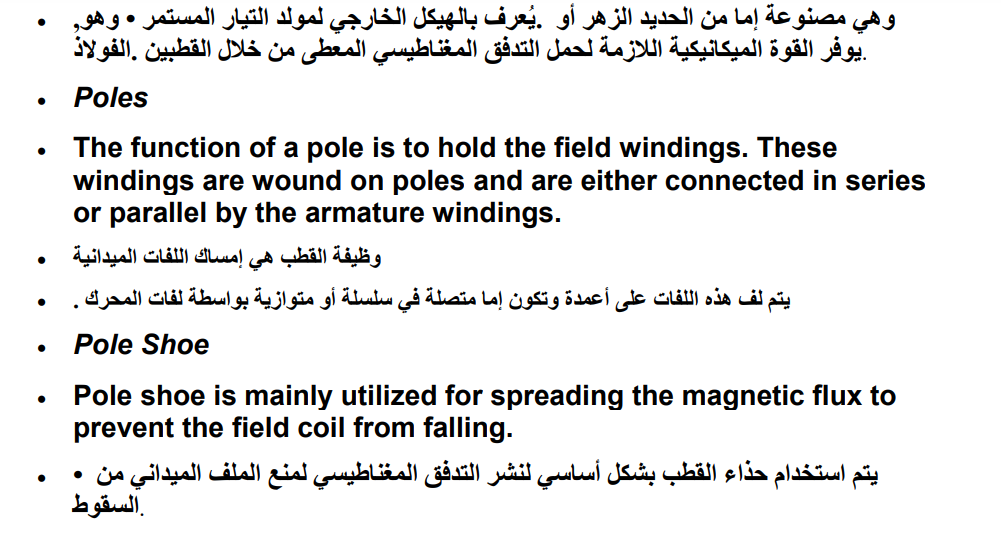
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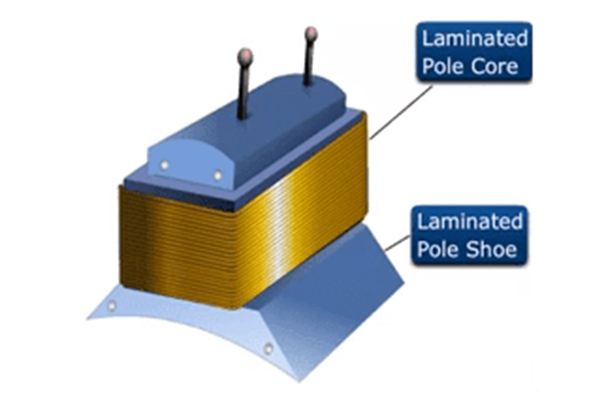
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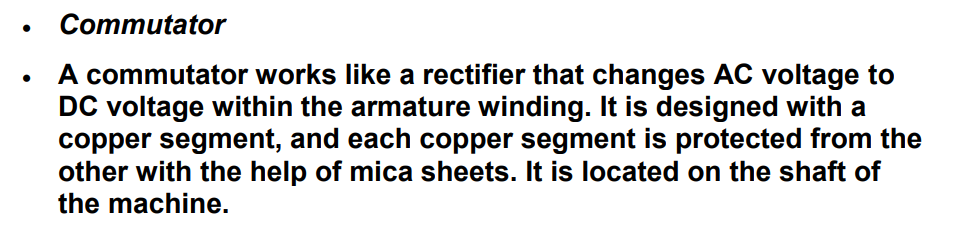
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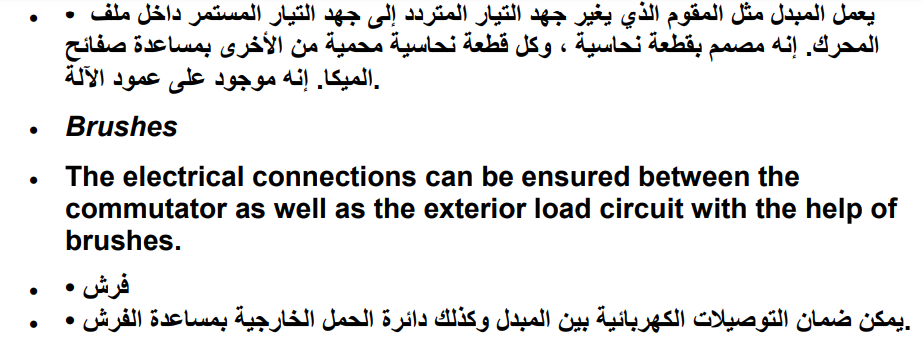
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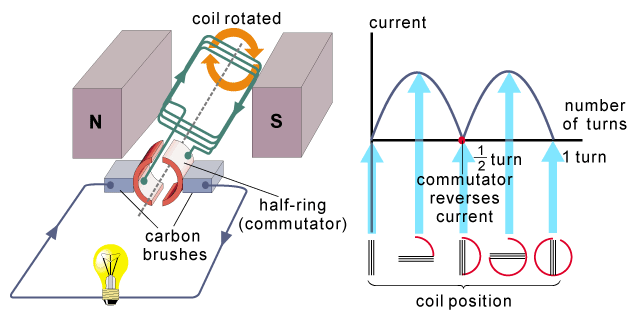


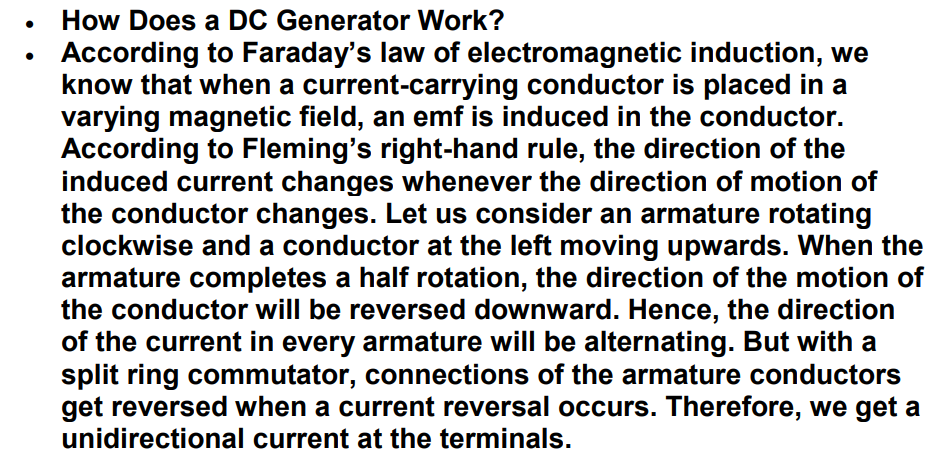
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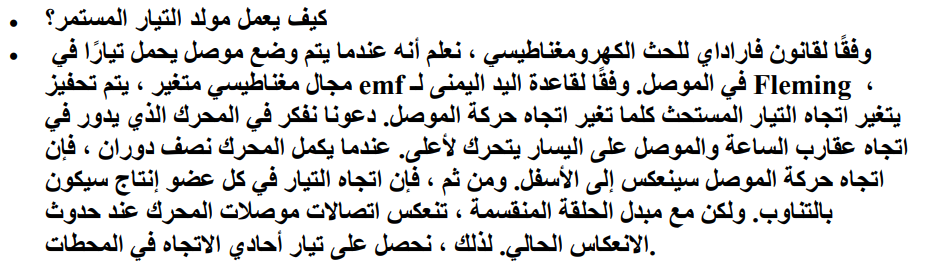
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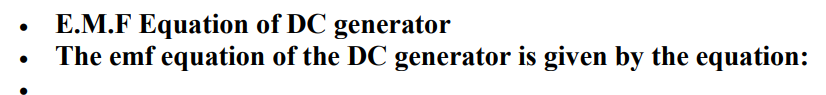
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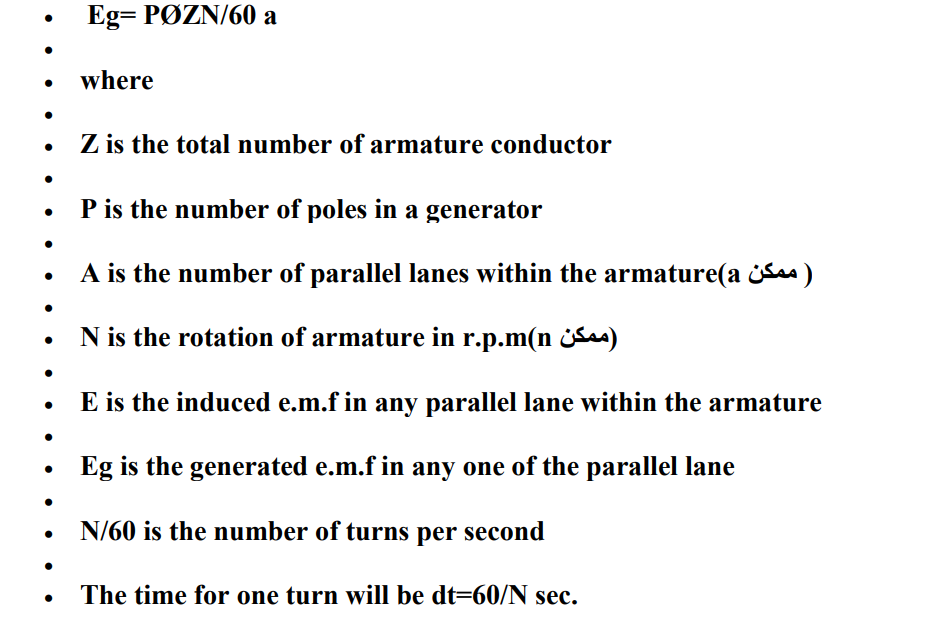
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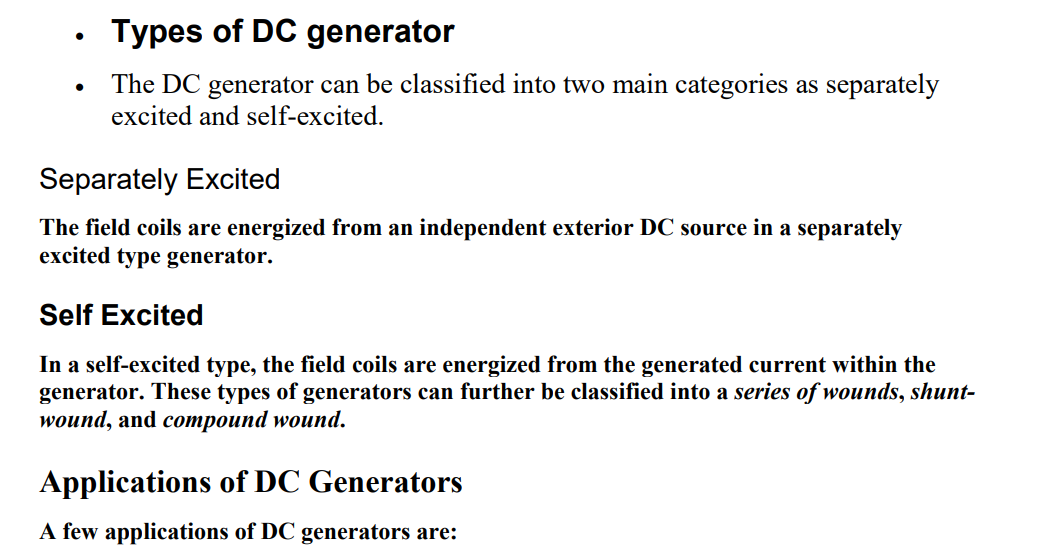


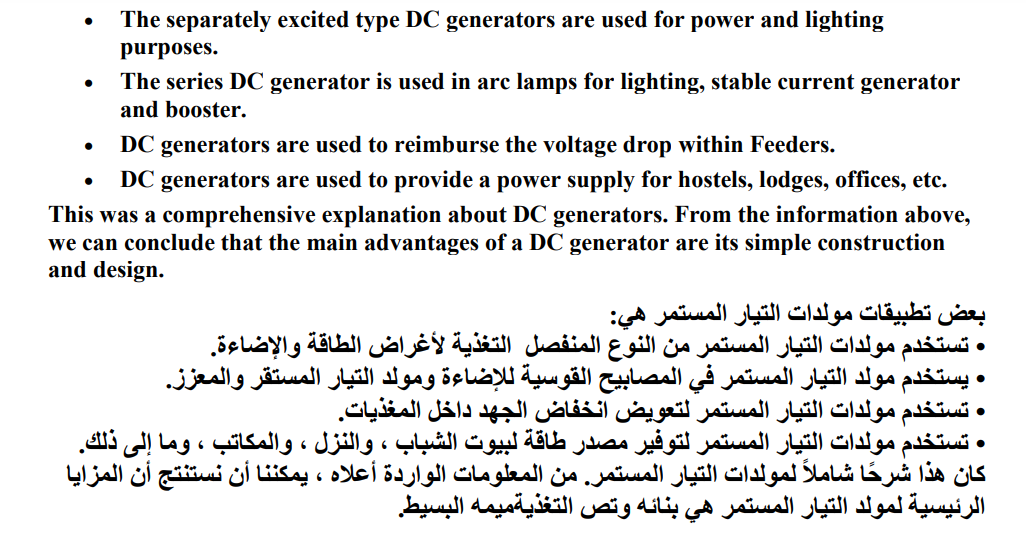
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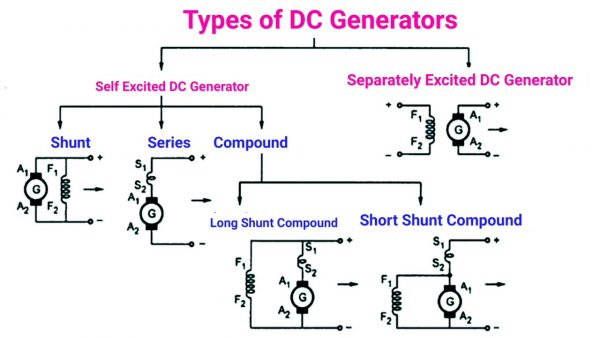
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**Types of DC Machines**

**There are 2 main types of DC machines first one is a generator and the second one is a dc motor, dc motor uses dc current and provides mechanical power and dc generator generates dc voltage. As we discuss when current-carrying conductor when placed in field emf induced forces apply on it. There are two main categories by which the dc machine gets excited first one is self-excited and the second one is separately excited.**

**In self-excited machines field current produced by the machines itself while in separately excited machines the field current is provided by the separated source. Due to these two excitations methods, the dc machines are further divided into different types that are described here.**

* **Compound DC machine.**
* **Shunt DC machine.**
* **Separately excited DC machine.**
* **Series DC machine.**

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**Fig 10. Classification of DC machine.**