## Mechanical-to-Electrical Energy Conversion 12. Variable Speed Operation of Induction Generators

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## **Contents of Today**

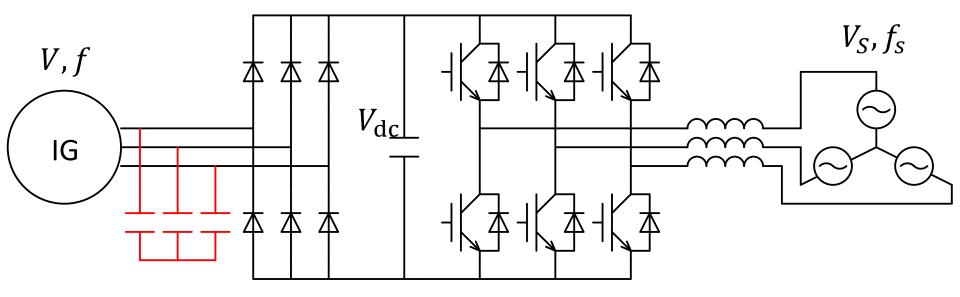
- 1. System Configurations
- 2. Fundamental principles

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3. Fundamental characteristics.



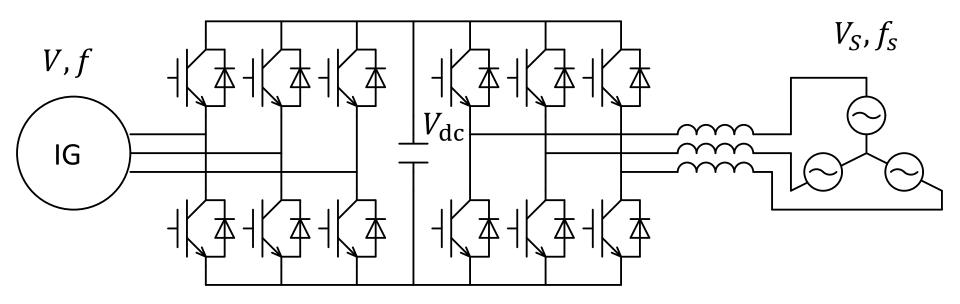
## Self Excitation Induction Generator



• Additional Capacitors are required to supply the excitation current to the generator.



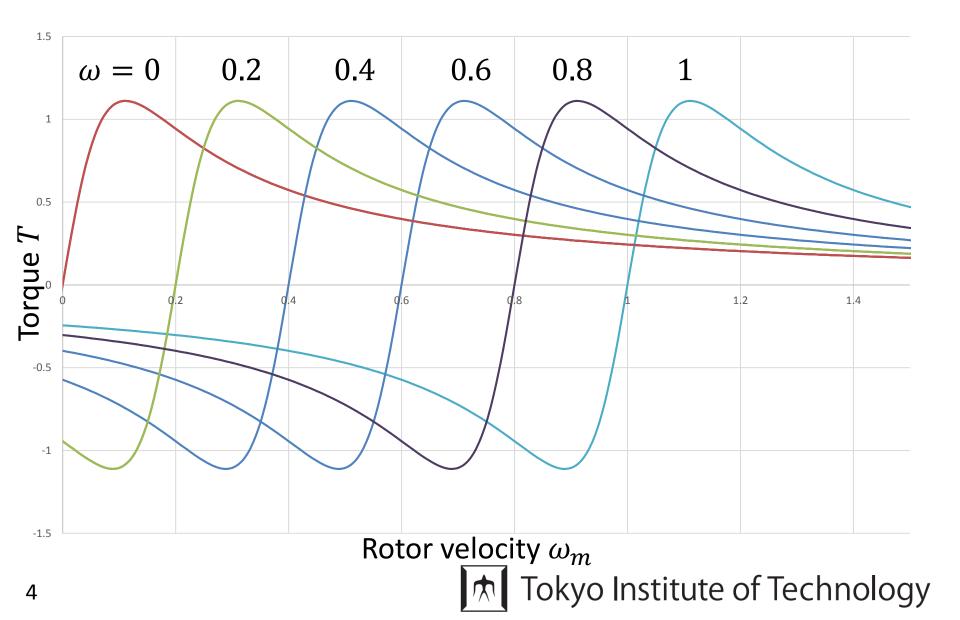
# Application of a PWM Rectifier



#### **PWM Rectifier:**

- Supply the excitation current.
- Boost-up Capability
- Adjustment of Voltage and Frequency

## $\omega_s$ vs T at a constant $E_1/\omega$



#### To be Continued in the Lecture.....

