### Mechanical-to-Electrical Energy Conversion

# 12. Variable Speed Operation of Induction Generators

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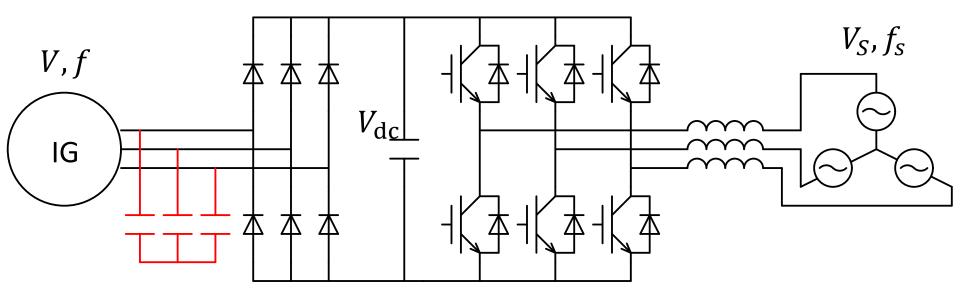
# Contents of Today

1. System Configurations

2. Fundamental principles

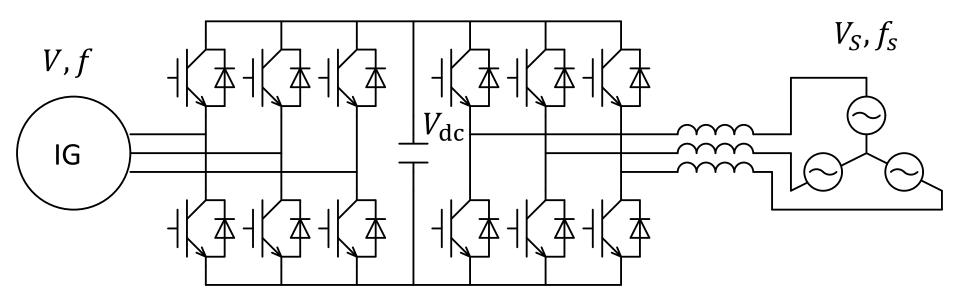
3. Fundamental characteristics.

## Self Excitation Induction Generator



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

## Application of a PWM Rectifier

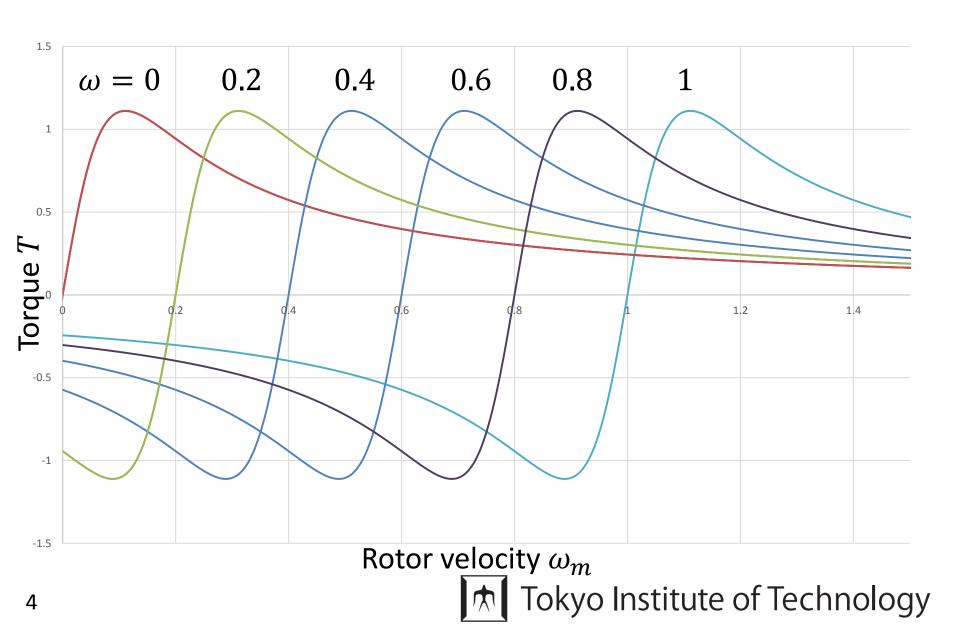


#### **PWM Rectifier:**

- 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.....

