

Seminar One

DX

XJTU

2018 年 10 月 14 日

1896

Outline

- 1 Topic One
 - Converter Valve
- 2 Electromagnetic Field
 - Maxwell
 - Transmission Line
- 3 third section

1 Topic One

2 Electromagnetic Field

3 third section

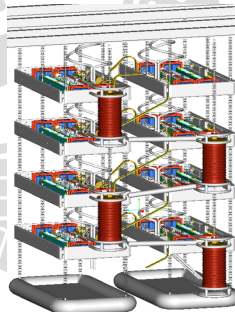


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Structure



(a) Real Image



(b) Structure

图: Converter Valve

Layer

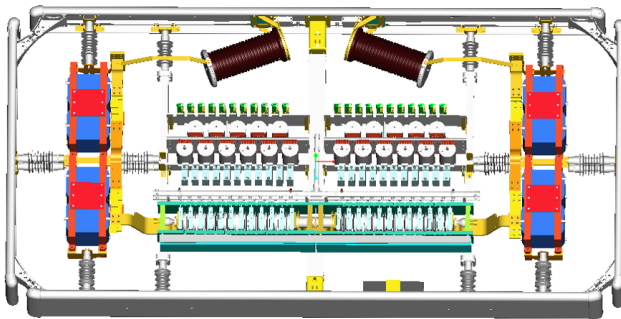


图: Layer

1896

Circuit

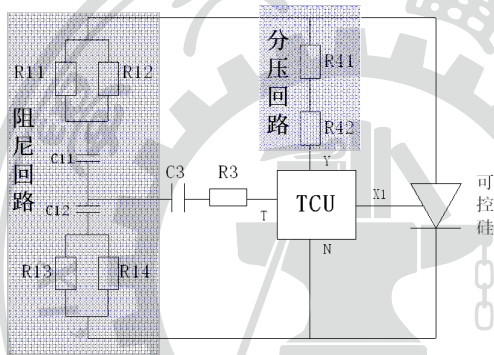
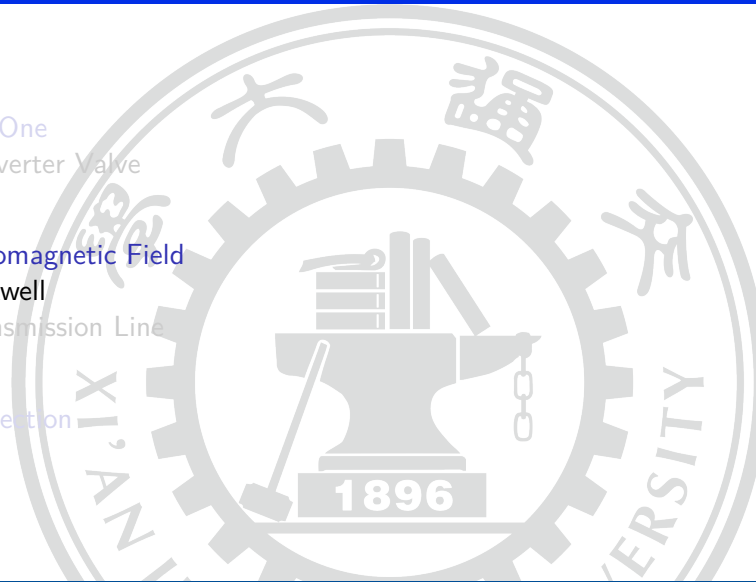


图: Basic Circuit

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- The background of the slide features a large, faint watermark of the Xidian University (XJTU) logo. The logo is circular, with a gear-like outer ring. Inside the ring, there is a central emblem depicting a stack of books on an anvil, with a hammer and a chain. The year '1896' is inscribed at the bottom of the emblem. The Chinese characters '西安电子科技大学' (Xi'an Jiaotong University) are written around the top half of the inner circle, and 'XI'AN JIAOTONG UNIVERSITY' is written around the bottom half.
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Maxwell Equation

$$\oint_l \vec{H} \cdot d\vec{l} = \int_S \vec{J} \cdot d\vec{S} + \int_S \frac{\partial \vec{D}}{\partial t} \cdot d\vec{S}$$

$$\oint_l \vec{E} \cdot d\vec{l} = - \int_S \frac{\partial \vec{B}}{\partial t} \cdot d\vec{S}$$

$$\oint_S \vec{B} \cdot d\vec{S} = 0$$

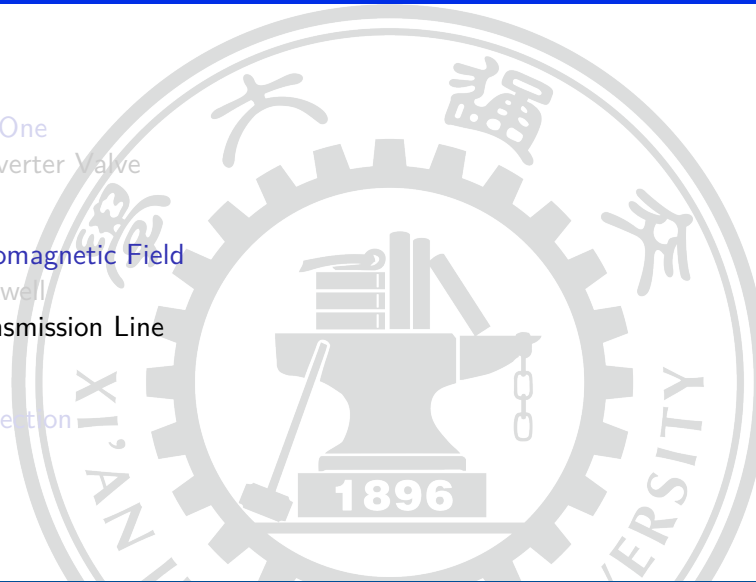
$$\oint_S \vec{D} \cdot d\vec{S} = q$$

关系

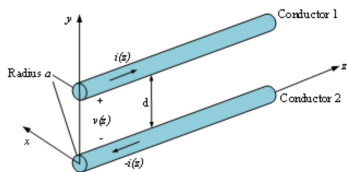
$\vec{D} = \epsilon \vec{E} \Rightarrow$ 类似电容的关系

$\vec{B} = \mu \vec{H} \Rightarrow$ 类似电感的关系

$\vec{J} = \gamma \vec{E} \Rightarrow$ 类似电阻的关系

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- The background of the slide features a large, faint watermark of the Xi'an Jiaotong University (XJTU) logo. The logo is circular, containing a gear-like border. Inside the gear, there is a central emblem depicting a stack of books, a hammer, and a chain, with the year '1896' at the bottom. The Chinese characters '西安交通大学' are written around the top inner edge, and 'XI'AN JIAOTONG UNIVERSITY' is written around the bottom inner edge.
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Telegrapher's Equation



$$-\frac{\partial v(z, t)}{\partial z} = R' i(z, t) + L' \frac{\partial i(z, t)}{\partial z}$$

$$-\frac{\partial i(z, t)}{\partial z} = G' v(z, t) + C' \frac{\partial v(z, t)}{\partial z}$$

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test information

