

CONCEPT Electrical circuits are the backbone of modern technology, used in a vast array of devices and systems ranging from small electronic gadgets to utility scale power grids. Electrical circuits provide the path for electrical current to flow.



BACKGROUND

Electrical circuits have a long and fascinating history, dating back to the early 19th century when scientists such as Alessandro Volta and Michael Faraday made significant discoveries related to electricity and magnetism. In the late 1800s, inventors such as Thomas Edison and Nikola Tesla developed electrical systems for lighting and power generation. The 20th century saw the development of electronic devices such as radios, televisions, and computers, which revolutionized communication and information processing. Advancements in semiconductors and integrated circuits led to the development of digital electronics, which are now used everywhere in modern technology.

EXAMPLES

Some common applications of electrical circuits include:

- Cord and plug wall outlets
- Lighting circuits
- Telecommunications systems such as cell phones, radios, and satellites.
- Electrical control circuits used to control motors, pumps, and heating systems.

