**Semiconductor technology trends and characteristics of semiconductors.**

This research paper aims to describe semiconductor technology trends and the characteristics of semiconductors. Semiconductor technology trends include; industry growth, algorithmic chips, chip security and internet of things among others. Semiconductor technology trends ensure devices of internet of things are less vulnerable which is a characteristic of semiconductors. Other characteristics of semiconductors include; high resistivity of metals and negative temperature coefficient of resistance. However, the central problem is to process huge volumes of data faster using a much lower power. Read more on semiconductor technology trends and characteristics of semiconductors at <https://steemit.com/steemstem/@riemannian/semiconductors-characteristics-and-types>

https://www.semiconductor-digest.com/2020/02/10/technology-trends-in-semiconductors-revealed-by-globaldata/

**Characteristics of semiconductors and types of semiconductors**

There are two main types of semiconductors; intrinsic and extrinsic semiconductor. Intrinsic semiconductor does not conduct electricity at absolute zero temperature. Here, characteristics of semiconductors are very useful such as high resistivity of metals. These metals do not conduct electricity easily hence they are useful in intrinsic semiconductor. Intrinsic semiconductor is purely used without adding any external impurities. While extrinsic semiconductors use impurities in a small amount to increase the charge carriers. This allows electricity to pass through them easily. Read more on characteristics of semiconductors and types of semiconductors at

<https://steemit.com/steemstem/@riemannian/semiconductors-characteristics-and-types>

<https://www.hitachi-hightech.com/global/products/device/semiconductor/properties.html>

**Challenges and solutions facing semiconductor industry.**

Power utilization has become a challenge confronting lower-structure innovation in the sector of internet of things. In fact, as chip size shrivel, density will and increment of a million gates to a single chip. The power will scatter and spill which is huge for the chip. To address this, the government needs to collaborate with market powers to decide on how to diminish the loss of intensity. Also, control the spillage of power. This will promote growth of industries and security of chips. Read more on challenges and solutions facing semiconductor industry at <https://www.techfunnel.com/information-technology/new-challenges-and-opportunities-facing-the-semiconductor-industry/>