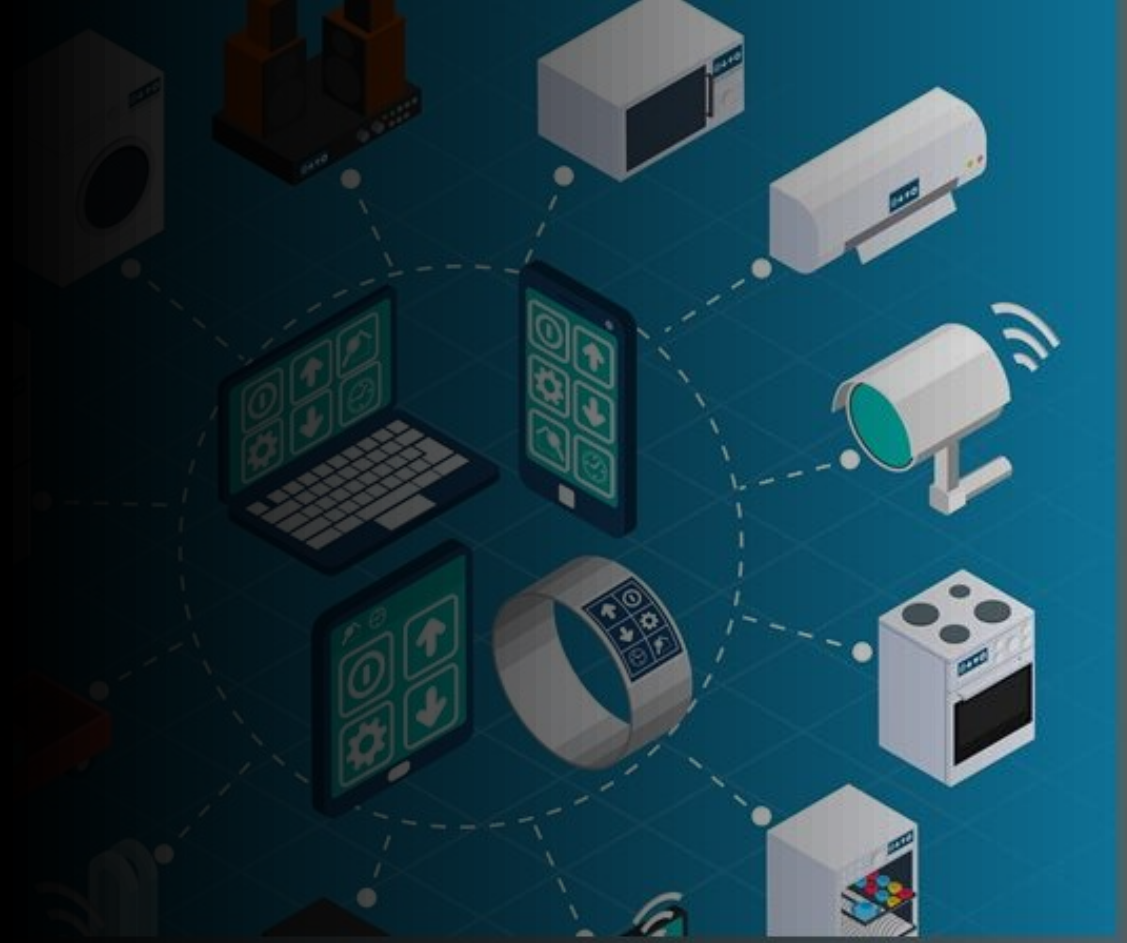
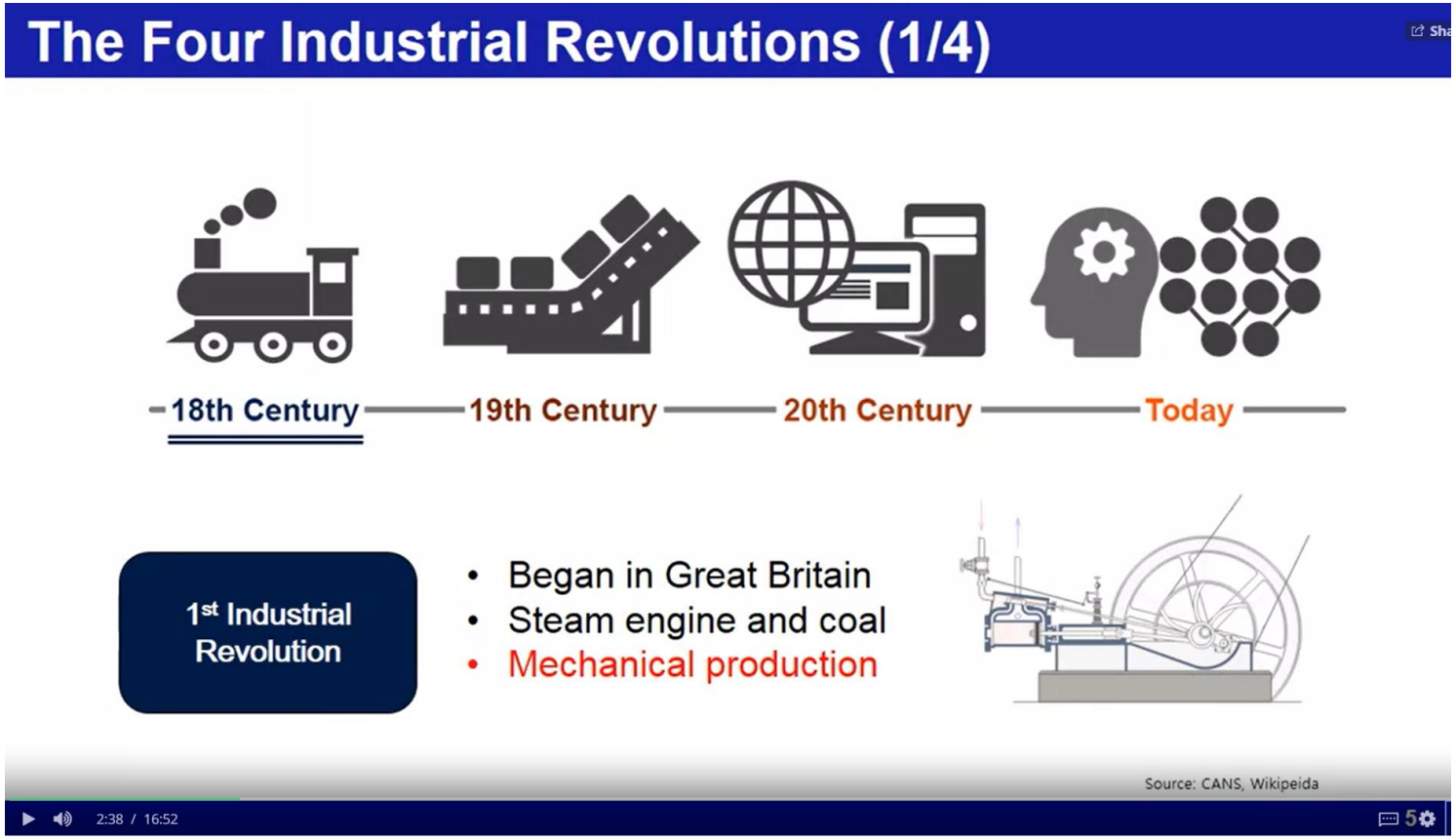
Internet of Things



Vision Institute of Technology

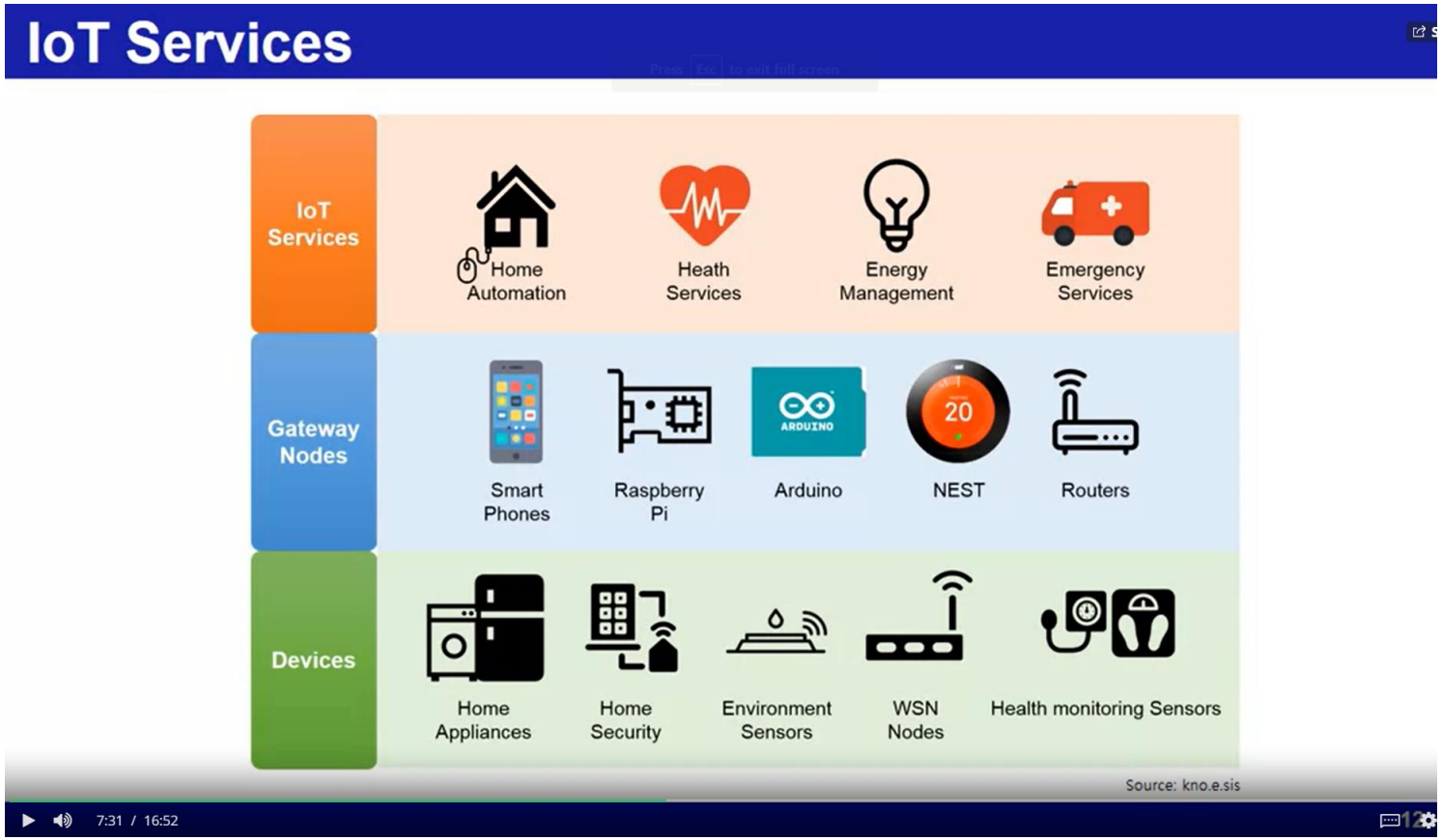
Presentation by Kaptan Yadav

B.Tech Internet of Thing



The 4th Industrial Revolution

- The first industrial revolution -Steam Engines in 18th century through fossil fuels.
- The second industrial revolution- introduction of mass production assembly lines in the 19th century through electricity, petroleum, and steel.
- The third industrial revolution - Development of electronics and information technology in the 20th century.
- The Fourth Industrial Revolution- convergence of information and communications technologies, often called as Emerging Technologies addressing majorly following:
  - Internet of Things,
  - Artificial Intelligence & Machine Learning, and
  - Data Science or Data Analytics.



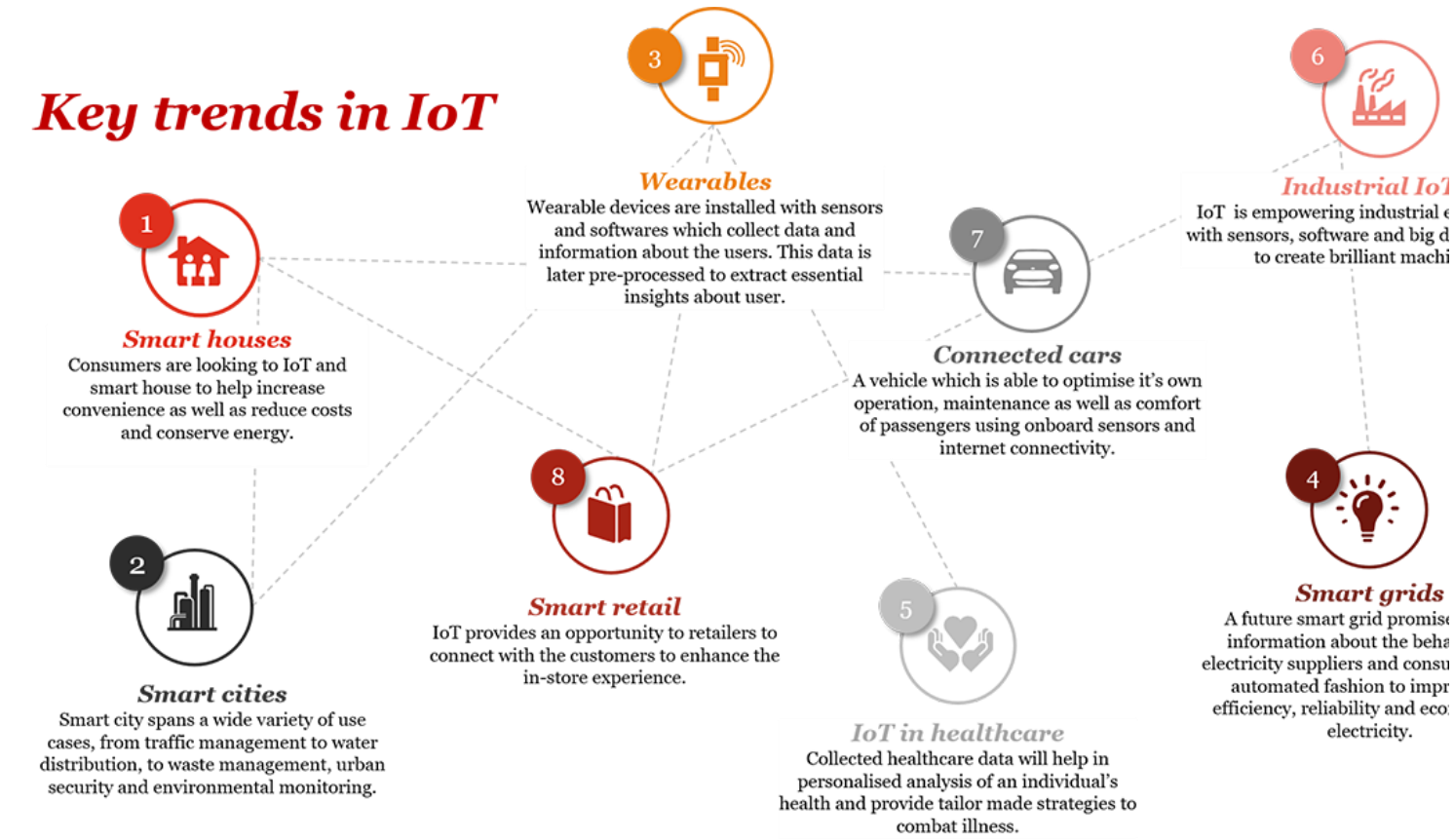
What is IoT

- IoT is the inter-networking of things embedded with software, sensors, and network connectivity which enables these things to sense or collect data. Then these data are analyzed and make intelligent decisions.
- IoT allows things to monitor various objects including human, animals or environmental conditions. It also allows things to be controlled remotely, providing convenience and improved efficiency.
- Things in IoT can be just about anything including temperature sensors, smart phones, CCTV cameras on the road, buses, trains, planes, and almost anything that we can think of

IoT Service Providers

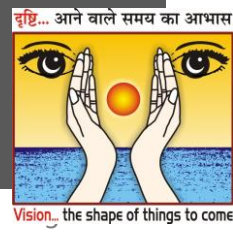
IoT Cloud Software Platform

- Global Cloud Service providers such as Microsoft, Amazon, Google and others, have developed specialized Cloud Platforms Called Cloud for IoT or IOT Cloud.
- They're basically providing the computing and storage services which are part of their cloud computing services. Plus, they are providing some sort of data analytics services for IoT.
- They typically collect data from sensors are gateways, perform various analysis and make some actions and or store the results for later use.

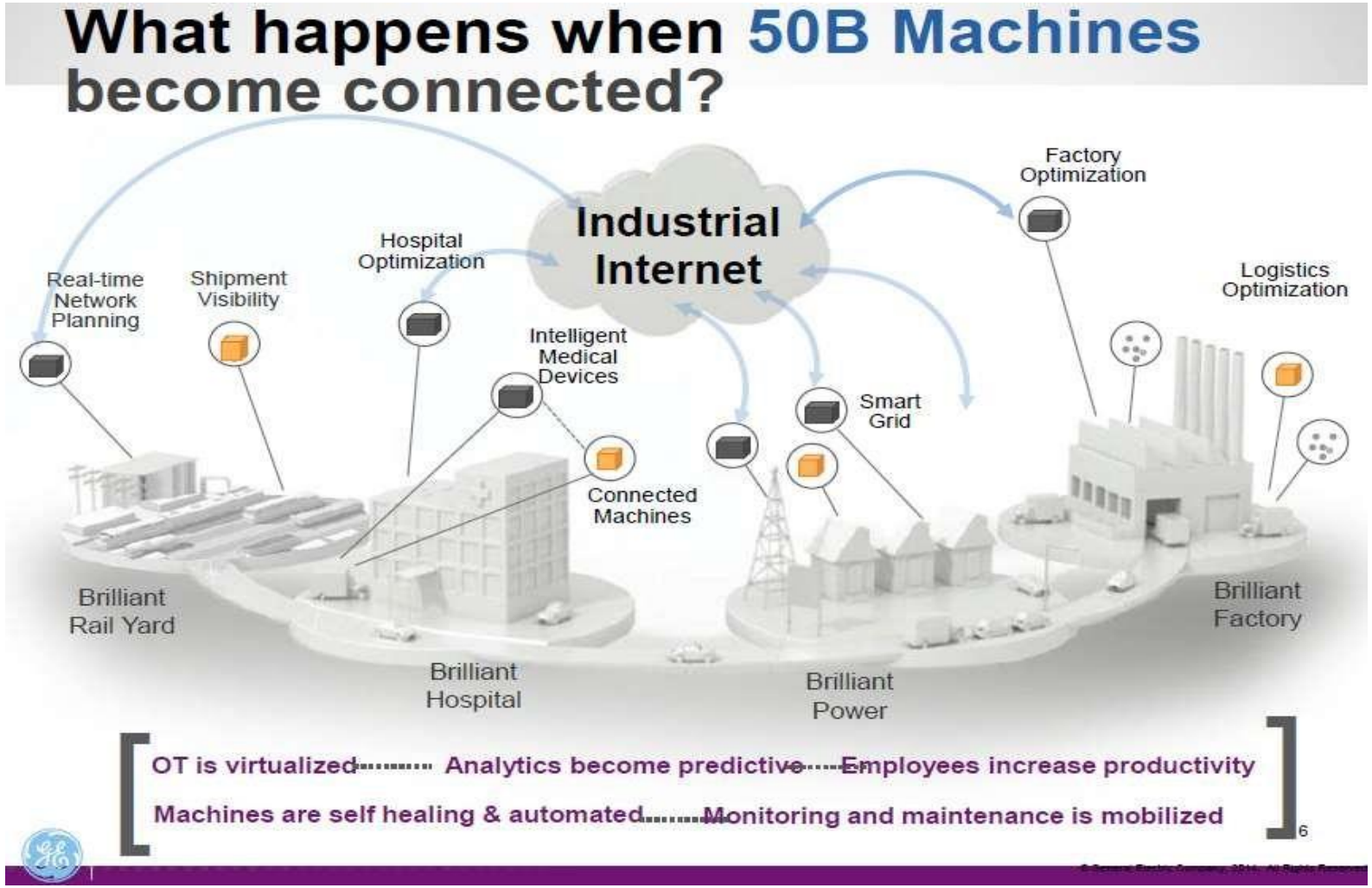


Few Applications of IoT

- Building and Home automation
- Manufacturing
- Medical and Healthcare systems
- Media
- Environmental monitoring
- Infrastructure management
- Energy management
- Transportation
- Better quality of life for elderly



The Future of IoT



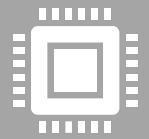
"The Sky's not the limit. It's only the beginning with IoT."

दृष्टि... आने वाले समय का आभास

Vision... the shape of things to come

Job Opportunities in IoT

The Internet of Things offers a range of career opportunities in embedded systems cybersecurity (a particularly hot market), software development, and more.

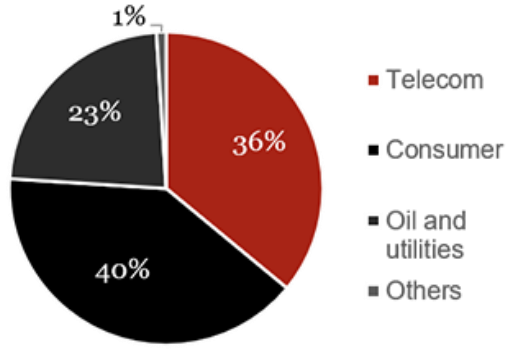


Besides jobs in core area, the need for IoT experts is also on rise in many diverse sectors and industries as healthcare, manufacturing, utilities, transportation, agriculture, and consumer products. Jobs for IoT Engineers are expected to increase in the coming years across industries.

Job Opportunities in IoT

Internet of Things

In India



IOT market in India currently stands at 130 million USD annually in revenues.

Telecom is the largest sector being served by IoT in India - 4 million USD

- Consumer IoT, which includes smart home devices as w as wearables, account for 40% of the IoT market– million USD.
- Consumer IoT's share is set to rise to 45% by 2020.
- Out of the 40%, electronic goods contribute about 29%.

Oil and utilities sector contributes 29.9m of IoT revenues.

Finance, retail and healthcare–the 3 big sectors in terms of size–are late adopters of IoT, providing 1.3m in revenue to Ic sector.