



# 03. EFFECTS OF USING 5G

M3U1P3 DES&TECH

# APPLYING 5G

- Around the world the industry is rapidly developing and changing
- 5G has been applied in a wide variety of fields such as automotive and home appliances
- It also has started to expand into other industries and it is expected that it will bring a great change in our social life
- When we apply 5G to other industries some will have a significant change while others might disappear



# IMPACT ON ECONOMY

## IMPACT ON ECONOMY (POSITIVE)

- Internet network is stable and speeds are higher which makes consumers spend more time online
- Brings more automation and robots to the industry for a higher productivity
- Smaller businesses have more ways to distribute products and services
- In agriculture it can increase the production (smart farm)
- It makes AI more efficient by allowing faster data transfer

# IMPACT ON ECONOMY (NEGATIVE)

- People that are unable to adapt to technology will have a lower income or no income at all
- Some industries that are unable to adapt will have to close because there will be more communication through the internet
- Network operators will have a higher cost of because they will have to build a new infrastructure
- Small farmers will not be able to adjust as they can't compete with bigger farms
- Agriculture product prices may increase as a result of adding technology to product list



# IMPACT ON SOCIETY

## IMPACT ON SOCIETY (POSITIVE)

- Helps solve problems of remote surgery and healthcare, can consult with the doctor over the internet which helps people in remote areas
- Faster data transfer which will help autonomous vehicle system to develop faster
- Internet signal covers more areas and the increased speed eliminates the limit of the technology

## IMPACT ON SOCIETY (**NEGATIVE**)

- More and more robots will be used in the industry and the poor quality workers won't be needed
- It's easier to violate and break the computer crime law
- Less people interact with others which causes problems in some families
- Online scams can happen, like financial or identity theft scams

The background is a dark blue gradient. In the corners, there are white line-art graphics resembling circuit boards or neural networks, with lines connecting to small circles.

# IMPACT ON ENVIRONMENT

## IMPACT ON ENVIRONMENT (POSITIVE)

- Can be used for real-time and accurate air quality monitoring
- Applications for traffic jam management
- Connection with smart farms to control and save resources (water, electricity, labor)
- Speed and continuity of data transfer will make information technology more efficient, such as alerting about natural disasters

## IMPACT ON ENVIRONMENT (**NEGATIVE**)

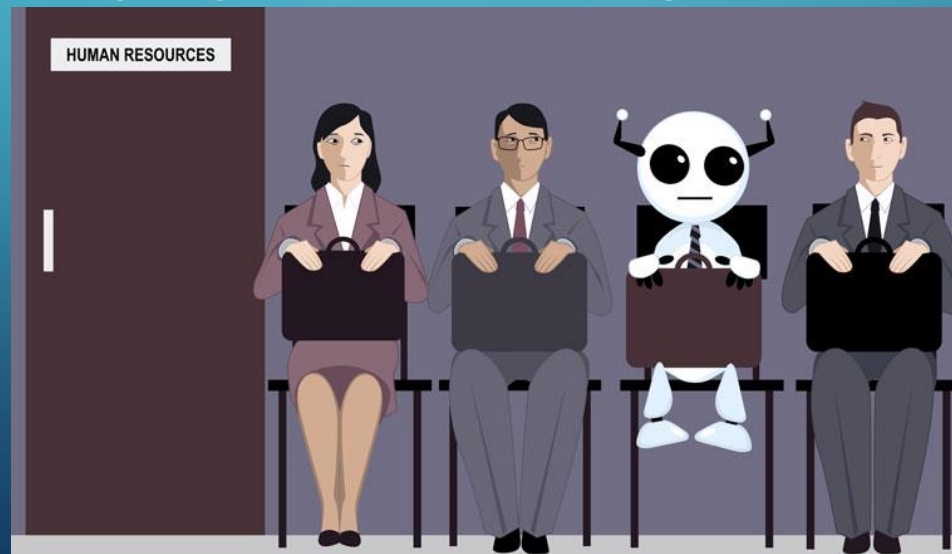
- Old devices that can not support 5G will have to be replaced and they will become e-waste

# IMPACT OF 5G

- As we have seen that 5G will have a positive and negative effect on everything
- Some effects we can not be added in any group because it affects one group in a positive way but another group in a negative way

# EXAMPLE: AUTOMATIZATION OF SYSTEMS AND ROBOTS

- It will be positive for the industry and economy as it will be more efficient and bring the production to a higher level
- But on a society level it will bring a problem because the robots will replace human labor and some people will lose their job





WHAT COULD HAPPEN IF ROBOTS REPLACE  
HUMANS IN SOME OF THE JOBS?

The image features a dark blue gradient background with white, stylized circuit board traces in the corners. These traces consist of straight lines and small circles, resembling electronic components or data paths. The traces are located in the top-left, top-right, bottom-left, and bottom-right corners, framing the central text.

WHERE CAN WE APPLY 5G TECHNOLOGY?

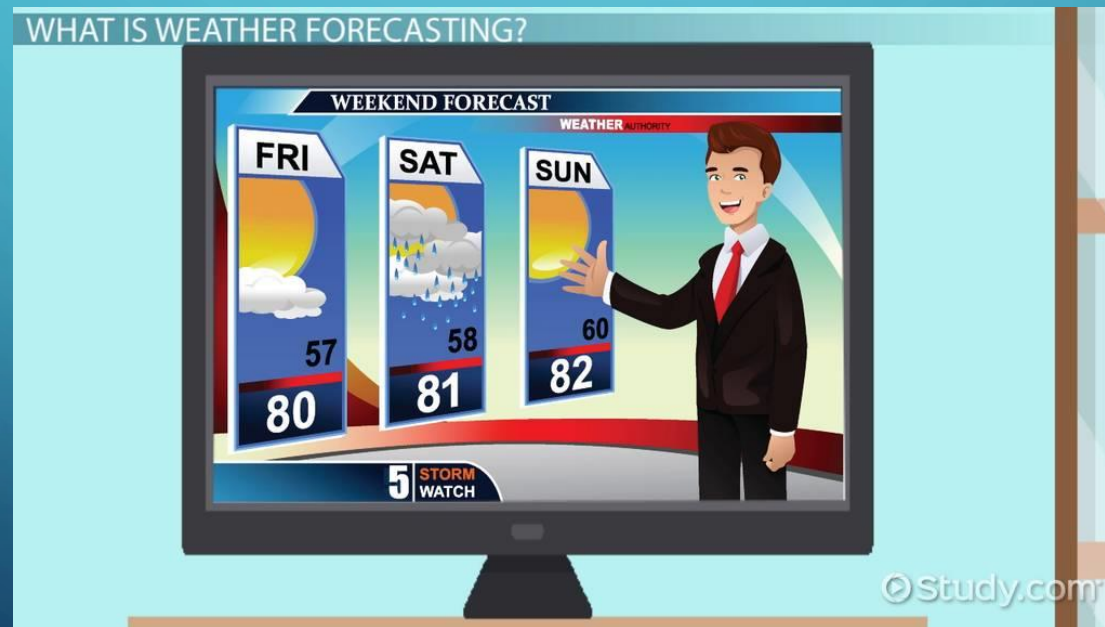
# AUTONOMOUS (SELF-DRIVING) CARS

- Cars will have many sensors in them that will be connected and communicate over 5G network which will have a low latency
- This will make the cars react to things in less than a second and it will make the driving safer



# WEATHER FORECAST

- We will be able to get real-time information about the weather and other things that could affect our time outside, this way you know on what you should prepare



# LIVE BROADCAST

- It will allow us to watch live broadcasts instantly without any interference and any frame skipping



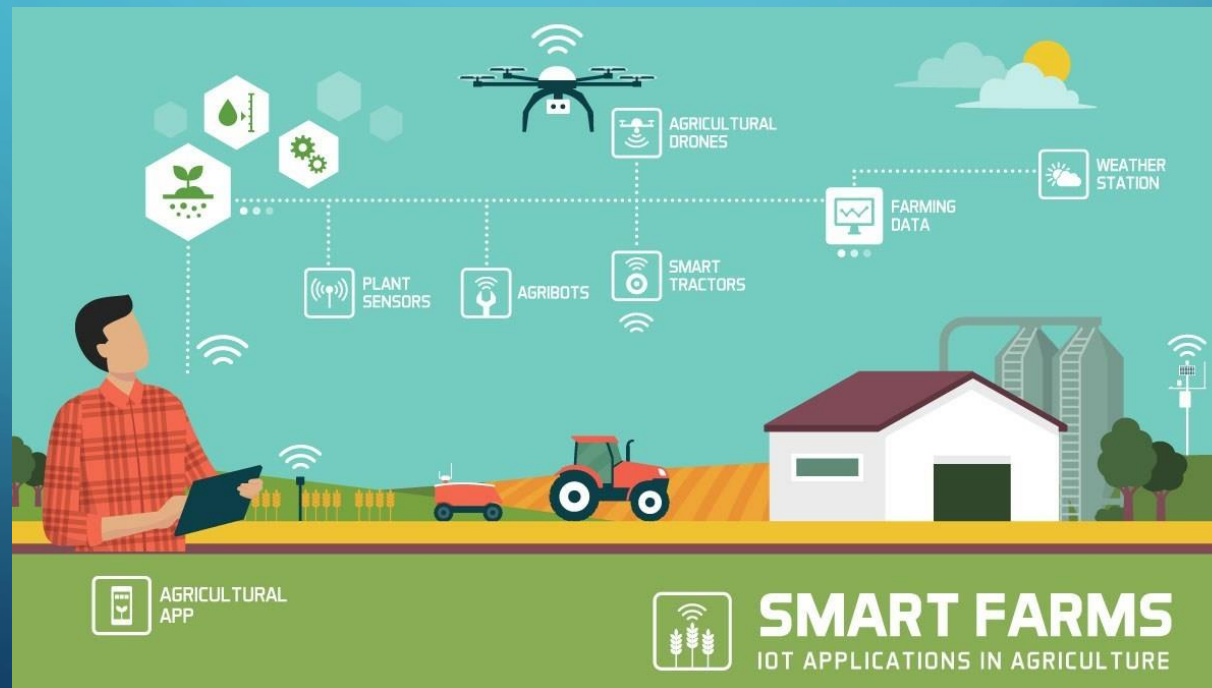
# VR TECHNOLOGY

- It will allow the users to experience virtual reality by streaming the content from the internet directly to their device, this way the user will not need to have a strong device



# SMART FARMS

- Farms will have sensors that will detect the moisture of the ground, humidity, temperature, wind direction, sunlight quantity... and it will take all of that data and analyze it to give us suggestions on what should we do next



# SMART HEALTHCARE

- Hospitals will have wearable devices that will collect vital signs about the patient no matter where he is in the hospital
- In case of surgeries, doctors will be able to perform it over the internet because the latency will be small





ANY QUESTIONS?

# HOMEWORK

- Will be posted later on the E-learning platform



THE END