Republic of the Philippines
Laguna State Polytechnic University
Province of Laguna
ISO 9001:2015 Certified
Level I Institutionally Accredited

Name: Mhark Angel C. Castalone
Section: WMAD III

PERFORMANCE TASK 3 (Individual Work)

Direction: Read carefully and answer the following set of questions.

1. How is big data influencing the development and optimization of emerging technologies such as self-driving cars, and what are the major hurdles in efficiently harnessing large-scale data to improve their usefulness and safety?
2. How can organizations effectively utilize the principles of the 6R's framework to navigate the integration of Artificial Intelligence (AI) into their operations, and what specific challenges might they encounter in doing so?
3. How is virtual reality (VR) being harnessed as an innovative tool in emerging technologies, and what are some significant implications and challenges associated with its widespread adoption across various industries and applications?
4. How are autonomous systems revolutionizing various industries as innovative emerging technologies, and what are the critical considerations and ethical implications surrounding their deployment in fields such as transportation, healthcare, and manufacturing?

1. Big data is crucial for developing and optimizing self-driving cars through training algorithms, real-time decision-making based on sensor data processing, and continuous performance improvement. Nevertheless, there are obstacles to effectively using large-scale data, including protecting privacy, managing edge cases, and resolving ethical and legal issues. In order to improve self-driving technology's safety and utility and gain broader acceptance.

2. By employing the 6R's framework Rethink processes, Refuse unnecessary jobs, Reuse existing data, Repair AI systems, Reduce bias and mistake, and Recycle learnings—organizations can successfully integrate Artificial Intelligence (AI) into their operations. They may, however, have to deal with issues including making sure data is accessible and of high quality, filling in skill gaps, managing change, staying in compliance with laws and regulations, handling integration complexity, and putting in place reliable monitoring and assessment systems.

3. The broad use of virtual reality (VR) has significant implications and problems. These include improving user experiences, increasing efficiency, managing costs and resources, overcoming technical obstacles, guaranteeing data privacy and security, and establishing content laws and standardization. VR presents exciting new possibilities for innovation, but ethical and long-term industry adoption depends on resolving these issues.

4. While autonomous systems increase safety and efficiency, they are transforming sectors such as manufacturing, transportation, and healthcare. Safeguarding public health and safety, resolving employment displacement, safeguarding data privacy, making moral decisions, advancing accessibility and equity, and developing rules and guidelines are all important factors to take into account. For the responsible and long-term integration of autonomous technologies, these factors must be managed.