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# ***Question # 01:***

# ***Machine learning,artificial intelligence and big data are transforming the world around us. How these can influence engineering?***

## *Machine learning,artificial intelligence and big data are transforming the world around us. How these can influence engineering.*

***Machine learning, artificial intelligence, and big data are having a significant impact on engineering and are transforming many aspects of the field.***

***Machine learning is a type of artificial intelligence that involves training algorithms on data in order to make predictions or take actions. In engineering, machine learning is being used to optimize designs, improve manufacturing processes, and enhance the performance of systems. For example, machine learning algorithms can be used to predict the failure of mechanical components, optimize the design of aircraft wings, and improve the efficiency of power plants.***

***Big data refers to the large amounts of data that are generated by modern systems and devices. In engineering, big data is being used to analyze and extract insights from large datasets, such as sensor data from manufacturing systems, traffic data from transportation systems, and weather data for environmental engineering. By analyzing this data, engineers can gain a deeper understanding of complex systems and use this knowledge to improve their performance and reliability.***

***Artificial intelligence is being used in engineering to automate tasks, improve decision-making, and enhance the functionality of systems. For example, AI-powered robots are being used in manufacturing to perform tasks that are dangerous or repetitive for humans, and AI algorithms are being used to analyze data and make predictions about the behavior of systems. In addition, AI is being used to develop new materials and optimize the design of products, such as aircraft and automobiles.***

***Overall, the combination of machine learning, artificial intelligence, and big data is having a major impact on engineering and is helping to drive innovation and improve the performance of systems in a wide range of applications.***