**Extempore Topics:**

**1. IT in Automotives**

"Information Technology has revolutionized the automobile industry in ways not imagined in one's lifetime. From safety via advanced driver-assistance systems to complete autonomy, IT is the beating heart of modern transportation. Cars are not just machines today, but intelligent systems. The Internet of Things empowers connected vehicles to monitor data in real time, help navigation with artificial intelligence, and know when to apply predictive maintenance. IT makes manufacturing easier through the application of robotics and supply chain management, which is why the products are both efficient and high quality. IT-based electric cars changed how we view sustainability; charging can be remotely monitored and even software upgrades delivered over-the-air. And so, mobility in the future will be reborn: safer, better, and more sustainable."

**2. IT in Metro Rail**

"The metro rails of the world are a great example of how IT has transformed public transport. From smart signaling systems like CBTC (Communication-Based Train Control) for safety and optimal schedules, IT ensures efficient railway train operations. Adding real-time information to the user about the arrival time of the train, delays, and routes adds value to the product. The sale of tickets through smart cards and mobile applications has revolutionized ticketing. Under the hood, IT systems monitor energy consumption and track infrastructure health and maintenance schedules. Metro systems are slowly becoming smarter with AI and big data analytics - smarten the response to passenger demand and better the reliability of the service. IT is the backbone of the future of urban mobility."

**3. IT in Avionics**

Avionics have become so much IT that it has much to thank IT for its evolutionary journey. Avionics have made flight safety, navigation, and communication the backbone of modern aviation. Thus, flight management systems are powered by advanced algorithms that allow pilots to optimize routes, conserve fuel, and ensure timely arrivals. IT also supports ground systems with a seamless interface between air traffic control and aircraft. Thus, IT with In-cockpit systems renders real-time information to pilots for better decision making. Passengers get an upgrade in experience with reliable connectivity and entertainment systems on-flight. Predictive aircraft maintenance is supported by IT reducing downtime and subsequently the costs for avionics. As with AI and the Internet of things now taking-off, avionics will start a new paradigm in flying with which we might know flying only in a changeable way.