

Paris Session 2022



Question 3.1: Discuss the rationale, advantages and potential challenges in adopting a private 5G network for a power utility.

SC D2

PS3 – Question 3.1

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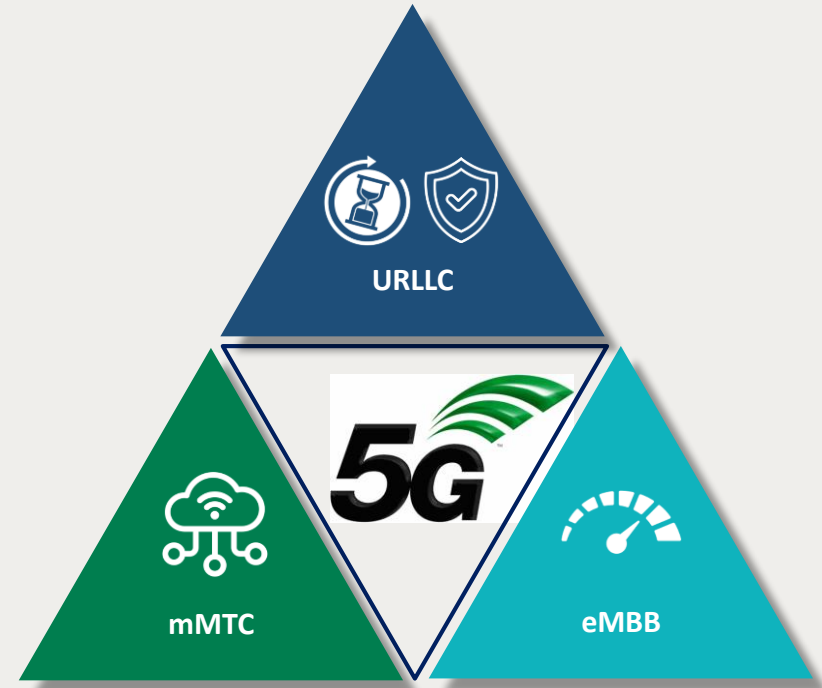


friends lab



- **Currently communication architectures:**

- **Wired technologies:** optical fiber, twisted pair, coaxial cable, etc;
- **Wireless technologies:** WiFi, ZigBee, LoRaWAN, 4G, etc;



- **Challenges:**

- Matching the utilities requirements;
- The electromagnetic interference on the communication;
- The compatibility between the devices and the 5G technology;
- Regulatory issues for some applications;
- Economic viability analysis.

- **Some examples of currently studies and applications of 5G:**

- 4.0 Industry (monitoring and preventive maintenance of industrial plants)
- Self-healing solutions (Slicenet project);
- Proof of Concept in Brazil (electrical distribution sector).