- **Name :** Loan Rosseeuw

- **Name of your Level 1 : L1_IslamSouissi**

- **Paper title :** **BigData Analytics Machine Learning and Artificial Intelligence in Next GenerationWirelessNetworks**

- **Source :** scholars.google.com

- **Keywords specific to the paper : Code generation/ Data modeling**

Summary: Next-generation wireless networks are becoming increasingly complex, requiring efficient resource utilization and adaptive management. Traditional networking approaches are inadequate for the diverse service requirements and network heterogeneity. To address these challenges, a paradigm shift towards proactive, self-aware, and predictive networking is essential. Leveraging big data analytics, machine learning (ML), and artificial intelligence (AI) enables network operators to optimize operations effectively. By systematically exploiting large amounts of data, these technologies facilitate intelligent decision-making and cost-effective optimization. This paper discusses the adoption of data-driven approaches in next-gen wireless networks, highlighting the role of ML and AI in achieving self-awareness, adaptability, and proactiveness. It presents network design and optimization schemes tailored to data analytics. Challenges and benefits of adopting big data analytics, ML, and AI are also discussed, emphasizing the importance of these technologies in future communication systems.

AI Model Used: The paper emphasizes the utilization of machine learning (ML) and artificial intelligence (AI) in the context of next-generation wireless networks. These technologies are instrumental in enabling networks to become proactive, self-aware, self-adaptive, and predictive.

Introduction of AI Models: The paper introduces ML and AI as essential components for transforming traditional networking approaches into proactive and intelligent systems. These technologies empower network operators to make informed decisions, optimize performance, and enhance efficiency by leveraging vast amounts of network-generated data.

Contribution to Proposed Idea: ML and AI contribute significantly to the proposed paradigm shift in networking. They enable networks to become self-aware, adaptive, and predictive, addressing challenges such as resource optimization, network management, and user experience enhancement. By systematically analyzing big data, ML and AI empower networks to handle the complexities of next-generation wireless communication effectively.

In summary, the paper highlights the pivotal role of ML and AI in driving the evolution of next-generation wireless networks towards proactive, self-aware, and data-driven systems. These technologies enable operators to harness network-generated data for informed decision-making, optimization, and improved user experiences, thereby ensuring the success of future wireless communication ecosystems.