

Application of 4G and 5G Technology

Ravi Ranjan

22030209

B.Tech CSE

4th Year

Section 3

Introduction to 4G

- • High-speed mobile internet
- • Supports HD video streaming
- • Improved latency and capacity

Applications of 4G

- • Video conferencing
- • Online gaming
- • Mobile TV
- • Smart devices and IoT
- • E-commerce and mobile banking

Introduction to 5G

- • Ultra-low latency
- • High bandwidth
- • Massive device connectivity
- • Supports emerging technologies

Applications of 5G

- • Autonomous vehicles
- • Smart cities
- • Industrial automation
- • Remote surgeries
- • VR/AR applications
- • Massive IoT networks

Comparison of 4G vs 5G

- • Speed: 5G > 4G
- • Latency: 5G \approx 1ms, 4G \approx 30-50ms
- • Capacity: 5G supports more devices
- • Ideal for real-time applications

Future Scope

- • Expansion of smart infrastructure
- • Advanced robotics
- • Global digital transformation

Conclusion

- 4G enabled mobile revolution; 5G will drive the future of intelligent and connected ecosystems.