

SRM Institute of Science and Technology, Tiruchirappalli

Faculty:	Engineering and Technology
Department:	Electronics and Communication Engineering
Programme:	III Year B.Tech. in Electronics and Communication Engineering
Semester:	ODD 2024-2025
Course Title:	21ECE42IT – Wireless Communication Networks
Assessment Type:	Open Ended Assignment
Max Marks:	15 Marks
Title:	“Future of Mobile Communication: 6G and Beyond”
Outcome:	Explore emerging trends, technologies, and challenges in mobile communication, particularly focusing on 6G and future developments.
Submission Deadline:	26.10.2024
Faculty Handling	Prof. G. Vairavel, ECE Department

Instructions:

Research:

- Investigate the current state of mobile communication, including 5G technology. **(3 slides: 5G Technology 1 Slide, 5G Use Cases 1 slide, 5G in India 1 slide)**
- Explore emerging trends and technologies in 6G and future mobile communication systems. **(2 slides: On 6G Technological Aspects, 1 slide on beyond 6G)**
- Identify key challenges and opportunities associated with the development and deployment of 6G. **(2 slides: Challenges 1 Slide, Opportunities 1 slide)**

Analysis:

- Compare and contrast the capabilities and features of 5G and 6G technologies. **(1 slide, include table for comparison)**
- **Analyse** the potential impact of 6G on various industries (e.g., healthcare, transportation, entertainment). **(2-3 slides: Each Slide for Specific Industry)**
- Discuss the role of artificial intelligence, machine learning, and other advanced technologies in enhancing mobile communication. **(2 slides)**

Presentation:

- Prepare a detailed presentation summarizing your findings.
- Include visuals, such as diagrams, charts, and infographics, to support your points.

Submission Guidelines:

- Submit a PowerPoint presentation (10-15 slides) in **PDF format**.
- **Include references** to credible sources, such as academic papers, industry reports, and reputable websites. (Follow Harvard Referencing Style: <https://lib.ugm.ac.id/en/harvard-referencing-style/>)

Rubrics for Evaluation:

Criteria	Excellent (5)	Good (4)	Satisfactory (3)	Needs Improvement (2)	Unsatisfactory (1)
Research	Thorough, well documented research , utilizing diverse and credible sources.	Solid research with credible sources but could be more diverse.	Adequate research but limited in scope or depth.	Some research but lacks depth, diversity, or credibility.	Minimal or no research ; sources not credible or missing.
Analysis	Insightful analysis with clear comparison and contrast between 5G and 6G, demonstrating deep understanding of the subject matter.	Good analysis with some insightful points; comparison and contrast are clear but not deeply explored.	Basic analysis with clear comparison and contrast but lacks depth.	Limited analysis ; comparison and contrast are unclear or not well-explored.	Poor or no analysis ; comparison and contrast missing or very unclear.
Presentation and Visuals	Professional, engaging presentation with clear, visually appealing slides that effectively support the content. References are included in all the slides. Harvard Referencing Followed.	Good presentation ; slides are clear and support the content but could be more engaging. References are found in maximum of the slides but not in all slides. Harvard Referencing Followed.	Adequate presentation ; slides are clear but may lack visual appeal or effectiveness in supporting the content. References are found in few slides. Harvard Referencing Followed.	Presentation is unengaging ; slides are unclear, lack visual appeal, or do not effectively support the content. References are inappropriate. Harvard Referencing Not Followed.	Poor or no presentation ; slides are missing or very unclear and do not support the content. No References are found