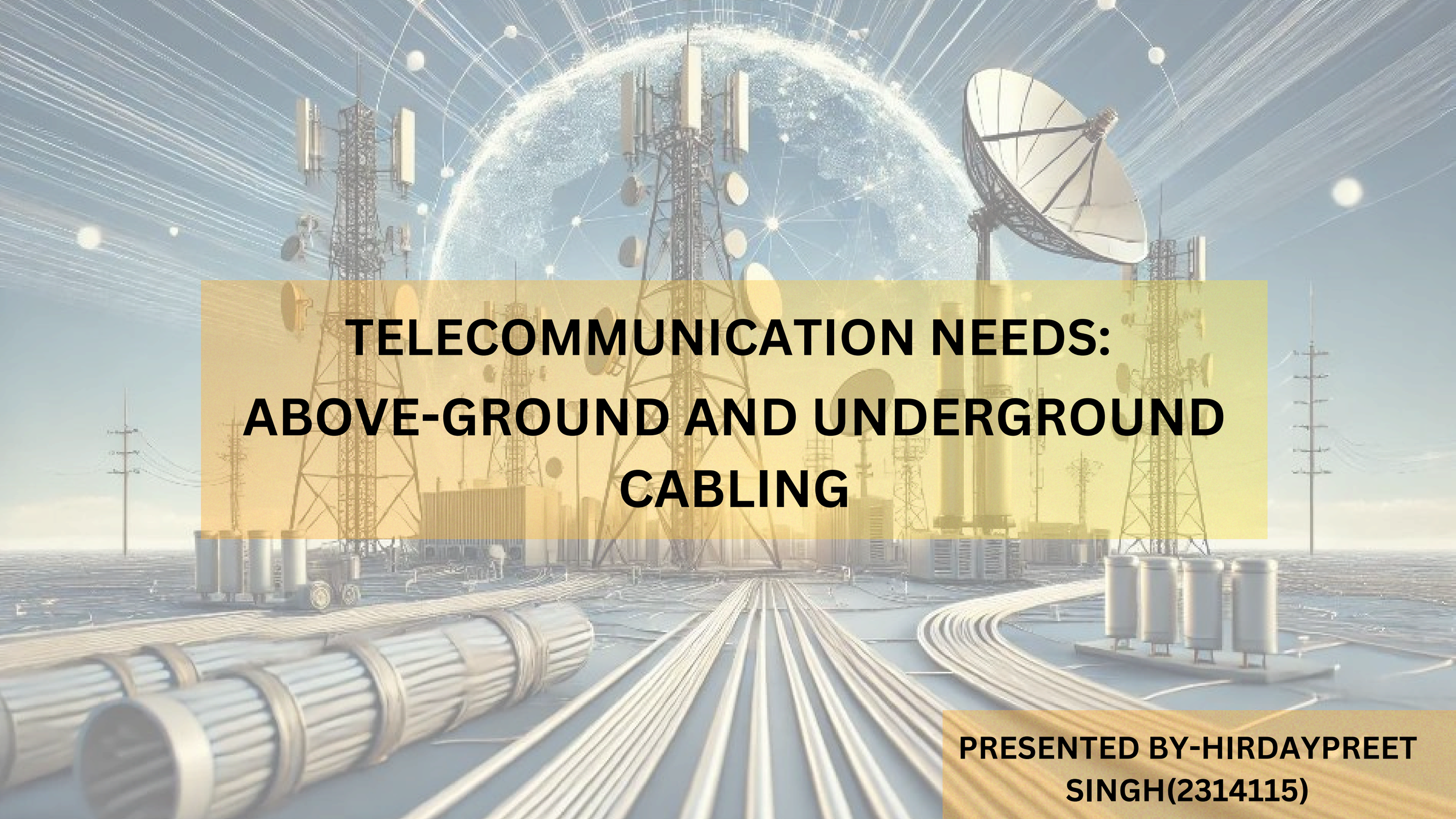
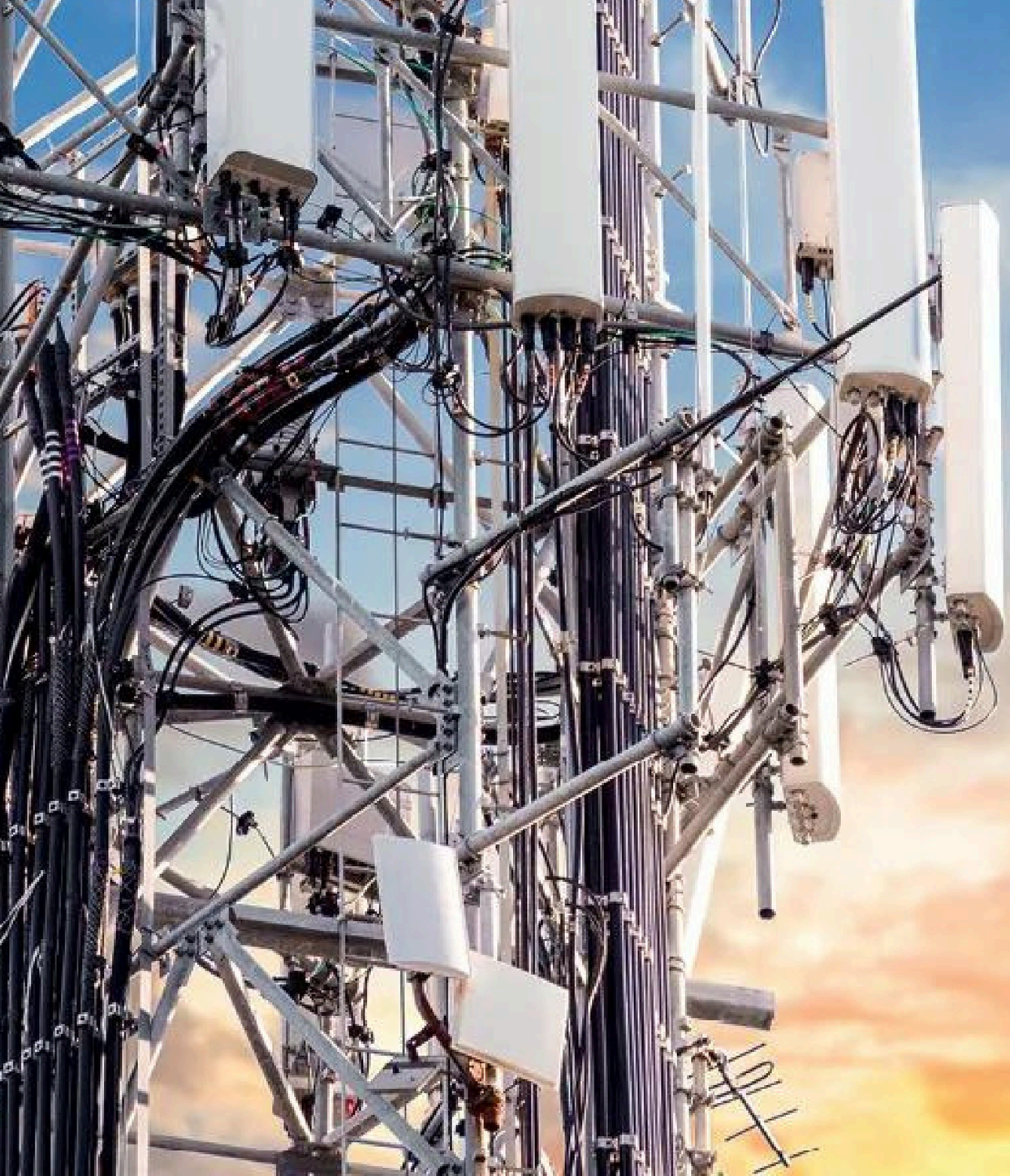


TELECOMMUNICATION NEEDS: ABOVE-GROUND AND UNDERGROUND CABLING

PRESENTED BY-HIRDAYPREET SINGH(2314115)



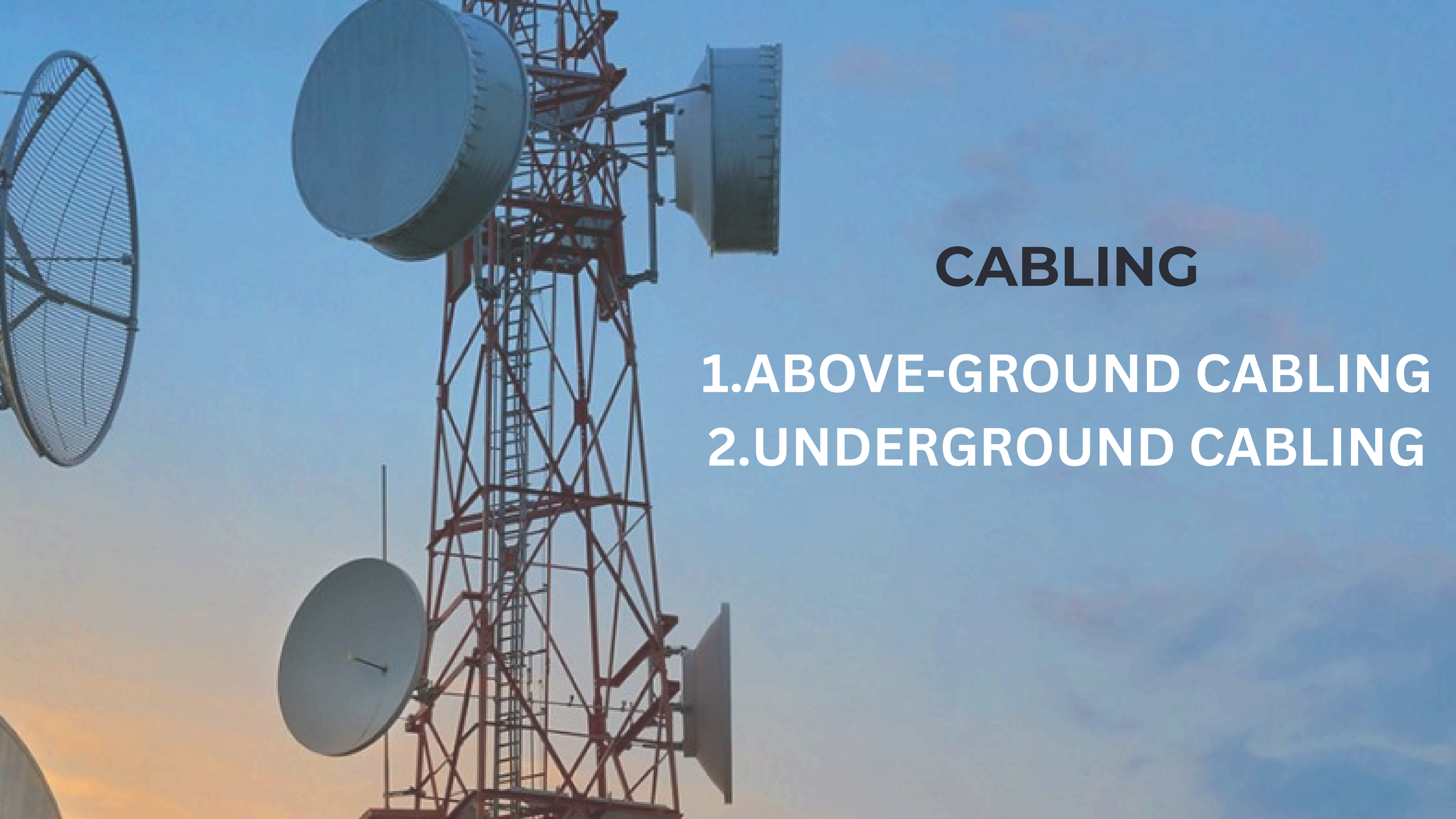
CONTENTS

TELECOMMUNICATION

Telecommunications, also known as telecom. The word telecommunication is come form two different languages, it is the combination of two words ‘tele’ which means “far off” and ’communicare’ means “to share” which is greek and latin word . In simple words telecommunication means exchange of information over large distances as well as shoter distances. It's a broad term that includes various sectors, but all include a transmitter and a receiver. The medium by which signal transfers may be wired or wireless such as fiber optics, satellites, radio and television broadcasting, the internet.

ROLE OF CIVIL ENGINEERING IN TELECOMMUNICATION

- Site Selection and Planning
- Design and Construction of Structures
- Roads and Access Routes
- Structural Maintenance and Inspections
- Utility Coordination and Permitting
- 5G Network Deployment
- Environmental Impact and Sustainability



CABLING

1.ABOVE-GROUND CABLING

2.UNDERGROUND CABLING

ABOVE-GROUND CABLING

Above-ground cabling is often used in telecommunications to deliver services such as internet, telephone, and television. These cables are typically strung along utility poles and are a more cost-effective and quicker solution compared to underground cabling. They are essential in areas where underground installation is difficult due to geographical constraints or urban infrastructure.

ADVANTAGES OF ABOVE-GROUND CABLING

1.LOWER INSTALLATION COST

2.EASIER MAINTENANCE AND REPAIRS

3.QUICK DEPLOYMENT

4.FLEXIBILITY

5.COST-EFFECTIVE FOR SHORT DISTANCE

6.LESS ENVIRONMENTAL IMPACT

7.SCALABILITY FUTURE EXPANSION

DISADVANTAGE OF ABOVE-GROUND CABLING

1.DIRECTLY EFFECTED BY ENVIRONMENTAL HAZARDS

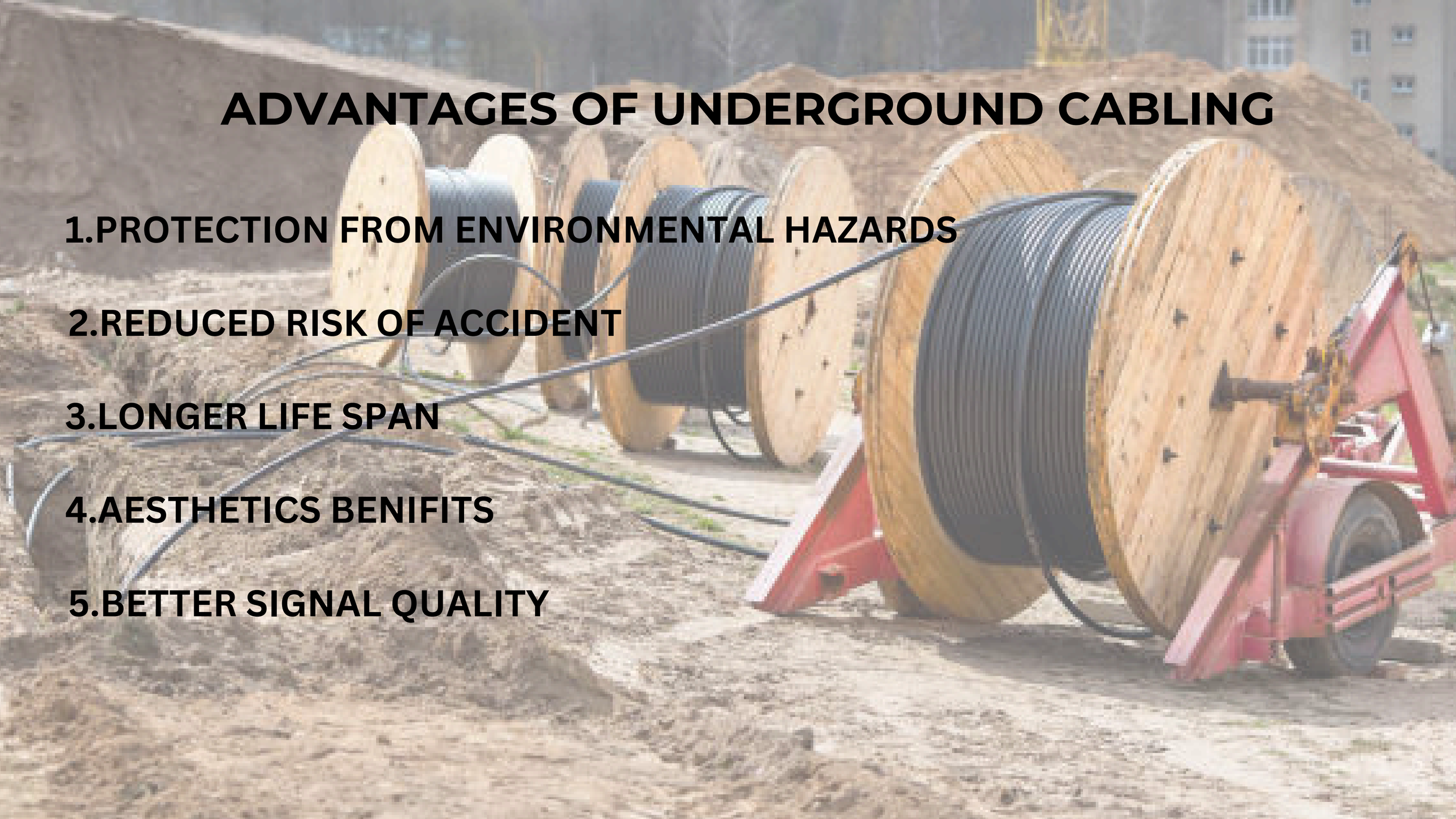
2.AESTHETICS

3.SIGNAL INTERFERENCE

4.SPACE OCCUPATION

UNDERGROUND CABLING

Underground cabling in telecommunications involves laying communication cables, such as fiber optic or copper, beneath the surface. This method is increasingly preferred over above-ground cabling in urban and suburban areas due to its durability, safety, and reduced visual clutter. However, it requires careful planning and engineering to ensure long-term functionality



ADVANTAGES OF UNDERGROUND CABLING

1.PROTECTION FROM ENVIRONMENTAL HAZARDS

2.REDUCED RISK OF ACCIDENT

3.LONGER LIFE SPAN

4.AESTHETICS BENIFITS

5.BETTER SIGNAL QUALITY

DISADVANTAGE OF UNDERGROUND CABLING

1.HIGH INITIAL COST

2.DIFFICULT MAINTENANCE AND REPAIRS

3.RISK OF ACCIDENTAL DAMAGE

4.COMPLEX INSTALLATION PROCESS

REFERENCES

TEXT

- https://en.wikipedia.org/wiki/Telecommunications_engineering
- https://www.google.com/searchq=role+of+civil+engineering+in+telecommunication+in+india&rlz
- https://careers.atkinsrealis.com/blogs/2021-8/civil-engineering-career-india

IMAGES

- https://www.istockphoto.com/photos/telecommunications


THANK YOU