Subject Name: Wireless Communication

Subject Code: CSP311M

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Roll no: 1401079

Practical Number: 1

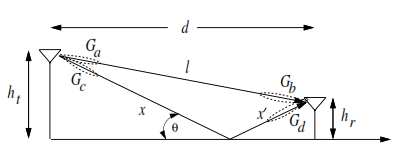
Aim: Path loss in Different Environment (ideal, urban, indoor) and their Receiver Antenna Power as increase in distance.

Brief Theory:

1. Free Space:

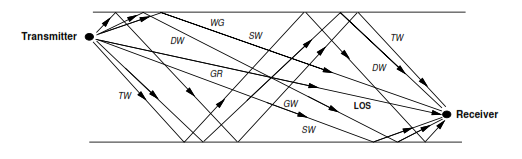
)

1. Two Ray:



)

1. Ten Ray:

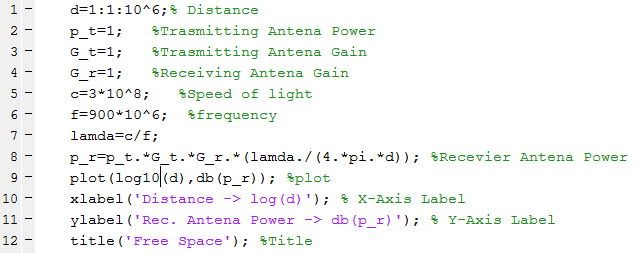


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Matlab Code:

1. Free Space:

Code:

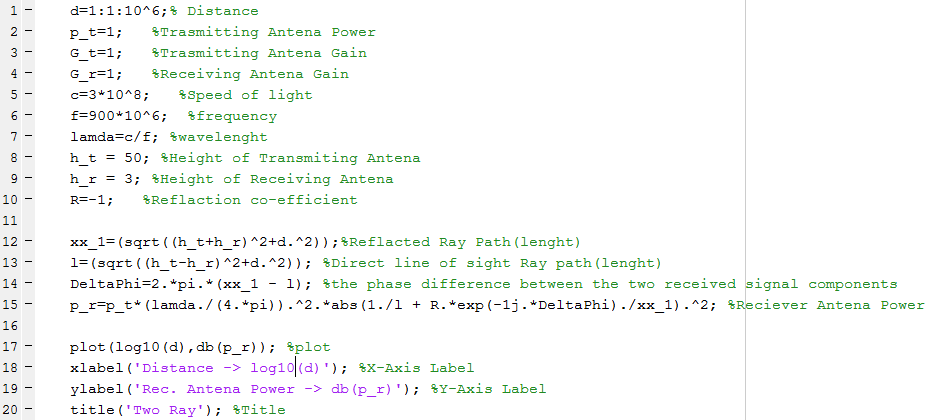


Simulation Results:



1. Two Ray:

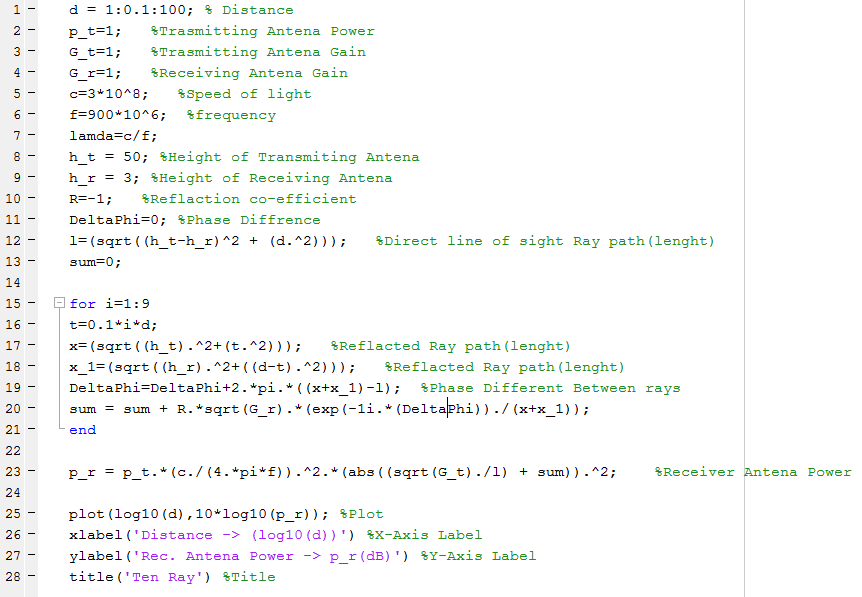
Code:



Simulation Results:



1. Ten Ray:

Code: 

Simulation Results:



Result interpretation:

1. As per Equation of the Free Space, Two Ray, Ten Ray Power of Receiving Antenna is Inversely Proportional to the Square of distance between Transmitting Antenna and Receiving Antenna and dependent on Reflection Co-efficient factor
2. As number of Rays increases the Signal Distortion Increases as we can observe from Two Ray and Ten Ray