# Assignment No. 1

**Aim:**

To develop the problem under consideration and justify feasibility using concepts of knowledge canvas and IDEA Matrix.

**Problem Statement:**

The below representation is the IDEA Matrix for a Implementation of Cost Optimization Approach for LiFi Data transmission technology.

**IDEA Matrix :**

| I | D | E | A |
|---|---|---|---|
| **Increase:** <br><br> Speed of the Data transmission and & provide data transmission security to the user. | **Drive:** <br><br> Interaction between Developer & File managing Environment. | **Educate:** <br><br> The API can be used to perform faster data transmission and provide security to the users. | **Accelerate:** <br><br> Transmission speed and better resource utilisation. |
| **Improve:** <br><br> Speed of transmission and security. | **Deliver:** <br><br> Better performance. | **Evaluate:** <br><br> Maximum data transmission in minimum time. | **Associate:** <br><br> Multiple users or group of people. |
| **Ignore:** <br><br> Interference of outer lights. | **Decrease:** <br><br> Time required for data transmission. | **Eliminate:** <br><br> Limitation of one way communication . | **Avoid:** <br><br> Radiation due to data transmission |

Table 1: IDEA Matrix

**IDEA :**

**I:**

| Increase | Speed of the Data & provide data transmission security. | User gets the better transmission speed, security, quality & better interface with System. |
|---|---|---|
| Improve | Speed of transmission and security.. | Better Performance & increased speed. |
| Ignore | Interference of outer lights. | Doesn't interface with external lights. |

Table 2: I

**D:**

| **Drive** | Interaction between developer & File manager. | Developer will use Java to intract and build simple API. |
|---|---|---|
| **Deliver** | Better performance. | Faster data transmission and desired output. |
| **Decrease** | Time required for data transmission. | Reduce human effort of manual data transmission . |

Table 3: D

**E:**

| **Educate** | The API can be used to perform faster data transmission and provide security to user . | We can use this technology to improve day-to-day human life. |
|---|---|---|
| **Evaluate** | Maximum data transmission in minimum time. | Better transmission rate with user data security. |
| **Eliminate** | Limitation of one way Communication. | Provides two way communication and eliminates slow data transfer. |

Table 4: E

**A:**

| **Accelerate** | Transmission speed and better resource utilization. | The system aims to accelerate the transmission speed and focuses on resource utilisation through Java API. |
|---|---|---|
| **Associate** | Multiple users or Group of people. | Multiple users can use it. |
| **Avoid** | Radiation due to data transmission | Avoids radiation effects which was caused by traditional wireless . |

Table 5: A