

**YAŞAR UNIVERSITY**

**FACULTY OF ENGINEERING**

**DEPARTMENT OF COMPUTER ENGINEERING**

**COMP 4811 INTERNSHIP**

**Internship Completion Report**

**(Staj Sonuç Raporu)**

**22070001055**

**Emre Efe Yüksel**

**02.10.2025**

**Ogem Mühendislik, İzmir**

**07.07.2025 – 04.08.2025**

**20 Workdays**

Contents

[1. Information About the Company/Organization 4](#_Toc42252893)

[2. Evaluation of the Internship 4](#_Toc42252894)

[3. Conclusions 5](#_Toc42252895)

[4. Appendices and Supplementary Material 5](#_Toc42252896)

[5. References 5](#_Toc42252897)

# Information About the Company/Organization

**Ogem Engineering** is a company operating in the field of telecommunications. The company provides engineering solutions and services related to communication technologies and network systems.  
During my internship, I worked in the transmission unit, which is responsible for the analysis, monitoring, and improvement of transmission systems within the company’s telecommunication projects.  
As a computer engineering student, my responsibilities mainly involved data processing, analysis using tools such as Python and Excel, and supporting the team with reporting tasks. The team included telecommunication, electronics, and computer engineers, allowing me to experience interdisciplinary collaboration.

# Evaluation of the Internship

1. My main internship activity was analyzing and processing transmission data in telecommunication systems using software tools such as Python[1] and Excel[2].
2. I worked in a multidisciplinary team consisting of telecommunication, electronics, and computer engineers. The team collaborated closely with other departments such as network operations and quality control to ensure system efficiency and compliance with ITU telecommunication standards [3].
3. - I prepared several technical reports that summarized the analyzed transmission data and performance results using Matplotlib for visualization [6]..  
   - I did not receive formal training for preparing reports; instead, I learned by following examples provided by my supervisors [4].  
   - The company applies standard internal reporting formats and expects reports to follow a structured and clear format.
4. - The company complies with international telecommunication standards [3], occupational safety standards, and information security policies.  
   - Rules and regulations included workplace ethics, confidentiality of project data, occupational safety guidelines, and company culture based on teamwork [4].  
   - I was informed about confidentiality policies and occupational safety rules during my internship.
5. The company used project tracking, documentation, and systematic risk management methods [4]. Change management was also applied to record and control modifications in transmission system processes.
6. **- Law:** I observed the importance of legal compliance in data confidentiality and telecommunication standards [3].

**- Health:** Occupational health rules were strictly applied, ensuring a safe and ergonomic workplace [4].

**- Security:** Information security was emphasized, and access to sensitive data was restricted [4].

**- Environmental:** The company showed awareness of environmental responsibility, such as reducing electronic waste and energy efficiency.

1. As an intern, I was not directly involved in financial analysis, but I observed that project-related decisions considered cost-efficiency and resource management [4].
2. I did not directly experience financial incentives, but I observed that the company motivated employees with recognition, teamwork-based achievements, and career development opportunities [4].
3. At the university, I mainly learned theoretical aspects of data analysis, programming, and algorithms. During my internship, I observed how these concepts were practically applied to real-world telecommunication problems and aligned with ITU and IEEE standards [3][5].
4. I attended several team meetings where project updates and data analysis results were discussed. These meetings involved telecommunication and electronics engineers, and focused on performance evaluation and planning for improvements [4].
5. I used Python [1] for data analysis, Excel[2] for data processing and reporting, and company-specific telecommunication monitoring tools for transmission performance evaluation [4].

# Conclusions

* This internship allowed me to understand how engineering knowledge is applied in the telecommunications industry.
* I experienced teamwork in a multidisciplinary environment and improved my skills in data analysis, problem-solving, and reporting.
* I also observed the importance of standards, safety, and efficient data management in the telecommunication sector, which strengthened my professional perspective.

# Appendices and Supplementary Material

metin, ekran görüntüsü, diyagram, çizgi içeren bir resim

Yapay zeka tarafından oluşturulmuş içerik yanlış olabilir.

**Appendix A – Example Python Code for Transmission Data Analysis**

(Date: 14 July 2025 – Prepared by: Emre Efe Yüksel)

**Explanation:**  
This Python code simulates the analysis of signal strength data collected from a transmission system. The graph shows how signal strength varies over time, helping engineers identify potential instability or interference in the communication link.

| **Time (s)** | **Signal Strength (dBm)** | **Status** |
| --- | --- | --- |
| 0 | -65 | Stable |
| 5 | -70 | Weak signal |
| 10 | -63 | Stable |
| 15 | -67 | Minor drop |
| 20 | -60 | Strong signal |

**Appendix B – Example Chart of Transmission Performance**

*(Date: 16 July 2025 – Prepared by: Emre Efe Yüksel)*

# References

[1] Python Software Foundation, Python Documentation, Available at: https://docs.python.org/3/ (Accessed: July 2025).

[2] Microsoft Corporation, Microsoft Excel User Guide, Available at: https://support.microsoft.com/excel (Accessed: July 2025).

[3] International Telecommunication Union (ITU), Telecommunication Standardization Sector Recommendations, Available at: https://www.itu.int/en/ITU-T (Accessed: July 2025).

[4] Ogem Engineering, Internal Technical Documents and Reports, İzmir, 2025.

[5] IEEE, IEEE Standards for Telecommunication Systems, IEEE Communications Society, 2020.

[6] Matplotlib Development Team, Matplotlib Documentation, Available at: https://matplotlib.org/stable/contents.html (Accessed: July 2025).