

Analysis and Recommendations for Lost and Found Items at IIITDM Kancheepuram

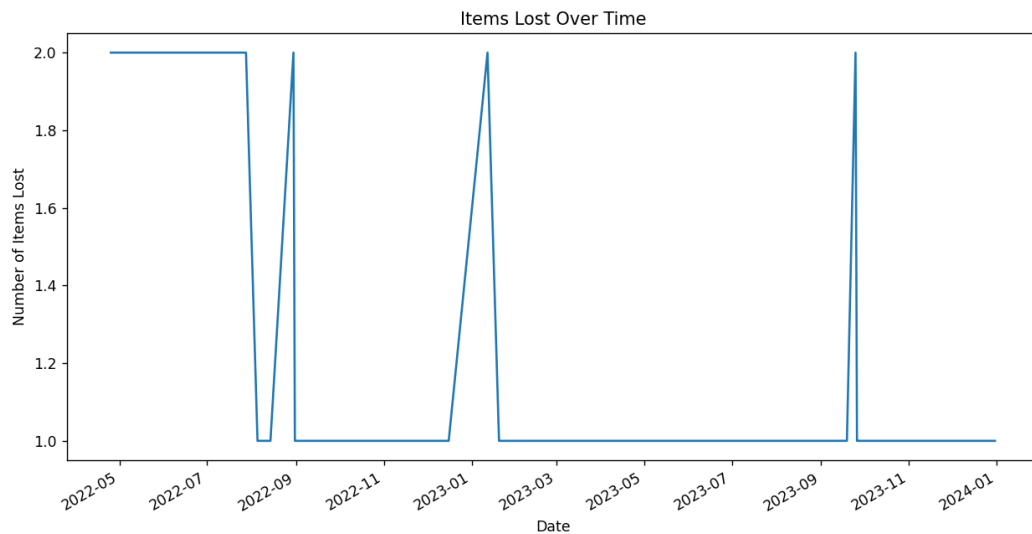
Executive Summary

Lost and found items are a common occurrence on college campuses, and understanding the trends and patterns of these incidents is crucial for providing an effective and responsive environment for students, faculty, and staff. This report presents an analysis of lost and found items at IIITDM Kancheepuram based on a dataset of recorded incidents. The analysis encompasses various visualizations and insights that shed light on the distribution of lost items, temporal trends, and locations with the highest incidents. Recommendations for creating a more effective environment to address these challenges are also discussed.

Visualizations and Insights

Time Series Plot

The time series plot shows a trend of lost items over time. It is evident from the graph that there is a significant variation in the number of items lost throughout the year. This insight indicates the importance of understanding temporal patterns and allocating resources accordingly.

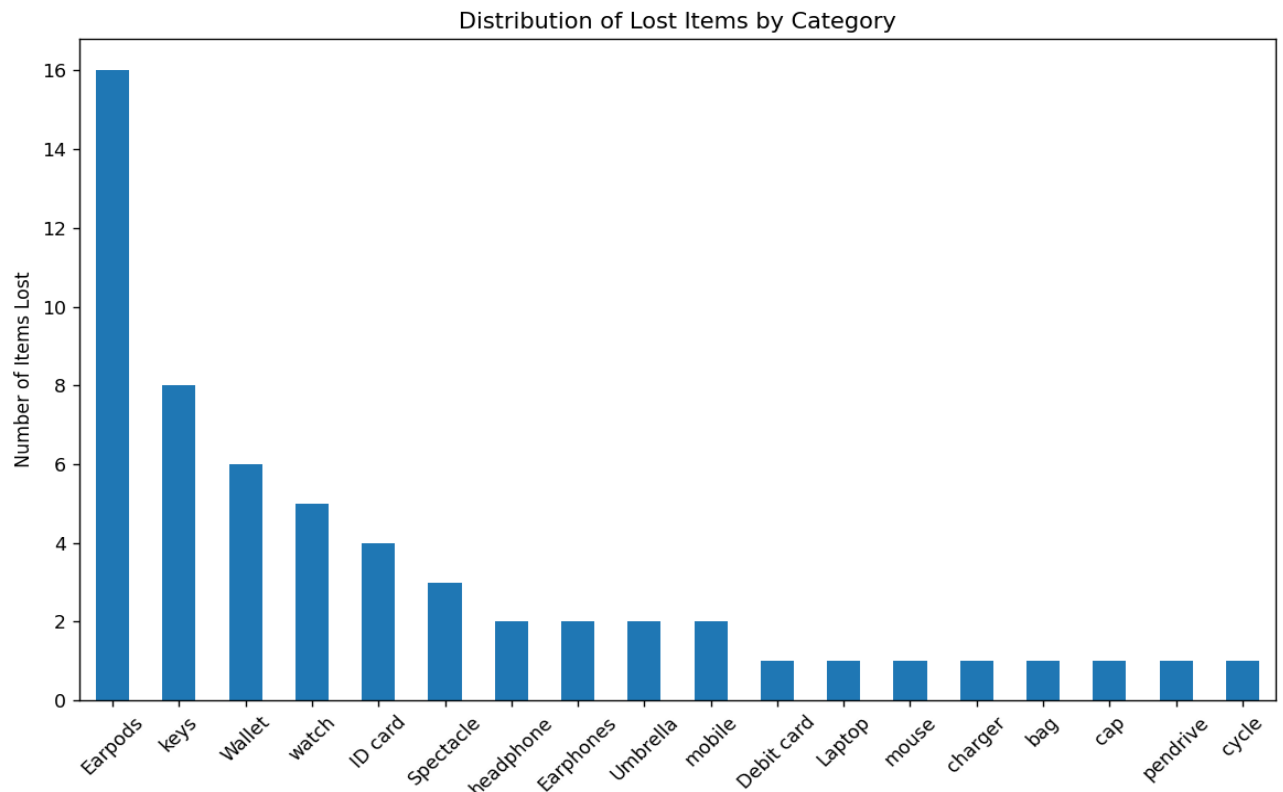


Inference:

There is typically no Inference that can be from the graph above but it's very useful when it's applied for a very big datasets.

Item Category Distribution

The distribution of lost items by category reveals that certain types of items are more commonly lost than others. For instance, earpods and keys are among the frequently lost items. This information is valuable for identifying categories that may require special attention in awareness campaigns and preventive measures.



Inference from above graph:

From the above bar graph data we can Infer that EarPods are the commonly misplaced item followed by keys, wallet , watch..

Location Analysis

The location analysis graph shows the number of lost items by different locations on campus. This visualization is instrumental in identifying hotspots where items are commonly lost. Focusing on these locations can help in reducing incidents and improving the overall environment.

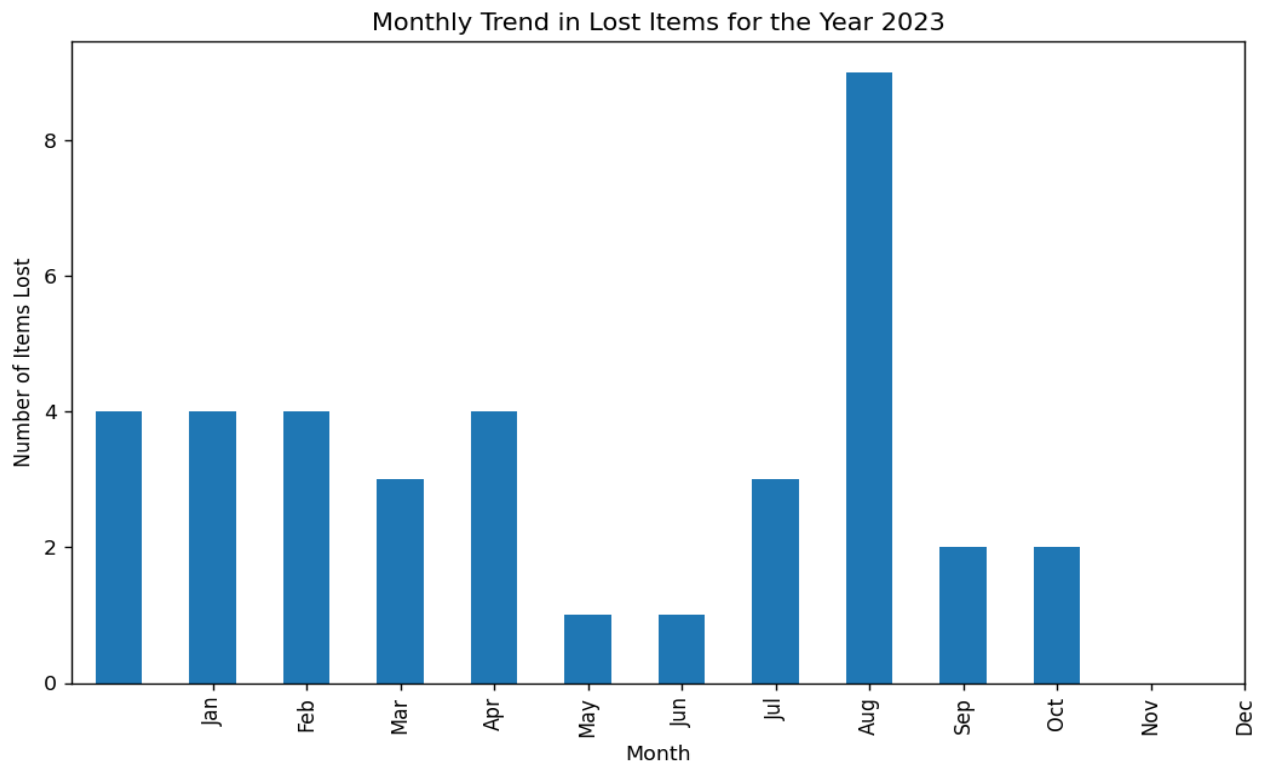


Inference from the heatmap:

The heatmap shows that the number of items lost in various location. The main building where most of the items are lost is the **Academic Block** followed by Arjuna sports complex, Mess, Hostel and Lab.

Monthly Trends

The monthly trend analysis focuses on the year 2023. The graph displays the number of items lost each month. This temporal insight indicates that certain months have higher incidents, suggesting the need for intensified efforts in specific periods.



Recommendations for an Effective Environment

Enhanced Awareness Campaigns

In our analysis, we can infer that EarPods are the most misplaced item, followed closely by keys, wallets, and watches. Understanding the frequent loss of these items is pivotal for enhancing our awareness campaigns. By tailoring our messaging and preventive measures to focus on these commonly lost items, we can effectively educate the campus community on how to prevent these losses.

Key Insights:

- EarPods, keys, wallets, and watches are frequently misplaced items.
- Awareness campaigns should prioritize these items in their messaging.

Hotspot Interventions

The heatmap visualization provides a clear overview of the number of items lost in various locations across the campus. It is evident that the Academic Block stands out as the primary location where most items are reported lost. Following closely are the Arjuna Sports Complex, the Mess area, Hostel, and the Lab. These insights indicate specific hotspots that require interventions to reduce incidents.

Key Insights:

- Academic Block is the primary hotspot for lost items.
- Arjuna Sports Complex, Mess, Hostel, and Lab are also locations with notable incidents.
- Interventions, such as improved lighting and signage, should be considered for these hotspots.
- Addressing the issue of frequently lost items and targeting hotspots for interventions can significantly improve the effectiveness of our Lost and Found system and create a safer and more secure environment for our college community. These insights guide our efforts to better serve the campus community and enhance the overall environment.

Time-Specific Resource Allocation:

Understanding the temporal trends from our monthly trend analysis is vital. We can allocate resources, such as security personnel and surveillance, during periods when incidents are more likely to occur. The monthly trend analysis should guide our allocation to enhance security and awareness during critical periods

Lost and Found System Optimization:

Consider upgrading our Lost and Found system to enhance the efficiency of returning lost items to their owners. Implementing an online system or a user-friendly mobile application for reporting and tracking lost items can improve the overall experience for our community.

Feedback Mechanism:

Create a feedback mechanism at IIITDM Kancheepuram for students and staff to report issues related to lost items. Gathering insights from the community on challenges they face and potential solutions can be valuable for continuous improvement.

Data-Driven Decision-Making:

Embrace a data-driven approach to decision-making at IIITDM Kancheepuram. Continuous monitoring and analysis of data should guide our strategies and preventive measures. It's essential for addressing changing trends and patterns in a timely and effective manner.

Conclusion

The analysis of lost and found items data at IIITDM Kancheepuram has provided valuable insights into the distribution, temporal trends, common items associated with incidents, and specific locations with higher incidents. By implementing the recommendations outlined in this report, IIITDM Kancheepuram can significantly enhance its Lost and Found system, reduce incidents, and provide a safer and more secure environment for its students and staff.

These insights serve as a foundation for creating a more effective and responsive environment. Addressing frequently misplaced items, targeting hotspots for interventions, and employing data-driven decision-making are pivotal steps toward achieving a safer and more secure campus environment at IIITDM Kancheepuram.

By continuously monitoring and analysing data and applying the recommended strategies, IIITDM Kancheepuram can ensure that the campus community feels safer, more secure, and better equipped to prevent the loss of valuable items, ultimately contributing to an improved college environment.

Author's View and Details

As I conclude this report, I am thrilled to have undertaken my first data science project and to have had the opportunity to contribute to the betterment of my college, IIITDM Kancheepuram. It has been a rewarding journey, and I am grateful for the chance to apply data-driven insights to enhance the college environment. I look forward to more such projects in the future and to continue making a positive impact. Thank you for your support and encouragement.

Author: A. Amar Rohith

Affiliation: Student (Roll.No:EC21B1106, IIITDM Kancheepuram)