

The slide features a light gray background with several hexagonal shapes: a large light blue hexagon, a small dark green hexagon, a large green hexagon, and a small green hexagon. On the right side, there is a large, abstract graphic composed of overlapping translucent blue and white geometric shapes. The text 'S.AGALYA' is displayed in a bold, black, sans-serif font.

**S.AGALYA**

**Final Project**

# PROJECT TITLE



## MEASURING ENERGY CONSUMPTION

# AGENDA

- 1.Introduction
- 2.Problem Statement
- 3.Project Overview
- 4.End Users
- 5.Solution and Value Proposition
- 6.Unique Features
- 7.Results
- 8.Conclusion



# PROBLEM STATEMENT

- The advent of 5G technology has ushered in a new era of connectivity, offering numerous benefits but also raising concerns about energy consumption.
- Despite being more energy-efficient than its predecessor, 5G networks exhibit significantly higher energy demands due to various factors.
- Understanding these factors and optimizing energy consumption is vital for sustainable network deployment.



# PROJECT OVERVIEW

- Our project focuses on addressing the challenge of excessive energy consumption in 5G networks.
- By delving into the intricate dynamics of base station energy consumption, we aim to develop strategies for optimizing energy usage without compromising network performance.
- Through accurate modeling and analysis, we seek to pave the way for more sustainable and efficient network deployments.



# WHO ARE THE END USERS?

- Network operators
- Infrastructure providers
- Policymakers, and
- End-users are the primary stakeholders concerned about the energy consumption of 5G networks.

# YOUR SOLUTION AND ITS VALUE PROPOSITION



- Our solution revolves around precise modeling and analysis of base station energy consumption.
- By incorporating factors such as architecture, configuration parameters, traffic conditions, and energy-saving methods, we provide actionable insights for optimizing energy usage.
- Our approach enables stakeholders to make informed decisions regarding network design, deployment, and operation, resulting in significant cost savings and environmental benefits.

# THE WOW IN YOUR SOLUTION



**1.Accurate Modeling & Prediction:** Our solution precisely forecasts energy usage in 5G networks, aiding informed decision-making.

**2.Advanced Analytics & ML:** Leveraging cutting-edge analytics and machine learning, we offer unprecedented insights for optimization.

**3.Data-Driven Decisions:** Stakeholders benefit from actionable data insights, enhancing network performance and sustainability.

**4.Sustainable Development:** We identify inefficiencies and recommend strategies for cost and eco-conscious network deployment.

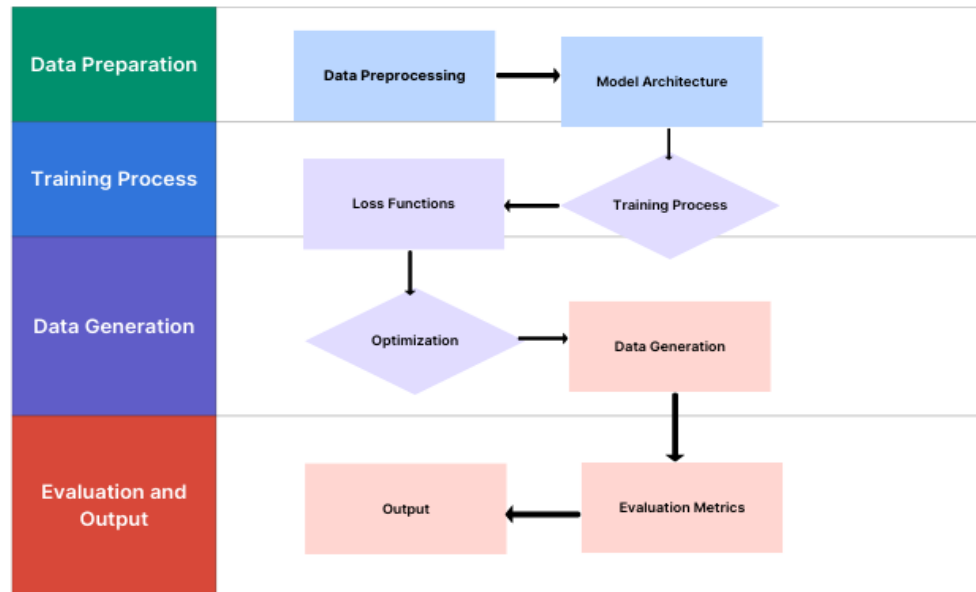
**5.Continuous Optimization:** Dynamic adaptation ensures ongoing network efficiency and resilience, ensuring long-term sustainability.



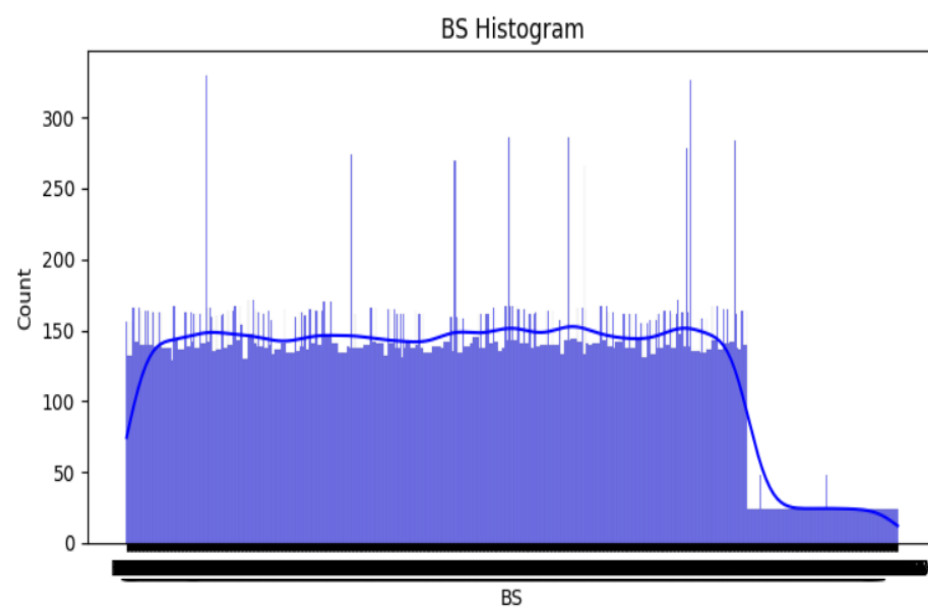
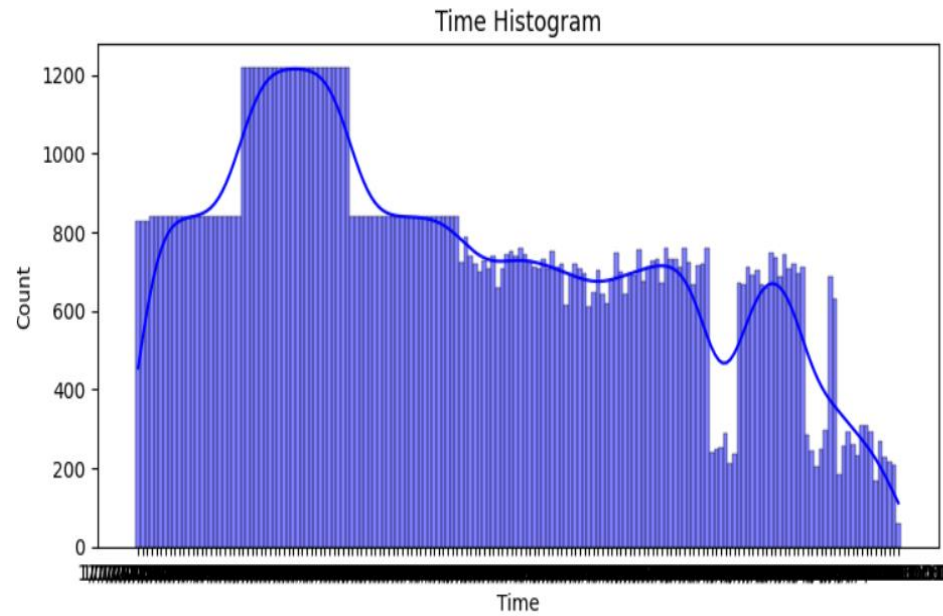
# MODELLING



## Workflow Diagram



# RESULTS



[Demo Link](#)