AUTOMATED WASTE SEGREGATION FOR SMART WASTE MANAGEMENT

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PROBLEM STATEMENT

"IMPROVING WASTE SEGREGATION THROUGH AI-BASED AUTOMATION FOR EFFICIENT RECYCLING AND WASTE MANAGEMENT."
OBJECTIVES

• To improve the accuracy and efficiency of waste sorting

• To enable the detection and separation for different waste to energy treatment plans

• To enhance recycling rates and resource recovery
METHODOLOGY

- Data collection
- Preprocessing
- AI model development
- Implementation
AUTOMATED WASTE SEGREGATION SYSTEM

- Real-time waste detection and sorting using AI algorithms
- Integration with a conveyor belt for waste separation
- Output bins for glass, paper, metal, plastic, pharmaceutical and general waste
- Monitoring system for performance evaluation and quality control
BENEFITS OF AUTOMATED WASTE SEGREGATION SYSTEM

• Improved accuracy and consistency in waste detection and sorting
• Higher efficiency and speed compared to manual sorting methods
• Increased recycling rates and resource recovery
• Reduction in human labour and associated costs
Thank You