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TIRUPPUR – 638 660
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
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DEPARTMENT OF

ELECTRONICS AND COMMUNICATION ENGINEERING

IBM - Naan Mudhalvan

Internet of Things – Group 3

Phase 2 - Project Submission

PUBLIC TRANSPORT OPTIMIZATION

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PUBLIC TRANSPORT OPTIMIZATION

Optimizing public transport is essential for improving efficiency, reducing congestion, and promoting sustainability in urban areas. There are several innovative approaches and technologies you can consider for a public transport optimization project:

- **Real-Time Passenger Information (RTPI)**
- **Predictive Maintenance**
- **Data Analytics**
- **Smart Ticketing Systems**
- **Dynamic Pricing**
- **Autonomous Vehicles**
- **Electric Buses**
- **Multi-Modal Integration**
- **Smart Traffic Management**
- **Green Infrastructure**
- **Crowdsourcing and User Feedback**
- **Microtransit Services**
- **Environmental Sustainability Initiatives**
- **Behavioral Insights and Nudges**
- **Safety Enhancements**

Smart Ticketing Systems:

By using image processing to recognize the currency of the country and other country currency the currency will recognized.

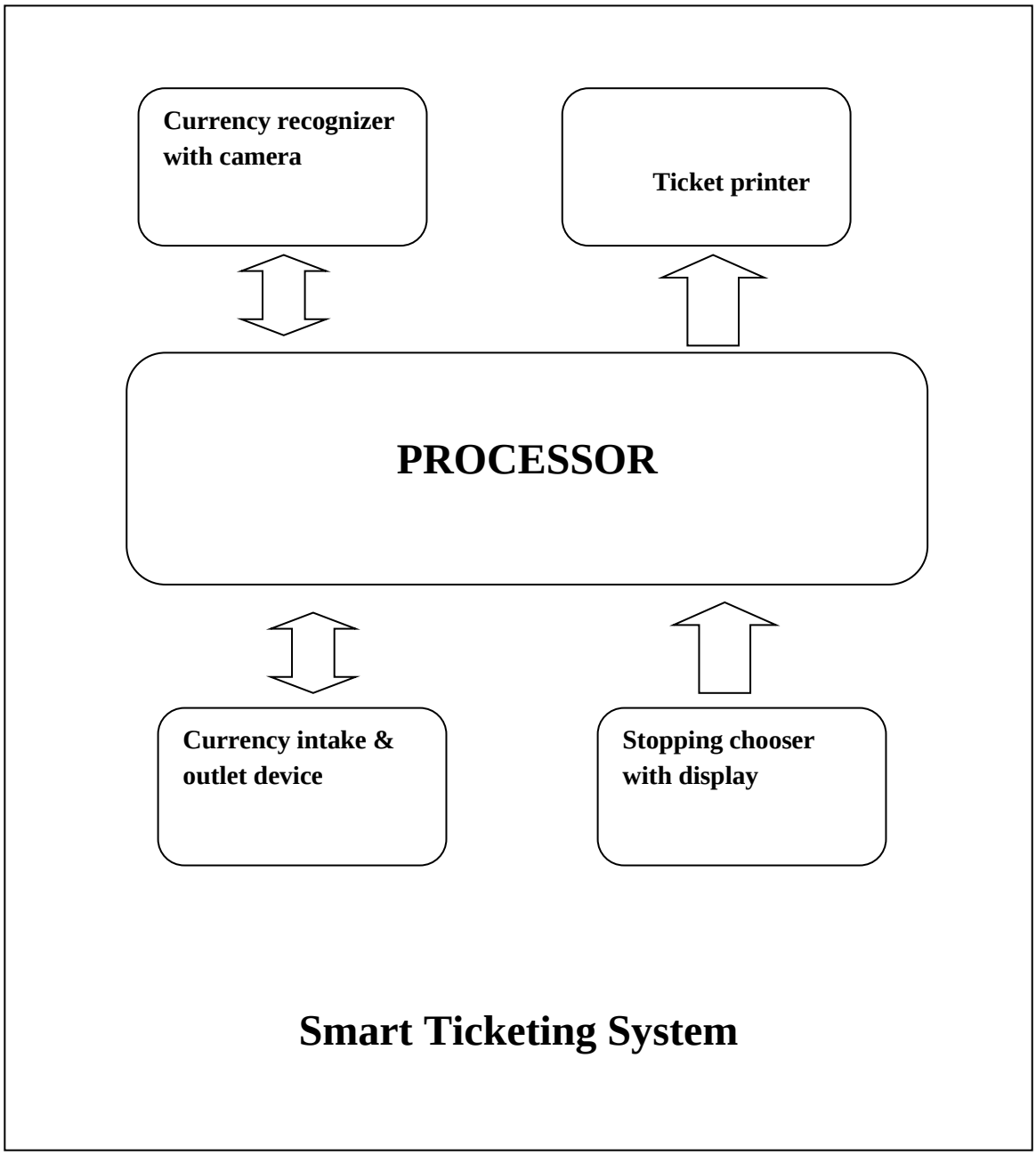
Comparation of the currency with other country currency will be done by programming with python, MATLAB and etc.,

The current stop will be displayed by using the location of the transport, when the passenger enters the transport like bus,train etc., the passenger can choose the destination stop. Then tha AI based programmed system shows the amount for travel. The passenger can use the currency to get the ticket. The system gives the balance change to tha passenger by recognizing the currency image.

Balance amount = Recognized amount - travel charge

Each and every ticket have an unique travel ID, when the stop comes the AI based system tells the stop name and The travel ID. So, the passengers can able to leave the transport in their correct stopping.

BLOCK DIAGRAM:



Advantage:

- This system reduces the man-power.
- Easy to access.

When implementing this innovations, it's crucial to involve all stakeholders, including city authorities, transport agencies, and the community, to ensure a successful public transport optimization project. Additionally, a phased approach to implementation and ongoing monitoring and adaptation will be key to success.