Automated Capture of Freight Origin/Destination Data using License Plate Readers

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1. Origin/Destination Data
2. Phase I
3. System Hardware
4. System Software
To utilize LPR technology for collecting O/D Data of Freight using highway gantry-mounted cameras.
O/D

When did it leave and from where?
When did it arrive and to where?
<table>
<thead>
<tr>
<th>ORIGIN - DESTINATION DATA</th>
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<tbody>
<tr>
<td>Planning</td>
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<td>Design</td>
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<td>Congestion Pricing</td>
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<tr>
<td>Maintenance</td>
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<td>Cargo Theft</td>
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<td>Enforcement</td>
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<td>Intermodal</td>
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<td>Port Management</td>
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<td>Traffic</td>
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<td>Average Speed</td>
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A large number of models is available. But where would the data come from?!
Getting RELIABLE Origin/Destination Data is Expensive and time consuming.
Phase I
Location

North

NCTSPM
System Design Challenges

1. Selection of Camera Systems (light, resolution ..)
2. Selection of Triggering Mechanisms
3. Power Source
4. Software and acquisition speed
5. OCR Target: Plates, Container Numbers ...etc.
6. Safe connection to Gantries
7. Sign structure Issues
Gantry 1
7) Sign structure Issues
7) Safe connection to Gantries
Installation
Rear License-Plate Problems
Rear License-Plate Problems
Location 1
Installation

Location 2

Location 3
3) Triggering Technology
3) Triggering Technology
Bracket
Installation
Field Test
NIGHT READING
Night Reading
Solar Power
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ANY QUESTIONS?