

# AIRPORT PERFORMANCE OPTIMIZATION APPLICATIONS

Area	Application	Benefits
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## Airside

<b>Security in a crowd</b>	Ability to recognize people of interest/ suspects in a crowd in an uncontrolled environment	Security & Operational Efficiency
	Detection of Abandoned/ Suspected bag left in a Crowd	Security
	Detection of trollies being left where they should not be	Safety & Security
	Prevent intrusion in secured zones such as runways, control rooms, airplane hangers and other secured zones	Safety & Security
	Ability to detect fights through behavior analytics	Security
	Identify suspicious behavior - loitering, sudden crowd gathering, man-down	Safety & Security
<b>Safety</b>	Alert for any overcrowding incidents	Safety
	People counting based on zones to enhance rescue operations during emergencies	Safety
	Slip & Fall detection	Customer welfare & reduced
	Help find missing children in a crowd using Automated Response	Customer welfare & reduced public liability
	Automated Quarantine Control	Health & Safety
	Smoke and fire detection in an open air environment	Safety
	Detect water spills to reduce public liability	Safety
<b>Asset Operation Management</b>	Airplane Metering at Airbridge	Asset Management
	Prevent Theft	Asset Management
	Provide predictive maintenance on equipment	Maintenance cost savings
	Access control and staff identification	Asset Management

	<p>The ability to detect for asset destruction/ manipulation (example: graffiti detection)</p> <p>Detect acts of vandalism and be able to identify those involved and track them till they are apprehended.</p>	<p>Asset Management</p> <p>Savings in clean up and repair costs</p>
<b>Crowd Management</b>	<p>Estimate Crowd density and use the data/information to decide where and when to open gates, deploy additional staff, and manage queues more efficiently. Use this data to understand the crowd behaviour and measure operational efficiency and customer success. The data can also be used for planning and optimizing operations</p> <p>Understand how long people spend in a particular zone so as to be able to provide a better service to users and ensure better staff scheduling</p> <p>Manage VIP access to gates</p> <p>Dwell time management to understand customer waiting times and enhance operations</p> <p>Queue management</p> <p>People counting &amp; movement monitoring even when crowds are stationary</p>	<p>Customer welfare &amp; operations planning</p> <p>Customer welfare and cost savings through improved efficiency</p> <p>Customer welfare</p> <p>Streamline operations</p> <p>Streamline operations &amp; customer</p> <p>Streamline operations &amp; customer welfare</p>
<b>Retail</b>	<p>Dwell time management to understand how much time a customer spends in a particular zone</p> <p>Intelligent video analysis to understand the flow of people through the shopping zones to enhance customer service and use as a tool for marketing</p> <p>Determine rents for shops based on traffic flow</p>	<p>Streamline operations &amp; revenue generation</p> <p>Streamline operations &amp; revenue generation</p> <p>Revenue generation</p>
<b>Landside</b>		
<b>Security in a crowd</b>	<p>Ability to recognize people of interest at 20m distance in a crowd in an uncontrolled environment</p> <p>Detect of Abandoned objects left in a Crowd</p> <p>Detection of trollies being left where they should not be</p> <p>Identify suspicious behavior - loitering, sudden crowd gathering, man-down</p>	<p>Security &amp; Operational Efficiency</p> <p>Security</p> <p>Safety &amp; Security</p> <p>Safety &amp; Security</p>

<b>Safety</b>	Alert for any overcrowding incidents	Safety
	People counting based on zones to enhance rescue operations during emergencies	Safety
	Slip & Fall detection	Customer welfare & reduced
	Help find missing children in a crowd using Automated Response	Customer welfare & reduced public liability
	Automated Quarantine Control	Health & Safety
	Smoke and fire detection in an open air environment	Safety
	Detect water spills to reduce public liability	Safety
	Identifying children on conveyer belts	Safety
<b>Crowd Management</b>	Ensure that only authorized adults pick up children	Safety and customer welfare
	Ensure children are well cared (eg no aggressive behavior etc)	Safety and customer welfare
	Manage queues at check-in and security gates	Operational Efficiency
	Overcrowding alert against crowd count crossing a defined threshold value	Operational Efficiency
	Stationary & moving crowd count	Operational Efficiency
	Manage VIP access to gates	Customer welfare
	Dwell time management to understand customer waiting times and enhance operations	Streamline operations
	Understand crowd movement directions and provide crowd counter flow alert	Streamline operations
	Suspect Search within dense crowds	Safety
	<b>Asset Management &amp;</b>	Prevent Theft
Provide predictive maintenance on equipment		Maintenance cost savings
Access control and staff identification		Asset Management
The ability to detect for asset destruction/ manipulation (example: graffiti detection)		Asset Management
Detect acts of vandalism and be able to identify those involved and track them till they are apprehended.		Savings in clean up and repair costs
<b>Retail</b>	Dwell time management to understand how much time a customer spends in a particular zone	Streamline operations & revenue generation

Intelligent video analysis to understand the flow of people through the shopping zones to enhance customer service and use as a tool for marketing	Streamline operations & revenue generation
Determine rents for shops based on traffic flow	Revenue generation

## Outside

### Parking

vehicle that is stolen or used for any criminal activity	Security & Operational Efficiency
Count of how many parking spots have been occupied and how many are vacant	Streamline operations & revenue generation
Detect Counter Direction Driving	Safety
Dwell time to detect over time parkings	Streamline operations & revenue generation
Overcrowding alert against traffic count crossing a defined threshold value	Streamline operations