

a
SENSE
for **IEE**
innovation



Shaping the future of Smart Urban Living

with IEE smart cities solutions

iee-sensing.com

Smarter Sensing. Safer Cities. Better Living.

At IEE, we deliver actionable insights through smart sensing technology, helping decision-makers enhance urban life for everyone.

Modern cities are evolving. As populations grow and infrastructures become increasingly complex, municipalities and building operators face rising challenges in maintaining safety, efficiency, and attractiveness.

For more than 30 years, IEE Sensing has been at the forefront of sensor innovation.

With expertise rooted in 3D sensing and Time-of-Flight (ToF) technology, we design advanced systems that combine precision, privacy, and performance.

Our solutions power smart buildings, transportation hubs, and public spaces worldwide — making cities safer, more efficient, and more human-centered.



Check out our eflyer:

<https://iee.aflip.in/smart-cities-solutions>

Increasing the attractiveness of city centres

Gain a deeper understanding of how people move and interact in public spaces.

Use real-time data to optimize city layouts, retail zones, and events, creating more vibrant and engaging environments.



Increasing safety and security

Enhance protection across urban spaces by preventing unauthorized access, managing occupancy, and detecting overcrowding or suspicious behavior in real time.

Ensure safer buildings and public areas through proactive detection and immediate response capabilities.



Optimizing infrastructure

Leverage accurate usage and occupancy data to improve space management, building efficiency, and sustainability through data-driven facility optimization.

Make infrastructure smarter and more responsive to human needs.



Optimizing transportation

Streamline movement across airports, stations, and transit hubs with real-time passenger flow monitoring and queue management.

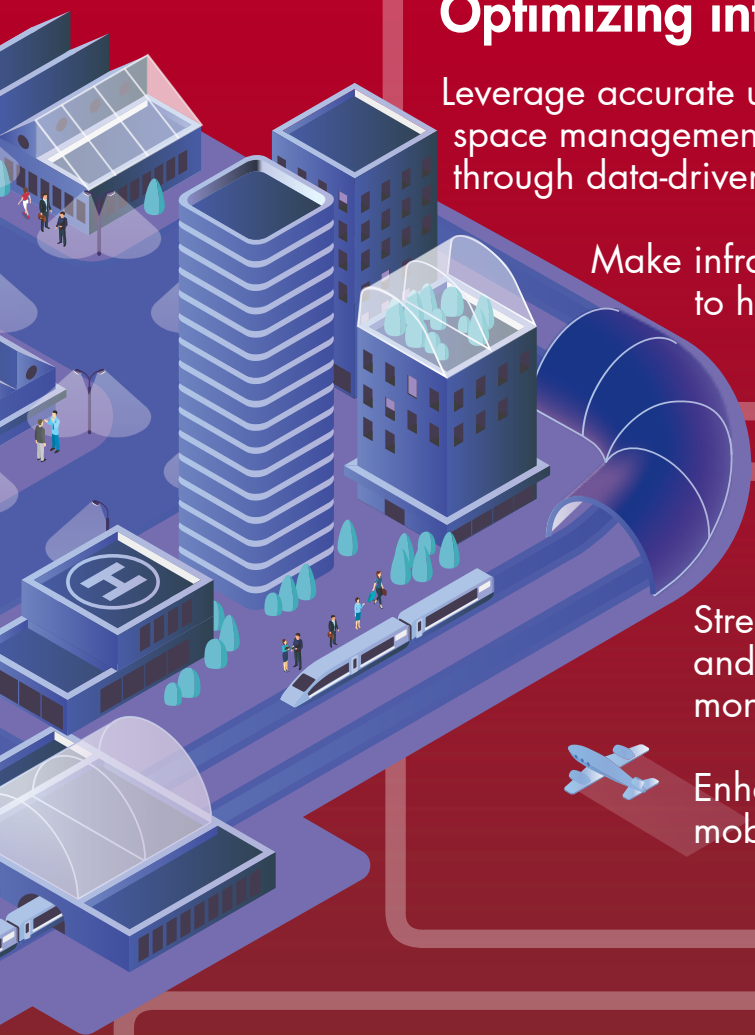
Enhance the efficiency and comfort of urban mobility systems.



Protecting cultural and valuable assets

Safeguard artwork, artefacts, and valuables with precise 3D sensing technology that preserves accessibility for visitors while ensuring maximum protection.

Balance security and openness to enhance the visitor experience while maintaining asset integrity.



Our Core Technology: Time-of-Flight (ToF) Sensing

1

A modulated near-infrared (NIR) light source emits controlled illumination.

2

A 3D matrix sensor detects the reflected light from objects or people.

3

The phase shift between emitted and reflected light is measured precisely.

4

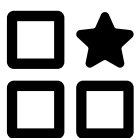
A 3D topographic image is created and analyzed by onboard algorithms.





Advantages

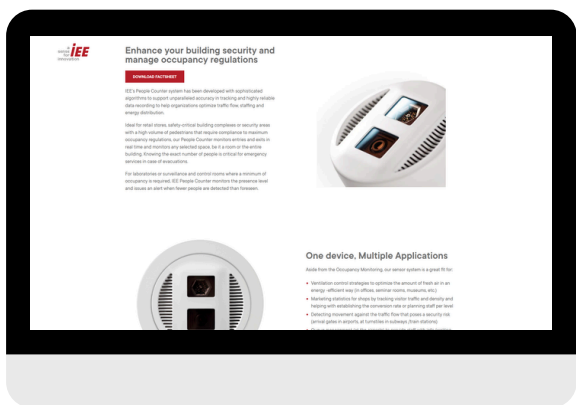
- Precise detection and separation of people close to each other
- Reliable tracking and counting in real time
- Bi-directional flow measurement with >99% accuracy
- Full GDPR compliance – no facial recognition or image storage



Why IEE's ToF Technology is Unique

Our in-house developed ToF sensors combine optical excellence with embedded software intelligence, ensuring unmatched accuracy, fast installation, and long-term reliability.

Whether in public spaces, secure areas, or cultural sites, IEE technology transforms raw data into actionable insight — powering the smart cities of tomorrow.



More information
on our website.

iee-sensing.com

CONTACT

Your contacts



**Kai
Pabelick**

Head of BU
People & Object
Sensing



+352 2454 2058



kai.pabelick@iee.lu



**Roland
Peters**

Product Manager BU
People & Object
Sensing



+352 2454 2496



roland.peters@iee.lu



**Laurent
Seve**

Marketing
& Communications
Manager



+352 2454 2242



laurent.seve@iee.lu



Check out our eflyer:

<https://iee.atlip.in/smart-cities-solutions>

a
sense
for **IEE**
innovation