



# Navigate using Lisee Technology

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# Presentation Plan

Navigate using Lisee technology

- Vision statement.
- How did we get here and today's situation.
- Product
- Goals and objective
- Customers
- Our Aim
- Lisee @ HKUST
- Lisee @ Super market
- Lisee @ Airports / Train Stations
- Go beyond the static environment
- Q&A
- Thanks

# Vision Statement

Navigate using Lisee technology

“Lisee’s main vision is to provide an intelligent low-cost indoor navigation system with quick integration and high precision results”



## Lisee for;

- **Consumers:** Navigation and Localization
- **Managers :** Optimizing the environment according to people’s behaviours

# How Did We Get Here?

Navigate using Lisee technology

- We have been engaged in the study of VLC-based localization almost since 2016.
- Currently, we have **completed** the
  - Hardware platform assembly of standard lights.
  - Light source radiation pattern modelling.
  - Mixed visible light signals decomposition.
  - Probabilistic light intensity distribution modelling.
  - Path planning within the proposed model, and localization validation in a realistic environment.

# Today's Situation

Navigate using Lisee technology

- Experimental prototype which has localization precision **up to 10cm**.
- Expert in creating **map using robots** of a given environment very fast.
- **Replacement** of standard lights (T8, T5) with our low cost lights and driver, so that there is no need to change the ceiling layout.



# Product

Navigate using Lisee technology



Lighting System

Smart Phones API

Cloud Services

Labeling Device

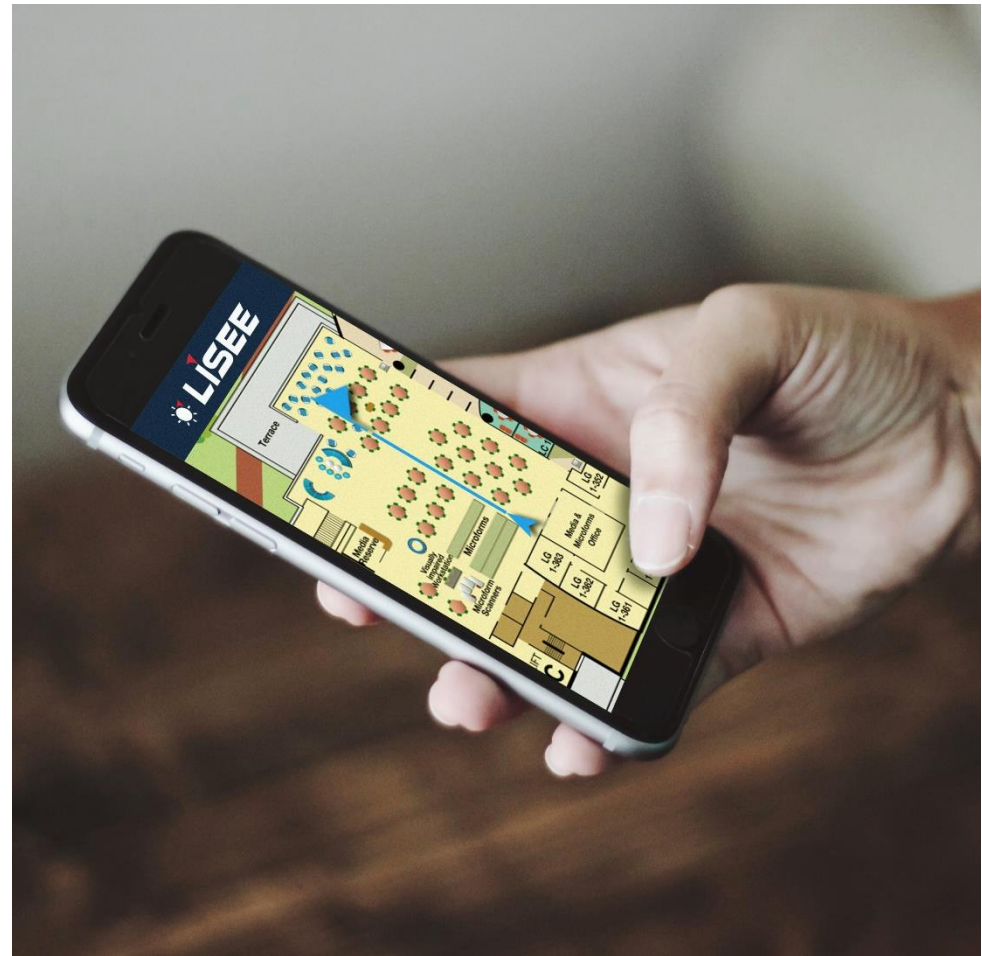
Mapping

Using the light from the LED luminaires, our system transmits an encrypted code to the mobile phones and carts system, precisely localizes the user's position on the map of the campus.

# Product

Navigate using Lisee technology

- User's phones are now position aware and our apps provide them position-based services.
- We will provide API service for the venue owners to embed our system to their apps, delivering instant location-based services.



# Top Competitors

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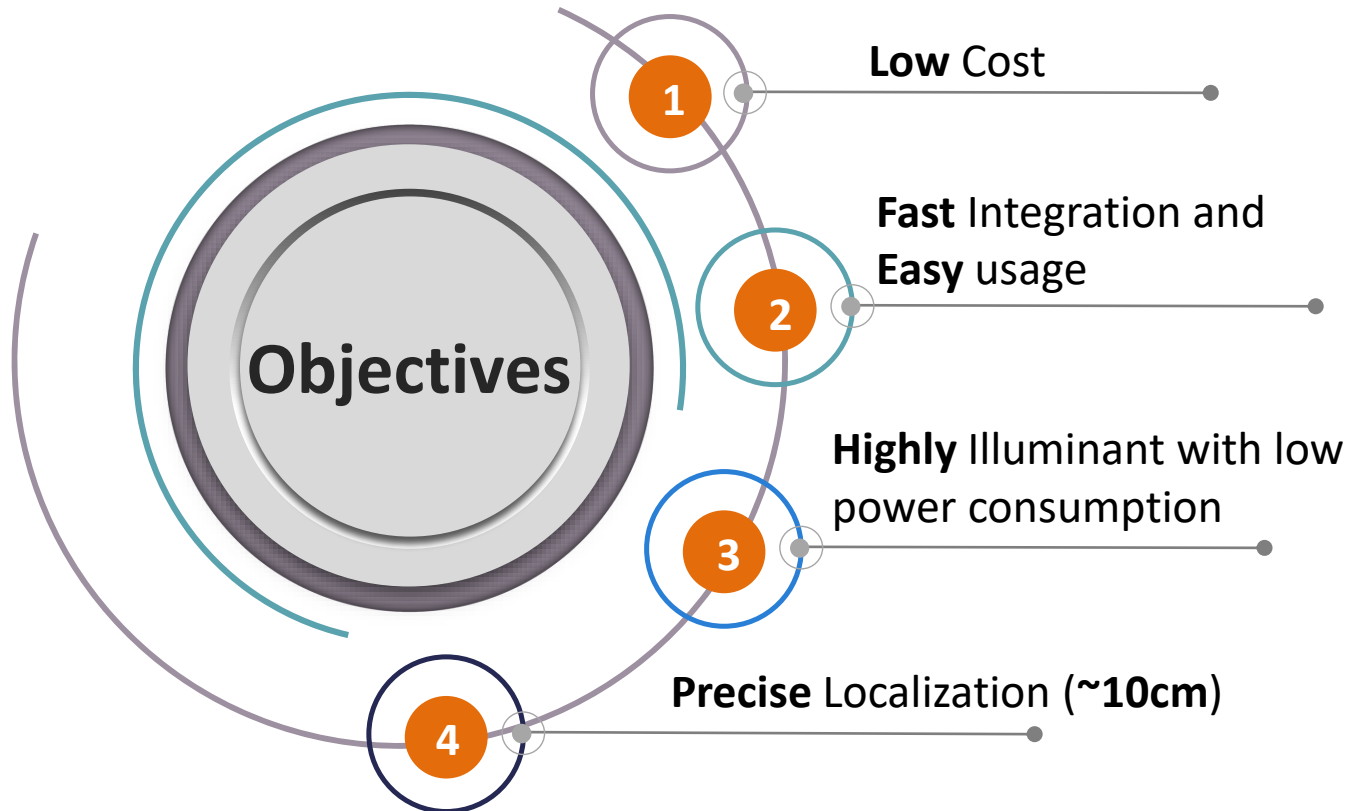
- A considerable number of companies are now working with VLC-based technology.
- **Qualcomm, Acuity Brands, Philips, and GE** are the top competitors who process VLC-based technology





# Goal and Objective

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# Customers

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In the first phase, we are mainly targeting public areas in Hong Kong.

In the second phase, we will simultaneously move to the US, China-based locations and other countries of the World.



# Our Aim

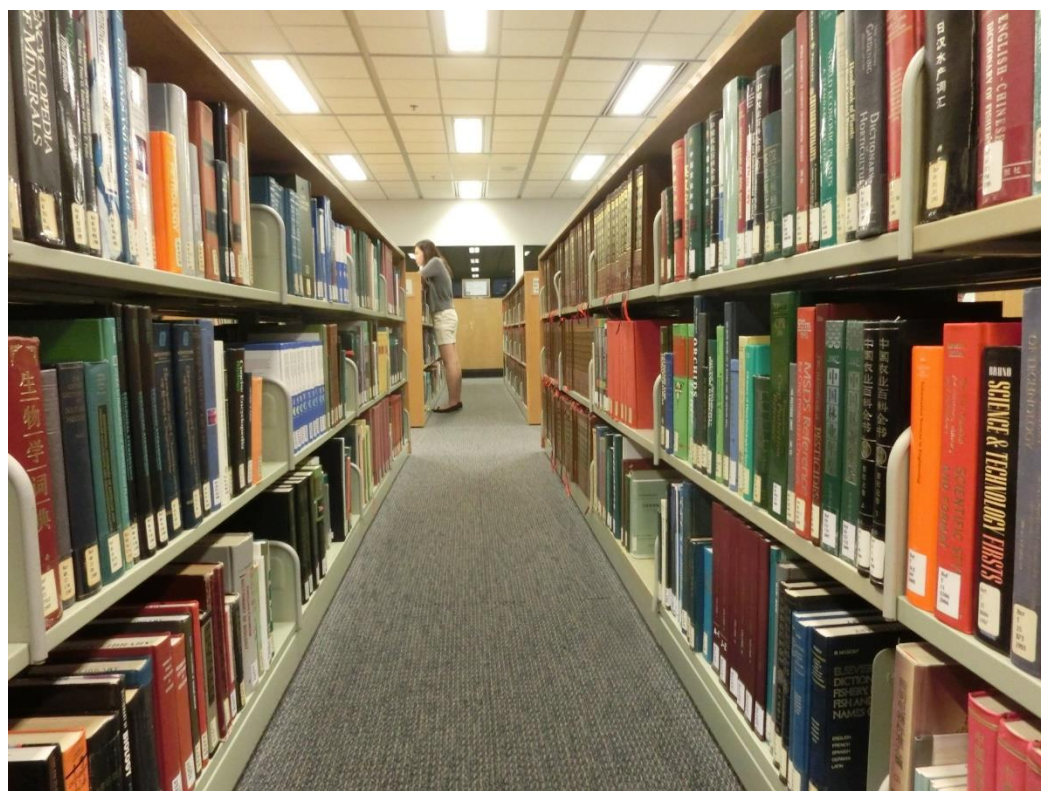
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# Lisee @ HKUST

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- TTC HKUST approved funding to implement Lisee in library environment.
- We have got PCF Support of 160,000 HKD.

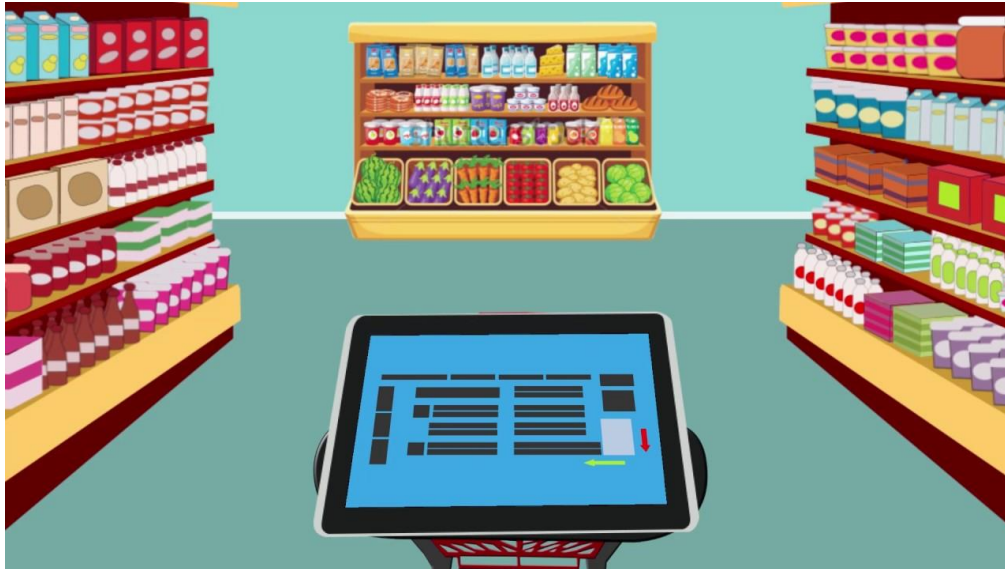




# Lisee @ Supermarket

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- Smart Cart Integration in supermarket.
- Users phones



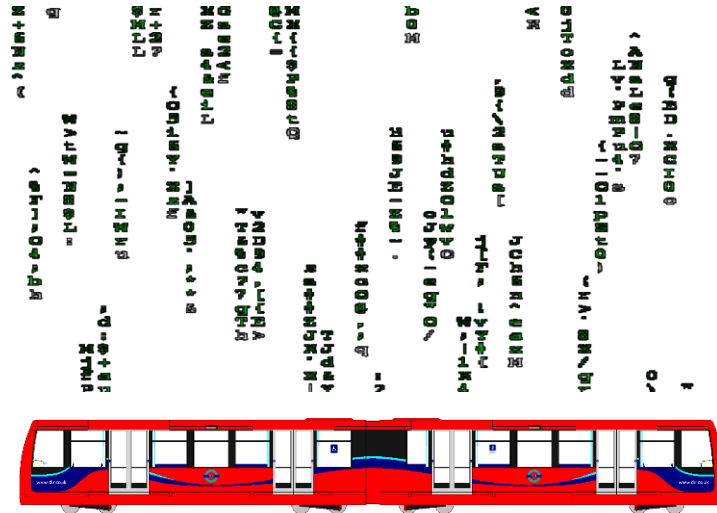
# Lisee @ Airports / Train Stations

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# Go Beyond the Static Environment

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# Q&A

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# Question & Answer



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# Thank You

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*Thanks for coming*  
*Have a nice day*