



Communication Design Project III  
DEP - 703

**WAYFINDING AND  
SIGNAGE DESIGN FOR  
KING EDWARD  
MEMORIAL HOSPITAL,  
PAREL, MUMBAI**

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# Acknowledgement

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I am sincerely grateful to my guide, Prof. Prasad Bokil for his guidance and constant support.

Special thanks to the team of KEM volunteers and all the doctors sharing the problems faced by them and the patients while navigating.

Thanks to all the friends who helped me and everyone else who helped in some way or the other.



# Content

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Introduction	01
Primary Study	06
Secondary Study	11
Final Design	20
Conclusion	42
Learning	43
Bibliography & References	44

# Introduction

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# Aim

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The project aims to help patients, visitors, doctors, medical staff, etc. to find out places in the hospital complex such as Emergency building, Registration building, OPDs, Wards, Labs, ICUs, Operation Theatre, etc.



# Need of the Project

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Hospitals, a place where human life is at stake, and the moment you enter a public hospital in India, the sight is entirely uneasy, chaotic, noisy, confusing, and discomforting.

With no or ineffective use of signage, it leads to a miserable wayfinding system creating confusion for visitors and which in turn making everyone ask every other person or hospital staff to reach his/her destination.

And the situation becomes worst when unaccompanied patients are asking for directions by themselves.

The patients, visitors, and the hospital staff, need systematic environments to handle such situations. So, the better design thoughts and ideas are needed to enhance the hospital complex and improve the health outcomes of patients.

# About KEM

## Ecosystem of KEM Hospital

King Edward Memorial Hospital, Parel is one of India's leading teaching and medical institutions providing strength to 2288 beds, 390 physicians employed and 550 resident physicians. It offers services to around 3 million patients yearly. Mainly supported through Greater Mumbai Municipal Corporation.

Source: [www.kem.edu/hospital-history/](http://www.kem.edu/hospital-history/)



## Functioning of KEM Hospital

Functioning of hospital is divided majorly into six complex which includes:

- **Old building** which is made in 1926 and still the major functioning building having most of the wards and also emergency department is in this building.
- **New building** (13 floor building) which holds most of the new OP facilities and this complex is located very far from the main entrance with another small entrance to itself.
- **Gynaecology building** which is located near to old building.
- **KVTC building** which is located outside in the front of the main gate.
- **Orthopaedic Centre building** which is around 350m from main gate near the TATA Memorial hospital.
- **Emergency building** for all severe cases

Majorly navigations happens between main gate registration area and OPDs in new building, between emergency department and old building, between main gate to wards in old building.

## Wayfinding and Signage System in KEM Hospital

The current distribution of services and the expansion of services over the time shows that KEM lacks systematic wayfinding and signage system which are up to date.

Currently to run such a big hospital, KEM have kind of speedy and effective system keeping in mind the wide spectrum of audience that is the current system works on a number system where patient gets a number of the room and the building to visit.

Current use of numbering system turned out to be very effective considering the literacy level of people visiting the hospital. But it has a bigger problem as the numbers of the room are randomly assigned due to the expansion of facilities over the years, making patients lost and ask the hospital staff to navigate.



Outer signages which includes maps, directional signages, locational signages are not placed properly at regular intervals to guide users to navigate with ease. Even if it is there at few places, the placement of the signage is such where there is a lot of possibility of missing the same. To cater to such problem, there are security desks at prominent locations helping the lost patients and visitors.



Indoor signage which includes directional signs, room identification sign, regulatory signs etc. lacks the standardization, placements issues, improper lightings, unavailability of information makes it difficult for patients to find and reach their destination easily. As the new information or any new facilities comes in, it lead to new ways of putting the information like A4 prints outs, hand painted signs etc.



Also, at many places the information provided is inconsistent in language which makes it difficult to comprehend for patients coming from different states.



But at few places, hospital has effective design to help patients like in Registration area which makes easy for them to understand and stand in right queue.

Overall, there are gaps which needs to be filled up as current system majorly lacks visibility due to the placements of signages, visual noise etc. and unavailability of information due to expansion of facilities.

# Primary Study

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User study was conducted in the KEM hospital by interviewing patients, visitors, doctors and hospital staff to study the broader picture of how people navigate within a hospital premise.

Major focus was to interview and understand how the patients and visitors orient, find and navigate themselves in the hospital premise.

## Interview of Patients and Visitors

Randomly asking patients in different buildings about their experience in reaching a particular destination. Around 10-12 people were randomly interviewed which includes both men and women mostly in the age group between 24-45 years and following set of questions were asked from patients:

- How did you find your destination?
- How many wrong turnings did you take?
- Was the building entrance having the clear identity?
- Did you ask anyone for directions?
- Who did you ask for directions?

- Did you see anything on your way like maps, directories and signs? And did you use any of these to found your destination?
- How would you describe this site?

### Responses from Patients and Visitors:

- I looked for some direction board to reach New building but couldn't find anything at starting point and asked guards and doctors on the way to reach.
- I found a small print out on the wall with direction towards new building, followed the path, but in between there were not enough sign boards so I have to ask guards to reach the building but after reaching 'New Building', I have to again ask people to reach the given room number.
- I didn't find maps on the way and preferred asking hospital staff which they guided by giving visual cues like go straight and take right from the ground and you will see the big building.
- People also took different routes to reach new building, one route is old building where they were trying to find the room by following number written on the wall but end up asking the hospital staff only.

- Information is written in Marathi and English only.
- Numbers are not written in order, very confusing and have to ask people only.

Most patients were in a hurry, felt lost on the way, and preferred asking the hospital staff to reach their destination.

### **Interview of hospital staff**

This includes registration staff, doctors and guards.

#### **Registration Staff:**

Important points noted from the conversation:

- The staff deals with more than 1000 Outpatients daily, which comes majorly from Mumbai, and other parts of Maharashtra, Uttar Pradesh, Bihar as well.
- At the counter, the staff tells patients' the number and name of the building based on the problem they have and writes on the hospital form as well as gives little guidance if possible. But with a shortage of time and a higher number of patients to cover in a limited time, the staff is not able to give enough time to guide the patient, so the patient has to find the way by themselves or by asking hospital staff.

#### **Doctors:**

Important points noted from the conversation:

- The current numbering system is cluttered, and we are just aware of our department clearly, so it will be more difficult for the first-time patients to reach their destination.
- We get frustrated many a time as patients keep on asking for places, and this results in time lost where we have to cater to a larger number of people
- As the hospital has expanded over time and few services have been shifted to other buildings, the information is not up to date, which sometimes leads to patients waiting at the wrong place.

#### **Guards:**

Important points noted from the conversation:

- Morning shifts are hectic, and we have to guide patients continually. Especially in case of new building OPDs, where patiently majorly goes, even after guiding them, they end up reaching at the wrong place because of long paths and unavailability of signages on the way for reassurance.
- Even we don't know much about departments inside the buildings.
- Directional signboard at the main entrance will help
- Maps at the building entrance and floor wise information might reduce their work and will help the patient as well.

Based on the interview with patients and hospital staff following insights were made:

#### User Experience:

User navigation experience is a combination of experiences during services provided and availability of information to reach a specific destination during wayfinding process.

#### User Behaviour:

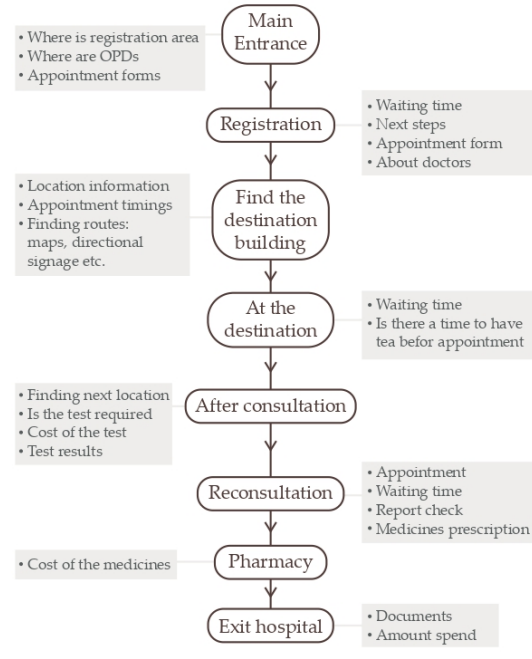
Users have various ways of navigating, depending on the age, gender, literacy and awareness of the person. First time patients felt disoriented and lost. Few of them don't want to navigate by their own and preferred asking people around. Few were afraid to inquire, so they tried to find the destination on their own.

#### User Journey:

A typical user journey who comes to hospital was examined and the whole journey has been divided into small part to understand the navigation:

- understanding where the user's location
- understanding the user destination building
- understanding the route used by user to the destination
- understanding how the route is followed by user
- understanding when the user has reached the destination

### Typical User journey at KEM hospital



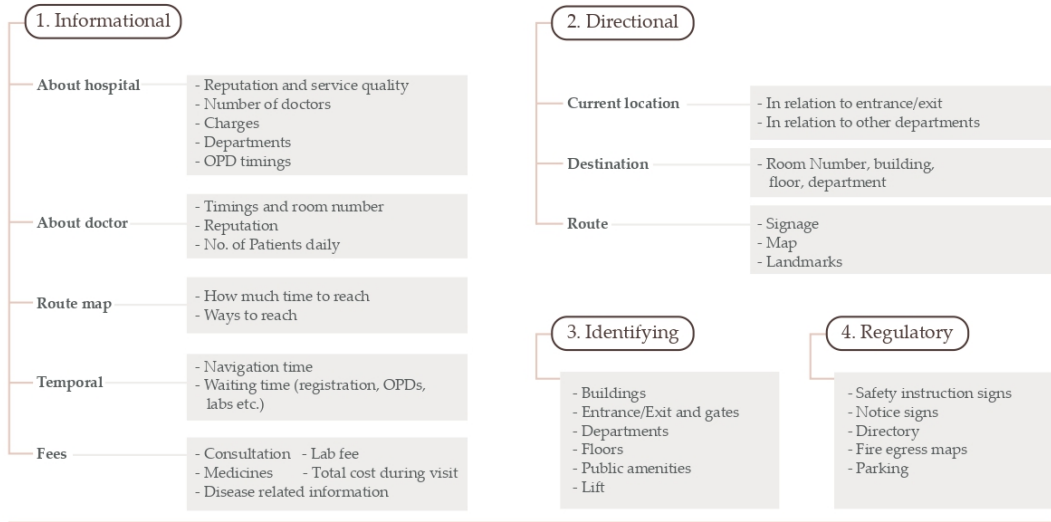


**Information Given:**

Initially, the information provided by public hospitals were identified and classified into four categories shown below. And then studying the current scenario of KEM, the gaps were marked out to list done what are the various

information needed at different decision points while navigating and then implementing them to ease the navigation.

## Hospital Information (required by patients and visitors)



Source: Labeeba K (2014), Indoor Navigation in Hospitals



## Findings

The current system lacks wayfinding strategy, following points were noted to address the current scenario of KEM wayfinding system.

### **Illogical numbering system:**

At the system level, the current scenario does help people coming from different backgrounds considering the literacy level of people in India. Still, illogical numbering making people lost, affecting their health and leading to a negative opinion about the hospital.

### **Site Users:**

Inconsistent use of language on signage; that is only using Marathi at many places, English and Marathi at few places, infrequent use of Hindi. So, to cater to people coming from states like Bihar, Uttar Pradesh, etc. tri-lingual should be preferred.

Also, placement and illumination inside the building make the information less visible or unnoticeable.

### **Less Decision Points:**

Decision points which include directional signages, architectural differentiation, landmarks are not placed and not planned well along many routes, making people ask the hospital staff.

### **Wayfinding Information:**

Various types of information given by the hospital is inconsistent, unavailable and at many places invisible due to placement throughout the site.

The information include directional signs, locational signs, room identification, regulatory signs etc.

### **No prominent building identification:**

Building entrances in the hospital lacks visual accessibility and clear identification due to no locational signs placed at the gate.

### **No Standardization:**

The current system has many different visual systems in place, leading to inconsistency, which creates difficulty in creating a mental model of the site for users, remembers the information, and better orient themselves.

It includes inconsistent use of typefaces, type size, text layouting, icons, visual ergonomics, colours, illumination, and sign constructions.

# Secondary Study

## Wayfinding and Patients' wellbeing

Hospitals are complex places with multiple processes. During a single visit, patients can have to go to multiple places within a hospital. Although wayfinding seems to be an easy exercise, it is a complex operation and its inefficiency can have a detrimental effect on the health of patients.



Source: [www.brexitshambles.com/](http://www.brexitshambles.com/)

The relationship between way finding and stress or anxiety has been studied in which he discusses the psychological and practical issues of anxiety of death, depression, reliance on others for life support, loneliness, family concerns, jobs, income, and hospitalization lunacy for male and female patients. Patients reaching hospital will have one or more of these symptoms. (Malkin, 1982)

Patients already come with many personal issues to hospital and dissatisfaction caused by wayfinding problems induce a negative view of the surrounding and thereby affecting the viewpoint of the people and facilities given by the complex.

So effective wayfinding strategy and signage system should be made keeping patients' mental state in mind as systematic design can help make environment more stress free, focussing on care and safety, thereby helping in staff work efficiently and improving health outcomes of patients.

Rita Rodrigues (2018). 'Healthcare Signage Design: A Review on Recommendations for Effective Signing Systems'

## What is Wayfinding

It's a problem-solving activity, helping users to make sense of where they are and how to reach their desired destination without confusion by interpretation of a navigational system, which can include visual, verbal, and auditory clues.

### Design Principles for Wayfinding

- Create unique identities at every entrance/location.
- Use or create landmarks to make location catchy, and provide direction cue to users.
- Create well-defined paths.
- Create areas with unique visual personality.
- Avoid giving users too many options while navigating.
- Give users a map.
- Installing signages with logical information at decision points helping users make quick decisions.

Source:  
<http://www.ai.mit.edu/projects/infoarch/publications/mfoltz-thesis/node8.html>

### Key stages of Wayfinding design

#### Strategy phase

This phase includes conducting signage audits and understanding how people navigate in the premise and their decision making. Then plotting surroundings and decoding the context of how a environment is used, and connecting people through wayfinding strategy to place.

#### Design phase

Giving surrounding the unique identity, applying the principles of design and branding to information legible, engaging and catcy. Testing with site users and collaborator feedbacks is important part of this phase.

#### Activation stage

This phase includes that the designs are systematically placed into the built environment. Placing the signages in the wrong place or manufacturing with the wrong materials, can negatively impact the signage legibility, and consequently making the users feel lost.

## What is Signage

When people are searching for their way, they usually look for signages, but the issue of contradictory, ambiguous site details and illogical wayfinding cannot be solved by signs alone. However, signages do have a vital role in the wayfinding system, and signs should go hand in hand with other wayfinding information.

If signs are designed, keeping in mind the first-time visitors and people with special needs, then they will be beneficial to all site users.

Different types of sign used in wayfinding system:

- 1) **Locational or identity signs** to inform users where they are and when they have reached
- 2) **Directional signs** to direct people
- 3) **Directory signs** to inform people
- 4) **Regulatory signs** you must follow the rules that are displayed, which includes danger signs, warning signs, caution signs, notice signs, and safety instruction signs.

Source:  
Effective Wayfinding And Signing Systems Guidance For Healthcare Facilities (supersedes HTM 65 'Signs') by London: The Stationery Office



Source:

- 1) <https://www.baptistemergencyhospital.com/>
- 2) <http://puremediasigns.com/mount-ararat-parking-signs/>
- 3) & 4) [www.google.com](http://www.google.com)

## Current trends in wayfinding

Earlier wayfinding known to as the physical signages and symbols helping people reach from one point to another, but now with the introduction of new materials, laser cutting flexibility, fast production, and technology led to creative and playful Signage and Wayfinding system.

### 1) Supersized wayfinding

1.1) A campus for techies where environment mimics the digital circuits and bright orange colour is used to guide people using oversize elements like symbols, lines numbers, etc. The look and feel signifies the context and culture of the organization and at the same time making it more legible to navigate in the environment.

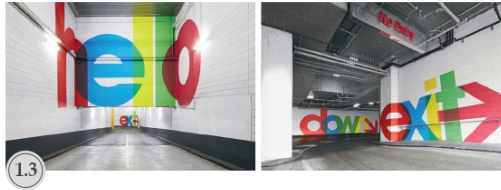


Source:  
1.1) & 1.2) [https://create.adobe.com/2019/5/7/lighting\\_the\\_way\\_fiv.html](https://create.adobe.com/2019/5/7/lighting_the_way_fiv.html)

1.2) Smart wayfinding strategy designed by taking inspiration from the situation of people with Alzheimer's disease, who usually remember colours more efficiently than other elements: the walls imitates the giant brushstrokes in subtle shades, directing patients, visitors and staffs to various department.



1.3) Tall, bold, hand-painted environment graphics adds a sense of drama, playfulness and also adding visibility making it easily identifiable for users.



## 2) Landmarks as wayfinding element

Landmarks can be used as reference point as they stand out as markers and adds to better visual accessibility.

2.1) Theme based landmarks are being made to better navigate as well as providing comfortable environment for kids while visiting paediatric dentist.



Source:

1.3) <http://placeprojects.ca/2016/05/25/5-creative-wayfinding-projects/>

2.1) <https://idskids.com/landmark-signage.php>

3.1) <https://empiredigitalsigns.com/interactivekiosks/>

## 3) Digital Kiosks

In recent years, Google Maps have revolutionized wayfinding but lost pedestrians can tell you that the app still fails in indoor settings such as malls, hospitals etc. So, digital interactive kiosks are becoming effective in helping people orient and navigate in such surroundings. Also giving limitless option as compared to conventional print media.

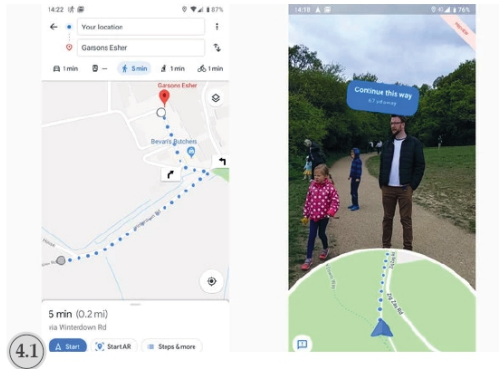


## 4) Augmented reality

With technological advancing, AR is finding its way to increase the effectiveness of navigation systems and help people orient well, especially in indoor settings where paths are complex.



4.1) Google Maps AR let people use augmented reality to navigate while walking. It uses the rear camera of the phone to identify where you are, overlaying directions and details on the display, rather than just showing user a map.



#### 5) Kinetic directional sign

POINTS: a high tech kinetic directional signage where rotational arms are smartly used to display various activities, and highlighting locations in the nearby region. It was made in response to existing large touch screens used in cities which acts only as digital ad platforms instead of

providing any useful informations. The makers felt that there is a simpler and memorable way to provide useful time-relevant data to people.

Source: <https://breakfastny.com/works/points>

Manufactured and executed in 2013 using aluminum, LEDs, mechanical motor system, computer



Source:  
4.1) <https://www.pocket-lint.com/>  
5.1) <https://breakfastny.com/works/points>



Source:  
5.1) <https://breakfastny.com/works/points>

Living in the information age and advancing technologies, it is challenging to bring the best favourable solution keeping in mind the context, culture and the people.

How right a tech-savvy solution maybe if it doesn't adapt to the context or doesn't communicate with the people, it is of no use.



## Understanding the Context and Literacy level of Site Users

Thinking about public hospitals in India, it is crucial to understand the difference between illiteracy and functional literacy. Illiteracy is when people are unable to read and write at all. Functional literacy when people can read and write but not enough capable to meet everyday demands. Wayfinding can be more effective if design interventions are done keeping such users in mind.

### Symbol Literacy

Symbols are the fastest and powerful form of communication irrespective of language and cultural barriers. Most of the time, symbols may represent the same meaning all around the world, but it might also signify other meanings to the people in various cultural. So, the designer should consider the context in which the symbols will be used and test with the particular audience for its effectiveness.



Source:

Xaxa Aman Rupesh (2010), Identity, wayfinding and signage for public hospital

### Shape Literacy

Shapes can be used to link and identify particular functions, and by repeatedly using it for a particular function, it can be reinforced to symbolize that function.

The main functioning can be segregated by using basic shapes and help people differentiate easily and categorically.



### Basic Characters Literacy

It means identifying the single character of the word as an individual image but not able to decode the message when all the letters come together.

Like if somebody know hindi well and doesn't know English; looking at any word in English doesn't have any meaning, and it will just going to act as an image to him/her.

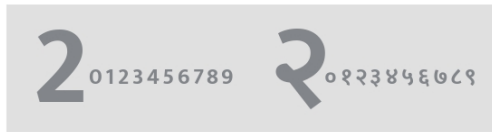
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz

अ आ इ ई उ ऊ ऋ ए ऐ ओ औ क ख ग घ ङ च छ ज झ ञ ट ठ  
ड ढ ण त थ द ध न प फ ब भ म य र ल व श ष स ह

### Number Literacy

Majority of people use mobile phones where numbers are used, also they do basic calculations on a daily basis, so they can easily identify numbers.

Even in current Wayfinding and Signage design system for Hospitals, numbers are the important part of identification system which most of the people can easily relate to.



### Inference

To understand the state of patients and how safe a person while navigating is a vital criteria to design effective wayfinding and signage system.

Source:

Xaxa Aman Rupesh (2010), Identity, wayfinding and signage for public hospital

Consider the hierarchy of information keeping in context and people in mind. Number system should be used as a primary identification element, then symbols and pictogram can be used as an secondary information as they can be easily understandable irrespective of literacy level. Also with pictograms, name of the function of that room can be used to reinforce the same.

A good flow of information makes it easy for people to relate, understand, differentiate and easily identifiable.

# Final Design

## Understanding the hospital complex



The KEM complex is quite big in area, where two buildings are located outside the main complex. One is just right outside the main complex, and another is located 350m away.

### Buildings visited by patients and visitors:

- 1) Registration building
- 2) Emergency building
- 3) Old building
- 4) New building
- 5) Gynaec building
- 6) CVTC building
- 7) KEM Orthopedic Centre

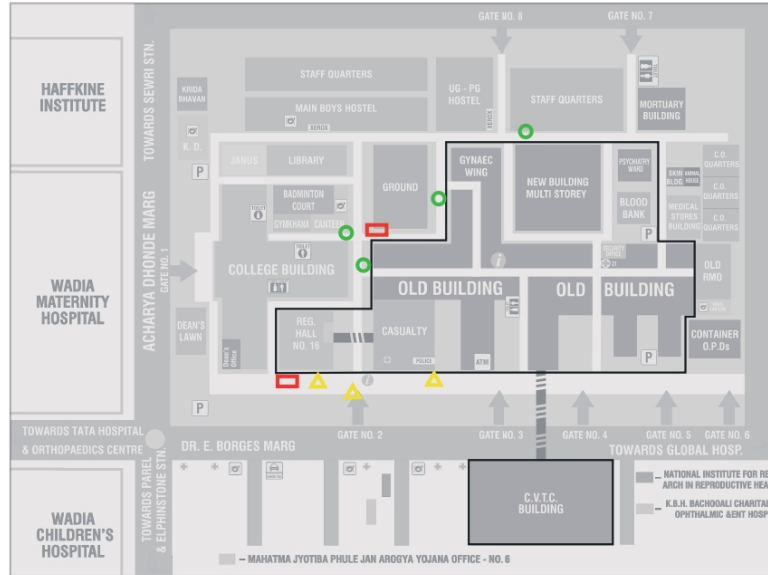
Satellite image of KEM Hospital

Source:

<https://www.google.co.in/maps/place/King+Edward+Memorial+Hospital/>

## Mapping wayfinding spots

### Mapping on Existing Map of KEM hospital complex

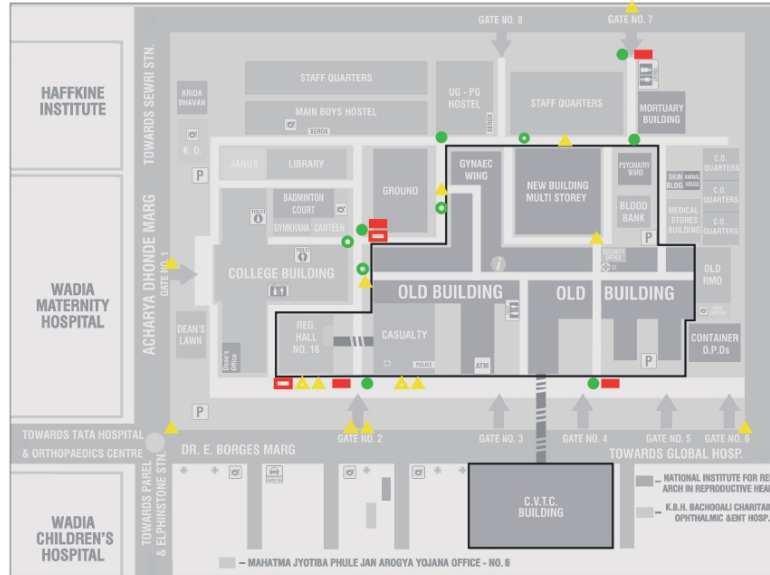


Credits: KEM hospital

Mapping the existing signages installed in the complex

- ▭ Existing main map
- Exterior Directional Signages
- △ Existing Exterior Locational Signages

### Proposed Mapping on Existing Map of KEM hospital complex



Proposed Mapping of exterior signages to enhance the wayfinding system

- Existing main map
- Exterior Directional Signages
- Existing Exterior Locational Signages
- Proposed main map
- Proposed Exterior Directional Signages
- ▲ Proposed Existing Exterior Locational Signages

Credits: KEM hospital

## Choice of Colours



Choosing appropriate colours is also one of the important way of effectively differentiating one from the other. Colours are carefully selected to have the good contrast keeping in mind the surrounding and its colours and also signifying the appropriate meaning associated with that functioning of the services provided.

### Exterior Identification

Blue colour for all exterior building identification. It was chosen because it stands out clearly against the colours of surrounding and as part of identification that you have arrived at the building entrance.

Red for emergency as it is symbolic of responding quickly to various events and in hospital surrounding it should catch the attention of patient to quickly reach the service

### Interior Identification

Colours are selected based on the functioning of rooms and easy differentiation.

Yellow for OPDs as these are mostly visited by patients. This colour draws more attention than others and is hardly missed even from far away.

Green for WARDS as it is symbolic of recovering, betterment which goes well with wards where patients are in a state of improving.

Gray is used for labs like x-ray, CT-Scan, radiology etc. where reports are in grays and this can quite go well with the function.

Orange is used for ICUs and OTs as it has a symbolic representation of alertness.

Violet is used for other functions like offices, payment counters etc, and is easily differentiated from others.

## Choice of Typeface

The wide range of audiences, which includes patients, students, and hospital staffs demands the trilingual signage system.

After having a conversation with patients and hospital staff, the majority of people spoke Marathi, few of them used Hindi, and there are students coming from various states who also work in the hospital complex spoke English.

Choosing the appropriate typefaces in a multilingual signage system should be carefully done, keeping in mind the intent of the communication, legibility, readability and budget of the project.

Keeping the existing designs in mind where various typefaces are used and are inconsistent throughout which lacks professionalism and affecting the legibility as well.

So, three fonts were chosen to match the requirement to compare and finalize. The idea is to look for fonts which are available in multiple scripts.

## Gotu:

The rounded curves, large loops, high contrast font is available in both Latin and Devanagari script but its thin strokes might make it difficult to read from little far away and also its only available in weight.

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1234567890.,?/:;””{}[]\=+\_0()

आईऊऋॠऌऍऐऔऐअँकखगघञ्च  
छ्जझञटठडढणतथदधनपफबभयव  
ळशषसह ०१२३४५६७८९‘?’“!”(%)

### Kohinoor:

A humanist sans-serif typeface with good contrast, suitable for both display and body text makes, its availability in multiple weights and multiple scripts makes a good choice to use for. But keeping the project budget in mind, spending for the same will not be preferred.

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1234567890.,?/;””{}[]\=+\_0()

आईऊऋ लृ ऐऔऐअंअँकखगघङच  
छजझञटठडढणतथदधनपफबभयरव  
ळशषसह ०१२३४५६७८९‘?’“!”(%)

### Mukta:

a contemporary, humanist, mono-linear typeface and its characteristics with great contrast, counters, x-height, legibility factor makes it an excellent choice to use. Also, availability in multiple weights, multiple scripts, and is free for use makes it a better choice over others.

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
1234567890.,?/;””{}[]\=+\_0()

आईऊऋऌलृऐऔऐअंअँकखगघङच  
छजझञटठडढणतथदधनपफबभयरव  
ळशषसह ०१२३४५६७८९‘?’“!”(%)



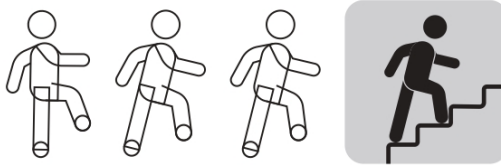
## Pictogram

Pictograms on sign boards are used to assure patients that they have arrived at the right location.

Also to keep in mind the context while designing, as it must communicate the intended message to the audience.

Few of the pictograms ideation:

### *Stairs*



### *Toilets*



*For both men  
and women*

*Men*

*Women*

### *Pharmacy*



## Choice of Sign Material

Having a good knowledge of material from the beginning and continuously visiting the printers stores to check which material can go well with the project budget as well as keeping in mind the final outcome and visibility of the designs is an essential part of wayfinding design.

We should keep in mind various factors like:

- Where the sign will going to be placed, outdoors, or indoors. If outdoor, material considered should withstand the weather conditions like heat, rain, winds, etc.
- Once the place of the sign is decided, we should consider the material, which should give a better appearance as well as durability.

Very importantly, the choice of material should be well balanced with the cost of the project and the purpose of the sign.



Source:  
<https://www.westernsignsaz.com/custom-sign-fabrication.htm>

For this project, signage will have different materials like aluminium composite panel, dibond, stainless steel, acrylic sheets, vinyl stickers keeping in mind the placement of design, durability and budget.

## Wayfinding Strategy

To improve the flaws in existing system, effective wayfinding strategy is required.

Keeping the site users at priority, problems were identified, mapping of decisions points were done and accordingly few concepts were ideated.

Initially, the idea is to make patients and visitors easily identify and locate the building entrances and then identifying the interiors rooms.

### **Concept 1: Categorization by Blocks/Wings**

- Easy to remember and recall instead of remembering the full name of the building which is being followed in the existing system.
- Form of a single letter becomes easy to recognize as an image but still its difficult to confirm or get the meaning of what is written considering the literacy level of the patients and visitors.

Categorization done using initials of building names which gives advantage to registration staff to easily guide patients.

#### **Using initials of building's name**

- 1) Registration hall (R-block)
- 2) Emergency (E-block)
- 3) Old building (O-block)
- 4) Gynaec building (G-block)
- 5) New building (N-block)
- 6) CVTC building (C-block)
- 7) KEM Orthopedic Centre (K-block)

Categorization done alphabetically to provide information in logical order.

#### **Using alphabetical order**

- 1) Registration hall (A-block)
- 2) Emergency (B-block)
- 3) Old building (C-block)
- 4) Gynaec building (D-block)
- 5) New building (E-block)
- 6) CVTC building (F-block)
- 7) KEM Orthopedic Centre (G-block)

Out of these two ideas, using initial building's name was better idea as it will help registration staff to easily shift from existing to new system.

And for patients, anyway they have to look for the information which will look scattered in both cases looking at the map of the complex.



Concept 1



Existing Design

## Concept 2: Visual Theme

- Visual themes to make entrances easily identifiable, relatable, memorable and describable.

### (A) Something we eat (Fruits and vegetables)

Fruits and vegetables helps us in improving our health and keep us fit.

These can go in context with the hospital of improving health but it kind of gives other message as well, may be vegetable vendor is there.

Also few names become difficult to describe in different language and it can further makes it difficult for patient to find the place.

- 1) Registration hall (R-Radish)
- 2) Emergency (E-Eggplant)
- 3) Old building (O-Orange)
- 4) Gynaec building (G-Grapes)
- 5) New building (N-Nectarine)
- 6) CVTC building (C-Carrot)
- 7) KEM Orthopedic Centre (K-Kiwi)



### Concept 3: Numbering System

Numbering system is one of the easiest and clearest way to identify considering the site users in public hospitals.

Numbering system is already in place but idea is to keep it in logical order.



### Concept 4: Numbering System with shapes

Numbering system along with shapes will be an additional information to easily differentiate and identify the location.



Finally concept 4 was finalized and numbers are allotted logically along with shapes, with functioning of the building



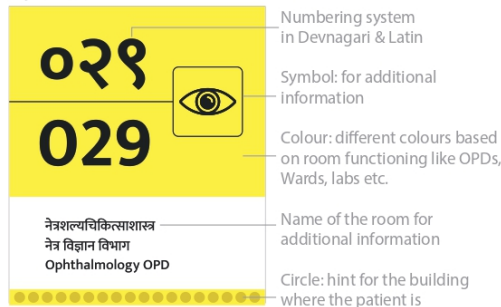
All the shapes and numbering for different buildings. No numbering is used for emergency as it is widely recognized as emergency only.



## Interior Locational Signages

The next step was to conceptualize the the locational signs for room entrance like OPDs, wards, labs, OTs & ICUs, offices etc. where most of the patients and vistors go.

Option 1



Option 2



Option 3



The designs are done keeping colour at priority depicting the room for different functions like OPDS, wards etc, then number of doors, followed by pictogram and names in three languages. Also below band with shapes hints the building where the patient is in.

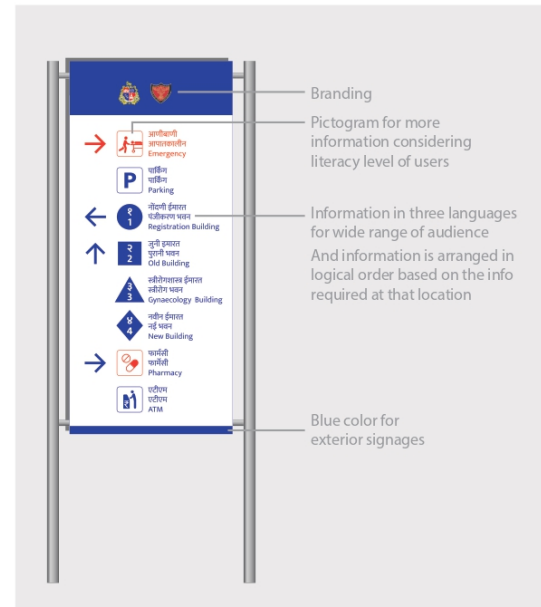
Option 1 was finalized, it has better hierarchy of information and clearly communicate the information. As in option 2, where putting pictogram in different shapes might create irregularities in pictogram. And in option 3 the below shape looks too highlighted to give the hint of the building.



## Exterior Directional Signages

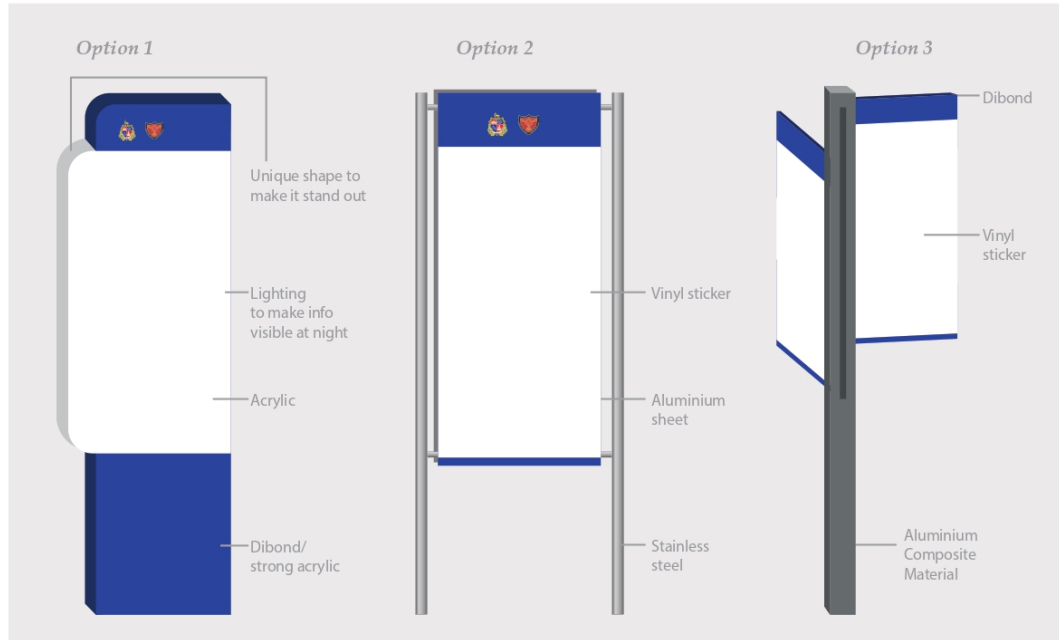
Next was to design exterior directional signages to help patients guide on the way and easily find their way to the different buildings.

The image on the right is the information required on the directional signage and the image on the next page are the options for material to be used based on factors like weather conditions, fabrication, and budget of the project.



Option 1: looks unique and stands out clearly but its fabrication might be little costlier than other as in Option 2 material is stainless steel which have better longevity and vinyl sticker for easy maintenance.

Option 3 is best option out of three keeping material in mind as four sides of the panel can be used because at many places information is required in many different directions. This can easily be manufactured and maintained.





## Indoor Map of Old Building

The existing map again have same issues as in the main map. The schematic map was designed highlighting the numbers of the rooms inside the building and their entrances.

Also others informations are provided using pictograms like toilets, canteen, lifts etc. Clearly marked legends and all names along with numbers are provided in one panel to easily locate the destination.



### Overhead directional signage of Old Building

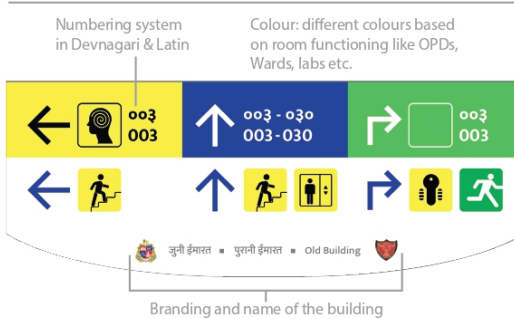
Currently there are no overhead directional signage in all buildings which plays a crucial role in such a complex hospital. The overhead directional signage constantly guiding and assuring the patients that they are moving in the right direction and they should not feel lost.

The hierarchy is as follows: numbering at priority along with pictogram of particular room function based on the nearby

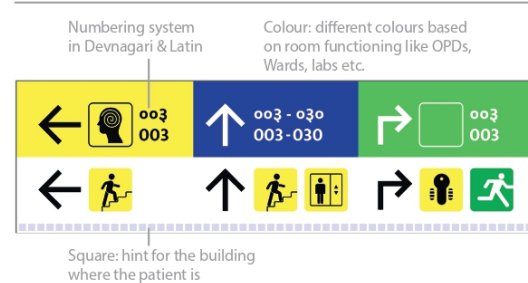
location coming on the way and few information is provided using pictogram only like toilets, stairs, etc.

Option 2 was finalized as there is not a need for branding as the increased area can increase the cost as well.

#### Option 1



#### Option 2



## Design Specification Manual

This will be a final deliverable which will have a set of guidelines discussing various aspects like choice of colour, typeface, strategy, grids, material etc.

The book ensures that the continuity to be followed in the system and used as a reference guide if there will be any update or changes in the future.









# Conclusion

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Designing wayfinding and signage system for public hospital with quite complex structure was an interesting and challenging task as it gave an overview of how great team of professionals like architects, visual designer, civil engineers, management team is required to make it happen and successful.

Understanding how minor details plays a big role like selecting the appropriate material for signages, placements of designs, appropriate colour etc. makes the navigation easier, and ultimately providing healthier and safer environment for patients.

During the project, the challenging part was to keep in touch with hospital volunteers, getting paper work done and getting the timely information was bit challenging.

Initially, the journey went quite smoothly but the pandemic made it hang for sometime but finally it came out interesting and hoping to have discussion with the hospital management to get this new system in place and add some value to the society.

# Learnings

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Designing the wayfinding system is not a one persons' job it requires a team work.

Many small services together contribute to improve the well-being of patients, and wayfinding system is one of the area which plays a big role in enhancing the environment of such a complex place.

And importantly, what makes a great wayfinding system:

- At the foremost are site users, looking from layman's shoes, talk to as many patients as possible, auditing them about how they navigate, was it easy or not, did they use any signages to reach their destination.
- Understanding ergonomic factors, making sure information is legible at all places.
- Defining clear decision points, clear paths, reducing the time taken to reach the destination.

- Creating unique landmarks to have better visual accessibility and easy identification.
- Applying principles of design appropriately like the choice of colour, typeface, type size, etc.
- Choice of material keeping in mind its longevity, impact, and budget of the project.
- The crucial part is to continually discuss with the collaborators, making prototypes and testing with the site users at every step.

Also, I got the idea about the structure of hospital, and if in future any project comes of designing the wayfinding system, this project will help as a guide in designing an effective healthcare complex.

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