

Unit 10 - Week 8

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

● Lecture 22 : Smartcane for the Blind- A Success Story by Prof. P. V. Madhusudhan Rao Part 1

● Lecture 23 : Smartcane for the Blind- A Success Story by Prof. P. V. Madhusudhan Rao Part 2

○ Weekly Feedback

○ Download Videos

○ Quiz : Assignment 8

Assignment 8

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-22, 23:59 IST.

1) Which of the following devices is considered to be a 'true companion' to the visually impaired according to Prof. PVM Rao in his lecture Smartcane for the Blind - A Success Story ? **1 point**

- Black glasses
 White cane
 Blind watch
 Smart phone

No, the answer is incorrect.
Score: 0

Accepted Answers:
White cane

2) Why was audio feedback not used for the Smart cane? **1 point**

- Users did not want to declare that they were visually impaired to the people around them
 At some locations such as markets and train stations it was difficult to hear the audio alert
 Audio feedback is an expensive technological component
 Audio feedback was difficult for the users to understand

No, the answer is incorrect.
Score: 0

Accepted Answers:
*Users did not want to declare that they were visually impaired to the people around them
At some locations such as markets and train stations it was difficult to hear the audio alert*

3) In the very first prototype of the Smart cane, what was wrong as pointed out by the users? **1 point**

- The centre of gravity of the device was off
 The shape of the device was small and compact
 The material of the device was skin friendly
 All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
The centre of gravity of the device was off

4) What is the ideal height of the detection range of the Smart cane? **1 point**

- 4 feet
 5 feet 6 inches
 6 feet 2 inches
 7 feet

No, the answer is incorrect.
Score: 0

Accepted Answers:
6 feet 2 inches

5) How far off can an obstacle be for the Smart cane to start detecting it? **1 point**

- 1 meter
 2 meter
 3 meter
 4 meter

No, the answer is incorrect.
Score: 0

Accepted Answers:
3 meter

6) Why was it a bad idea to emboss braille instructions on the version 9 of the Smart cane? **1 point**

- It is difficult for the visually impaired person to read braille on curved surfaces
 The embossed braille letters were not legible
 It was difficult to decide in which language the braille instructions should be embossed
 The embossed braille letters were taking up a lot of space

No, the answer is incorrect.
Score: 0

Accepted Answers:
It was difficult to decide in which language the braille instructions should be embossed

7) Why was the Smart cane device's dimensions changed to cater to a five-folds white cane instead of a four-folds white cane? **1 point**

- To reduce the cost of manufacturing
 To accommodate the folded cane in a woman's purse
 It was an arbitrary decision
 None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
To accommodate the folded cane in a woman's purse

8) Why is the detachability factor of the Smart cane important? **1 point**

- In case the white cane gets damaged, the smart cane is safe
 There is no need to buy a seperate white cane to use the smart cane
 It is efficient to clean the white cane when it is dirty
 To keep the Smart cane dry when it starts raining

No, the answer is incorrect.
Score: 0

Accepted Answers:
*In case the white cane gets damaged, the smart cane is safe
There is no need to buy a seperate white cane to use the smart cane*

9) In which of the following cities did the Smart cane fail at the 'multi-location trials' stage? **1 point**

- Shimla
 Chitrakoot
 Bangalore
 Delhi

No, the answer is incorrect.
Score: 0

Accepted Answers:
Shimla

10) Why was the angle of detection feature kept adjustable in the Smart cane? **1 point**

- Because users of different heights can adjust according to their preferences
 To accommodate for different grip styles
 Because the ultrasonic sensor had to sweep the vertical range first to get activated
 All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
*Because users of different heights can adjust according to their preferences
To accommodate for different grip styles*

11) Which of the following Trusts took care of the development cost of the Smart cane? **1 point**

- Port Trust
 Wellcome Trust
 Blind Trust
 Synthesis Trust

No, the answer is incorrect.
Score: 0

Accepted Answers:
Wellcome Trust