

Course outline

About NPTEL

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

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Week 8

Week 9

Week 10

● Lecture 46 : Smart Cities and Smart Homes- I

● Lecture 47 : Smart Cities and Smart Homes- II

● Lecture 48 : Smart Cities and Smart Homes- III

● Lecture 49 : Connected Vehicles- I

● Lecture 50 : Connected Vehicles- II

● Lecture material of Week 10

● Quiz: Week 10: Assignment 10

● Week 10 Feedback Form

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Assignment Solutions

Books

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Week 10: Assignment 10

The due date for submitting this assignment has passed.

Due on 2025-10-01, 23:59 IST.

Assignment submitted on 2025-09-24, 19:30 IST

1 point

- 1) DLNA (used in HAN standards) expands to:

- a) Digital Lifestyle Network Alliance
- b) Digital Living Network Alliance
- c) Digital Lifestyle Network Algorithm
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

b)

- 2) Which property best characterizes V2X?

1 point

- a) Restricted to a single source
- b) Distributed architecture
- c) Both a and b
- d) Neither a nor b

Yes, the answer is correct.

Score: 1

Accepted Answers:

b)

- 3) Which set correctly captures smart-home functionality?

1 point

- a) Health monitoring only
- b) Security only
- c) Both health monitoring and security
- d) Neither

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

- 4) Which are valid types of sensing?

1 point

- a) Stationary
- b) Mobile
- c) Both a and b
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

- 5) Which layers are part of the Zigbee stack?

1 point

- a) Physical and transport
- b) MAC and transport
- c) Network and MAC
- d) Transport and MAC

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

- 6) Smart parking primarily reduces traffic _____.

1 point

- a) mobility
- b) area
- c) analysis
- d) congestion

No, the answer is incorrect.

Score: 0

Accepted Answers:

d)

- 7) About Home Area Network (HAN), consider: I) Multi-protocol gateway bridges non-IP to IP. II) Wired HAN is low cost. III) Wireless HAN makes implementation easy. Which of these is correct?

1 point

- a) Only I
- b) I and II only
- c) I and III only
- d) I, II, and III

No, the answer is incorrect.

Score: 0

Accepted Answers:

d)

- 8) Which statements about smart health are true? I) Low-cost and portable II) Allows remote check-ups and diagnosis III) Effortless health monitoring

1 point

- a) I only
- b) II only
- c) I, II, and III
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

- 9) Phases of Intelligent Connected Vehicle (ICV) development include:

1 point

- a) Based on 2G
- b) Based on 4G LTE
- c) Both a and b
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

- 10) In the Ad-hoc domain of VANET, vehicles are:

1 point

- a) Stationary
- b) Mobile
- c) Fixed to RSUs only
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

b)

- 11) Domains of VANET include:

1 point

- a) In-vehicle and ad-hoc
- b) Ad-hoc and data center
- c) Data center
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

a)

- 12) At which data fusion stage are multiple classifier outputs combined?

1 point

- a) Pixel level
- b) Feature level
- c) Signal level
- d) Decision level

Yes, the answer is correct.

Score: 1

Accepted Answers:

d)

- 13) The Body & Brain Architecture consists of how many layers?

1 point

- a) 1
- b) 2
- c) 3
- d) 4

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

- 14) Which statement about smart home infrastructure is correct?

1 point

- a) It cannot include wireless devices.
- b) It may include wired and/or wireless devices.
- c) It must be wireless-only.
- d) None of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

b)

- 15) Intelligent Connected Vehicles (ICV) communication is based on:

1 point

- a) Dedicated Short Range Communication
- b) Directed Short Range Communication
- c) Dedicated Small Range Communication
- d) All of these

Yes, the answer is correct.

Score: 1

Accepted Answers:

a)