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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

M.Tech II Year I Semester Regular Examinations March-2022

WIRELESS SENSOR NETWORKS

(VLSI)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a Mention any three design issues in wireless sensor network architecture. L3 6M
 b Discuss the Computation, Clock and Quality of Service issues in wireless sensor network. L2 6M

OR

- 2 a Explain the concept of Transceiver in wireless sensor network L3 7M
 b Explain the concept of Transceiver in wireless sensor network L2 5M

UNIT-II

- 3 Discuss in detail the simplified architecture of TinyOS. L2 12M

OR

- 4 a Explain the concept and Features of NS-2. L2 6M
 b Discuss the concept, advantage and limitations of QualNet. L3 6M

UNIT-III

- 5 a Discuss in detail the various schedule-based MAC protocols. L3 6M
 b Discuss the design constraints of a routing protocol. L4 6M

OR

- 6 a Discuss in detail the operation of LEACH protocol used in WSN. L2 6M
 b Describe distributed energy efficient clustering and beacon-less routing protocol. L3 6M

UNIT-IV

- 7 a Elaborate the three main challenges of data dissemination. L2 6M
 b Summarize the design goals and solutions of data dissemination. L3 6M

OR

- 8 a Explain the fundamentals of cost field approach. L2 6M
 b Elaborate the receiver decided protocols. L3 6M

UNIT-V

- 9 a Examine the design issues and challenges in the design of sensor grid. L4 6M
 b Discuss about the sensor grid architecture and its design. L2 6M

OR

- 10 a Highlight the implementation of cognitive radio in WSN. L3 6M
 b Explain Wavelet technology for context aware and reconfigurable WSN. L2 6M

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