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| ait big letter head scan - Copy | **Dr. Ambedkar Institute of Technology, Bangalore-56**  **(An Autonomous Institution Affiliated to Visvesvarya Technological University, Belgaum)** |

Sub. Title : **ROBOTICS 18ME752**

**Assignment 2 :unit 3 and unit 4**

**Unit 3**

1. With a block diagram write the classification of sensors and their functions
2. Explain touch sensors
3. Explain binary sensors with a sketch
4. Explain tactile sensors with a neat sketch
5. Explain proximity sensors with a neat sketch
6. Explain hall effect sensors with a neat sketch
7. Explain ultrasonic proximity sensors with a neat sketch
8. Explain optical sensors with a neat sketch
9. Dicuss about range sensors with triangulation method
10. Explain force and torque sensors with a neat sketch

**Unit 4**

1. With a block diagram explain vision system
2. What do u understand by the term robot vision explain its principal functions And functional description in detail
3. Define the construction features of vidicon camera and explain the working principle of it in detail
4. Explain in detail analog to digital conversion
5. What is image storage explain image processing and analysis in detail
6. Explain segmentation in detail
7. Explain object recognition from vision point of robotics
8. Explain with block diagram components of digital image processing
9. Short notes on

Lighting technique and devices

Illumination techniques

encoding