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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(EIE) (2012 Onwards E-IV) (Sem.-7,8)**MACHINE VISION****Subject Code : DE-4.1****M.Code : 58044****Time : 3 Hrs.****Max. Marks : 60****INSTRUCTION TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A**1. Answer briefly :**

- a. Differentiate colour and visual perception.
- b. Define Path coherence function.
- c. What do you understand by image recognition?
- d. Define Point processing.
- e. What is the use of computer graphics in industrial environments?
- f. Explain Sampling Theorem.
- g. What are the different components of Machine vision?
- h. Define Thresholding and its application.
- i. What is the use of image tracking?
- j. What do you understand by real time MV system?

SECTION-B

2. Define Histogram for a digital image. Explain how it enhance the image quality?
3. Discuss different types of feature points used in object recognition.
4. Explain the working of VITREO with the help of suitable diagram.
5. Discuss various issues related to the design of a real time machine vision system.
6. Explain the procedure to remove additive periodic noise from the digital image.

SECTION-C

7. Discuss the process of vehicle license plate number sensing using MV.
8. Explain different types of digital image filtering process in detail.
9. Write a short note on :
 - a. Image segmentation
 - b. Object counting

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.