17CS31P1- IMAGE PROCESSING AND VISUALIZATION LABORATORY

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| **Course Category:** | Core | **Credits:** | 2 |
| **Course Type:** | Practical | **Lecture – Tutorial – Practical:** | 0-0-3 |
| **Prerequisite:** | Knowledge in Computer Systems, Matrix Algebra, Calculus, Color Models. | **Sessional Evaluation:**  **Univ.Exam Evaluation:**  **Total Marks:** | 40  60  100 |
| **Objectives** | * To simulate various strategies for simple image enhancement, compression, segmentation and restoration techniques in spatial and frequency domain | | |

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| **Course Outcomes** | Upon successful completion of the course, the students will be able to acquire the knowledge on image enhancement, compression, segmentation and restoration techniques in spatial and frequency domain. |
| **Course Content** | Display of gray scale images  1. Histogram equalization 2. Display of color image 3. Design Filtering 4. Spatial and frequency domain 5. Segmentation 6. Image smoothing and sharpening 7. Clustering 8. DCT & DWT image comparison techniques |
| **Text Books** | **Text Books:**   1. Rafael C. Gonzales, Richard E. Woods, “Digital Image Processing using MAT Lab”, Second Edition, Pearson Education. |
| **E-Resources** | 1. <https://nptel.ac.in/courses> 2. <https://freevideolectures.com/university/iitm> |