1.	Title of the course	Image and Video Processing
2.	Course number	EE502L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To EE5101/2
6.	To be offered by	Department of Electrical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	CoT
9.	**Course Objective(s):** Student will understand the concepts, theory and computational algorithms needed for several image processing and analysis tasks from given image(s). Aid them in understanding how machine can analyse and process the scene images and extract relevant information from images. Can simulate and develop exciting examples in generating descriptions and inferences from images in several domains ranging from medical, economical, engineering to state of the art industrial needs.	
10.	**Course Content:** The digitized image and its properties; Image Pre-processing; Histogram Equalization and Image enhancement, Denoising, Deblurring, Spatial domain Restoration, Linear Discrete Image Transforms; Image Restoration in Frequency domain; Image Data Compression; Mathematical Morphology; Segmentation; Shape Representation and Description; Video representation; Optical Flow / Motion estimation; Few Image and Video descriptors; Few applications such as Object Tracking.	
11.	**Textbook(s):** 1. Gonzalez R C and Woods R E, *Digital Image Processing*, Pearson Education (2001). 2. Sonka M, Hlavac V and Boyle R, *Image Processing, Analysis, and Machine Vision*, 3rd Edition.	
12.	**Reference(s):** 1. Jain A K,Fundamentals of Digital Image processing, Pearson Education (1989). 2. Gonzalez R C, Woods R E and Eddins S L, *Digital Image Processing using MATLAB*, Pearson Education (2004). 3. Schalkoff R J, *Digital Image Processing and Computer Vision*, John Wiley (1989).	