

17MScCSCS 4.3 - Digital Image Processing

Dear Students,

I am attaching the lecture notes of 3rd and 4th Units with this mail. Try to read and understand the same along with the video tutorials which were provided earlier. I will teach the same once the university reopens.

Thanks,

Arun

UNIT III

- Image Enhancement in the Frequency Domain
- Introduction to Fourier Transform and The Frequency Domain
- Smoothing and Sharpening Frequency Domain Filters
- Homomorphic Filtering

https://drive.google.com/open?id=122YZvxrQZAPmPH03Bemvk_FdwDpC2kc5

- Color Image Processing
- Color Models
- Pseudocolor Image Processing
- Color Transformations
- Smoothing and Sharpening

<https://drive.google.com/open?id=1aw1bvdPK1-FmiVLhcP37AVPCqT18UujN>

UNIT IV

- Image Restoration
- A model of The Image Degradation / Restoration Process
- Noise Models
- Restoration in the presence of Noise Only Spatial Filtering
- Periodic Noise Reduction by Frequency
- Domain Filtering
- Linear Position-Invariant Degradations
- Estimation of Degradation Function
- Inverse filtering, Wiener filtering
- Constrained Least Square Filtering
- Geometric Mean Filter
- Geometric Transformations

https://drive.google.com/open?id=1nleY8dvo_B7ckpHSa4IutUAWrwD17m1U

UNIT V

- Image Segmentation
- Detection of Discontinuities
- Edge linking and boundary detection
- Thresholding
- Region Oriented Segmentation
- Motion based segmentation
- Morphological Processing
- Some basic Morphological operations