Course Type	Course Code	Name of Course	L	T	P	Credit
DE	**NMCD511**	Video Analytics	3	0	0	3

Course Objective
• To provide exposure to theory as well as practical systems used in Video Analytics.
Learning Outcomes
• The students will learn the how to use Video Analytics to analyse Image data.

Unit No.	Topics to be Covered	Contact Hours	Learning Outcome
1	Introduction to Digital Image and Video Processing, Background Modeling.	9	This unit will help students to understand basics Video processing.
2	Object Detection and Recognition, Image and Motion Features, Multi Object Tracking.	10	This unit will help students to understand Object Detection and Recognition, Image and Motion Features, Multi Object Tracking.
3	Trajectory Analysis, Activities and Events, Anomaly Detection, Compressed Domain Video Analytics, Multi Camera Surveillance, Camera Coordination, Video Indexing	12	This unit will help students to get the concept Trajectory Analysis, Activities and Events, Anomaly Detection, Compressed Domain Video Analytics, Multi Camera Surveillance, Camera Coordination, Video Indexing.
4	Mining and Retrieval. Deep learning for Vision and Image Processing: CNN, RNN, Vision and Language: Image captioning, Visual Q & A.	11	This unit will help students to get the concept of Mining and Retrieval. Deep learning for Vision and Image Processing: CNN, RNN, Vision and Language: Image captioning, Visual Q & A.
Total		**42**	

Text Books:

1. Richard Szeliski, Computer Vision: Algorithms and Applications, Springer, 2010

Reference Books:

1. Forsyth, D.A., and Ponce, J., Computer Vision: A Modern Approach, Pearson, 2012