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| **Unit – III**  **Convolution Neural Networks and Applications** | **Contact Hours = 8 Hours**  **Flipped Classes Content = 2 Hours** |
| Introduction to Convolutional Neural Networks (CNNs / ConvNets), architecture overview and terminologies of CNN, motivation behind CNN, study and comparisons of pretrained CNN (limited to only ResNet -34 and ResNet -50) | |
| **Topics for Flipped Classes:** Case study review on to Convolutional Neural Networks (CNNs / ConvNets) and Biomedical Image applications | |

**A Comprehensive Guide to Convolutional Neural Networks**

**Imp Link:**

<https://www.analyticsvidhya.com/blog/2021/05/convolutional-neural-networks-cnn/>

<https://towardsdatascience.com/a-comprehensive-guide-to-convolutional-neural-networks-the-eli5-way-3bd2b1164a53>

comparisons of pretrained CNN (limited to only ResNet -34 and ResNet -50)

**Imp Link:**

<https://analyticsindiamag.com/a-comparison-of-4-popular-transfer-learning-models/>

resnet -34 and resnet -50

**Imp Link:**

<https://www.google.com/search?q=resnet+-34+and+resnet+-50&client=firefox-b-d&sxsrf=APq-WBvZ7ni0AaUtNx5J8ox99FSsbGS2Vg%3A1644912830972&ei=vmALYvP3OsyWseMPzfqjEA&ved=0ahUKEwjzzufnoYH2AhVMS2wGHU39CAIQ4dUDCA0&uact=5&oq=resnet+-34+and+resnet+-50&gs_lcp=Cgdnd3Mtd2l6EAMyBwgAEEcQsAMyBwgAEEcQsAMyBwgAEEcQsAMyBwgAEEcQsAMyBwgAEEcQsAMyBwgAEEcQsAMyBwgAEEcQsAMyBwgAEEcQsANKBAhBGABKBAhGGABQ-D5Yk1Ng_lVoBHABeACAAQCIAQCSAQCYAQCgAQHIAQjAAQE&sclient=gws-wiz>