Techno India NJR Institute of Technology, Udaipur

Basic of Deep Learning Using MATLAB

Training Module

Total Time: 20 days

MODULE

- Introduction
- Using Pre trained Networks
- Managing Collections of Image Data
- Performing Transfer Learning
- Conclusion

Introduction

- Familiarize yourself with Deep Learning concepts and the course.
- Perform image classification using pre trained networks.
- Use transfer learning to train customized classification networks.

Using Pre trained Networks

- Perform classifications using a network already created and trained.
- Course Example - Identify Objects in Some Images
- Making Predictions
- CNN Architecture
- Investigating Predictions

Managing Collections of Image Data

- Image Data stores
- Preparing Images to Use as Input
- Processing Images in a Data store
- Create a Data store Using Subfolders

Performing Transfer Learning

- What is Transfer Learning
- Components Needed for Transfer Learning
- Preparing Training Data
- Modifying Network Layers
- Setting Training Options
- Training the Network
- Evaluating Performance
- Transfer Learning Summary

Conclusion

- Project - Roundworm Vitality
- Additional Resources
- Survey