

Course Name	TensorFlow Mastery
Course Duration	5 Day (40 hours)
Target Audience	Data Analyst, Business Analysts, Data Scientist
Course Outcomes	Mastering Advanced TensorFlow Techniques: <ul style="list-style-type: none"> • Build advanced models using Functional APIs • Customize models and layers for specific requirements
	Custom and Distributed Training: <ul style="list-style-type: none"> • Implement custom training procedures • Learn distributed training techniques
	Advanced Computer Vision with TensorFlow: <ul style="list-style-type: none"> • Explore object detection techniques • Dive into image segmentation methods
	Generative Deep Learning Exploration: <ul style="list-style-type: none"> • Apply Neural Style Transfer for artistic image generation • Master Autoencoders and Variational Autoencoders for unsupervised learning and creative generation

Module No.	Module
1	Enhancing TensorFlow Model Capabilities
1.1	Build Functional APIs with TensorFlow
1.2	Build Custom Models with TensorFlow
1.3	Build Custom Layers with TensorFlow
1.4	Build Custom Loss Functions with TensorFlow
1.5	Custom Callbacks with TensorFlow
2	Custom and Distributed Training with TensorFlow
2.1	Differentiation and Gradients
2.2	Custom Training
2.3	Graph Mode
2.4	Distributed Training
3	Advanced Computer Vision with TensorFlow
3.1	Introduction to Computer Vision
3.2	Object Detection
3.3	Image Segmentation
3.4	Visualization & Interpretability
4	Generative Deep Learning with TensorFlow
4.1	Neural Style Transfer
4.2	AutoEncoders
4.3	Variational AutoEncoders
4.4	Generative Adversarial Network