

# **GUIDANCE POINT:- PUNE'S PREMIER EDUCATION HUB**

Welcome to Guidance Point, your ultimate destination for comprehensive education and professional development! At Guidance Point, we believe in empowering individuals to unlock their full potential through accessible and high-quality education. With a vast array of courses covering all domains, from technology to arts, business to sciences, we strive to cater to the diverse learning needs of our users. Whether you're a student looking to enhance your academic performance, a professional aiming to upskill or reskill, or an enthusiast eager to explore new interests, Guidance Point is here to guide you every step of the way. What sets us apart is our commitment to excellence. We meticulously curate our course offerings, partnering with the best institutes and industry experts to ensure that you receive top-notch education that is both relevant and practical. Our platform leverages cutting-edge technology and innovative teaching methodologies to deliver engaging and immersive learning experiences.

## **BENEFITS:-**

### **1. Comprehensive Course:**

Our comprehensive course ensures thorough coverage of essential topics, equipping you with a well-rounded understanding of your subject matter, setting a strong foundation for your future endeavors.

### **2. Top Institute Partnerships:**

Through our partnerships with leading institutes, you gain access to world-class resources, expert guidance, and prestigious

certifications, empowering you to excel in your field and stand out among your peers.

### 3. Advanced Learning Technology:

Leveraging advanced learning technology, we offer dynamic and interactive learning experiences, incorporating simulations, virtual labs, and multimedia resources to enhance comprehension and retention of complex concepts.

### 4. Supportive Community:

Join our vibrant and supportive community of learners, mentors, and industry professionals, where you can collaborate, seek advice, and find encouragement, fostering a conducive environment for growth and success.

### 5. Personalized Learning Paths:

Tailor your learning journey to suit your unique needs and goals with our personalized learning paths, allowing you to progress at your own pace and focus on areas that align with your interests and career aspirations.

### 6. Quality Assurance Standards:

Rest assured that our courses adhere to rigorous quality assurance standards, ensuring that you receive high-quality instruction, updated curriculum, and valuable resources that meet industry benchmarks and standards.

### 7. Interactive Learning:

Engage in dynamic and interactive learning experiences through our immersive course content, live sessions, quizzes, and discussions, promoting active participation, collaboration, and deeper understanding of the material.

## 8. Career Opportunities:

Explore abundant career opportunities and pathways in your chosen field, supported by our comprehensive curriculum, industry partnerships, and career services, empowering you to pursue your dream job and achieve professional success.

# SYLLABUS

## 1: INTRODUCTION TO TENSORFLOW AND ITS ECOSYSTEM

- Understanding the fundamentals of TensorFlow and its role in data science and machine learning
- Exploring the TensorFlow ecosystem: TensorFlow Core, TensorFlow Extended (TFX), TensorFlow.js, and TensorFlow Lite
- Overview of TensorFlow's high-level APIs: Keras and TensorFlow Estimators

## 2: BASICS OF TENSORFLOW GRAPHS AND SESSIONS

- Understanding TensorFlow computation graphs and their role in defining and executing TensorFlow operations
- Creating and manipulating TensorFlow graphs using TensorFlow's Python API
- Introduction to TensorFlow sessions for executing computational graphs and performing computations

### **3: BUILDING AND TRAINING NEURAL NETWORKS WITH TENSORFLOW**

- Overview of neural networks and their architecture
- Implementing feedforward neural networks (multilayer perceptrons) using TensorFlow
- Training neural networks with TensorFlow using gradient descent and backpropagation

### **4: CONVOLUTIONAL NEURAL NETWORKS (CNNs) WITH TENSORFLOW**

- Understanding convolutional neural networks (CNNs) and their applications in image classification and object detection
- Implementing CNNs using TensorFlow's high-level APIs (Keras) for tasks such as image classification and object recognition
- Training and fine-tuning CNNs using TensorFlow for various computer vision tasks

### **5: RECURRENT NEURAL NETWORKS (RNNs) WITH TENSORFLOW**

- Introduction to recurrent neural networks (RNNs) and their applications in sequence modeling and time series prediction
- Implementing RNNs using TensorFlow's high-level APIs (Keras) for tasks such as text generation and sentiment analysis
- Training and fine-tuning RNNs using TensorFlow for sequence modeling tasks

## **6: TRANSFER LEARNING AND FINE-TUNING WITH TENSORFLOW**

- Understanding transfer learning and its applications in machine learning
- Leveraging pre-trained models and fine-tuning them for specific tasks using TensorFlow
- Implementing transfer learning and fine-tuning techniques using TensorFlow's high-level APIs (Keras)

## **7: INTRODUCTION TO TENSORFLOW SERVING FOR MODEL DEPLOYMENT**

- Overview of TensorFlow Serving and its role in serving machine learning models in production environments
- Deploying TensorFlow models using TensorFlow Serving for scalable and efficient model serving
- Managing and monitoring TensorFlow Serving deployments for model inference