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ENGINEERING SERVICE

PRESENETS

Artificial Intelligence and Machine Learning in Engineering

ONLINE 3 DAYS COURSE



INTRODUCTION

This 3-day online course by KHRES will cover the fundamentals of AI and ML, including their applications in engineering. Participants will learn to develop and implement machine learning models tailored for engineering challenges. The course will also explore advanced AI techniques and their integration into automation and robotics. Attendees will gain practical experience and insights through hands-on projects and real-world examples.

Table of Contents

1. Introduction to Artificial Intelligence in Engineering

- What is Artificial Intelligence?
- Historical Background and Evolution
- AI in Various Engineering Fields

2. Fundamental AI Tools and Techniques

- Common AI Platforms
- Basics of Data Science
- Handling Engineering Datasets

3. Machine Learning Essentials

- Types of Machine Learning
- Key Machine Learning Algorithms
- Applications in Engineering

4. Implementing Machine Learning in Engineering

- Practical ML Project: Step-by-Step Guide
- Model Evaluation and Hyperparameter Tuning

5. Advanced AI Techniques in Engineering

- Deep Learning and Neural Networks
- AI-driven Optimization Techniques
- Future Trends in AI

6. AI in Automation and Robotics

- Role of AI in Robotics
- Case Studies in Automation

7. Ethics and Future Directions of AI in Engineering

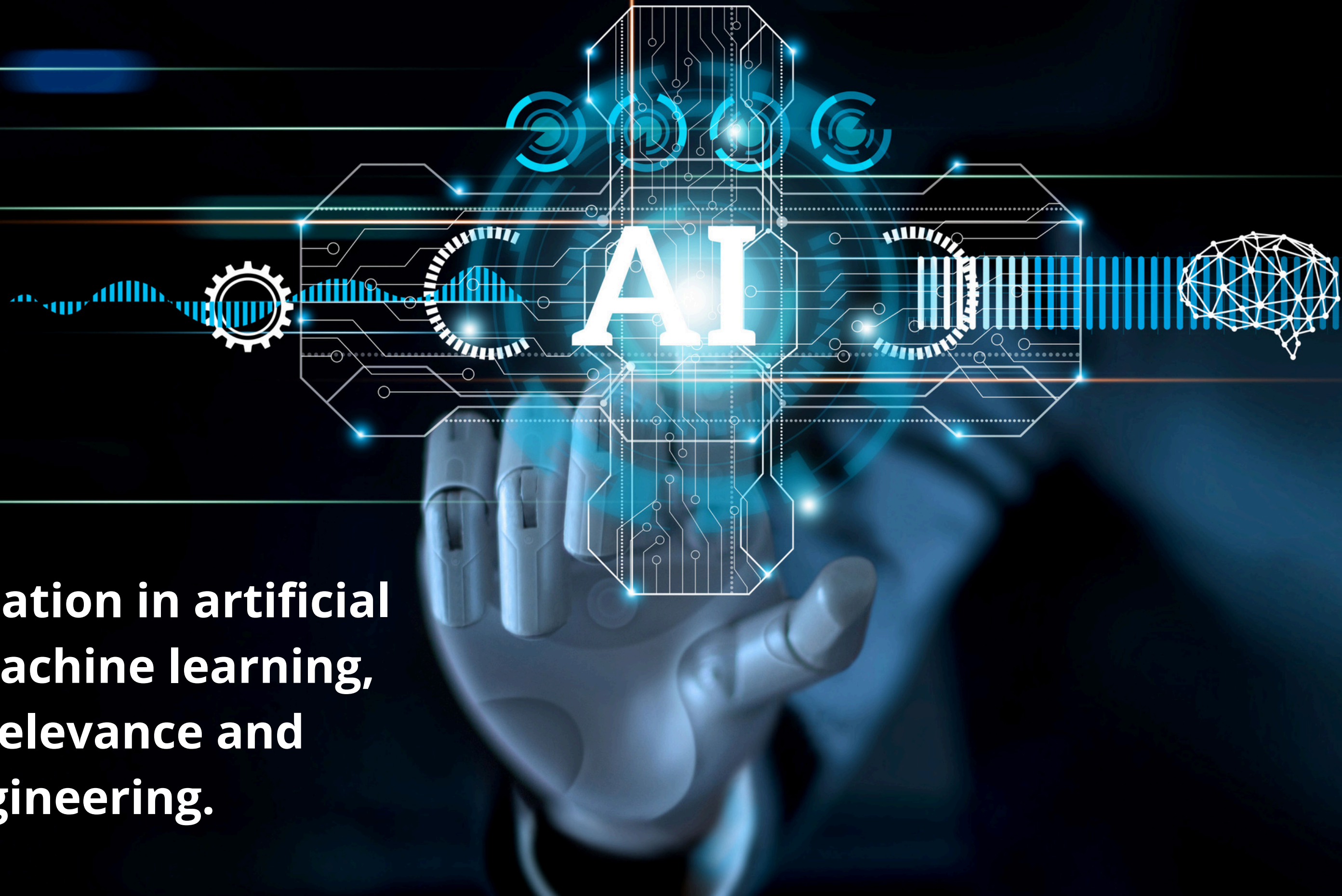
- Ethical Implications of AI




GOALS OF COURSE

Understand Core AI and ML Concepts

Gain a solid foundation in artificial intelligence and machine learning, focusing on their relevance and applications in engineering.



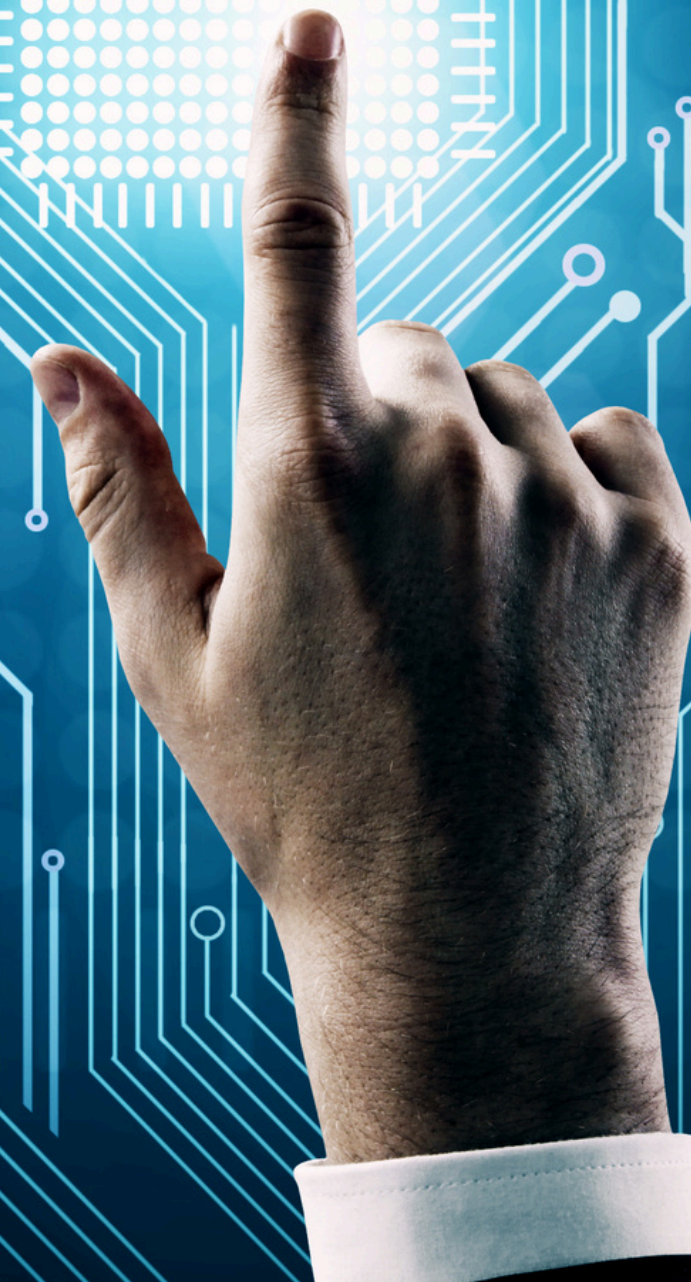


Develop Practical ML Models

Learn to create and
implement machine
learning models to
solve engineering
problems effectively.

Explore Advanced AI Techniques

Discover advanced methods in AI, including deep learning and optimization, and their impact on engineering innovations.



Apply AI in Automation and Robotics

Understand how AI enhances automation and robotics, and apply these technologies to real-world engineering scenarios.



AI