

# Welcome To Digital Lync

Digital Lync empowers technology seekers by providing world class infrastructure, best quality project based technology education, Research and Development of great products and supports enthusiastic new entrepreneurs.





# Artificial Intelligence(AI)

Artificial Intelligence (AI, also Machine Intelligence, MI) is intelligence demonstrated by machines in contrast to the Natural Intelligence (NI) displayed by humans and other animals.

**DURATION: 40+ HOURS** 

#### WHAT YOU NEED TO KNOW

- Complete knowledge on Python
- Complete knowledge on Data Science
- Complete knowledge on Deep Learning
- Mathematics Background (Optional)

## CAREER

PORTUNITIES

Al Engineer Data Scientist Al Architect

Why

Artificial Intelligence

Al automates repetitive learning and discovery through data. It adds intelligence to existing products and adapts through progressive learning algorithms. Al analyses more and deeper data using neural networks that have many hidden layers. It achieves incredible accuracy through deep neural networks.



# Artificial Intelligence

# Curriculum

# MODULE 1: INTRODUCTION & ESSENTIAL IDEAS

- What is Al?
- The Foundations of Artificial
- Intelligence
- Heavy industries & space
- Speech recognition
- Computer vision
- Expert systems
- Heuristic classification
- Components of AI/scope of AI
  - Problem solving through heuristic techniques
  - Knowledge representation
  - Handling uncertain situations
  - Theorem proving
  - Game playing
  - NLP
  - Expert systems
  - Computer vision

- Related fields of AI
  - Production systems
    - Set of rules
    - Knowledge data bases
    - Control strategy
    - Rule appliers
  - 2 types
    - Cumulative
    - Decomposable
- Defining intelligence using Turing test
  - Respondents
  - Interrogator
- Problem characteristics
- Problem state space
- State representation
  - 2 examples
    - Towers of Hanoi
    - Choice of trainer

## MODULE 2: SEARCH ALGORITHMS

- Uninformed search
- Informed search

# MODULE 3: BUILDING GAMES WITH AI

- MiniMax search procedure
- Secondary search
- Quiscence
- Iterative deepening

## MODULE 4: KNOWLEDGE REPRESENTATION

- Knowledge representation
- Formalized symbolic logic
  - Propositional calculus
  - Predictive calculus
  - Comparison of above 2
- Deductions
- Forward & backward reasoning
- Theorem proving
- Resolution in logic
- Structured knowledge
- Strong slot & filler structures
- Ontology

#### MODULE 5: UNCERTAIN KNOWLEDGE AND PROBABILISTIC REASONING

- synopsis/ summary / results of essential probability ideas
- Uncertainty
- Probabilistic reasoning
- Temporal models
- Fuzzy logic

#### MODULE 6: BUILDING A SPEECH RECOGNIZER

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# MODULE 7: OBJECT DETECTION & TRACKING

MODULE 12: COMMONSENSE & QUALITATIVE PHYSICS

MODULE 12: LEARNING

MODULE 12: GENETIC ALGORITHMS

MODULE 12: EXPERT SYSTEMS

MODULE 12:
INTELLIGENT AGENTS

MODULE 12: NOTIONS OF SOFT COMPUTING

#### MODULE 13: SCOPE AND PLACE OF THE FOLLOWING WITHIN AI

- Neural networks
- Natural Language processing
- Pattern Recognition

# Artificial Intelligence

## Project 1: CHATBOTS

Ever seen that when you ask questions at a chatting portal, automatic reply comes? Even messengers like Facebook Chat, Google Chat etc. have these features. You can even write questions and assistants like Siri, Alexa, Google, respond automatically and perfectly. Well, they are called 'Chatbots'. Now that we know their features, why not make our own chat bot system. How? We'll help you make one.

## Project 2: OBJECT DETECTION

Is traffic giving you nuisance? Are you really getting late to office, or your date? Well, the best solution is to provide one, than to expect one. Use Deep Learning and OpenCV to tackle this biggest problem. Learn object detection algorithms and their applications.

# Why Digital Lync







# Trending

**Python** 

**Devops** 

**AWS** 

Azure (Cloud Computing)

**Data Sciences** 

**Deep Learning** 

**Artificial Intelligence** 

**Data Analysis** 

Big Data

**FullStack** 

**Digital Marketing** 

Mobile Development

Blockchain

Visual Design

**Game Development** 

IOT

**Cyber Security** 

