# Data Science

Digital Lync

EDUCATION - INNOVATION - INCUBATION

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# 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.

## Our Process

Career Guidance

Expert counsellor advises to match your skills with trending technologies in the industry.

Choose Course

You pick and we guide. We mentor you all along and help you throughout your learning process.

Placement Assistance

We are a Bridge to your awesome future! We recognize, enhance and present your skills to the coolest companies.

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# Data Science

Data Science is a multi-disciplinary technology which combines statistics, mathematics and information science to derive meaningful insights from data.

## APPROPRIATE FOR PEOPLE WITH

- Good  Analytical &  Logical Abilities
- Inclination & Appreciation for Mathematics
- Good Programming Skills

## CAREER SCOPE

- Data Scientist
- Data Architect
- Data Analyst
- Decision Scientist
- Applied Scientist

# Why Data Science

Data Science has a huge impact in the field of industries and is likely to cover one-third of the global IT market. All the organizations small or big are wrangling for employees with knowledge of data synthesis to obtain, explore, model and interpret.

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# Data Science - Curriculum

**QUICK FACTS :**

- Course is offered (strongly recommended) with Python, [35+60]-format ;
- This is DS component of [DS+ Python ] combo---60 hours
- 4 case studies
- 2 projects
- Class room notes

## Module 1 :

### FOUNDATIONS :

- Introduction
- High level view of DS, AI & ML
- Subtel differences between DS, ML & AI
- Approaches to ML
- Terms & terminologies of DS
- Ideas of Pipe line, implementation cycle
- Statistics

### STATISTICS :

- MCT
- Dispersion
- Scatter plot
- Box whisker plot

## MODULE-2 :

## SUPERVISED LEARNING :

### CLASSIFICATION METHODS

- K-nn
- Naive Bayes
- SVM
- Decision trees

### REGRESSION

- Linear Regression
- Logistic Regression (effectively, classification only)

## UNSUPERVISED LEARNING :

### CLUSTERING

- K means
- Association Rules(market basket analysis)

**…… END OF Module 2 ……**

## MODULE-3 :

## ELEMENTARY IDEAS OF TIME SERIES :

### TEXT ANALYTICS

- NLP
- TF-IDF

- **SENTIMENT ANALYSIS**
- **RECOMMENDER SYSTEMS**
- **RANDOM FORESTS**



**…… END OF Module 3 ……**

## MODULE-4 :

## NEURAL NETWORKS & DEEP LEARNING TECHNOLOGIES :

### ANN

- NN & terminologies
- Non linearity problem, illustration
- Perceptron learning
- Back propagation

### ADDITIONAL RELEVANT MATHEMATICS

- Gradients
- Partial derivatives
- Linear algebra
    - Li
    - LD
    - Eigen vectors
    - Projections

## VECTOR QUANTIZATION :

### OVERVIEW OF

- Tensor Flow
- Keras
- theano

### DEEP LEARNING WITH CONVOLUTIONAL NEURAL NETS

- Architecture of CNN
- Types of layers in CNN
- filters
- Building an Image classifier with and without CNN

## RECURRENT NEURAL NETS :

### FUNDAMENTAL NOTIONS & IDEAS

- Recurrent neurons
- Handling variable length sequences

- **TRAINING A SEQUENCE CLASSIFIER(IDEAS)**
- **TRAINING TO PREDICT TIME SERIES**
- **Reinforcement Learning(overview)**
- **Autoencoders(overview)**

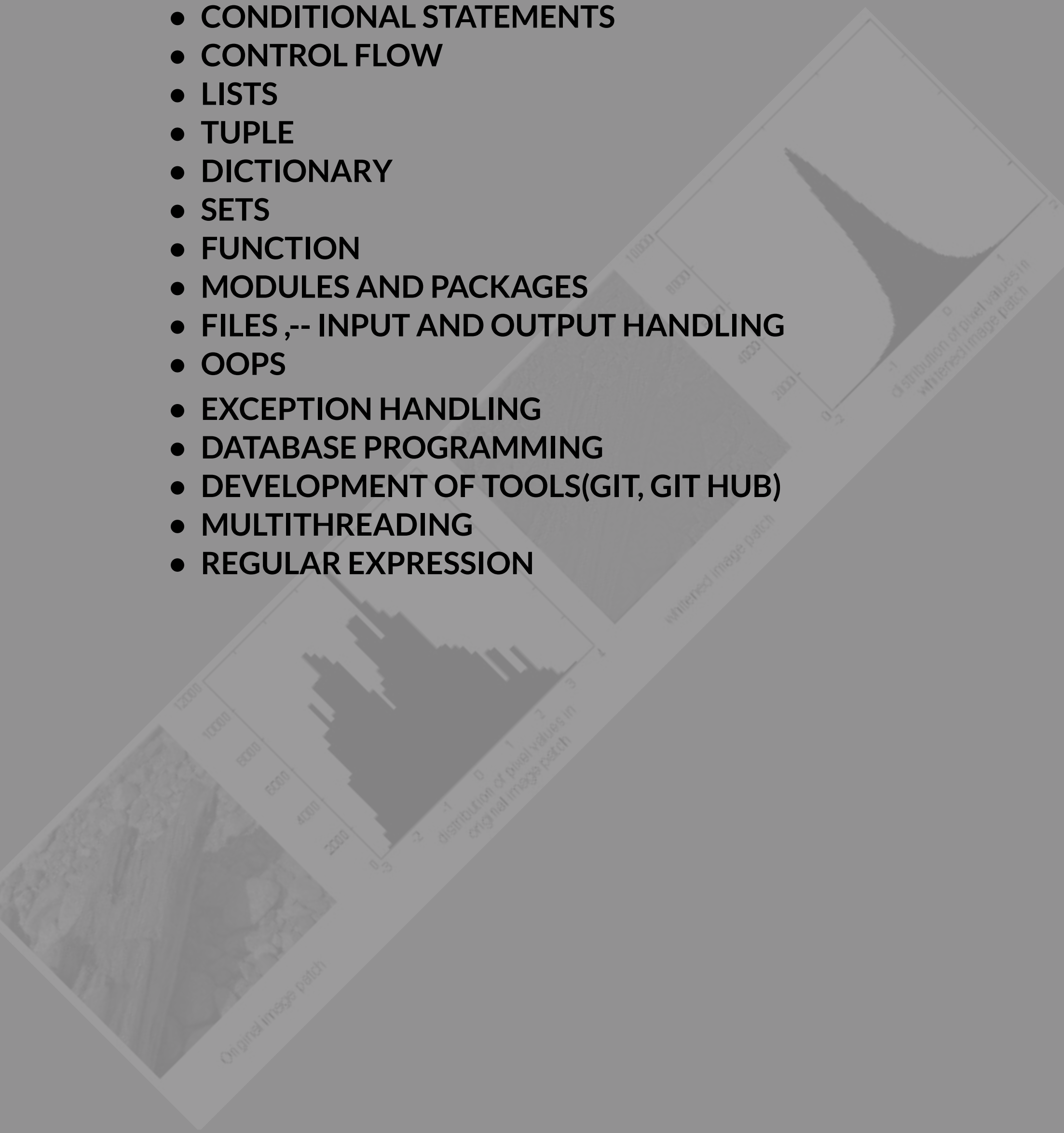
..... END OF Module 4 .....

# Python course content

**QUICK FACTS :**

- 17 chapters
- 4 mini projects
- Several tasks
- Numerous assignments
- Exhaustive discussion
- Duration --- 35 clock Hours

- INTRODUCTION
- VARIABLES AND DATA TYPES
- CONDITIONAL STATEMENTS
- CONTROL FLOW
- LISTS
- TUPLE
- DICTIONARY
- SETS
- FUNCTION
- MODULES AND PACKAGES
- FILES ,-- INPUT AND OUTPUT HANDLING
- OOPS
- EXCEPTION HANDLING
- DATABASE PROGRAMMING
- DEVELOPMENT OF TOOLS(GIT, GIT HUB)
- MULTITHREADING
- REGULAR EXPRESSION



**QUALITATIVE IDEAS OF :**

- Statistical sampling & inference
- Hypothesis Testing & t-tests
- Prerequisites of above ideas(qualitative)
- Terms , Terminology & Notions of
- Linear Algebra Relevant to DataScience , including Probability

**END-TO END MACHINE LEARNING PRACTICE :**

- PipeLine ideas:
- EDA
- Feature Creation
- Evaluation Measures

**DATA ANALYTICS CYCLE IDEAS :**

- Data Acquisition
- Data Preparation
- Data cleaning
- Data Visualization
- Model Planning & Model Building

**RESPECTIVE PERFORMANCE MEASURES :**

- Different Errors
- Parameter Tuning

**DS SPECIFIC PYTHON :**

- Numpy
- Pandas
- Matplotlib
- Data imputing



**..... END OF Module 1 .....**

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# Data Science

## Project : 1

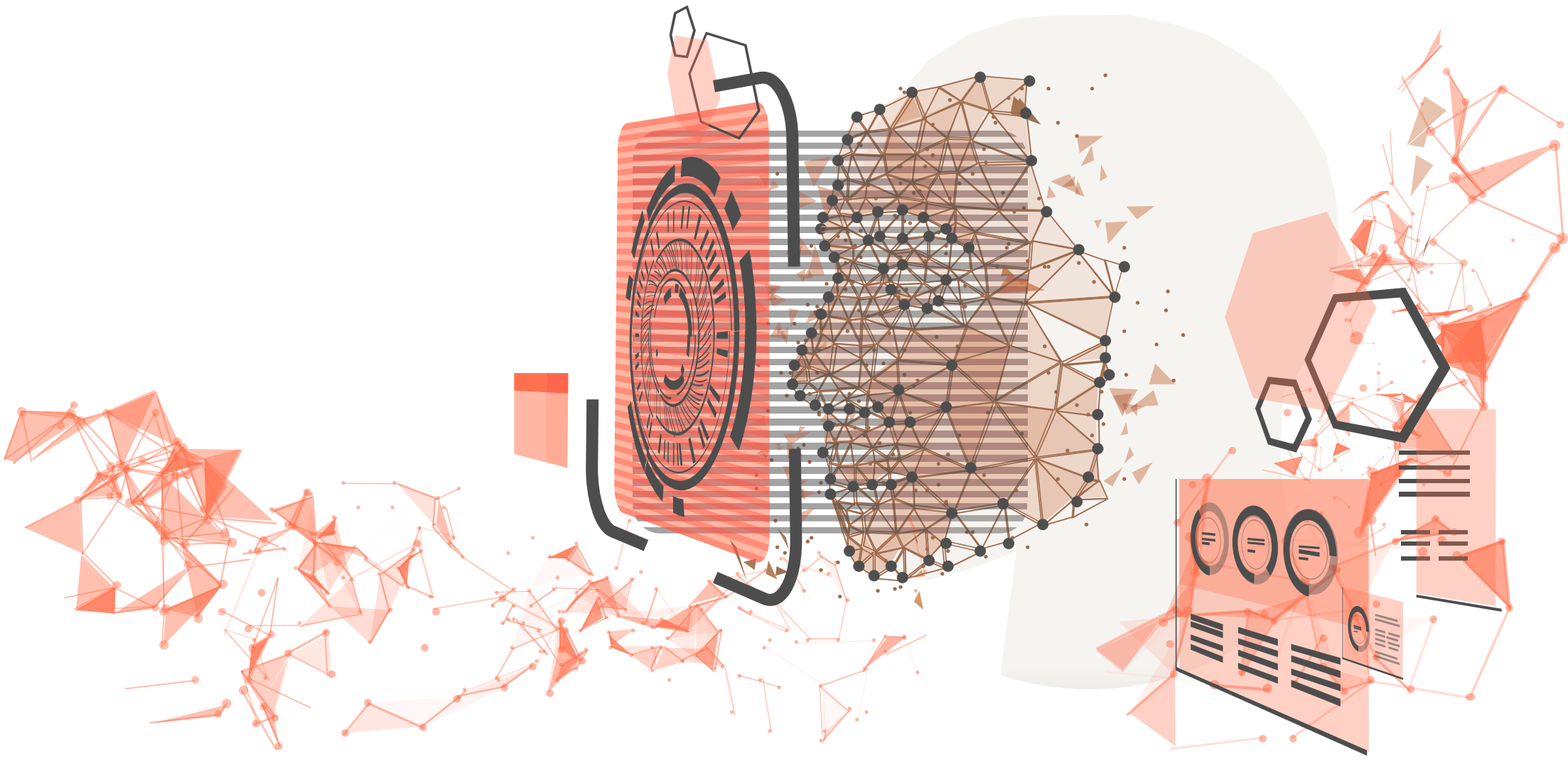
### OBJECT DETECTION

Is traffic giving you nuisance? Are you really getting late for your 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.

# Project : 2

## FACIAL RECOGNITION

How about an app which recognises you and marks your attendance based upon recognising the faces? No need for that old punch cards method. Just show your face and that's enough. Your company recognises each and every employee by face, what else do we want? Work on this cool project with us by applying advanced concepts of Deep Learning and Computer Vision.



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# Why Digital Lync



## The Best Trainers

Our developers are our trainers! our trainers spend half of their time on products at our innovation center.

## Online Classes

Our online experience is as good as in - class experience. Our programs offer end to end personal interaction with students.

## We are Committed

We consider your success to be ours. Your achievement is our commitment. We teach until you learn.

## Really Affordable

We believe in a collaborative, cool and learn friendly environment. Our promise, is to provide all this for no additional charge.

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# Trending Technologies

- Python
- Devops
- AWS
- Azure (Cloud Computing)
- Data Sciences
- Deep Learning
- Artificial Intelligence
- Data Analysis
- Big Data
- Full Stack
- Digital Marketing
- Mobile Development
- Blockchain
- Visual Design
- Game Development
- IOT
- Cyber Security

# BRANCHES

**Gachibowli**

Khajaguda, Naga Hills Rd,
Madhura Nagar Colony,
Gachibowli, Hyderabad.

**Kukatpally**

Manjeera Trinity Corporate,
1st floor, office no. 106 & 107,
Kukatpally, Hyderabad.

**SR Nagar**

31/A , Chitti Classics, Adjacent to
SR Nagar Police Station Signal,
Balkampet Main Road,Hyderabad.

**Dilsukhnagar**

Near Telephone Colony Arch,
Yashoda Speciality Clinic
Building 3rd floor,
Kothapet, Hyderabad.

**Guntur**

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