

# BlockChain with Python



**Digital Lync**

EDUCATION - INNOVATION - INCUBATION

# 01

# Welcome To

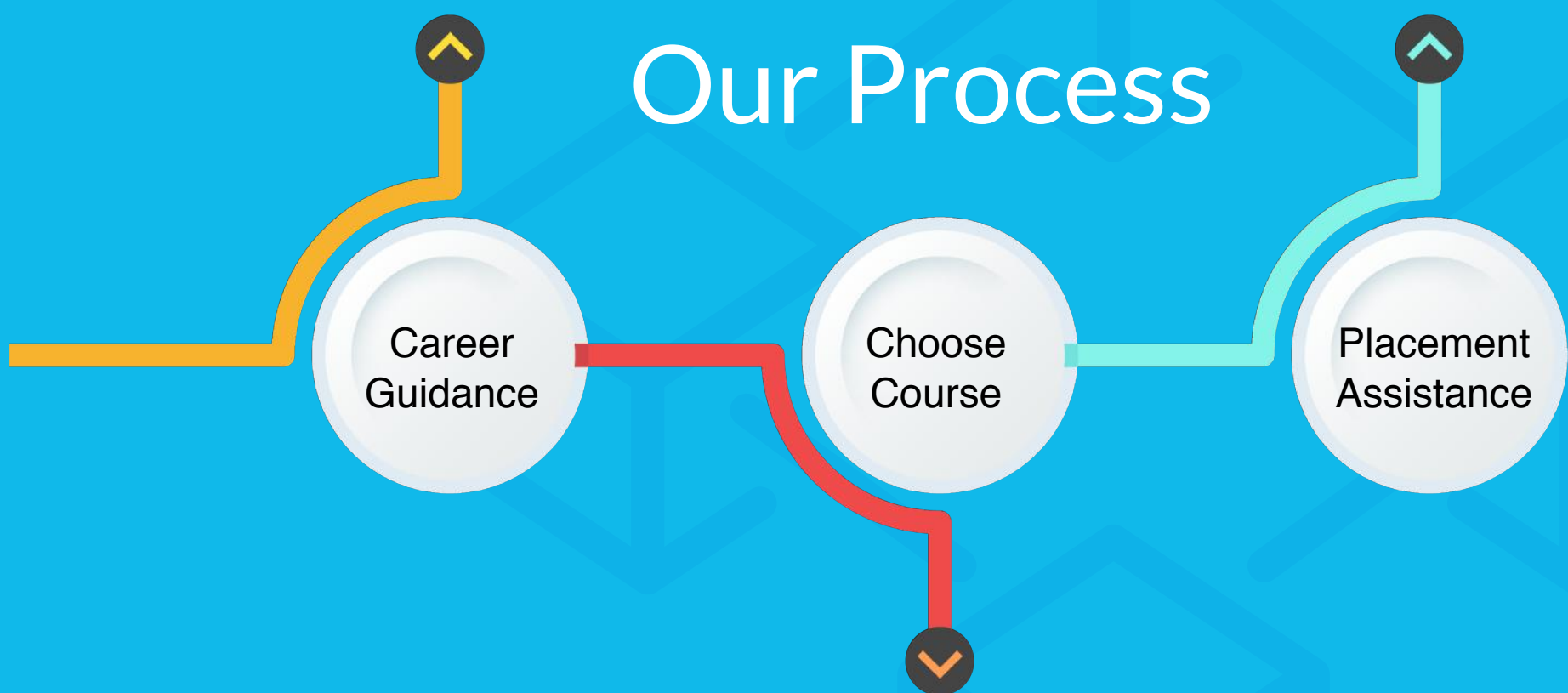
# Digital Lync

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.

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

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

## Our Process



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

[www.digital-lync.com](http://www.digital-lync.com)

# BlockChain with Python

Creating awesome web applications with python and Blockchain. In depth knowledge of how blockchain works, creating Dapps in blockchain with help of python will change how the current application are working.

**DURATION: 30+ HOURS**

## PREREQUISITES

- Basic Knowledge of HTML,CSS
- Basics of Python
- Familiarity with Frameworks like Django or flask is a plus
- Basic understanding of databases is a plus.

## Why BlockChain

Blockchain along with python helps us integrate with technologies like Machine learning, Artificial Intelligence, IOT or any mathematical influenced technologies. We can create web applications using frameworks like Django or flask. Blockchain is a game changer as we all know it but integrating with python will enhance applications value and ease of use for entire world. As python supports strong data structures and has very large community we can also create our own public blockchains with core functionalities.

## CAREER

### OPPORTUNITIES

Blockchain Developer  
Blockchain Engineer





# 02

# Blockchain

## Curriculum

### MODULE 1:

#### BASICS OF BLOCKCHAIN

- What is blockchain
- Centralized vs Decentralized vs Distributed systems
- What are digital ledgers
- What is a bitcoin and types of cryptocurrencies
- Difference between bitcoin and blockchain
- What is Mining and transaction validation
- What is nonce
- Transaction flow of blockchain website
- Proof of Work

### MODULE 2:

#### CRYPTOGRAPHY IN BLOCKCHAIN

- What is hashing and digital signatures
- Types of cryptographic algorithms.
- What is dual-key encryption (public & private encryption)
- Usage of cryptography in blockchain and transaction validation
- What are merkle trees and root
- Creation of block hash

## MODULE 3:

### TYPES OF BLOCKCHAIN

- Public blockchains and examples
- Private blockchains and examples
- Federated vs Consortium blockchains and examples
- Difference between permissioned vs permissionless blockchain

## MODULE 4:

### PYTHON BASICS (OPTIONAL FOR PYTHON DEVELOPERS)

## MODULE 5:

### ETHEREUM

- What is Ethereum
- Ethereum architecture
- Introduction to dapps and examples
- What are smart contracts
- Introduction to solidity
- Difference between ethereum and bitcoin blockchains
- Swarm vs IPFS
- Web3js introduction, proof of stake

## MODULE 6:

### PRIVATE BLOCKCHAIN

- Difference between public,private,test networks
- Creation and explanation of genesis file
- Downloading and explanation of geth
- Web3js commands and usage in geth
- Creation of private blockchain using geth
- Connecting nodes in blockchain (temporary and permanent)
- Connecting nodes in same, different networks
- Connecting nodes using cloud and localhost
- Accounts creation, transactions and mining in node.

## MODULE 7: SOLIDITY

- Creating first smart contract
- Remix IDE, Metamask, Mist browser
- Deploying in private blockchain
- Attaching an user interface
- Mini Project using solidity

## MODULE 8: TRUFFLE FRAMEWORK

- Truffle introduction and unboxing
- Truffle commands and usage
- Coding explanation using truffle + solidity

## MODULE 9: HYPER LEDGERS

- Introduction to hyper ledgers
- Minor Application using hyper ledgers

## MODULE 10: MISCELLANEOUS

- What are Multi Chain and uses.
- What are Hybrid Blockchains
- Types of wallets to store cryptocurrencies
- Introduction to DAO/DAC
- What is Segwit

## MODULES: BCP:

- Python :- Same as Previous defined in Full stack with python
- Blockchain:- Blockchain is a decentralized and distributed database in which data embedded to transactions will be immutable
- Solidity :- Used as a language for creating decentralized applications in Ethereum platform.

# 03

## Blockchain

### Project: 1

#### BLOCKCHAIN WALLET

Simple Wallet that uses third party wallet API to integrate with Javascript or Python depending on Programming language that programmer uses and perform functionalities like sub wallets creation, transaction like send and receive, address generations etc...

### Project: 2

#### BLOCKCHAIN CERTIFICATION

Creating Private blockchain using Go-ethereum and truffle will make users to create their own blockchain certificates which are immutable and as well as more secured

# 04

## Why

# Digital Lync





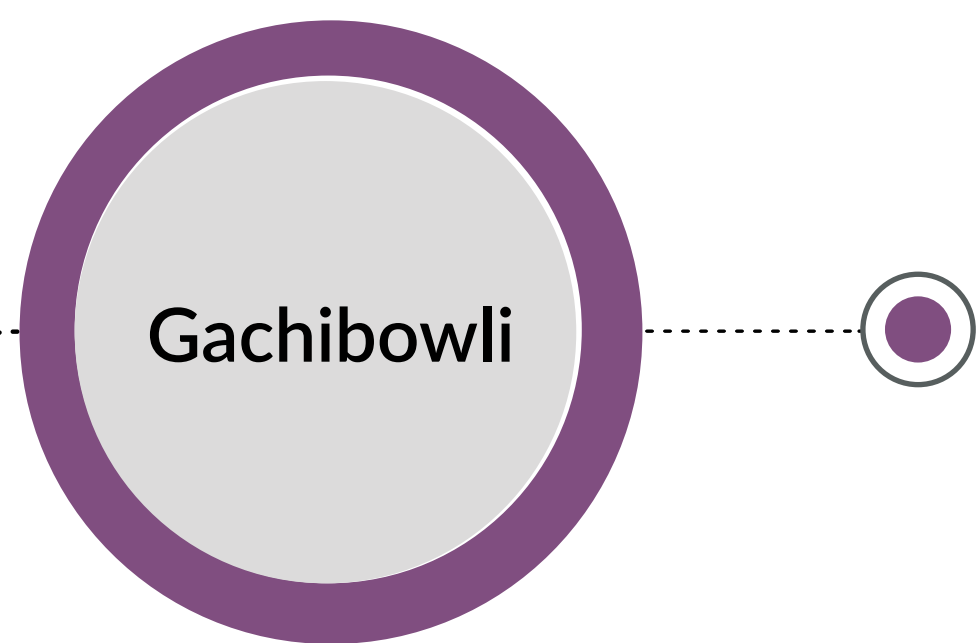
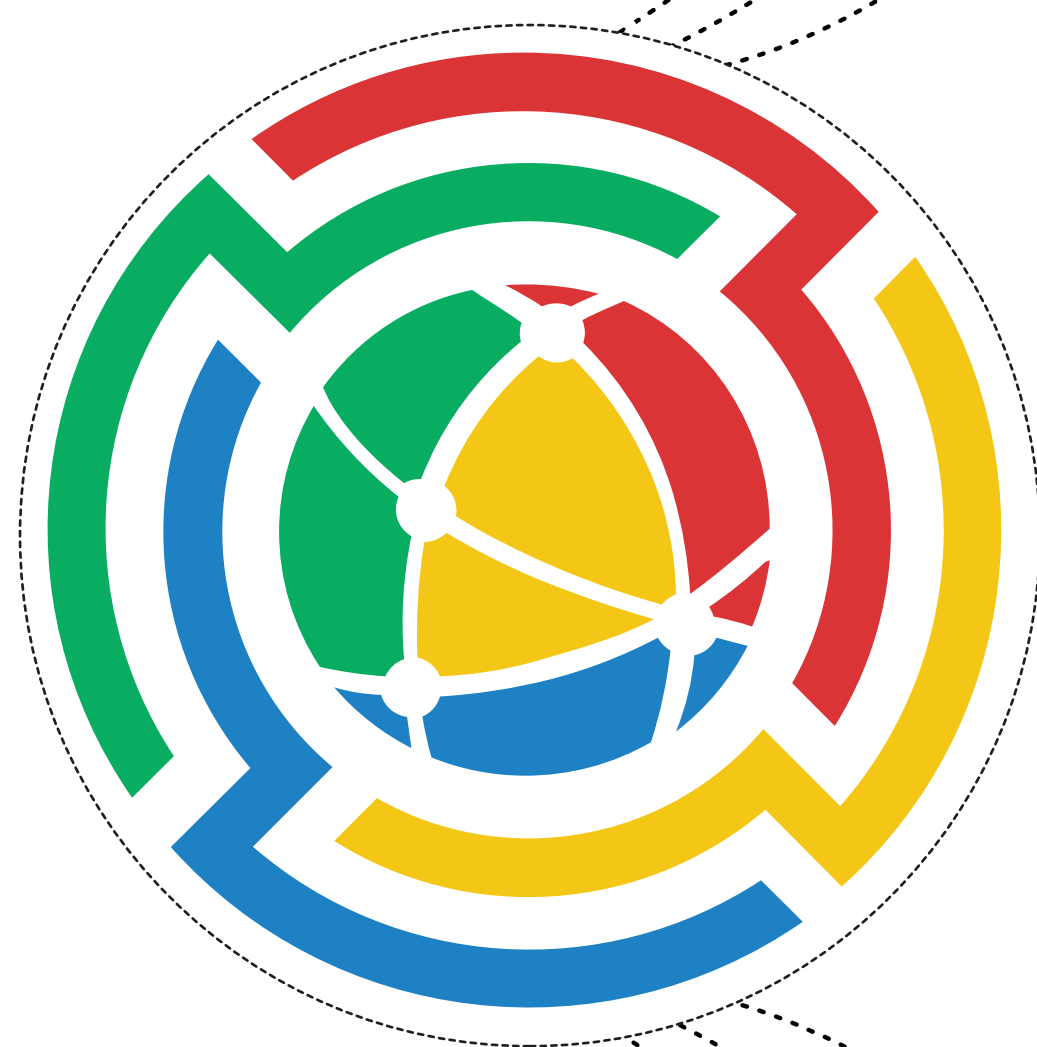
# Trending

# Technology

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

DL

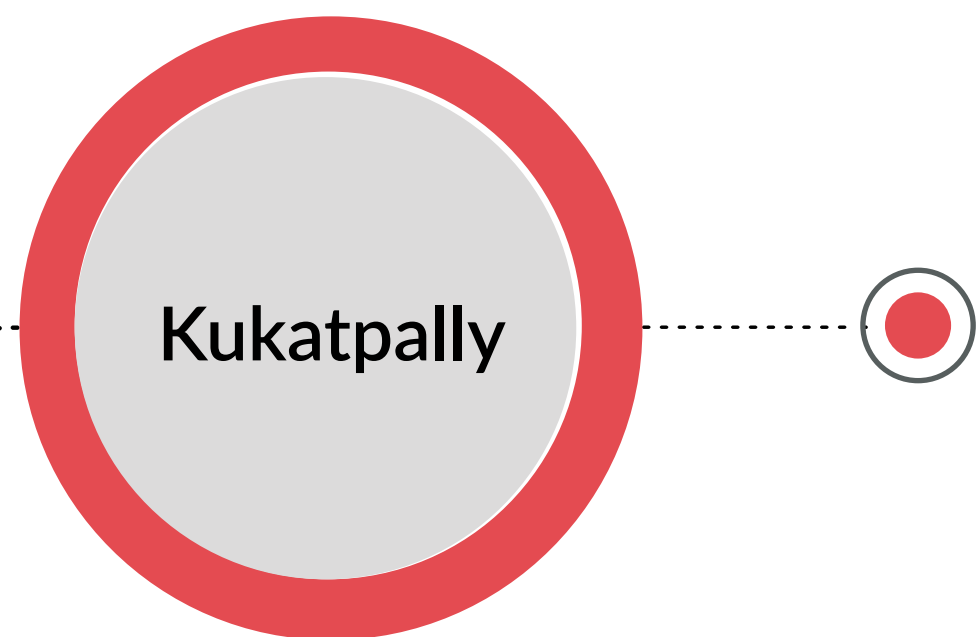
# BRANCHES



Gachibowli

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

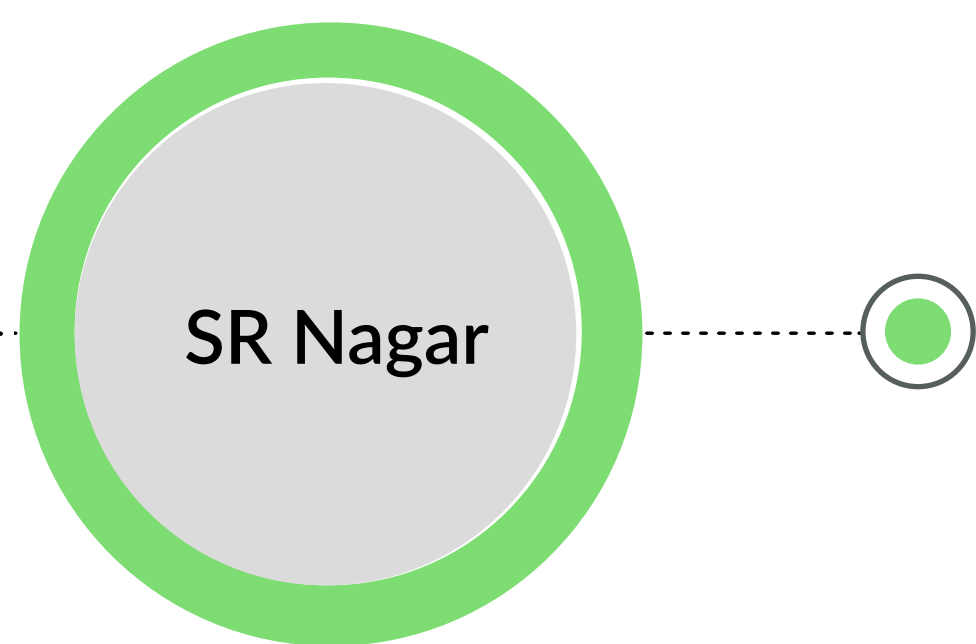
☎ 9652021616 / 7093861616



Kukatpally

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

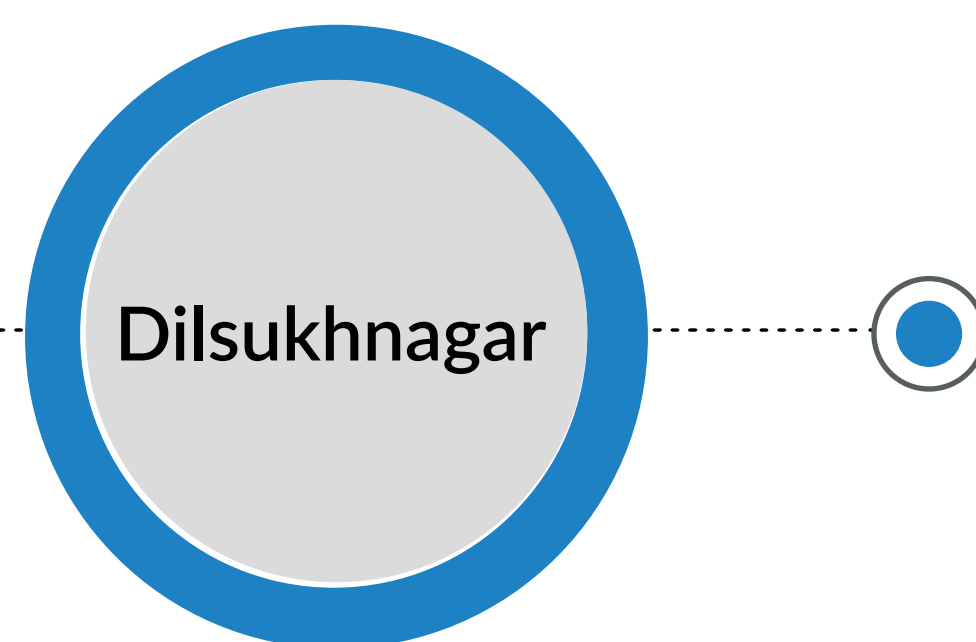
☎ 9652978616 / 7093861616



SR Nagar

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

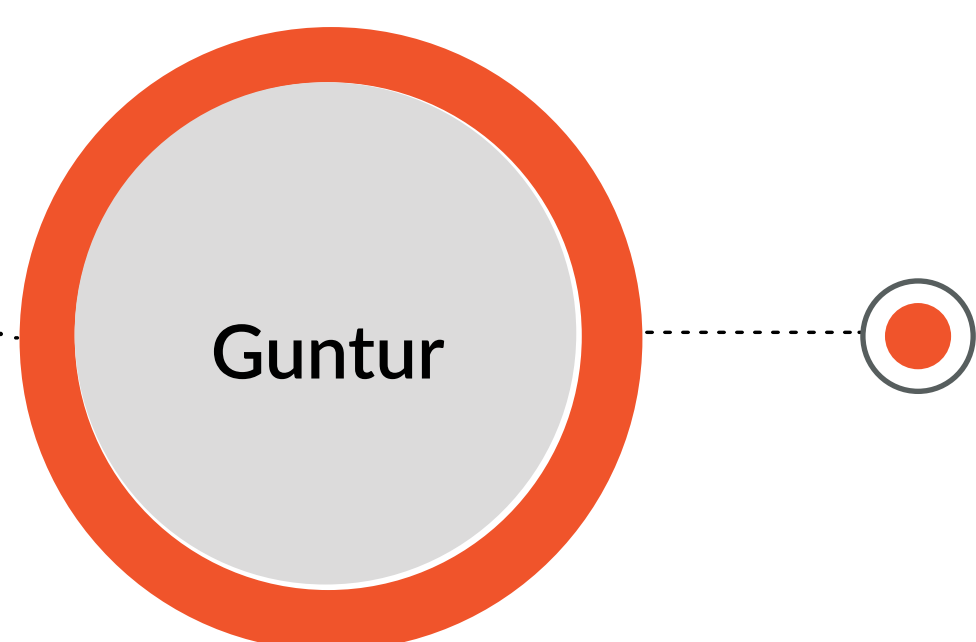
☎ 9704661616 / 7093861616



Dilsukhnagar

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

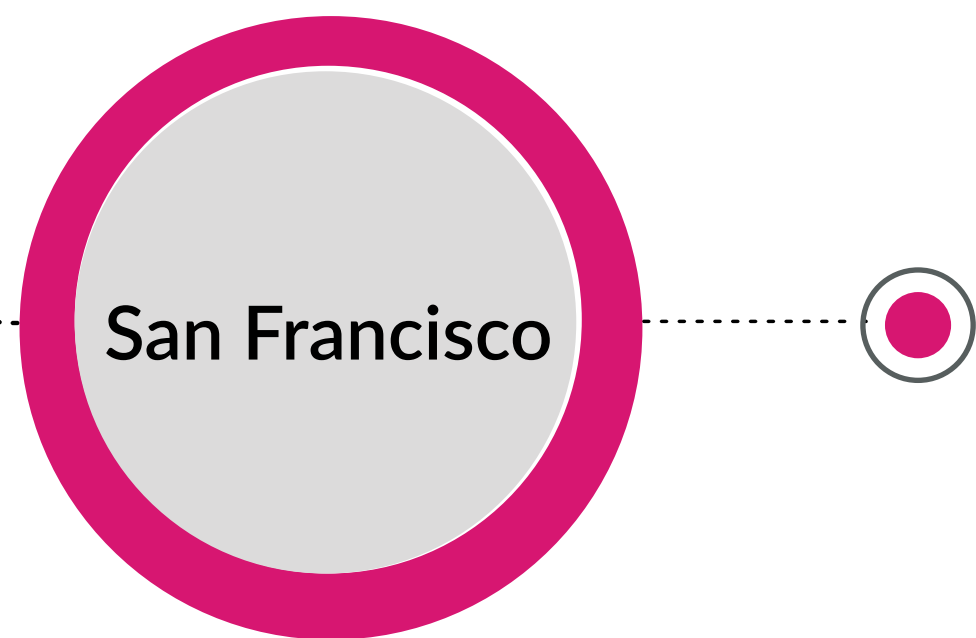
☎ 9652678616 / 7093861616



Guntur

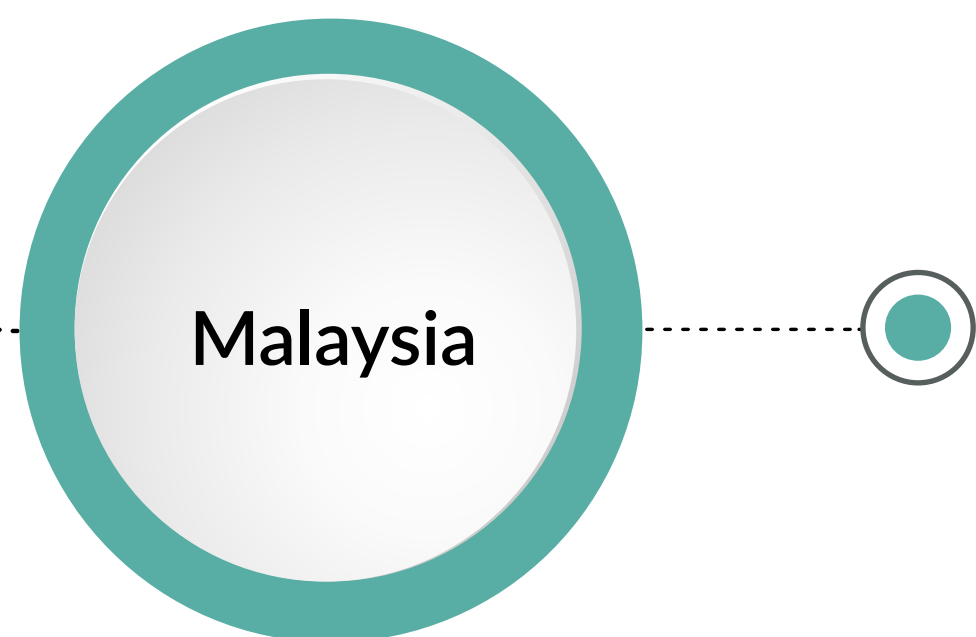
Emgee House,  
Chandramouli Nagar,  
Guntur, Andhra Pradesh.

☎ 9652741616 / 7093861616



San Francisco

1 Hallidie Plaza,  
San Francisco,  
California, 94102.



Malaysia

A3-6, Jalan Sri Hartamas 17,  
Sri Hartamas, 50480,  
Kuala Lumpur, Malaysia.

# CONTACT

[www.digital-lync.com](http://www.digital-lync.com)

7093861616 / 8897301616

