



3GIRPS

INSTITUTE OF RESEARCH & POLICY STUDIES
BUILD INDIA TO SERVE THE WORLD

3G INSTITUTE OF RESEARCH AND POLICY STUDIES

PRESENTS

BLOCK CHAIN

Venue: IIT Madras Research Park

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Block chain

Application Lifecycle Management

- Install and Instantiate chaincode package
- Configure endorsement policy
- Define collection policy for private data
- Modify or upgrade chaincode

Install and Configure Network

- Modify the world state database configuration
- Define initial multi-org configuration policy
- Configure Ordering service (Raft)
- Configure Hyperledger Fabric containers
- Define network config options (block creation options, etc)
- Enable TLS for communication
- Generate genesis block
- Configure service discovery node (e.g. peer and orderer addresses)

Diagnostics and Troubleshooting

- Query and analyse peer logs
- Query and analyse CA logs
- Query and analyse Orderer logs
- Query and analyse chaincode logs

Membership Service Provider

- Configure ACL
- Create end user identity

- Revoke an identity
- Configure and start Hyperledger Fabric CA
- Configure Hyperledger Fabric for hardware security module

Network Maintenance and Operations

- Add a peer to existing organization
- Create a channel
- Add an org to a channel
- Update channel configuration
- Update a Hyperledger Fabric Instance

Identity Management

- Instantiate a wallet
- Import identities to a wallet
- Select and manage identity from a wallet

Network Configuration

- Create and use connection profiles
- Instantiate and connect to a gateway
- Access networks and contracts

Smart Contract Development

- Define smart contract class/construct
- Define transaction functions
- Validate and sanitize inputs and arguments
- Implement deterministic logic/code
- Simple state interaction (Get, Put, Delete)
- Execute simple queries
- Create complex queries

- Define assets using key value pairs
- Identify potentially private data
- Incorporate private data collection
- Implement attribute-based access control
- Initialization of the ledger state
- Install and instantiate a smart contract

Smart Contract Invocation

- Invoke smart contracts via CLI
- Submit one or more transactions
- Evaluate transaction functions e.g. for queries
- Query transaction history
- Call a transaction using transaction class (stateful)
- Create and issue an application contract
- Register and handle channel-based events

Maintenance and Testing

- Handle error and success responses
- Identify and review logs
- Unit test contracts
- Diagnose and endorse policy conflicts
- Identify and correct non-determinism in functions
- Troubleshoot transaction flow

GET IN TOUCH WITH US



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Course Offered

- Internship
- Google AI
- Python
- Ethical Hacking
- Machine Learning - Deep Learning Workshop

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