

## About Us

Since its establishment in 1988, GITAM INSTITUTE OF MANAGEMENT (GIM), a constituent unit of GITAM University, has dedicated itself to the cause of quality higher education in management. It has been successfully shaping the careers of young minds for the past 28 years and has emerged with laurels at the forefront of professional management education and research.

GIM relentlessly pursues its efforts to achieve the corporate philosophy of GITAM University – “Strive, Serve and Thrive”, with a vision to become a global leader in higher education, and with a mission to impart futuristic and comprehensive education of global standards, with a high sense of discipline and social relevance in a serene and invigorating environment.

GIM offers various graduate, post-graduate and doctoral Academic Programmes which are constantly updated to match the latest industrial and societal requirements. The enrolment of GIM is about 900 students. GIM's strength lies in its Faculty. The institute has 43 full-time, 5 part-time and 10 visiting faculty members. Majority of them hold Ph.D. and are from industrial background. Several faculty are from USA, UK, Canada, Zambia and Papua New Guinea. Diversity of teaching methods, practical and situational delivery of courses, exposure to real life managerial situations through case studies and use of information and communication technology characterize the unique and enriching teaching-learning ambience at GIM. GIM boasts of world-class amenities, and is located in a hundred acre lush green campus abutting the Bay of Bengal in the port city of Visakhapatnam, famously known as 'The City of Destiny'.

Application Forms Can be Downloaded  
from

[WWW.GIM.GITAM.EDU](http://WWW.GIM.GITAM.EDU)

## Programs Offered

### PG Programs

**MBA** | **MBA** | **MA**  
(HRM) (Applied Psychology)

### UG Programs

**BBA** | **MBA** | **BBA**  
(Integrated) (Business Analytics)

**BBA**  
(Management Accounting) with CIMA

**B.Com** (Hons.) | **BA**  
with ACCA (Social Science)

*FinTech Certificate Course  
for further details Contact*

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**GITAM FinTech Academy**  
GITAM INSTITUTE OF MANAGEMENT



**BLOCKCHAIN**  
**CERTIFICATE PROGRAM**

for Engineering Students

# Block Chain

## CERTIFICATE PROGRAM

Satoshi Nakamoto is the ingenious brainchild behind the technology, it came into prominence with the invention of Bitcoin the digital cryptocurrency, built on Blockchain platform. This technology platform is smartly adapted by various industry verticals, to make information distributed in a secure system. One of the biggest fears with digital transformation is the risk of hacking, this can be totally eliminated with Blockchain technology, as the data is self-audited using the Distributed Ledger Technology (DLT). Blockchain technology is part of the FinTech eco-system, where global banks, insurance companies and governments are realizing its potential and are developing systems using this platform.

GITAM University realizes its potential and is proud to partner with Andhra Pradesh Electronic and Information Technology Agency (APEITA), Broadridge Financial Solutions (India) Pvt. Ltd. to setup a Center of Excellence (CoE) in Blockchain technology. The Blockchain CoE is primarily aimed at developing and enhancing the adoption of this technology, both in the Fintech and Governance space. The CoE will serve as a reference point for best practices, resource center for development and support activities and contribute to the ecosystem that will help organizations in the implementation of this technology.

*"The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value."*

- Don & Alex Tapscott

*Authors Blockchain Revolution (2016)*

### Objectives of Program

The Blockchain CoE is focused towards

- Educating and Developing Computer Science and related engineering students to learn the emerging technology of Blockchain and Distributed Ledger Technology (DLT)
- Provide a platform for Students to immerse themselves in an experiential manner and apply Blockchain / DLT to solve real world problems
- To provide skill and competency development to students that will accelerate their industry readiness and embrace innovation

### Eligibility Criteria for Admission

- 3<sup>rd</sup> Year B.E & B.Tech CSE & IT Students (6<sup>th</sup> Semester)
- MCA/M.SC /M.Tech Computer Science
- Open to other Engineering disciplines who have undertaken programming course, Data Structures, Networking & Cryptography

### Pre-requisites

- All applicants should have done one or more of programming courses C, C++, Java, Python
- All applicants should have exposure to any variant of Linux or Unix, Data Structures, RDBMS.

### Duration of the Program

50 hours

### Dates

Application Date: 13<sup>th</sup> February 2017

Starting : 13<sup>th</sup> March 2017

Duration : 14 weeks

(Curriculum - 8 Weeks and Project - 6 Weeks)

Class Schedule : 9 hrs per week

### Pedagogy

Faculty instructions, case methodology, lab work, project work.

### Detailed Syllabus

- 1) **Blockchain Technology**
  - a. Introduction, history of Bitcoin and origins of Blockchain
  - b. Fundamentals of Blockchain and key components
  - c. Permissioned and Permissionless platforms
  - d. Cryptography, SHA256 and ECDSA
  - e. Hashing and Encryption
  - f. Symmetric/ Asymmetric keys
  - g. Private and Public Keys
- 2) **Distributed Ledger Technology (DLT)**
  - a. Peer to Peer computing
  - b. Keys and Hash functions
- 3) **Bitcoin**
  - a. Bitcoin overview
  - b. Building blocks of Bitcoin
  - c. Bitcoin - Wallets
  - d. Bitcoin – POW Consensus & mining
  - e. Bitcoin - Scripts
- 4) **Ethereum**
  - a. Smart Contracts
  - b. Ethereum Wallets
  - c. Tools – Mist, Web3, DappS
- 5) **Hyperledger**
  - a. Introduction to Hyperledger
  - b. Hyperledger Projects
  - c. Architecture components and how it works
  - d. REST API and HFC
- 6) **Blockchain Project**
  - a. Work on real world industry problem