Dr B R Ambedkar
National Institute of Technology
Jalandhar - 144011

BLOCKCHAIN TECHNOLOGY.

CRYPTOCURRENCIES.

SMART CONTRACT PROGRAMMING.

Two Weeks Short Term Course from
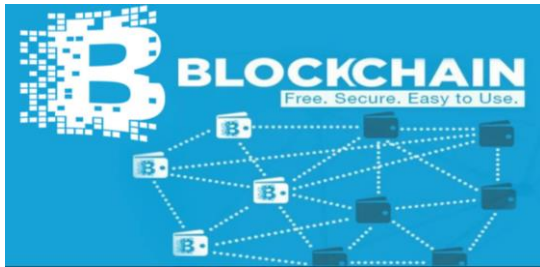### (06th – 17th December, 2021)
ONLINE

Organized By:

Centre for Continuing Education

Dr B R Ambedkar
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OVERVIEW OF THE PROGRAM

BLOCKCHAIN : Block chain technology is most simply defined as a decentralized, distributed ledger that records the provenance of a digital asset. By inherent design, the data on a block chain is unable to be modified, which makes it a legitimate disruptor for industries like payments, cybersecurity and healthcare.

CRYPTOCURRECIES   :   A cryptocurrency, crypto-currency, or crypto is a binary data designed to work as a medium of exchange wherein individual coin ownership records are stored in   a ledger existing   in   a   form   of   a computerized database using strong   cryptography to   secure transaction records, to control the creation of additional coins, and to verify the transfer of coin ownership.

CONTRACT PROGRAMMING: Design by contract (DbC), also known   as contract   programming, programming   by contract and design-by-contract programming, is an approach for designing software.

It prescribes that software designers should define formal, precise and verifiable interface specifications for software components, which extend the ordinary definition of abstract data types with preconditions, post conditions and invariants. These specifications are referred to as "contracts", in accordance with a conceptual metaphor with the conditions and obligations of business contracts.

SYLLABUS TO BE COVERED

- **Introduction to Block chain Technology**
- **Block chain Platforms and Programming Paradigms**
- **Structure of Smart Contracts, Programming Languages for Smart Contracts**
- **Smart Contracts Programming using Solidity, Working with Remix IDE**
- **Compilation and Deployment of Smart Contracts on Ethereum**
- **Validation and Analysis of Smart Contracts Transactions on Network, Working with Ganache and Truffle**
- **Taxonomy and Dimensions of Cryptocurrency in Block chain Environment**
- **Cryptocurrency Wallets and Integration of MetaMask with Web Browser**
- **Creating New Cryptocurrency using Smart Contracts**
- **Deployment of Cryptocurrency on Public Block chain Network**
- **Hyper ledger Private Block chain, Programming Models for Private Block chain**

PARTICIPANT'S PROFILE

- Students / Research Scholars from Academic Institutions
- Professors/ Assistant Professors/ Associate Professors/ others from Educational Institutes/ University
- Professionals to enhance more knowledge in this field.

DATE, TIME & MODE

DATE	:	06th – 17th December, 2021 (Two Weeks)
TIME:	:	04:00pm – 06:00pm (2 hours per day)
MODE OF LECTURE	:	Online

IMPORTANT DATES

Registration Opens	:	11.10.2021
Registration Closes	:	01.12.2021
Commencement of Course	:	06.12.2021
Course Ends	:	17.12.2021

REGISTRATION FEE

Sr No.	Registration Type	Registration Fee (₹)*
1.	Students	1000
2.	Research Scholars	1500
3.	Faculty/Professionals	2000

*(GST @18% is applicable for external candidates)

REGISTRATION AND PAYMENT LINK

Click below for the registration and payment link:

CLICK ME TO JOIN THE COURSE

INSTRUCTIONS

- ➤ Participants have to attend all the online lectures, Q& A and the hands on session through Google Meet.
- ➤ It is mandatory to fill the attendance daily
- ➤ The participants have to do self-practice by themselves. Mentors will be available to solve the queries and provide assistance during practice.
- ➤ Feel free to contact us at : stc@nitj.ac.in

CERTIFICATION

E-Certificates will be issued by NIT Jalandhar to those participants who have attended the program with minimum 90% attendance and scores minimum 60% marks in the test conducted at the end of the online Short Term Course.

ABOUT DR B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR, PUNJAB

Dr B R Ambedkar National Institute of Technology was established in the year 1987 as Regional Engineering College and was given the status of National Institute of Technology (Deemed University) by the Government of India on October 17, 2002 under the aegis of Ministry of Education (Shiksha Mantralaya), New Delhi. Now the Ministry of Education (Shiksha Mantralaya), Government of India has declared the Institute as *"Institute of National Importance"* under the act of Parliament-2007. A large number of reputed Industrial houses in the country visit the Institution and select the final year students as Engineers/ Management Trainees. As one of the National Institutes of Technology (NIT), the Institute has the responsibility of providing high quality education in Engineering, Technology and Sciences to produce competent technical and scientific manpower for the country. The Institute offers BTech, MTech, MSc, MBA and PhD programmes in the several disciplines of Engineering, Technology and Sciences.

ABOUT CENTRE FOR CONTINUING EDUCATION

(CCE) is established in the Institute to cater the need of the society. The Centre will provide a multidisciplinary platform for policy discourse. This will bring researches, practitioners and interested members of our community together in order such burning issues. Interactions among public officials, civil society and the private sector in the search for creative solutions to public policy problems take management decision for development of society.

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The Centre will cover the wide range of short and long-term program to be offered to all citizens of India and Abroad.

ORGANIZING COMMITTEE

COORDINATORS: Dr S K Mishra

Dr Amritpal Singh

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