

# Construction Industry Development Council (CIDC) & Magna HiOps Intelligent Solutions LLP

## Launches

### **Online Certificate Course in Digital Construction Management**

**Construction Industry Development Council or CIDC** is established by Planning Commission (now NITI Aayog), Government of India. The organization provides the impetus and the organisational infrastructure to develop & raise quality levels in Construction Industry across India.

**Construction Industry Development Council (CIDC), New Delhi & Magna HiOps Intelligent Systems** has developed and launched an **Online Certificate Course in “Digital Construction Management”**. This is first ever course designed for Construction Industry that inculcates latest technologies e.g. Artificial Intelligence, robotics, drones, blockchain, smart buildings, modelling software, sensors, wireless devices, latest equipment etc. that will empower & prepare the students to learn and apply technologies in Construction Industry ecosystem.



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Recognized by the Planning Commission Government of India and the Construction Ministry



1. This is a 12 Week Course having of 12 study modules, with one module per week; and one examination at the end of the Course. On successful completion of Course, CIDC will issue the certificate for successful completion of “Digital Construction Management”.
2. Each module of the course has Interactive videos, study materials and case studies along with quizzes. The contents of the modules are so designed that it will take nearly 1 week to study comfortably and understand.
3. After completion of the 12<sup>th</sup> week, an online objective examination will be conducted. And based on performance in examination, an online certificate will be issued by CIDC to all successful candidates.
4. The entire course fee including certificate will be INR 7500/- + applicable GST per candidate. (This fee of INR 7500/- is limited to only first 1000 students and will be revised substantially thereafter).



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## Details of all the modules of the Course are cited below:

Module	Course Contents	Week
<b>Module -1</b>	<ul style="list-style-type: none"> <li>• History of construction industry - Videos &amp; Photos of world's unique projects</li> <li>• Importance of construction industry - political and economic perspective</li> <li>• Challenges faced by construction industry and youth perspective</li> <li>• Opportunities in construction industry</li> <li>• Need of digitalization in construction industry</li> <li>• What is digital construction</li> <li>• Digital Revolution 4.0 Technologies applicable in construction industry</li> </ul>	<b>Week 1</b> 15-22 Nov 2019 <i>(the first batch starting from 15 Nov 2019 and ends on 14 Feb 2020 with issue of online certificate by CIDC). The cycle will continue likewise thereafter.</i>
<b>Module -2</b>	<ul style="list-style-type: none"> <li>• Latest planning software</li> <li>• Latest architectural software</li> <li>• Prominent Design software</li> <li>• Prominent survey equipment</li> <li>• Latest ground survey technologies</li> <li>• LiDAR in construction industry</li> <li>• Latest Estimation Software and glimpses of their use</li> </ul>	<b>Week 2</b>
<b>Module -3</b>	<ul style="list-style-type: none"> <li>• Latest earthwork equipment</li> <li>• Latest shuttering materials and technologies</li> </ul>	<b>Week 3</b>



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- Latest building materials – high strength cement, steel, concrete etc
- Latest curing and plastering technologies
- Modular construction and Prefabricated construction
- Latest construction equipment
- 3 D printing technology in construction industry
- Futuristic construction materials

**Module -4**

- Latest project monitoring technologies
- Latest project monitoring software
- How to use PRIMAVERA, MSP and such project monitoring software
- Project Monitoring and Information System
- Trailing innovative technologies in construction industry
- Drones in construction industry
- IOT in construction industry
- Robotics in construction industry

**Week 4**

**Module -5**

- Use of GIS in construction industry
- Remote sensing technology its components & applications in construction
- Advance GPS software and data ecosystem in construction industry
- Use of GIS in mapping electricity, gas, water bill payments etc
- Cloud and Mobile based technologies in construction industry

**Week 5**



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	<ul style="list-style-type: none"> <li>• Integration of construction industry with digitally connected world using GIS</li> </ul>	
<b>Module -6</b>	<ul style="list-style-type: none"> <li>• Building Information Modelling</li> <li>• Advantage of BIM: why it is mandatory for infra industry in many countries</li> <li>• 3D, 4D, 5D BIM</li> <li>• iBIM and Digital Twin</li> <li>• Relevant Code of practice for Building Information Modelling</li> </ul>	<b>Week 6</b>
<b>Module -7</b>	<ul style="list-style-type: none"> <li>• Augmented reality &amp; virtual reality in construction industry</li> <li>• Simulation technology in constructive industry</li> <li>• Wireless monitoring and building automation</li> <li>• Remote site inspection and quality check of project using AR &amp; VR</li> <li>• Digital Modelling</li> </ul>	<b>Week 7</b>
<b>Module -8</b>	<ul style="list-style-type: none"> <li>• What is Artificial Intelligence</li> <li>• What is Deep learning and Machine learning</li> <li>• Application of AI in construction industry</li> <li>• Future of construction industry with AI</li> <li>• Use of AI in quality check</li> </ul>	<b>Week 8</b>
<b>Module -9</b>	<ul style="list-style-type: none"> <li>• What is Blockchain</li> <li>• Use of Blockchain in construction industry</li> <li>• Use of Blockchain in operation &amp; maintenance of infra projects</li> <li>• Funding strategies of Infrastructure projects</li> <li>• Infrastructure Bonds</li> </ul>	<b>Week 9</b>



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**Module -10**

- Asset management of large infrastructures
- Latest asset management technologies
- Creation of digital inventory
- Value bases budgeting of operation & maintenance of buildings
- New equipment for quick maintenance
- Use of Robots in repetitive maintenance & operations
- IOT Sensor in Operation& maintenance
- SCADA

**Week 10**

**Module -11**

- Contract Management
- Public Private Partnership contracts
- FIDIC
- Earned value management
- Latest Software for Contract Managements
- Use of Blockchain in Contract Management
- Dispute and Dispute resolution mechanism – Claims & Counterclaims
- Mediation, Conciliation and Arbitration
- Latest government regulations on arbitration
- Online Dispute Resolution (ODR)

**Week 11**



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<b>Module -12</b>	<ul style="list-style-type: none"> <li>• RERA 2016</li> <li>• Key provision of RERA for builders, buyers and government</li> <li>• RERA Definition of carpet area, built up area</li> <li>• Process of registration for RERA approval</li> <li>• Small cities and Urbanization</li> <li>• Building smart communities</li> <li>• Developing a smart city policy</li> <li>• Glimpses of Smart City of the world</li> <li>• Future of construction industry and global governance</li> <li>• Environmental &amp; Social – Global Thinking.</li> </ul>	<b>Week 12</b>
<b>Certification Examination</b>	Online examination	After completion of all 12 modules
<b>Certificate</b>	Issue of certificate by CIDC	After online examination of successful candidates

For Enrolment and other details, you may visit CIDC Website – [www.cidc.in](http://www.cidc.in)

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