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COMMISSIONING SPECIALIST
BEYOND SMART CITIES
CERTIFIED COMMISSIONING MANAGER
CCM TRAINING PROGRAM
ONLINE PROFESSIONAL COURSES LED BY THE WORLD'S TOP SPECIALISTS
ONLINE TRAINING BY KRISHNAJI PAWAR
LEED AP(BD+C),GSAS CGP,GCP,ISO 14001
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MODULE 21

Summary and Resources

KRISHNAJI PAWAR - CEO & FOUNDER

LEED AP(BD+C),GSAS CGP,GCP,ISO 14001

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CERTIFIED COMMISSIONING MANAGER - CCM TRAINING PROGRAM

The Certified Commissioning Manager training program covers comprehensive strategies for commissioning energy-efficient buildings. Over the course of five hours, attendees gain a thorough understanding of building commissioning principles, processes, and project management.



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CERTIFIED COMMISSIONING MANAGER - CCM TRAINING OVERVIEW

In addition to the commissioning process as described in the Commissioning Guideline, ASHRAE Guideline 0, and ASHRAE Standard 202, this CCM Commissioning Workshop will cover practical knowledge on the skills, strategies, communication, and documentation protocols necessary for applying the commissioning process to "real-world" projects.

Learning Objectives

- Overview of the CxA Process
- Certification Programs for CxA Professionals
- CxA Team and Managing CxA Projects
- Procuring CxA Services and Preparing CxA Documents
- Predesign Phase of the CXA Process
- Design Phase of the CXA Process
- CxA Specifications
- TAB Fundamentals and Reviewing TAB Reports

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SUMMARY

- The building commissioning industry has made significant progress over the past 40 years, but recognition and acceptance in the facilities development and management industry are still in its infancy.
- Currently, there are fewer than a few hundred identified providers of building commissioning services, and there is a significant disparity in commissioning strategies.
- Many providers do not anticipate being retained until the end of the design phase or after construction has begun.

Learning Objectives

- Construction Phase: CxA Process
- Occupancy Phase: CxA Process
- Managing training activities
- Economics of CxA
- Conducting ongoing CxA
- Conducting Existing Building CxA
- Retro CXA
- Building Enclosure CxA Process

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SUMMARY+

- Some enlightened owners have engaged such services, and they are at the forefront of a market transformation movement aimed at improving energy conservation programs.
- The positive results achieved over the past 20-25 years have prompted a positive movement toward advancing the building commissioning process and promoting the benefits of quality assurance programs.

Learning Objectives

- Sustainability, energy management, and resiliency
- CxA High Performance Green Buildings
- Summary and Resources
- Sample OPR
- Sample BOD
- Sample CxA Plan
- Sample CxA Report
- Sample Design Review

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SUMMARY+

- The building commissioning industry must establish standards and provide education to improve the results of the commissioning quality assurance process and the performance of service providers.
- All participants in the facilities development and management industry can improve outcomes by incorporating a well-developed quality assurance program into their capital development programs, as outlined in the CCM online training.

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OVERALL CONCLUSION

Following completion of this program, participants will be able to:

- Explain what the construction project commissioning process is for, how it works, and what it does for the project.
- Find and distinguish the five phases of new construction commissioning: (1) pre-design, (2) design, (3) construction, (4) acceptance, and (5) post-acceptance, as well as the activities done in each. Also, know what makes existing building commissioning different.
- Describe the important documents and deliverables that must be made in order to provide good commissioning services.
- Describe the roles and responsibilities of each member of the commissioning team during the commissioning process. Pay special attention to the role of the commissioning provider.



RESOURCES

Building Commissioning Handbook, 3rd Edition
The third edition of The Building Commisisoning Handbook is intended to be a practical companion to the...
https://www.bcxa.org/resources/building-commissioning-handbook,-3rd-edition.html

Existing Building Commissioning Best Practices
This document describes and defines "best" practices for conducting Existing Building Commissioning (EBCx)...
https://www.bcxa.org/resources/existing-building-commissioning-best-practices.html

New Construction Building Commissioning Best Practices
The New Construction Commissioning (NCCx) Best Practice document is intended to cover most building systems...
https://www.bcxa.org/resources/new-construction-building-commissioning-best-practices.html

Ongoing Building Commissioning Best Practices
The Ongoing Commissioning (OCx) Best Practices document describes how to plan and implement this continous...
https://www.bcxa.org/resources/ongoing-building-commissioning-best-practices.html

ACG Building Systems Commissioning Guideline
The ACG Building Systems Commissioning Guideline presents best practices for executing the ASHRAE Standard 202 process with details for commissioning specific types of building systems
https://www.commissioning.org/building-systems-commissioning-guideline/



RESOURCES

Standard 202-2018 -- Commissioning Process for Buildings and Systems
ASHRAE/IES Standard 202 describes the Commissioning Process, the roles of the principal agents and stakeholders, and a framework for developing design documents, specifications, procedures, documentation, and reports. It also describes the general requirements for a training program for continued successful system and assembly performance.
https://www.ashrae.org/technical-resources/bookstore/commissioning
Guideline 0.2-2015 -- Commissioning Process for Existing Systems and Assemblies
This Guideline is the comprehensive description of a systematic quality-oriented process that improves the performance and sustainability of existing facilities. This road map includes planning, assessing, investigating, implementing, verifying, and documenting performance to meet defined and optimized operational requirements.
https://www.ashrae.org/technical-resources/bookstore/commissioning
Guideline 1.1-2007 -- HVAC&R Technical Requirements for The Commissioning Process
Guideline 1.1-2007 focuses on HVAC&R systems while addressing total building commissioning processes by validating interfaces and possible interferences between all building systems.
https://www.ashrae.org/technical-resources/bookstore/commissioning



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Our mission is to build and support a global community of professionals who adhere to the highest professional standards in sustainability, green building, energy, commissioning, environment, health & safety, fire safety, climate change, GHG accounting, carbon auditing, and GHG emissions management.

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CONTACT US

+91 6363032722

info@beyondsmartcities.in

learn.beyondsmartcities.in

#55,HMR Layout ,Bengaluru ,India



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THANK YOU

