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SMART CITIES




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LEED AP OPERATIONS + MAINTENANCE
LEED AP O+M OVERVIEW
ONLINE TRAINING BY KRISHNAJI PAWAR
LEED AP(BD+C),GSAS CGP,GCP,ISO 14001
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MODULE 1

Introduction and Course Outline

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LEED AP O+M OVERVIEW

Beyond Smart Cities provides a comprehensive LEED AP O+M package, simplifying the process of becoming a certified professional, covering exam preparation, sustainable design, and certification advantages.

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BRIEF ABOUT ME

Krishnaji PAWAR

CEO & FOUNDER



Krishnaji Pawar is founder and CEO of Beyond Smart Cities. Before being named CEO in January 2020, Krishnaji held leadership roles at Beyond Smart Cities in both Sustainability ,Energy & Environmental Consultancy.

Specialized in developing sustainable design strategies for Green Building Certification Systems (LEED, GSAS, etc.), Energy & Water Conservation, Commissioning, Environmental Impact Assessment & Environmental Management Systems.

Currently responsible for 3,787 million square feet Green Building /Energy modeling Consulting since January 2008 in UAE, India and Qatar.

Learning Objectives

- Introduction
- Knowing the Process of LEED Credentialing
- Basic Concepts of Sustainable Design
- Organizational Fundamentals
- LEED Green Building Rating System
- Reasons to Become LEED Accredited
- Getting a LEED AP O+M Credential
- Summary and Resources
- LEED AP O+M Quiz: Test Your Knowledge!

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INTRODUCTION

- Simplifies the journey to becoming a LEED AP O+M.
- Provides comprehensive exam preparation for the LEED AP O+M Exam.
- Includes understanding of the LEED Credentialing Process, Basic Concepts of Sustainable Design, organizational fundamentals, LEED Green Building Rating System, and Advantages of LEED Certification.
- Includes a comprehensive study roadmap for exam preparation.
- Allows for effective tailoring of study habits to personal needs.

GREEN BUILDING REVOLUTION

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- The U.S. Green Building Council (USGBC) was founded in 1993 to promote green building.
- The LEED Green Building Rating System was launched in 2000 to measure green buildings.
- Green buildings reduce carbon emissions by about 40% compared to conventional buildings.
- The Green Building Rating System challenges all sectors to learn more about limiting emissions from new buildings.
- The movement emphasizes on design for higher performance, not just design for the sake of design.
- The goal is to create a planet powered by renewable energy, populated by sustainable communities housed in green buildings, driven by clean, green innovation.



THE GREEN BUILDING REVOLUTION: A HISTORICAL OVERVIEW

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- Montreal Protocol in the 1980s limited chlorinated fluorocarbons' harmful effects on the ozone layer.
- Brundtland Commission defined sustainability in 1987, emphasizing present generations' needs without compromising future generations.
- U.S. Green Building Council (USGBC) formed in 1993, influenced by Earth Day and U.N. Conference on Environment and Development.

THE GREEN BUILDING REVOLUTION: A HISTORICAL OVERVIEW +

- Kyoto Protocol established in the late 1990s, regulating global greenhouse gas emissions.
- LEED Green Building Rating System introduced by USGBC in 2000.
- Green building revolution aims for responsible occupants, community infrastructure, natural resources, and global environment.



GREEN BUILDING MARKET OVERVIEW

- Arab engineering Bureau reports growing acceptance of green buildings due to climate change information.
- Green buildings offer immediate operational, marketing, and design savings, and long-term energy security.
- Market includes commercial, institutional, residential, public, educational, nonprofit, and corporate owners.



GREEN BUILDING MARKET OVERVIEW +

- Green buildings found in various locations across the US and Canada.
- Projects range from a few thousand to over one million square feet.
- LEED-registered public-sector and nonprofit green buildings in the U.S. are approaching 10% of total annual new construction value.



WHAT IS A GREEN BUILDING?

A green building is a high-performance property designed to reduce its environmental impact and human health through better siting, design, material selection, construction, operation, maintenance, removal, and reuse. However, a building cannot be considered a green building if it is not rated and certified by an independent third party. Building owners and designers should consider the standards they are measuring their design against.



GREEN BUILDING DEFINITION AND CERTIFICATION

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- A green building is a high-performance property designed to reduce environmental and health impacts.
- It uses less energy and water, and minimizes the life-cycle environmental impacts of materials.
- Green buildings are rated and certified by an independent third party, ensuring an open process for rating system creation and maintenance.
- Building owners and designers should follow LEED but apply for certification of the final building.
- "Sustainable design" should be measured against specific standards and proven.



IMPACT OF BUILDINGS ON ENVIRONMENT

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- Buildings contribute to 12% of freshwater use, 30% of raw materials, 30% of greenhouse gas emissions, 45-65% of landfill waste, 31% of solid waste, and 7% of electricity consumption.
- Green buildings offer 30% energy, 30-50% water, 35% reduction in carbon emissions, and 50% reduction in construction waste.
- Governments and universities often design green buildings with a long-term perspective.
- The world's largest LEED Platinum-certified building is the Oregon Health & Science University's Center for Health and Healing.
- Integrated design is used for high-performing green buildings on conventional budgets.





LEED CREDENTIALS



- Denotes proficiency in sustainable design, construction, and operations standards.
- Over 203,000 professionals have earned a LEED credential.
- LEED Green Associate: Foundational professional credential demonstrating core competency in green building principles.
- LEED AP with specialty: Advanced professional credential indicating expertise in green building and a LEED rating system.

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LEED CREDENTIALS +



- Exams measure knowledge about green building, a specific LEED rating system, and certification process.
- Exams can be taken at a Prometric Testing Center or remotely-proctored online.
- Alternative delivery options available for groups seeking to take a LEED credential exam together

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VALIDATE YOUR SUSTAINABILITY KNOWLEDGE.



- Validates sustainability knowledge: Green jobs demand certification.
- Enhances green building knowledge: Exam provides fundamental understanding of transportation, energy, water, and air quality.
- Joins global network: Earning a LEED credential connects with an international community of sustainability professionals.

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WELCOME TO BEYOND SMART CITIES

Beyond Smart Cities is the world's 1st Green Technology Marketplace, connecting millions of Sustainability Specialists, Green Building Specialists, Energy Specialists, Commissioning Specialists, Environment Specialists, Health & Safety Specialists, Fire Safety Specialists, Climate Change Specialists & Green Products/Technology Manufacturers with independent talent around the globe.

Our mission is to build and support a global community of experts with 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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THANK YOU

