

BEYOND

SMART CITIES

WATER EFFICIENCY - GREEN BUILDING TECHNOLOGY

TRAINING PROGRAM

FOR GREEN BUILDING AND SUSTAINABILITY SPECIALISTS

KRISHNAJI PAWAR, LEED AP BD+C, GSAS CGP, ISO 14001:2015, GCP

WATER EFFICIENCY SPECIALIST CURRICULUM

CERTIFIED WATER EFFICIENCY SPECIALIST

CWES

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INTRODUCTION AND COURSE OUTLINE

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CEO & FOUNDER, BEYOND SMART CITIES

ONLINE TRAINING PROGRAM

WATER EFFICIENCY - GREEN BUILDING TECHNOLOGY

GREEN BUILDING SPECIALIST

WWW.KRISHNAJIPAWAR.IN

LEARNING OBJECTIVES



Learn Water Efficiency In Building
Overview of Water Efficiency
Recognize ways to reduce water use
inside and outside the building and
implement water metering to support
better water management.
Understand Cooling tower water use
Water Demand Performance
Learn about water reuse performance
and sub metering
Water Efficiency Summary and
Synergies with respect to Green
Building Rating System



WHO SHOULD ATTEND

Individuals seeking a better understanding of
knowledge of water efficiency, LEED or GSAS water
credit or criteria implementation, and savings in
buildings

Building or industry owners who wish to measure the
water efficiency generated by their projects

Building or industry owners who wish to partner with
Water Efficiency (WE) projects

This course is intended to offer students with
information, strategies, and contemporary
methodologies for Water efficiency in relation to
green architecture and Water efficiency design.



**GET READY TO EARN
WATER EFFICIENCY - GREEN
BUILDING TECHNOLOGY
AND ENROL NOW!**



INTRODUCTION

Green buildings or high-performance buildings incorporate design and construction standards that significantly reduce or eliminate the negative impacts of the building on the environment and occupants.

Focus areas for green buildings include a sustainable site, the protection of water and its sources, energy conservation, material conservation, and indoor environmental quality.

Developers are coming to realize that green buildings may be constructed on a typical budget. As a result, the need for developing green buildings is increasing. Constructors and property owners are extending green buildings to industrial and commercial structures as well as large residential dwellings.



OVERVIEW OF WATER EFFICIENCY

Water efficiency is concerned with interior and outdoor water conservation.

The natural water cycle is a constant movement of water resources between the atmosphere, soil water, surface water, ground water, and plants. This cycle purifies and replenishes freshwater resources. In light of the fact that human consumption of fresh water exceeds the natural cycle, water cannot be considered a renewable resource.

The environmental implications of water scarcity and depletion are mitigated by sustainable practices for the effective use of water and the collection, recycling, and reuse of water.



GREEN BUILDINGS & WATER EFFICIENCY

Observing water consumption and performance is the initial step in comprehending water waste. Water and energy consumption are interrelated. This can assist decision-makers in determining global efficiency. Individuals and organizations able to monitor water and energy consumption can use these benefits to create greener and more sustainable structures.

People should find ways to reduce their consumption of potable water indoors. This involves the utilization of non-potable water sources. To reduce water consumption, water-efficient fixtures, flow restrictors, composting toilets, and waterless urinals are installed in buildings.



GREEN BUILDINGS & WATER EFFICIENCY +



Water conservation typically results in energy conservation as well, which promotes environmental health. Water efficiency in green buildings reduces the amount of potable water used for treatment, cooling, heating, and distribution. These aspects require energy; reducing their energy consumption will result in cost savings and a cleaner environment by reducing energy consumption.

Engaging in water conservation benefits both humans and the environment. Water suppliers and environmentalists are alarmed about the impending water shortages in major metropolitan areas. The depletion of water reservoirs and groundwater is imminent. This will impact both the wellbeing of humans and the environment.



WHAT IS WATER EFFICIENCY?



According to the Environmental Protection Agency, "Water efficiency is the intelligent utilization of our water resources through water-saving devices and basic household practices. Utilizing water efficiently can aid in ensuring stable water supply today and in the future."



WHY IS THIS IMPORTANT FOR BUILDINGS?



According to the U.S. Geological Survey, the United States consumes more than 400 billion gallons of water daily. The operation of buildings, including landscaping, consumes approximately 47 billion gallons of water per day, or 12 percent of total water consumption.

As residential, commercial, industrial, and other growth increases, so does the need for the limited supply of potable water, water that is fit for human use. The majority of structures rely on municipal sources of potable water for their purposes, such as flushing toilets, washing dishes, and irrigating landscapes. Extreme conditions need water rationing as a result of the strain that high demand places on available supply.



WHY IS THIS IMPORTANT FOR BUILDINGS?

The untreated overflow can damage rivers, lakes, and the water table with bacteria, nitrogen, harmful metals, and other pollutants. Additional municipal supply and treatment facilities must be constructed at public expense in order to prevent this damage to the ecology. Pumping and treatment of water, both towards and away from the project, require additional energy, the production of which causes additional greenhouse gas emissions.



WHAT ARE STRATEGIES THAT INCREASE WATER EFFICIENCY?

Green building promotes new water-saving measures that aid in the prudent use of water by projects. To begin examining existing water resources, potential to reduce water consumption, and alternative water sources, project teams might use an integrated process. Effective strategies include the following:

- ✓ Install efficient plumbing fixtures.
- ✓ Use non-potable water.
- ✓ Install submeters.
- ✓ Choose locally adapted plants.
- ✓ Use xeriscaping.
- ✓ Select efficient irrigation technologies.



WATER EFFICIENCY IN GREEN BUILDINGS

- ✓ The primary objectives of green buildings are:
- ✓ To decrease water consumption to conserve energy.
- ✓ Reduce indoor potable water consumption.

To promote environmental health overall. Water conservation, which leads to energy conservation, plays a crucial part in developing a green building. Inculcating water-saving practices by simple and efficient means (such as installing water-saving devices and encouraging water reuse) can pave the way for a greener building and, consequently, a greener future.




