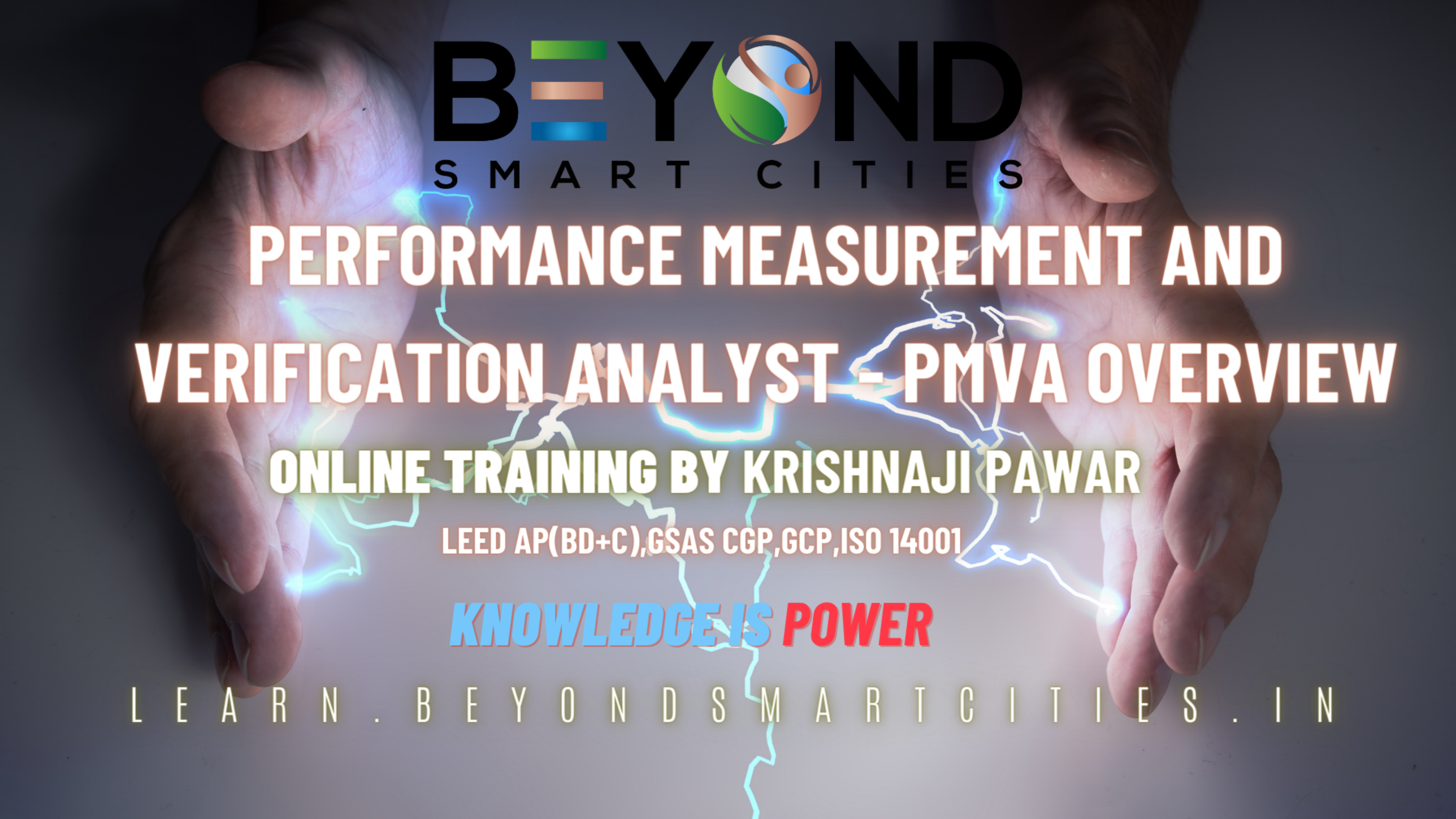
BEYOND
SMART CITIES

CERTIFIED MEASUREMENT & VERIFICATION SPECIALIST
CMVS



welcome to

BEYOND SMART CITIES


BEYOND
SMART CITIES
PERFORMANCE MEASUREMENT AND VERIFICATION ANALYST - PMVA OVERVIEW
ONLINE TRAINING BY KRISHNAJI PAWAR
LEED AP(BD+C),GSAS CGP,GCP,ISO 14001
KNOWLEDGE IS POWER
LEARN.BEYONDSMARTCITIES.IN

BEYOND SMART CITIES

MODULE 2

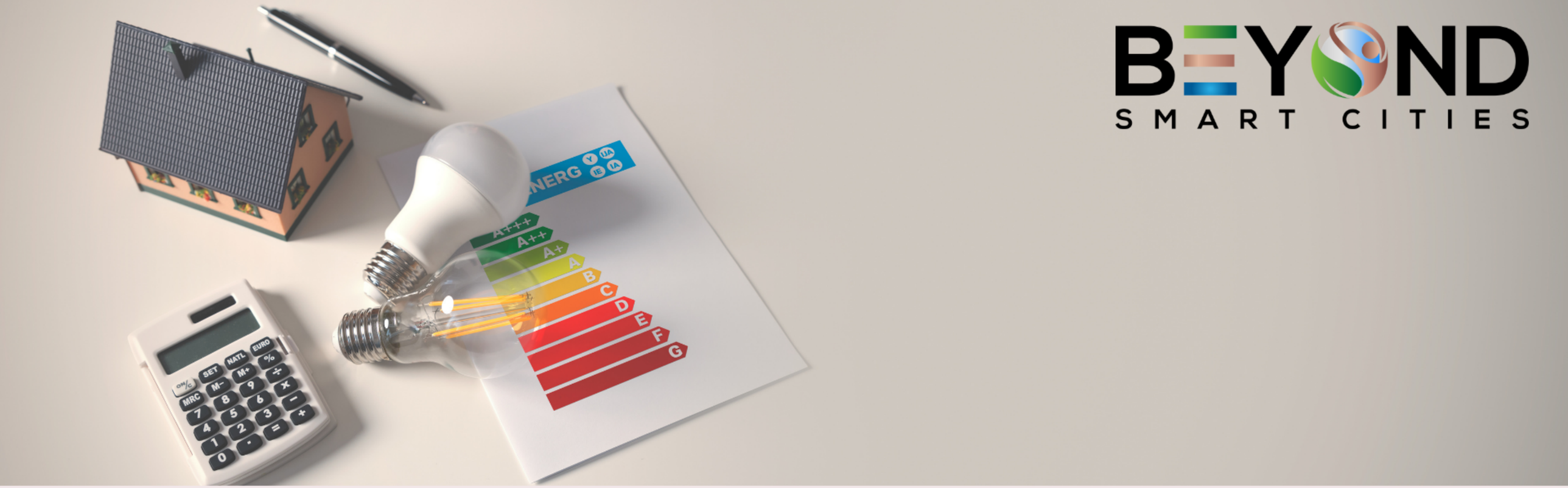
Knowing the Process of PMVA Credentialing

KRISHNAJI PAWAR - CEO & FOUNDER

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

WWW.BEYONDSMARTCITIES.IN





BEYOND SMART CITIES

PERFORMANCE MEASUREMENT AND VERIFICATION ANALYST - PMVA OVERVIEW

The Performance Measurement and Verification Analyst (PMVA) professional certification sets the standard for individuals applying performance, measurement, and verification concepts to energy efficiency projects. PMVAs work in analyst roles for ESCOs, public administration, utilities, and financial institutions.

Learning Objectives

- Introduction
- Knowing the Process of PMVA Credentialing
- Basic Concepts of Measurement & Verification
- Organizational Fundamentals
- Measurement and Verification Process
- Specialist Certification in Measurement and Verification
- Protocols and Advantages of M&V
- Summary and Resources

BEYOND SMART CITIES

INTRODUCTION

- PMVAs apply performance, measurement, and verification concepts to energy efficiency projects.
- They work in analyst roles for ESCOs, public administration, utilities, and financial institutions.
- PMVAs design and implement energy efficiency programs and finance projects.
- They have demonstrated M&V capabilities, including understanding the IPMVP to determine savings.
- PMVAs can be building technologists, HVAC specialists, engineers, architects, economists, financial analysts, etc.
- EVO's PMVA certification is earned through field M&V work, education, professional expertise, and experiences.
- The certification exam reflects competencies: understanding of M&V fundamentals, statistical concepts, IPMVP four Options, and professional advice.
- The exam consists of multiple-choice questions.

PMVA CERTIFICATION OBJECTIVES

- Certifies knowledge and experience in IPMVP protocols.
- Ensures quality of measurements and analyses.
- Ensures ethics in energy design offices.
- Requested by most tenders for energy renovations, CPE projects, and commissioning.
- Impacts service providers in energy design offices.



WHAT ARE THE CRITERIA?

- Increase the professional standards of individuals who are involved in measurement and verification.
- Encourage professionals to engage in a continuing professional development education program for measurement and verification professionals in order to enhance the practice of measurement and verification.
- By successfully concluding certification and adhering to the established standards of performance and conduct, identify individuals who possess a sufficient understanding of measurement and verification principles and practices.
- Provide special recognition to professionals who have exhibited a high level of ethical aptitude and competency in the areas of measurement and verification.



WHO SHOULD GET PMVA CERTIFICATION?

- Energy managers are looking to validate their projects' energy savings.
- Our consultants specialize in enhancing the energy performance of your clients' buildings and facilities.
- Building owners or managers are interested in learning how energy savings can help finance your next project.
- Professionals design new buildings or industrial processes.



PMVA SKILLS ACQUIRED

- Setting the framework for measurement and verification operations.
- Define the reference situation for measurement and verification.
- Designing a measurement and verification plan.
- Establishing a mathematical model of energy consumption.
- Determining the scope for measuring energy savings in an energy performance improvement project.



PMVA SKILLS ACQUIRED +

- Determining and selecting independent variables influencing energy consumption.
- Creating a reference energy consumption model and assessing its validity.
- Calculating uncertainty in determining energy savings.
- Establishing a project's measurement and verification plan.
- Creating an energy performance monitoring report.
- Following the conservation principle when calculating conservatory energy savings.
- Calculating energy savings of a simple project using the adjustment model.



PMVA APPROVAL CRITERIA

- Pass M&V Fundamentals and IPMVP course with a 70% or higher mark.
- Graduate from a college/university in engineering, architecture, economics, sustainability, finance, building technology, HVAC, or related.
- Work in a field advising/developing/implementing energy efficiency programs, energy projects, financing of energy projects, energy management, and energy audits.
- Complete the PMVA electronic application form on EVO's website, upload required information, and pay the certification fee.
- The PMVA certification is valid for 36 months from the date of inception.



CERTIFICATION EXAM TEST COMPETENCIES

- Understanding fundamental principles of M&V for individual energy efficiency projects.
- Understanding statistical concepts and their application to M&V.
- Understanding IPMVP four Options and essential elements of an M&V Plan.
- Capacity to provide professional advice to energy efficiency program developers, utilities, governments, financial institutions, and users.



PERFORMANCE MEASUREMENT AND VERIFICATION ANALYST (PMVA)

The Performance Measurement and Verification Analyst (PMVA) professional certification sets the standard for individuals applying performance, measurement, and verification concepts to energy efficiency projects.

BEYOND SMART CITIES



PMVA CERTIFICATION OVERVIEW



EVO's PMVA CERTIFICATION is earned by demonstrated field M&V work achieved through a mix of M&V relevant education, professional expertise, and experiences.

EVO, a non-profit organization, offers products and services for energy efficiency projects, managing the International Performance Measurement and Verification Protocol, a globally recognized reference for measuring and verifying project savings.

BEYOND SMART CITIES

EXAM STRUCTURE: MULTIPLE-CHOICE QUESTIONS

- Candidates access knowledge-based questions on M&V topics.
- Tests acquired knowledge.
- Helps identify subjects/themes needing further study/revision.



THANK YOU FOR YOUR ATTENTION

www.beyondsmartcities.in

@beyondsmartcity

BEYOND SMART CITIES

SIGN UP FOR ONE OF OUR SPECIALTY COURSES.



BEYOND SMART CITIES

CONTACT US

+91 6363032722

info@beyondsmartcities.in

learn.beyondsmartcities.in

#55,HMR Layout ,Bengaluru ,India



BEYOND SMART CITIES

CERTIFIED MEASUREMENT & VERIFICATION SPECIALIST CMVS

THANK YOU

