

World Plumbing Council (WPC) Scholarship Report – 2024

Submitted by: Deepak Sunuwar, USA / Nepal

WPC Training & Education Scholarship Recipient – 2024

Introduction

I am deeply honored and grateful to have been selected as the 2024 World Plumbing Council (WPC) Training and Education Scholarship Recipient.

This incredible opportunity has not only enhanced my professional knowledge and skills but also strengthened my long-term mission to uplift and modernize the plumbing industry in Nepal, my home country.

I would like to express my heartfelt thanks to the World Plumbing Council, its **Chair, Mr. Dave Viola, and Secretariat, Ms. Gabriella Davis**, for their trust, guidance, and inspiration throughout this transformative learning journey.

About Me

My name is Deepak B. Sunuwar, originally from Nepal and currently residing in Colorado, USA since 2014.

I am proud to be the first and only Nepali to earn a U.S. Colorado state Licensed Master Plumber credential, and I am the Founder and CEO of Namaste Plumbing Inc., established in 2020 in Denver, Colorado.

My professional journey in plumbing began in Nepal, where I worked in local residential projects before moving to the U.S. Although there were other opportunities, my passion for plumbing led me to restart my career from zero in a completely new and highly regulated environment.

Through perseverance, night classes, and thousands of hours of on-site learning under the International Plumbing Code (IPC) and Uniform Plumbing Code (UPC) frameworks, I achieved Master Plumber licensure, a milestone that reflects both hard work and professional dedication.

Why I Applied for the WPC Scholarship

While working in Colorado, I remained in touch with colleagues in Nepal who continued to practice plumbing under outdated and non-standardized methods, often without proper tools, safety, or code compliance.

I realized that Nepal lacks a formal plumbing code, regulatory oversight, or a standard training system. No government or private institution has yet initiated reforms or modernization in this area.

That understanding ignited a new vision in me, to return to Nepal one day and help establish a code-based, professional plumbing system.

But before initiating that transformation, I wanted to strengthen my knowledge, expand my exposure, and learn global best practices in plumbing education, standards, and sustainability.

While researching further online, I discovered the World Plumbing Council (WPC) and its scholarship program, and I immediately knew this was the platform that could help transform my personal mission into a structured national vision.

Initial Consultation with WPC Leadership

I still vividly remember my first virtual meeting with **Chair Mr. Dave Viola and Ms. Gabriella Davis**.

When I shared my long-term vision for Nepal, both were deeply supportive and encouraging.

We discussed how Nepal, as a developing country, still lacks uniform plumbing standards, government regulation, and awareness of water-efficient, code-based systems.

After reviewing my goals, **Chair Mr. Viola and the WPC Secretariat** recommended India as the most suitable location for my scholarship training, given its strong plumbing infrastructure, established collaboration between IAPMO India and the Indian Plumbing Association (IPA), and its geographic and cultural proximity to Nepal.

This advice made perfect sense and aligned with my long-term goal to replicate a similar model for Nepal's plumbing education and regulation.

Field Research in Nepal (Pre-Training Visit)

Before starting my scholarship training, I spent two months in Nepal conducting personal field research.

During this time, I visited multiple construction sites and met local plumbers to observe the actual working conditions and systems.

Key observations included:

- Plumbing installation practices remain largely manual and unstandardized.
- No government or municipal authority reviews or regulates plumbing in building permit processes.
- There is no uniform code, safety procedure, or inspection process in place.
- New materials from India and China are available but are often installed incorrectly due to lack of technical knowledge.

This on-ground experience helped me understand the depth of the challenge and confirmed that the transformation Nepal needs must begin with education, awareness, and code-based training.



Plumbing



Learning Highlights

1. PLUMBEX Expo 2025 – New Delhi

Attending India's largest plumbing exhibition was an eye-opening experience.

I met with **Dr. K. Chandrasekhar, Dr. Abdul Matheen, Mr. Mukthesh, Mr. B. Nagaraj (IAPMO India officials)** and **Mr. Tom Palkon (Chief Technical Services Officer, IAPMO USA)** during the event.

- I was introduced to **Mr. Gurmit Singh Arora, National President of IPA**, who expressed strong interest in supporting my future initiatives in Nepal.
- I also met **Mr. Varun Tandon, CEO of the Water Management & Plumbing Skill Council (WMPSC)**, and discussed government-led plumbing skill initiatives in India.
- Throughout the expo, I explored numerous stalls showcasing modern tools, sustainable fixtures, and advanced plumbing technologies, many of which can be adapted to Nepal.

This event provided valuable contacts, educational resources, and a firsthand view of how structured plumbing education and product certification systems can transform an entire industry.



2. Technical Training at IAPMO India – Bangalore

Under the mentorship of Dr. Abdul Matheen, I received intensive theoretical and practical training focused on:

- Water Conservation & Smart Design
- Uniform Plumbing Code (UPC) Implementation
- Product Testing & Certification
- Sustainable Plumbing Practices

I was introduced to WEP-I (Water Efficient Products – India), a certification program aligned with USEPA WaterSense guidelines, which promotes sustainable product development and water efficiency.

Additionally, I learned about IAPMO India's educational pathways:

- PAP – Plumbing Apprentice Program
- PTP – Plumbing Technician Program
- PCM – Plumbing Construction Management
- PSD – Plumbing System Design
- PEEP – Plumbing Education to Employment Program
- Green Plumbing Training

I successfully completed both theoretical and practical evaluations, earning my **Master Trainer Certification in Code-Based Plumbing** under the supervision of **Dr. K. Chandrasekhar, Managing Director, IAPMO India**.







3. Field Visits and Laboratory Exposure

I participated in field visits arranged by the IPA Bangalore Chapter, including:

- High-Rise Building Installation Site: Observed live UPC-compliant installations, dual water supply, greywater reuse, and rainwater harvesting systems.
- Ashirvad Plumbing Training School: Studied India's structured plumbing education delivery model.
- IAPMO Testing Laboratory: Observed product testing against ASME A112.18.1 and A112.19.2 standards, ensuring safety, performance, and water efficiency.

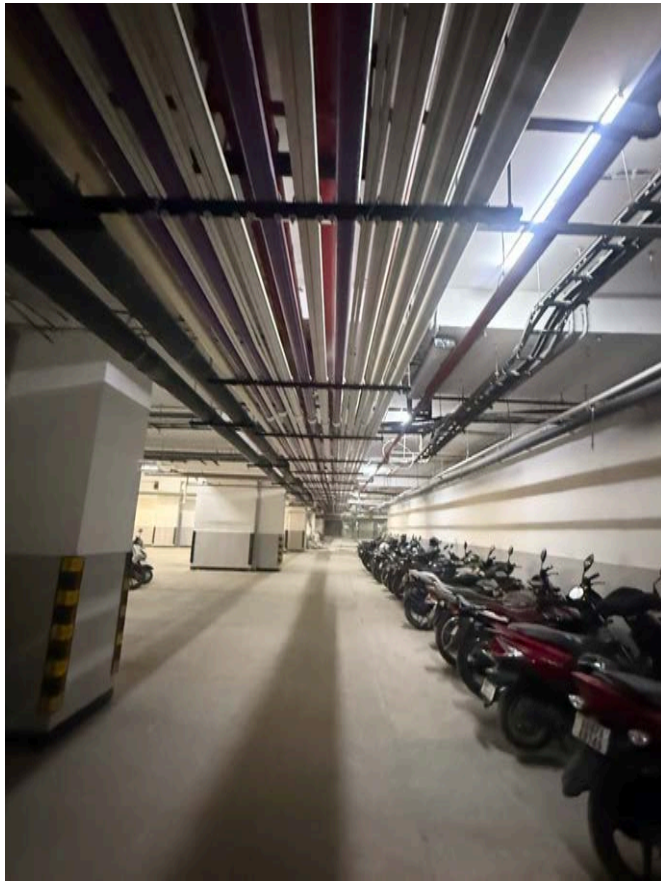
These experiences provided me with a complete understanding of how theory, certification, and practice are interconnected in a modern plumbing ecosystem.













Key Learnings and Reflections

- India's model demonstrates that collaboration between government, industry, and education can elevate an entire profession.
- Establishing a national plumbing code and training structure in Nepal is both necessary and achievable.
- Water conservation must be a core element of plumbing design, not an afterthought.
- Public health, sustainability, and dignity of labor are directly linked to the plumbing profession.

Additional Learning Beyond the WPC Scholarship Schedule

Although this activity was **not part of the original WPC Scholarship plan**, I was fortunate to continue expanding my learning upon returning to **Denver, Colorado**.

Soon after my return, I discovered that the **American Water Works Association (AWWA)** was hosting its **2025 Annual Conference & Exposition (ACE 2025)** in Denver from **June 8–11, 2025**. Recognizing its strong relevance to my field, I took the initiative to register and attend the full conference.

During this prestigious event, I explored the latest innovations in **water technology, sustainable infrastructure, and system management** presented by leading global experts. I also participated in multiple **technical workshops and training sessions**, gaining deeper insights into water conservation, water reuse, and advanced water-quality monitoring systems.

In addition, I received **certificates of participation** from several of these training sessions (attached), which further enriched my professional development.

Furthermore, I participated in a special **technical tour of the CSU/Denver Water Spur Campus at the National Western Center** and the **Denver Water Laboratory**, where I observed state-of-the-art research and testing processes in **water safety, efficiency, and innovation**.

These experiences provided me with a comprehensive perspective on how modern urban water systems are managed and sustained, from source to distribution.

Together, this additional exposure has greatly complemented my WPC Scholarship learning, expanding my understanding of **integrated water management** and reinforcing my long-term vision to apply such **innovative, sustainable, and code-based practices** to improve Nepal's plumbing and water systems.

CERTIFICATE of COMPLETION



American Water Works Association hereby certifies that

Deepak Sunuwar

has attended

Annual Conference & Exposition 2025 (ACE25)
CRT1 - Introduction to Water and Sewer Operating
Environments

Event Type: Conferences

Location: Denver, CO

Completion Date: June 8, 2025

Credits: 0.30 CEU

Credit value conversion: 0.1 Credits = 1.0 Hour



American Water Works
Association

Sarah Abeyta

American Water Works Association

CERTIFICATE of COMPLETION



American Water Works Association hereby certifies that

Deepak Sunuwar

has attended

Annual Conference & Exposition 2025 (ACE25)
MON027 - A Resilient Water Future: Innovative Solutions and
Collaborations

Event Type: Conferences

Location: Denver, CO

Completion Date: June 9, 2025

Credits: 0.05 CEU

Credit value conversion: 0.1 Credits = 1.0 Hour



American Water Works
Association

Sarah Abeyta

American Water Works Association

CERTIFICATE of COMPLETION



American Water Works Association hereby certifies that

Deepak Sunuwar

has attended

Annual Conference & Exposition 2025 (ACE25)
MON032 - Water Reuse: Exploring Resilient Solutions for a Sustainable Future

Event Type: Conferences
Location: Denver, CO

Completion Date: June 9, 2025

Credits: 0.10 CEU

Credit value conversion: 0.1 Credits = 1.0 Hour



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American Water Works Association

CERTIFICATE of COMPLETION



American Water Works Association hereby certifies that

Deepak Sunuwar

has attended

Annual Conference & Exposition 2025 (ACE25)
MON063 - Leveraging AMI for Water Conservation

Event Type: Conferences
Location: Denver, CO

Completion Date: June 9, 2025

Credits: 0.05 CEU

Credit value conversion: 0.1 Credits = 1.0 Hour



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Annual Conference & Exposition 2025 (ACE25)
T02 - Tour - CSU/Denver Water: Spur Campus at National
Western and Denver Water Lab

Event Type: Conferences

Location: Denver, CO

Completion Date: June 10, 2025

Credits: 0.30 CEU

Credit value conversion: 0.1 Credits = 1.0 Hour



American Water Works
Association

Sarah Abeyta

American Water Works Association

Conclusion and Next Steps

The WPC Scholarship has been a life-changing experience for me.

It provided not only advanced technical education and global exposure but also the confidence and clarity to lead a movement to modernize Nepal's plumbing industry.

My next steps include:

1. Developing a roadmap for establishing the *Nepal International Plumbing Training Center (NIPTC)* aligned with international codes.
2. Collaborating with the Nepal Political Parties and relevant ministries to advocate for the creation of a Government Plumbing & Sanitation Regulatory Authority.
3. Promoting Green Plumbing and Water-Efficient Systems to help mitigate Nepal's growing water scarcity.
4. Strengthening partnerships with WPC, IAPMO, IPA, and other global organizations to bring continued expertise and resources to Nepal.

This scholarship reaffirmed my belief that plumbing is not just a trade, it is a foundation of public health, water conservation, and sustainable development.

I am profoundly grateful to the World Plumbing Council, IAPMO India, and IPA for supporting this journey and believing in my vision.

With renewed purpose, I am now more determined than ever to contribute to the global plumbing community and help build a better, code-based, and sustainable Nepal.

Respectfully submitted,

Deepak Sunuwar

WPC Scholarship Recipient – 2024

U.S. Licensed Master Plumber | Certified Master Trainer (IPC/UPC)

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