

**Second International Training Workshop**  
on  
**Design and Evaluation**  
of  
**Pressurized Irrigation Systems**

**November 19-22, 2012**



**Centre of Excellence**  
in  
**Water Resources Engineering**  
University of Engineering and Technology  
Lahore-Pakistan  
[www.cewre.edu.pk](http://www.cewre.edu.pk)

## INTRODUCTION

Importance of irrigation can be realized from the fact that 70% of the water resources available in the world used by this sector that provides bread and basket to millions of people. Surface irrigation is commonly used to apply water in the fields but this method is very inefficient leading to more than 50% losses due to evaporation, seepage and uneven distribution of water in the commands. According to an estimate, the overall losses in surface irrigation varies from 54% to 71% depending upon the methods, thus leading to lower irrigation and water use efficiencies. Most of the countries are presently facing severe water shortage and drought conditions. Climatic change occurring throughout the world is feared to have severe impact on water availability. There is not too much potential left for untapped development of new water resources to meet increasing water needs and future demands. One option to meet this situation is the wise and economical use of available water by adopting pressurized irrigation systems (sprinkler & trickle) that have less water losses and higher water use efficiency compared to surface irrigation methods.

Economic benefits of pressurized irrigation systems are proved for all crops under varied conditions. These systems help to save water, labor, ensure uniform grade, economy of inputs and ultimately result in increased production. The pressurized systems are considered ideal for coarse textured soils. These systems are successfully used in the developed countries for decades but their use could not be popularized in the developing countries so far due to one reason or the other. For example in Pakistan this technology has been used on experimental basis for the last 4-5 decades but till today, it could not get popularity among the farmers. Government is extending subsidies and technical support for promoting these systems but yet expertise in design and evaluation of these systems is lacking. The present workshop aimed to impart updated knowledge in the design and evaluation of pressurized irrigation and is the extension of the 1st international workshop held in early 2009. This workshop would help to develop trained manpower and expertise in the field of pressurized irrigation system. This event would also bring least dependence of our scientists on foreign experts. Furthermore locally a group of experts would be developed on pressurized irrigation system during the event.

## OBJECTIVES

In view of scarcity of water and prevailing drought conditions, the need for judicious use of water is established beyond any doubt. To give an exposure to beginners and middle level professionals, a four-day training workshop on “**Design & Evaluation of Pressurized Irrigation Systems**” is planned.

## CONTENTS

1. Micro Irrigation Systems, Principles & Practices
2. Planning for Sprinkler & Drip Irrigation Systems
3. Design of Set Sprinkler Irrigation
4. Hydraulics & Economics of Pipe Selection
5. Design of Center-Pivot System
6. Linear-Moving System Design
7. Field Evaluation of Sprinkler Systems
8. Trickle Irrigation Planning, Clogging & Filtration
9. Selection of Emitters & Their Design Criteria
10. Design of Manifolds & Laterals
11. Fertigation and Water Quality for Sprinkler & Trickle Systems
12. Field Visit (s).

## TARGET GROUPS

The workshop is organized to benefit beginners and middle level professionals. The participants should have at least first level University degree.

## RESOURCE PERSONS

The workshop will be conducted by the faculty members of the Centre of Excellence in Water Resources Engineering. In addition, experts with rich field experience on sprinkler & trickle irrigations will be invited for special lectures.

## TRAINING METHODOLOGY

The training workshop will be conducted in an interactive environment, providing ample time for discussions. Emphasis will be on participatory style of learning. The faculty will act as catalysts and provocateurs to facilitate the learning process. The participants are expected to play an active role not only as learners but also as knowledgeable practitioners in their own field. Each participant will be required to share his experience and make short presentation on selected topic.

## VENUE & DATES

The workshop will be conducted in the Seminar Hall, CEWRE-Lahore from November 19 to November 22, 2012.

#### **WORKSHOP TIMINGS**

Registration of participant will be from 09:00 to 09:30 a.m. on the first day. On all other days, the training workshop timing will be from 09:30 a.m. to 04:30 p.m. with breaks for lunch & prayer and refreshments.

#### **REGISTRATION FEE**

A registration fee of 15,000/- will be charged for participation. Interested young scientists, researchers, planners and farm mangers are invited to attend the training workshop. *Participation Form is available on request and the last date for submission of Form is upto October 8, 2012.*

#### **FINANCIAL SUPPORT**

Limited financial support is available for international participants that cover boarding & lodging. However, the participants have to arrange sponsorship for international travel from international donor or any other funding source.

#### **CERTIFICATE OF PARTICIPATION**

Certificate will be awarded to the successful participants of the workshop.

#### **ADDRESS FOR CORRESPONDENCE**

For further information and submission of participation request, contact to:

**Prof. Dr. Muhammad Latif (Director)**

or

**Dr. Sajid Mahmood (Azeemi)**

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