REPORT ON
INTERNATIONAL TRAVEL
UNDER TEQIP-II

Conference: 35th IAHR World Congress, September 8 to 13, 2013 Chengdu, China

Venue: Century City International Convention Center

88, Century City Boulevard, Chengdu, Sichuan, 610041 China

Name of the Participant   : **Dr. D.G.Regulwar**

Name of the institution   : **Government College of Engineering, Aurangabad**

Project Sub-Component   : **1.2**

Category of the Institution   : **Govt. Funded**

(CFI/Govt. Funded/
Govt. Aided/Private Unaided)

Report of paper presentation in 35th IAHR World Congress
September 8 to 13, 2013 Chengdu, China under TEQIP-II

Name of Faculty: **Dr. D. G. Regulwar**
                         Associate Professor, Dept. of Civil Engineering, Govt. College of
                         Engineering, Aurangabad-431005, Maharashtra State

With reference to above subject, I have participated and presented my research paper titled "OPTIMAL IRRIGATION PLANNING WITH MINIMIZATION OF COST OF CULTIVATION USING FUZZY LOGIC" in 35th IAHR World Congress, September 8 to 13, 2013 Chengdu, China. My paper was shortlisted in Special Seminar among 30 papers out of 1268 papers. I have presented my paper successfully.

The paper deals with the tackling of the uncertainty involved in finding the minimized cost of cultivation using fuzzy logic. The objective function coefficients, technological coefficients, resources and decision variables have been considered as fuzzy to tackle the uncertainty. In the present study the Single Objective Fuzzy Linear Programming (SOFLP) irrigation planning model with the aim of minimization of cost of cultivation has been developed. The developed model has been applied for deriving the optimal cropping pattern plan for the case study of Jayakwadi Project Stage-I in Godavari river sub basin in the State of Maharashtra, India. The fuzzy sets have been formulated using the triangular fuzzy numbers. The results obtained are promising for irrigation planning associated with minimized cost of cultivation and closer to the real world problem as it incorporates the fuzziness in objective function coefficients, technological coefficients, resources and decision variables simultaneously.

Research Highlights:

- The developed irrigation planning model (SOFLP) is focused on dealing with the uncertainty associated with minimization of cost of cultivation for irrigation planning.
- The methodology to deal with uncertainty has been developed and applied for optimal irrigation planning.
- The results obtained are promising for irrigation planning with minimized cost of cultivation and closer to the real world problem.
- This is the unique irrigation planning model as it incorporates the fuzziness in objective function coefficients, technological coefficients, resources and decision variables simultaneously.

During conference, I have visited Sichuan University. I have discussed about research facilities and research work with faculty and research scholars of State Key Laboratory of Hydraulics and Mountain River Engineering in Sichuan University. This will help in developing research interest in our students. I have discussed with foreign delegates

regarding water resources research issues which will help me for implementing research activities in our institute.

I thank TEQIP-II authorities, Higher and Technical Education Department, Mantralaya, Mumbai, Director of Technical Education, Mumbai and Board of Management & Principal of Govt. College of Engineering Aurangabad for their support and deputing me for this conference.

(Dr.D.G.Regulwar)

	Status	Type	Paper ID	Speaker	Title of Presentation
1	Note that all information is subject to future modification.				
27			11839	Dirk SCHWANENBERG	Short-Term Optimization Of Hydro Power Assets Under Uncertain Meteo Forcing
28					
29	Special Seminar 4: Climate Change Sensitive Sustainable Water Resources Planning and Management				
30	Room 000, Tue 13:30-15:15 Chair: Satoru Tet Oishi and Carlos de Oliveira Galvão				
31		Invited	A10066	Pradeep Mujumdar	Modeling Gcm And Scenario Uncertainty Using Entropy Weighting Approach: Application To The Bhadra River, India
32			A10021	D G Regulwar	Optimal Irrigation Planning With Minimization Of Cost Of Cultivation Using Fuzzy Logic
33			A10053	Kenichiro Kobayashi	An Ensemble Flood Simulation For The Dam Preliminary Release Operation In Japan Using Jma-Nhm Rainfall
34			A10065	Satoru Oishi	Study On Optimization Of The Integrated Dam Operation Using Ensemble Prediction In The Upper Reaches Of The Nabari River
35			A10084	Daisuke Nohara	Reservoir Operation Considering Various Kinds Of Real-Time Hydro-Meteorological Information: An Adaptive Approach For Sustainable Water Resources Management With Exsisting Water Infrastructures
36			A10082	Carlos Galvao	Dealing With Climatic Uncertainty In Reservoir Management: A Fuzzy-Logic Approach
37					
38	Special Seminar 5: Challenges and Issues in Water Resources Management in Africa				
39	Room 000, Tue 15:45-17:30 Chair: Mohammed Ghidaoui				
40				Mohammed Ghidaoui and JHW Lee	Opening Remarks By Jhw Lee And Ms Ghidaoui
41			A10015	Abdalla Ahmed	The Dilemma Of The Nile Transboundary Water And The Way Forward
42			A10022	AKOSUA KORANTEMAA	A Study Of The Groundwater Risk Assessment Associated With Poor Landfill Designing In Kumasi.
43			A10061	Xueliang Cai	Competing For Water, An Assessment Of Water Resources Management In The Runde Catchment, Zimbabwe
44			A10036	Josephine Osei-Kwarteng	Water Resources Management In Ghana- A Review
45				MS Ghidaoui, JHW Lee, Roger Falconer	Discussion To Be Lead By A Panel Comprised Of Ms Ghidaoui, Jhw Lee, Roger Falconer
46					
47	Workshop 1: Environmental Dynamics and Management in the Sanjiangyuan				

CERTIFICATE OF ATTENDANCE

This is to certify that

Dr. D. G. Regulwar

[Registration ID: R10634]

has attended the
35th IAHR World Congress
in Chengdu, China from September 8 to 13, 2013.

> 35th IAHR World Congress
> LOC Secretariat

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35TH IAHR
WORLD CONGRESS
IAHR CHENGDU 2013   September 8-13, 2013 | Chengdu, China

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坝高289m，装机16000MW泄量44000m³/s