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:

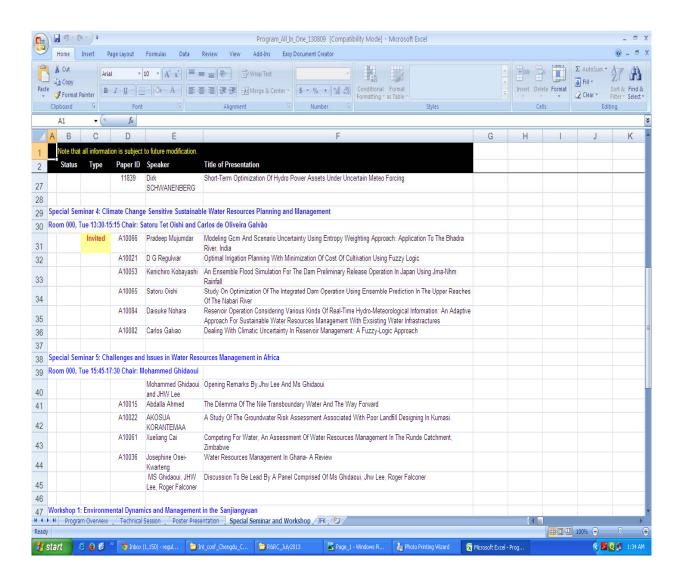
- The developed irrigation planning model (SOFLP) is focused on dealing with the uncertainty associated with minimization of cost of cultivation for irrigation planning.
- The methodology to deal with uncertainty has been developed and applied for optimal irrigation planning.
- The results obtained are 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)



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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