

Application form for Participation in MTC

(To be sent to the Course Director of MTC)

1. Full name (in block letters):
2. Designation:
3. Present employer and address:
4. Address for correspondence (Give E-mail, Tel. / Mobile No.):
5. Permanent address:
6. Sex: Male/Female
7. Marital status: Married/unmarried
8. Academic record (Indicate in tabular form examinations passed from B.Sc./B.Tech. degree onwards, Main subjects, Year of passing, Class / rank / University / Institution, Other information):
9. Service experience:
10. Signature of applicant (indicate name of place and date):
11. Recommendation of the forwarding Institute (Signature, date, designation / address):

CERTIFICATE

It is certified that the above information was furnished as per the office record and was found correct.
(Signature and Designation of sponsoring authority)

Applications/nominations may be sent to:

Dr. P Gupta

Course Director & Associate Professor
Department of SWCE
College of Agricultural Engineering & Technology (CAET)
Anand Agricultural University (AAU), Godhra- 389001, Gujarat
Mobile: 09409396979
Tel.: 02672-2656027(O)
Email: pankajgupta@aau.in

For further information please contact:

Dr. Mukesh K. Tiwari

Course Coordinator, & Asst. Prof. CAET, AAU, Godhra
Mobile: 09429802794
Email: mukesh.tiwari@aau.in

Er. A. Kunapara

Course Coordinator & Asst. Prof, CAET, AAU, Godhra
Mobile: 08320583941
Email: ankunapara@aau.in

How to Apply ?

Application for participation in the MTC may be made in the prescribed format as given herewith and forwarded by the competent authority where the candidate is employed. Applicants may send an advance copy (hard copy/email to the course director) if they anticipate delay in forwarding through proper channel. However, the final selection will be made only if the application duly recommended by the competent authority is received.

After the candidates are intimated of their selection, they should immediately reply with firm acceptance. Cancellation at the last moment for casual reasons after acceptance is undesirable as it will deprive other eager candidates who could have availed of the opportunity.

IMPORTANT DATES	
Last date for receipt of the application	10 January, 2018
Intimation of Selection	12 January, 2018
Participation confirmation by the candidate	14 January, 2018

Course duration

February 6–13, 2018



**INFORMATION BROCHURE
(REVISED)**


**Model Training Course
On
“Hydrological and Crop Simulation Modeling in the
Arena of Climate Change”**

(February 6-13, 2018)

Sponsored by

**Directorate of Extension
Department of Agriculture Cooperation & Farmers
Welfare,
Ministry of Agriculture & Farmers Welfare,
Govt. of India, New Delhi**

Organized by



**College of Agricultural Engineering and Technology,
Anand Agricultural University, Godhra-389001,
Gujarat**



INTRODUCTION

Water is the most scarce and valuable resource in the world; it is predicted that by 2025 around 3 billion people will be living under a water-stressed situation. Most of the fresh water withdrawals (about 70%) are utilized towards irrigated agriculture. A large majority of the world's poor continue to live in rural areas and depend on agriculture for their livelihoods. Agriculture remains dependent on climate prevailing. Climate is a paradigm of a complex system. Changes in precipitation, more frequent and intense floods and droughts, snowfall, soil moisture availability at different depths, evapotranspiration regime, lowering groundwater table, shortage of irrigation water, change in river flow, higher sea levels, and groundwater recharge in the hydrologic cycle and rapid desertification that ultimately invoke settlement loss, crop damage, diseases, food insecurity, malnutrition, income loss and more poverty. The most threatening aspect is that the whole development track will lag behind the target. So Climate change and its devastating impacts are approaching at such a rapid pace that policy reconfiguration is urgently needed.

Crop growth is a very complex phenomenon and a product of a series of complicated interactions of soil, plant and weather. Dynamic crop growth simulation is a relatively recent technique that facilitates quantitative understanding of the effects of these factors, and agronomic management factors on crop growth and productivity. The consequences of water sector vulnerabilities for climate change are posing fundamental challenges to achieving the development aspirations. Projections of the impact of climate change suggest that it would further exacerbate the water stress felt in many places around the world. As the causes of water quality and quantity deterioration become increasingly climate-challenged, it will be a daunting challenge for policy-makers to attribute responsibility to specific stakeholders for taking corrective action.

The impact assessment of climate change on water resources and crop growth is a complex issue and the volume of knowledge in this field continues to grow rapidly. There is a critical and urgent need to develop climate-change-related training programs that teach the basic science of climate change, and teach cutting-edge technologies and policies for mitigating and adapting to climate change. Regulatory aspects of climate change mitigation and adaptation at the local, regional, and global levels should also be taught. Furthermore, there is a significant need to develop appropriate local, regional, national, and international socioeconomic policies to minimize the adverse effects of climate change. The training is directed to attain these defined goals.

COURSE CONTENTS

The aim of this training is to provide practical guidance on how to incorporate climate change when dealing with existing challenges in water resources management, hydrological and crop simulation modeling to enhance crop and water productivity in major cropping systems. The training also addresses many topics relating to the applications and limitations of climate change models and scenarios, particularly those related to precipitation projection which is the critical factor for managing water resources; the potential impacts of climate change on water resources including water quality; exposes uncertainties and data deficiencies that affect the reliability of predictions about the consequences of climate change on water resources; the potential impacts of climate change on crop production and adaptation strategies for crop production; and case studies of climate change adaptation and mitigation strategies from water resources availability and water conservation and use perspectives. Some highlighting topics include

- Water availability and water demand under climate change
- Hydrological modeling
- Watershed interventions for surface and groundwater management
- Crop growth simulation models
- RS and GIS interventions in hydrologic systems
- Climate change modeling & assessment
- Climate change and crop production
- Hydro-climatic extremes
- Adaption strategies for climate change

ELIGIBILITY

This Model Training Course is meant for the state extension/developmental officers of agriculture and horticulture, soil conservation and watershed management, dairy and livestock management; and KVK scientists of ICAR/SAUs in the area of Agronomy/Soil Science/Crop Protection/ Agricultural Extension/Agricultural Economics/ Agricultural Engineering/ Soil Water Conservation /Horticulture/ Microbiology/ Dairy & Livestock management/Food Technology/ Agroforestry or any other related disciplines. Preference will be given to the officers of State Development Department of Agriculture and allied Sciences.

The total number of participants shall be limited to 20. All the applications must be routed through proper channel. There are no course fee charges to participants for attending this training.

OBJECTIVES

The objectives of the training include:

- To train and aware the extension officers with watershed interventions for understanding and improving water use efficiency, climate resilient agro-technologies to enhance crop and water productivity at watershed and farm sector,
- To train and aware the extension officers with climate resilient agro-technologies practices which promise improved crop and water footprints in arid and semi-arid regions.
- To understand hydro-climatic extremes for better water and crop management using latest technologies including remote sensing, GIS and hydro-climatic modeling technologies f
- To learn the benefits of climate resilient farm practices for enhancing the resource-use efficiency and climate resilience.

LECTURE NOTES

To fully realize the objectives of the course, the lecture notes will be made available at the time of registration.

TRAVEL, BOARDING AND LODGING

The boarding, lodging, and TA expenses of the selected participants from the State Departments of Agriculture/Horticulture/ Dairying and other related allied state departments will be met from the funds provided by the Ministry of Agriculture as per norms and operational guidelines for organization of Model Training Course. Participants will be paid to-and-fro fare for journey by train (strictly III AC) or bus or other means of transport in vogue as the case may be. Actual TA will be paid on production of a tickets/certificate by the participants. However, the participants coming from ICAR/SAUs/ KVKs, the TA and DA expenditure will have to be borne by their nominating organization/institute. However, all the participants, are entitled to avail the lodging, boarding, and other facilities during the training period. The participants will be provided accommodation in the Guest Houses/Trainee Hostels of the Institute.

ABOUT GODHRA

Godhra is the administrative headquarter of the Panchmahals district Godhra is connected to all major towns of Gujarat by public transport service operated by GSRTC and Godhra is Railway Junction that connects Godhra with different parts of state and nation. Champaner, a UNESCO World Heritage site is located in this district. Godhra is known for the natural hot water spring that contain sulphur which is said to have medicinal value. Godhra is well connected to nearby cities Vadodara, Anand and Ahmedabad by road and railways having distance 80, 90 and 130 km, respectively.