G H Patel College of Engineering & Technology, V. V Nagar

Department of Civil Engineering

Report on

Visit to "Department of Agricultural Meteorology, Anand Agricultural University, Anand"

Department of Civil Engineering, GCET had organized one day Educational visit to "Department of Agricultural Meteorology, Anand Agricultural University, Anand" on July 17th, 2019. 58 students, 2 faculty members had visited the Department of Agricultural Meteorology, Museum in Department of Agricultural Meteorology, Filed Observatory & Crop Museum in Anand Agricultural University, Anand.

About Department of Agricultural Meteorology:

Bansilal Amrutlal College of Agriculture established in 1947 with the tireless efforts by Sardar Vallabhbhai Patel-the Ironman of India, learned Shree Kanaiyalal Maneklal Munshi and Agricultural scientist Dr. M. D. Patel since its inception, has been significantly contributing to agricultural development and research as well in the state of Gujarat and nation at large. A huge workforce of trained teachers and scientists has been working for the tremendous activities in education, research and extension education. There are 18 departments working on crop-breeding, crop-production, crop-protection and Social Sciences and thereby carrying out various activities of education, research and extension education. The Department of Agricultural Meteorology is one of them.

Department of Agricultural Meteorology is one of the pioneer departments in the country for starting concurrent academic and research programme leading to M.Sc. and Ph.D. degree in Agricultural Meteorology since 1964. In 1983 the full-fledged department came in to existence. UG and PG teaching in the discipline of Agricultural Meteorology, Agricultural Engineering and Applied Mathematics and Physics is being undertaken in the department. The research programmes are carried out mainly by All India Coordinated Research Project on Agrometeorology and also by PG and departmental research programmes. The research works are also carried out through adhoc projects funded by ICAR/DST /ISRO/IMD and other agencies etc.

The extension services are provided through project on weather based agro-advisory of IMD which was initiated in 1991, which is now extended for all the districts. The agro-advisory bulletins are prepared for disseminated through various mass media for the farmers of middle Gujarat. Anand centre work as Principal Nodal Centre for providing such service in Gujarat. Department is also maintaining agro-meteorological observatories at different research stations and maintaining Agromet data banks and provide the data to various user communities.

Various instruments like Leaf area meter, Canopy Analyzer, Pocket Weather Meter, GPS, Spectro radiometer, Infrared Thermometer, Line Quantum sensor, Ozonometer, Sunphotometer

and high volume samplers and remote sensing & GIS softwares are available for carrying out research work.

The visit was commenced at 10:00 am form GCET campus to AAU (Anand Agricultural University), Anand. After reaching, the students were first taken to the seminar hall of Department of Agricultural Meteorology where **Prof. Vidyadhar B. Vaidya**, Assistant Professor, Department of Agricultural Meteorology brief all students about the department and different resources and facilities of it. Also, he discussed about different research work going on in department. He has given very good idea about rainfall event and challenges occurred due to phenomena of climate change.

Then students were taken to a museum in department in two different groups headed by Prof. Vidyadhar B. Vaidya along with other research fellow. Students have observed various instruments like Automatic Raingauge, Sunshine Recorder, Wind Vane, Cup counter Anemometer, Soil Thermometer etc. for the measurement of various meteorological parameters. After visiting the museum, students were headed to "*Field Observatory*" where all those instruments were placed and actual measurement was going on. The faculty experts have explained all instruments with its procedure like measurement of sunshine hours, measurement of rainfall, measurement of evaporation, measurement of soil temperature etc. Also, in the field observatory the Automatic Weather Station (AWS) was there installed by Indian Meteorological Department (IMD) in which all the meteorological parameters were measured and the recorded data than sent to computer or TV screen for monitoring and record purpose.

Finally, after competing lunch, students were taken to "*Crop Museum*" where all different crops were grown, different methods of irrigation were set up, simple watershed management model was prepared and different methods for measuring flow in channel was set up in field.

With all the knowledge and information students have gained; the return journey was started towards GCET campus back and reached at 1:30 pm in noon.

Aim of Visit:

The main aim of visit was to make students aware and to teach them about the various weather parameters (Rainfall, Temperature, Evaporation, Sunshine Hours etc. their importance and significance, their measurement and various advanced methods fort the prediction of same as they are studying the part of it in subject called "*Hydrology & Water Resources Engineering*".