**Functional genomics for abiotic stress tolerance in crops**

**Prof. Sanjib Kumar Panda, D.Sc.**

Department of Biochemistry, Central University of Rajasthan, Ajmer 305817, India

Agricultural productivity and food security has remained a challenge in the era of global climate change, the Covid pandemic, and the shrinking of agricultural land because of extreme urbanization and an ever-increasing population. In this situation, adoption of technology and high-throughput platforms have become the choice to prepare climate smart crops. Functional genomics is one of the high potential post-genomic science technologies that help in addressing such biological questions that are posed to crops because of environmental stress. Using transcriptomic, proteomic and metabolomics platforms it is possible to identify novel genes, transcription factors, proteins and even metabolomics markers linked to abiotic stress. Our group attempts to look into the functional genomics perspectives in addressing realistic agricultural issues in terms of abiotic stress in major crops.