

AFITA/WCCA2018, 24-26 October 2018, IIT Bombay

Special Session - Data Science based Farming Support Systems

DSFS (Data Sciences for Farming Support Systems), an Indo-Japan initiative aims to develop technologies to support sustainable agricultural production in the semiarid area of India as its major arable land, currently facing climatic change challenges/uncertainties, by utilizing data science. Specifically, this study has two components: One based on the IT platform and the other on agricultural application. The IT platform works on the development of field sensors, big data management and AI while the agricultural application study attempts to develop technologies for optimal crop management and efficient crop breeding. Subsequently, the whole approach is built towards efficient knowledge transfer to farmers by utilizing the technologies provided by the above two components.

Through Japanese and Indian researchers' working together in a joint-laboratory, it is aimed to benefit farmers through an improvement in productivity/performance and water use efficiency of crops in semi-arid areas. This collaborative work is also expected to proceed to influence other related sectors pertaining to rural development.