

### Registration fee

The registration fee is Rs. 7000/- (inclusive of GST 18%). The accommodation for participants will be arranged on payment basis. The registration fee does not include boarding and lodging charges. The fee may be paid in the form of online through NEFT/RTGS transfer to the beneficiary "ICAR-CTCRI", AC No. 00000057019705533, Bank: State Bank of India, Kallampally, Thiruvananthapuram, IFSC Code SBIN0070288.

### How to apply?

The applicants are requested to fill the registration form attached with this brochure and send the scanned copy to the Programme Director by email (iptmu.ctcri@icar.gov.in/ itmu.ctcri@gmail.com). The last date for receiving the registration form is April 4, 2020.

### About us

The ICAR-Central Tuber Crops Research Institute (ICAR-CTCRI) is a national level Institution under Indian Council of Agricultural Research, New Delhi. The Social Science Team of ICAR-CTCRI is engaged in various cutting-edge research programmes in Technology commercialisation, Artificial Intelligence and communication management, technology transfer and conducting several capacity building programmes on social science research and statistical modeling. This team has organised eight national level programmes on social science research methodology, scale development and multivariate statistics in various regions of India. Besides two books, several research papers and blogs exclusively on social science research were contributed by the team.

### For any programme specific queries, please contact

Programme Director

Dr. P. Sethuraman Sivakumar, Principal Scientist, ICAR - CTCRI

Mob: +91-9496550999.

### For further information, please contact

The Director

ICAR - Central Tuber Crops Research Institute, Sreekariyam, Thiruvananthapuram - 695017, Kerala, India.

# National Training Workshop on PSYCHOMETRICS & SOCIAL STATISTICS

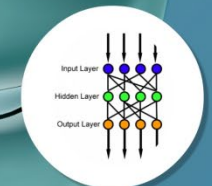
APRIL 14-18, 2020



SCALE  
CONSTRUCTION



MULTIVARIATE  
MODELING



MULTI-CRITERIA  
DECISION-MAKING

ICAR - Agri-Business Incubator  
ICAR- Central Tuber Crops Research Institute  
Sreekariyam, Thiruvananthapuram - 695017  
Kerala, India.

## Background

The academic and commercial research in social and behavioural sciences aims for deeper understanding of how humans act and make decisions in specific situations to develop ability for manipulating them for maximising their wellbeing as well as to achieve national development goals. The technical and business establishments are increasingly looking towards social and behavioural scientists/professionals competent in managing human behavioural processes in the areas of health care, information technology, human resources development, agricultural technology transfer, marketing and entrepreneurship development. The psychometrics and associated statistical methods provide ways and means of scientific measurement and modelling of human behaviour processes to understand and manage them. With the recent advances in psychology, information technology and computational sciences, new approaches and methods are developed for accurate measurement of human behaviour in various contexts.

## About the workshop

This National-level training workshop is organised by the ICAR- Agri Business Incubator of ICAR – Central Tuber Crops Research Institute (ICAR-CTCRI) to equip the scientists, academicians, professionals and students from diverse disciplines who are interested in developing competencies in measurement and modelling of human behavioural processes. The workshop focuses on developing critical competencies of the participants in applying psychometric approach for developing sound research instruments / scale, and also to derived new insights from social science data through statistical modelling.

## Contents

1. Psychometrics and its importance in behaviour measurement
2. Theory of data and measurement
3. Scale development approaches
4. Development of psychological tests and composite indices
5. Basic statistics for social sciences – descriptive and inferential

## Contents

6. Correlation and regression methods
7. Test dimensionality – Principal Component Analysis, Exploratory Factor analysis and Confirmatory factor analysis
8. Threats to psychometric quality – biases and errors
9. Advanced psychometric approaches – Item Response Theory, multidimensional scaling
10. Multi-criteria decision making – Fuzzy logic and neural network
11. Experimental designs for social and behavioural research
12. Hands-on experience in statistical software including R and R Studio with package “psych”.

## Pedagogy

The training workshop will have diverse learning opportunities for the participants. Besides interactive classroom presentations, the participants will be provided sufficient “hands-on-experiences” on specific techniques using software. The participants are encouraged to bring their own laptop and data.

## Resource persons

Apart from core resource persons from ICAR-CTCRI, external faculties will be invited from premier Institutions like IIM/IIT, IIST, CDS etc.

## Who should attend?

This programme is open for scientists, faculties, extension and other development professionals, field workers, managers, policy makers, research scholars and students from social and behavioural sciences who are interested to learn and apply psychometrics in human behaviour management. The maximum number of participants for the Workshop is 25.

**Programme date:** April 14-18, 2020

## Venue

ICAR – Central Tuber Crops Research Institute, Thiruvananthapuram, Kerala, India.