

# Winter School on Advances in Agricultural Extension Research

Jan. 28 to Feb. 17, 2022



Sponsored by  
Education Division  
Indian Council of Agricultural Research  
New Delhi – 110 012



Dairy Extension Division  
ICAR-National Dairy Research Institute  
Karnal – 132 001 Haryana, India



Agricultural Extension is evolving in tune with changing socio-economic and bio-physical scenario in the country. Ambitious targets are fixed to achieve not only food and nutritionally security but also 17 SDGs and resolutions on climate change. In tandem with priorities and aspirations of stakeholders, agricultural extension research needs to respond in terms of methodological approaches and analytical tools. Persistent demand on innovations in extension approaches and methodologies from scientist working in NARS, Extension researchers and subject matter specialists in farm universities and KVKs warrants tools and techniques which build their capacities for effective technology transfer to their clientele groups. Adoption of advanced methodologies in Research process also facilitates publication in reputed journals and recognitions. In this context, winter school entitled “**Advances in Agricultural Extension Research**” is being organized at ICAR-NDRI, Karnal to share knowledge on the latest developments in agricultural extension research among Scientists/Teachers/ SMS/Senior Technical Officers of research institutes and State Agricultural Universities (SAUs).

### About NDRI

ICAR-National Dairy Research Institute (NDRI) is the premier Dairy Research Institution in India that undertakes research, teaching and extension activities towards dairy development in the country. NDRI is well known for providing high quality manpower to meet the human resource



requirements for the sustainable dairy development in the country besides undertaking extension programmes for transferring the know-how from the laboratory to the farmers' fields. The institute has developed several technologies that have been well acknowledged by the research and farming communities both in India and abroad. The institute has state-of-the art dairy animal farm, Experimental dairy, Agri-business incubator, dairy museum, Live fodder museum, animal health herbal garden, Artificial Breeding Research Centre, etc.

NDRI has state-of-the art laboratories and well experienced faculties. The institute has a cosmopolitan atmosphere as students as well as faculties from different parts of the country and abroad undertake education and research at this institute. In recognition of the contributions made by NDRI in research, teaching and extension, the institute is maintaining *numero uno* position in National Institution of Ranking Framework (NIRF).

### **About the winter School**

This winter school aims to provide a suitable platform to update knowledge and skill in extension approaches and methodologies for promoting sustainable agriculture. This will help to expose the participants to the recent developments accumulated in the area of extension research methodology and statistical techniques for improving the capabilities of researchers in the technology transfer domain. The topics to be covered include, Revisiting foundations of extension research; Trends in extension research; Extension approaches in ARYA, Farmers FIRST, MGMG and lessons from IVLP and projects of NAIP; Enhancing scientific temper; Social science research methods, Scientific literature review, Qualitative and Quantitative Research Designs, Determining optimum sample size; Thematic Analysis for construct development; Ethics in extension research; Index development; Techno-economic feasibility of dairy projects - Simulation models; Issues in laying FLD in farmers fields and their impact on adoption; Livelihood assessment in agriculture; Meta analysis; Life cycle analysis and log framework analysis, MOOC for knowledge empowerment, Digital extension approaches; Modalities in contract farming and public private partnership; Evaluation of group dynamics techniques; Methodology to assess the climate resilience in agriculture, Application of Internet of Things (IoT) in agriculture; Upscaling and outscaling approaches, Developing roadmap for upscaling and outscaling of farm technologies; Technology application strategies in agriculture; Tools to assess the client behaviour in agriculture, Value chain mapping and analysis; Stakeholder analysis, Application of Randomised Control Treatment in extension research; Methodologies to assess ITK and biodiversity; Agro ecosystem analysis; Parametric and Non-parametric tests;

Exploratory Data Analysis - Theory & Practice with R; Multivariate analysis; Cluster analysis; Impact assessment methodologies; Adoption studies - logit and probit approach; Scale construction using Structural Equation modeling - Factor analysis, exploratory and confirmatory, structural model; Sensory evaluation and consumer studies, Virtual conferencing tools, Conjoint analysis, Delphi technique for judgmental forecasting, Social Network Analysis, Tools for Gender analysis; Artificial Intelligence - Opportunities in Food and Agriculture and Application of psychological tests.

### **Eligibility**

Scientists, Assistant Professors or equivalent and above working in ICAR Institutes, SAUs/SVUs, DUs, CUs and KVKs having 2 years experience possessing master's degree in any branch of agriculture, animal and allied subjects or any other related disciplines are eligible to apply for the winter school. Participants are expected to have basic and working knowledge in agricultural extension research.

### **How to reach NDRI, Karnal?**

Karnal is well connected with major cities of India by road and rail. The distance from New Delhi Airport is around 150 Km, which can be covered by road in about 2.5 h. Frequent train services are available from New Delhi/Delhi railway stations. State run bus ply round the clock from Inter State Bus Terminus, New Delhi. NDRI is located very near to the Karnal bus stand and railway station. Auto rickshaw services are available from both bus stand and railway station to the NDRI.

### **Boarding and Lodging**

The participants will be reimbursed to and fro travel fare by shortest rail (AC II tier)/road route as per ICAR norms on production of valid travel documents. Outstation participants will be provided free boarding and lodging at the institute's Kalki Bhawan. Participants are requested not to bring their family due to restricted availability of accommodation and COVID-19 restrictions.

## Important Instructions

- Application to be made online at <http://cbp.icar.gov.in/> and candidates have to upload the scanned copy of application form duly approved by the Director or Head of Organization on or before 31/12/2021. The stepwise procedure for on line submission of application for the winter school is given in the above mentioned website
- Only 25 participants will be selected for the course by a screening committee as per ICAR guidelines.
- The selected participants will have to pay Rs. 50/- as registration fee at the time of their registration in the winter school.
- COVID-19 Protocol (as per MHA guideline, Govt. of India and State government) must be followed during the winter school

### Important

<b>Last date of application</b>	:	<b>31.12.2021</b>
<b>Communication to Participants</b>	:	<b>02.01.2022</b>
<b>Commencement of winter school</b>	:	<b>28.01.2022</b>

### Course Director:

**Dr. K. Ponnusamy**

### Course Coordinators:

**Dr. B. S. Meena**

**Dr. H. R. Meena**

**Dr. A. K. Sharma**

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