

**ISEE National Seminar-2019**  
**ON**  
**SOCIO-DIGITAL APPROACHES**  
**FOR**  
**TRANSFORMING INDIAN AGRICULTURE**

**NOVEMBER 20 - 22, 2019**

**VENUE:**

**Chaudhary Charan Singh Haryana Agricultural University**  
**Hisar, Haryana**

*Compendium of Abstracts*

**Organised by**



**Indian Society of Extension Education**

Division of Agricultural Extension, ICAR-IARI, New Delhi



**CCS Haryana Agricultural University**

Hisar, Haryana



**Banda University of Agriculture & Technology**

Banda, Uttar Pradesh

National Seminar on  
**Socio-Digital Approaches for Transforming Indian Agriculture**

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सचिव एवं महानिदेशक

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### *Message*

It is a matter of pleasure that Indian Society of extension Education(ISEE),IARI, Pusa, New Delhi with their partners is organizing its National Seminar on highly appropriate theme i.e. "SOCIO-DIGITAL APPROACHES FOR TRANSFORMING INDIAN AGRICULTURE" from November 20-22, 2019 at Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana.

A vast majority of farmers across the country has been benefited with a large number of suitable and specific models and policy advocacy delivered by the professional society. The ISEE has played the flagship role in advocating different extension models for agricultural development of our country. National Seminar is one of the strongest and effective mean to draw policy issues from the interactions of researchers and to bring about the impact of technological products as well as Government schemes in vogue.

I am confident that the participating scientists and think tank of Extension Education fraternity will interact to bring out policy implications in order to maximize the farm income utilizing the local wisdom. I convey my best wishes to the organizers of the Seminar as well as the Indian Society of Extension Education a grand Success.

**T. Mohapatra**



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### *Message*

I am happy to know that a National Seminar on "Socio-Digital Approaches for Transforming Indian Agriculture" is being organised during November 20-22, 2019 at CCSHAU, Hisar. Indian Agriculture has passed through different phases and now the emphasis has to be on sustainable production with much more focus on social and environmental concerns. Looking into the number of farm houses holds, the initiatives of connecting with people and making them aware about the technology is extremely vital. The digital platform being created need to be further streamlined in order to provide customised farm house hold level information on a continuous basis.

I am hopeful that the deliberation in the proposed Seminar will bring out important recommendations.

Dated: 15.11.2019.

**A.K. Singh**





## CCS Haryana Agricultural University, Hisar-125 004 (India)



**Prof. K. P. Singh**

Vice-Chancellor

### *Message*

Agriculture has been the engine of inclusive growth in our country. Today, it assumes even greater significance for eradicating malnutrition and poverty. Search for innovative approaches of transferring technologies has been an important area of research and deliberations among the extension professionals. Digital tools are fostering a new revolution in agriculture, while opening new possibilities for speedy communication of inventions & innovations and empowerment for decision making of the farmers. ICTs offer an impressive capability to share knowledge, information and experiences, connect people across distances and facilitate efficient use of resources.

The National Seminar on "Socio-digital Approaches for Transforming Indian Agriculture" being organized by the Indian Society of Extension Education, New Delhi during November 20-22, 2019 in collaboration with Chaudhary Charan Singh Haryana Agricultural University, Hisar & Banda University of Agriculture and Technology, Banda at CCSHAU, Hisar; is an endeavour towards developing pathways and policy guidelines for effective extension system in India.

The seminar will focus upon salient areas such as Empowerment of rural community through CBOs; Innovations in extension research and policy; Capacity building of farming community; Convergence models for economic prosperity; Strategies for Entrepreneurship Development in Agriculture; Technological Interventions for Climate Smart Agriculture; Digital approaches for secondary agriculture; Digital Strategies and approaches for sustainable agricultural development; Food and nutritional security for rural communities; Digital marketing; and Gender issues in agriculture.

The outcome of the seminar will be of immense use for all stakeholders in transforming agriculture as well ensuring livelihood security and farm profitability.

I extend my best wishes to all the delegates and organizers of the seminar.

**K. P. Singh**







# INDIAN SOCIETY OF EXTENSION EDUCATION

Regd. under Society Registration Act 1860

(Regd. No. : S- 2504 of 1964-65)



## **Dr. U.S. Gautam**

President, ISEE, New Delhi  
& Vice Chancellor, BUAT, Banda, UP (India)

### *Message*

The educational and research institutions can provide a forum for addressing the challenges posed by the digital revolution, suggest effective policy solutions, and outline policy guidelines. To be successful, policymakers will need to respond nimbly to changing circumstances, integrate experiences across countries and issues, and tailor advice effectively to countries' needs. The digital revolution should be accepted and improved rather than ignored and repressed. The history of earlier general-purpose technologies demonstrates that even with short-term dislocations, reorganizing the economy around revolutionary technologies generates huge long-term benefits. Changes in society resulting from the pervasiveness of information technology have produced positive and negative, intended and unintended consequences. This suggests that the role of ICTs in addressing social exclusion is far more complex than often thought. For this reason it is timely to expand our focus and progress towards organizing ISEE National seminar 2019 on the topic 'SOCIO-DIGITAL APPROACHES FOR TRANSFORMING INDIAN AGRICULTURE' at CCSHAU, Hisar w.e.f. November 20-22, 2019,.

The seminar will provide an effective platform for the extension professionals and farmers, where they could interact with each other, development agencies and agricultural firms and update their knowledge. Participants can share as well as restore their confidence about their knowledge, upcoming methodological advances, new capacities required in wake of new challenges, opportunities in digital marketing, mechanism for addressing gender issues in agriculture and so on.

I commend the sincere efforts of the local and national organizers and extend warm wishes for successful organization of this event and hope fruitful recommendations for policy implications.

**Dr. U.S. Gautam**





**CCS Haryana Agricultural University, Hisar-125 004 (India)**



**Prof. R. S. Hudda**  
Director Extension Education

### *Preface*

Agriculture as a primary sector of Indian economy engages 54.6 per cent of population and contributes 17.4 per cent in its GDP. Since the first five year plan , we have achieved a milestone in food grain production from 50.8 MT in 1950-51 to 281.37 MT in 2018-19. It is obvious that the appropriate policy making and execution of research and extension programme led to this great achievement.

Extension has always been a key to accelerate the agricultural development since its origin. Although, we have achieved a lot through various traditional extension approaches and recent initiatives in agriculture, but it is also evident that asymmetric development has given a sharp rise in inequality among rural societies. The non-sustainable use of natural resources, climate change, revolution in information and communication technologies, changing trends in agricultural trade, fragmentation of land holding and migration of rural youth are the major challenges of Indian agriculture in present time.

The fast changing agricultural scenario with advent of inventions and innovations along with information revolution has opened tremendous opportunities for doubling farmers' income and sustainable entrepreneurship development. Farmer-Led Extension strategy and capacity building will definitely harness the opportunity for inclusive growth of agriculture as well as farming community. The community partnership especially for technological development and dissemination, socio-economic and environmental issues and agripreneurship development need to be focussed.

The National Seminar on "Socio-Digital Approaches for Transforming Indian Agriculture" during November, 20-22, 2019 organised at Hisar by Indian Society Extension Education, New. Delhi, CCSHAU, Hisar and BUAT, Banda (U.P.) would provide an appropriate platform for fruitful deliberations on socio-digital approaches and appropriate inventions & innovations for sustainable agricultural development and come out with pragmatic roadmap for strengthening the extension system as per future needs of the nation.

I extend my sincere wishes for the grand success of this seminar.

**R. S. Hudda**  
Organizing Secretary



## *About the Seminar*

Agriculture as a primary sector of Indian economy engages 54.6 per cent of population and contributes 17.4 per cent in its GDP. Since the first five-year plan, we have achieved a milestone in food grain production from 50.8 MT in 1950-51 to 281.37 MT in 2018-19. It is obvious that the appropriate policy making and execution of research and extension programmes led to this great achievement.

Extension has always been a key to accelerate the agricultural development since its origin. Although, we have achieved a lot through various traditional extension approaches and recent initiatives in agriculture, but it is also evident that the asymmetric development has given a sharp rise in inequality among rural societies. The non-sustainable use of natural resources, climate change, changing trends in agricultural trade, fragmentation of land holdings and migration of rural youth are the major challenges of Indian agriculture of present times.

The recent developments in Information and Communication Technology have created a number of digital platforms for agricultural development including GIS, remote sensing, expert systems, decision support systems, knowledge portals, e-marketing portals, etc. These platforms can support on three fronts, 1) Enhancing Agricultural Production; 2) Improving Market Access; and 3) Capacity-building and Empowerment. On the other hand, emphasis has also been given on development of new social initiatives with the recent concepts of FPOs, Market Federations, FIGs, CIGs, etc. Hence, there is a need of socially inclusive technological interventions based on new information society, strongly connected with the social and digital platforms. This paradigm shifts in the process of technology generation, their dissemination and adoption has opened limitless possibilities for researchers in agricultural sciences.

Are there any efforts made to blend social platforms with recent digital initiatives? If yes, then what is their impact? How much effective are they in dealing with major challenges in agriculture? Are they helpful in mitigating climate change? What constraints do they face? What is the evaluation mechanism?

In the purview of these questions, the proposed national seminar of ISEE has been planned to provide a forum to all the researchers and academicians engaged in different facets of agricultural sciences and rural development.

### **Thematic areas of the seminar:**

- Digital Strategies and approaches for sustainable agricultural development
- Innovations in Extension research and policy
- Advances in Capacity Building of farming community
- Empowerment of rural community through CBOs
- Digital approaches for secondary agriculture
- Smart approaches for technology Assessment and dissemination
- Convergence models for economic prosperity
- Strategies for Entrepreneurship Development in Agriculture
- Technological Interventions for Climate Smart Agriculture
- Initiatives for Food and Nutritional Security for Rural Communities
- Challenges and Opportunities in Digital Marketing
- Mechanism for addressing Gender issues in agriculture

### **About the Indian Society of Extension Education, New Delhi:**

Indian Society of Extension Education was established on June 2, 1964. At present, there are more than 2000 life members with the mission to advance the cause of extension education. This Society publishing quarterly Research Journal entitled, 'Indian Journal of Extension Education' since 1965. The Society organizes Seminars, Symposia, Workshops and Conventions at National and International levels on topics of national and international importance from time to time. The Society has brought out several Proceedings, Compendiums, Souvenirs, Seminar recommendations and Books on nominal cost. Indian Journal of Extension Education has got the highest NAAS rating i.e. 5.32 (w.e.f. 01.01.2017) among the Journals in the discipline of Extension Education.

### **About the Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana**

Chaudhary Charan Singh Haryana Agricultural University (CCSHAU), Hisar popularly known as HAU, is one of Asia's biggest agricultural universities, located at Hisar in the Indian state of Haryana established in 1970. It is renamed after India's seventh Prime Minister, Chaudhary Charan Singh on October 31, 1991. The main campus of the University is situated at Hisar at a distance of 162 km North - West of Delhi on National Highway No.10. It is leading State Agricultural University in India and contributed significantly in the areas of Research and Teaching. Its contribution towards Green Revolution and White Revolution in India during the years 1960s and 70s was remarkable. The University has one of the best developed campuses in India and fulfills academic and extra-curricular needs of the students and has several research centers throughout the state. CCSHAU, Hisar has won several prestigious Awards like Indian Council of Agricultural Research's Award for the Best Institute in 1997, Sardar Patel Outstanding ICAR Institute Award- 2016 , Haryana Kisan Ratna Award - 2019 and Krishi Siksha Samman Award-2019.

### **About the Banda University of Agriculture and Technology, Banda, Uttar Pradesh**

Banda University of Agriculture and Technology, Banda was established on 2nd March, 2010 under Uttar Pradesh Agriculture University Act (revised), 1958 Gazette-Adhiniyam, 2010 for the development of the agriculture and allied sectors in Uttar Pradesh in general and Bundelkhand region of the state in particular. The University has jurisdiction over Banda, Chitrakoot, Mahoba, Hamirpur, Jhansi, Lalitpur, and Jalaun districts. University is committed to serve the Bundelkhand region with trinity concept, i.e., complete integration of teaching, research and extension for the development of agriculture and allied sectors in order to ensure food security and enhance socio-economic status of inhabitants. Eleven Colleges dealing with Agriculture, Horticulture, Forestry, Home Science, Veterinary Science & Animal Husbandry, Agriculture Engineering & Technology, Agribusiness Management, Dairy Technology, Basic Sciences & Humanities, Food Science and Fisheries have been proposed in the master plan of the University. The University head quarter is being developed on 948 acre land and the campus is facilitated with college buildings, administrative buildings, and hostels for boys & girls, residences for staff, play ground, convenience centre, canteen, 33 KV substation, R.O. plant etc.

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