Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

2nd International Web-Conference

On

The Future of Food and Agriculture: Trends and Challenges (TFFA)

VAKSANA-2021

20-21 September, 2021

Venue: By online mode

Organized by

Shri Vaishnav Institute of Agriculture, Indore (M.P.), India







About the University

Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav Vidyapeeth Trust has sponsored the university to promote, implement and offer value based professional as well as vocational education and to organize personality and other training and development programs. Shri Vaishnav Vidyapeeth Vishwavidyalaya was established under Madhya Pradesh Niji Vishwavidyalaya (Sthapana Avam Sanchalan) Adhiniyam in 2015 at Indore, Madhya Pradesh (India). The University is a multi-disciplinary institution focusing on the needs of various segments of the society.

Following are the constituent institutes/schools of the university:

- Shri Vaishnav Institute of Technology and Science
- Shri Vaishnav Institute of Information Technology
- Shri Vaishnav Institute of Textile Technology
- Shri Vaishnav Institute of Forensic Science
- Shri Vaishnav Institute of Architecture
- Shri Vaishnav School of Management
- Shri Vaishnav Institute of Journalism and Mass Communication
- Shri Vaishnav Institute of Science
- Shri Vaishnav Institute of Social Sciences, Humanities and Arts
- Shri Vaishnav Institute of Computer Applications
- Shri Vaishnav Institute of Fine Arts
- Shri Vaishnav Institute of Commerce
- Shri Vaishnav School of Law
- Shri Vaishnav Institute of Agriculture
- Shri Vaishnav Institute of Home Science
- Shri Vaishnav Institute of Professional Studies
- Faculty of Doctoral Studies and Research

Besides these institutions, the University has established following Centres:

- Centre of Excellence in Plasma Research
- Centre of Vocational Studies
- Centre of Excellence in Happiness Studies
- Centre of Excellence in Sustainable Development

Shri Vaishnav Institute of Agriculture

Shri Vaishnav Institute of Agriculture was started in the year 2018. It commenced the classes of first year of four year bachelors program in agriculture from the academic session 2018-19, leading to the degree of B.Sc. (Hons) Agriculture. Students are imparted teaching and training in theory besides hands on experience as well as honing skills to ensure world class quality and create higher levels of intellectual abilities in them.

Shri Vaishnav Institute of Agriculture hosts the Centre of Vocational Studies, which imparts training in organic farming, mushroom cultivation and bee keeping to name a few.

The Institute has started post graduate program in agriculture leading to M.Sc. (Agri.)-Genetics and Plant Breeding, M.Sc. (Agri.) Entomology from the session 2020-21.

VAKSANA:

VAKSANA is a Sanskrit term and has many meanings like nourishing, invigorating, refreshing and fertile place. It was found appropriate to use *VAKSANA* for the seminars and conferences by the Institute of Agriculture. All crop production is successful over fertile soil and once this is established, food crops, plantations, fruit plants and even forests give refreshing feeling and invigorate within an individual the sense of satisfaction and joy. And, of course, people also get nourishment from its produce, both food as well as fresh clean air to breathe.

About the International Web-Conference

Scenario of food and agriculture

Though, gains in productivity and technological advances have contributed to more efficient use of natural resources and improved food security but due to climate change, intensification of natural disasters and increased upsurge in the movement of pests and diseases across boundaries of different countries, the sustainability of agricultural productivity and food security is threatened.

As per FAO report of 2017, there are 10 key challenges posed by prevailing trends that need to be addressed in order to eradicate hunger and poverty, while making agriculture and food systems sustainable.

Prevailing trends are:

- Population explosion: By 2050 world population is expected to be 10 billion and with growth in low and middle income group countries, more meat, fruits, vegetables and cereals will be required.
- Productivity growth is hampered by the degradation of natural resources, loss of biodiversity and spread of transboundary pests and diseases of plants and animals which are becoming resistant.
- Climate change due to green house emissions, deforestation and land degradation affects disproportionately food insecure regions of the world, hampering crop, livestock and fishery production.
- Though hunger and extreme poverty has been reduced due to progress in reducing rate of undernourishment and improving levels of nutrition and health but still a good chunk of population is hungry and malnutritioned.
- Increase in natural disasters and shift to capital intensive farming are affecting food availability, pushing underprivileged back into poverty and hunger and resulting into distress migration.

Aforesaid trends pose challenges to food and agriculture and need to be addressed.

- ✓ Needed are innovative systems that protect and enhance the natural resource base, while increasing productivity.
- ✓ Needed are transformative approaches such as agro-ecology, agro-forestry, climate smart agriculture and conservation agriculture that are built upon indigenous and traditional knowledge.

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- ✓ Needed are international collaborations to prevent transboundary pests and diseases.
- ✓ Needed are pro-poor growth strategies, addressing inequalities in levels of income, in opportunities and in the ownership of land and assests. Ensure weakest participates in market integration and investment in agriculture.
- ✓ Needed are social protection both in rural and urban areas combined with pro-poor growth for ending hunger and malnutrition through healthier diets and it requires building resilience to disasters and conflicts and preventing conflicts by promoting inclusive and equitable development.
- ✓ Need for more organized food systems that are efficient, inclusive and resilient and its governance is essential for meeting future challenges.
 - The 2030 Agenda for Sustainable Development embodies such vision.

Is there a future in agriculture?

There will be more of vertical and urban farming and there will be efforts to find new areas for production. Precision farming with soil testing-based decisions, automation using artificial intelligence will be focused for precise application of inputs in agriculture.

Government has made wide use of digital technology for generating awareness among farmers, information sharing, progressive schemes using digital technology for direct transfer of money called DBT. There will be use of satellites, IoT, drones for better collection of data regarding soil health, crop condition as far fertility status or pest infestation is concerned, crop area and yield. Many startups in agriculture taken up by highly educated young ones show that they understand the potential of putting money in this sector.

Now, question arises whether the farmer will be able to make use of these modern technologies where his education, land holding and economic level is low?

The answer is yes! Small and marginal farmers will also be using these technologies with the help of private players and through capacity building by way of tour and visits to different research stations as provided in various schemes of government.

Thus, it is hoped the present international web-conference will delve upon these issues and some innovative solutions will come out to sustain both agriculture and food security.

Theme – The Future of Food and Agriculture: Trends and Challenges (TFFA)

Sub- themes -

- ✓ Recent advances in Agriculture and Horticultural sciences
- ✓ Molecular approaches in agriculture and Horticulture
- ✓ Forest Protection and Management
- Current approaches and advances in Animal husbandry, dairy science and Poultry for increasing livelihood security
- ✓ Crop production technology and precision agriculture
- ✓ Post harvest technologies in agriculture horticulture crops
- ✓ Soil health and nutrient management for conservation of natural resources
- Recent advances and eco-friendly management of conventional and newly emerging insect-pest and plant diseases in agriculture and Horticulture crop ecosystem
- ✓ Advanced application plant breeding methods for improving plant varieties
- ✓ Sustainable agriculture and Environment Conservation
- ✓ Opportunities in Agriculture-Horticulture and allied fields
- ✓ Changing climate scenario and impact on agriculture and Horticulture crop ecosystem
- ✓ Role of Extension education in Agriculture and Horticulture sciences
- ✓ Role of Agri-Business Entrepreneurship, Innovation and Value Chains/Networks in Farmer Income Improvement
- ✓ Advance technologies in floriculture and landscaping
- ✓ Role of Agricultural Engineering in development of Agriculture and Horticulture crops
- ✓ Entrepreneurial potential of Beekeeping
- ✓ Mushroom cultivation: Scope and importance
- ✓ Scope and Importance of Agri-entrepreneurship.
- ✓ Developing the Entrepreneurial Skills of Farmers.
- ✓ Entrepreneurship in the Agricultural Sector: Challenges and Opportunities
- ✓ Conventional farming v/s Diversified Business
- ✓ Skill development to become Entrepreneurial by Diversification
- ✓ Opportunities in Agripreneurship
- ✓ Success stories under Agri-Clinics and Agri-Business Scheme of GoI
- ✓ Rural Women's empowerment through entrepreneurship
- ✓ Creating Jobs for Rural Youth in Agricultural Value Chain
- ✓ Social and Cultural Determinants of Entrepreneurship
- ✓ Agricultural Entrepreneurship Motivation Policies
- ✓ Modern Technological Advances & Strategies adopted for Extraction of Essential Oil & Preparation of medicines from MAPs
- Vermicomposting Unit An Agri-Business Enterprise

Call for Abstracts

Participants are invited to submit abstracts on their original and unpublished research work (maximum 300 words & 06 keywords) that should be written in Times New Roman font, double in spacing with 12 font size using Microsoft Word. Corresponding authors must be highlighted by asterisk (*) with complete mailing address. Authors are also requested to submit their own research work in the form of research and review papers on the diverse field of agricultural, environmental and biological sciences, not exceeding 5000 words. Papers/abstracts to be submitted online along with registration format vaksana.sviag2021@gmail.com

All accepted abstracts will be published in souvenir having ISBN and soft copy will be sent to all participants.

Conference Session

The conference session covering all the sub-themes will be supported by the Invited Talk, Lead Talk, Oral Presentation and Poster Presentation by eminent and leading scientists, teaching faculties and research scholars from India and abroad on the relevant topics of the International Conference through online mode and also on Youtube live.

Oral/Poster presentation confirmation will be sent to participant's email after completion of registration process.

| Conference Registration Fee | | | |
|---|--------------------------|-----------------------|--|
| Categories | SAARC Countries (INR) | Other Countries (USD) | |
| Students (UG & PG) | 200 | \$2 | |
| Ph.D. Scholar, JRF& SRF | 300 | \$4 | |
| Delegates/Scientists/ Professionals, RA &PDF | 500 | \$7 | |

*Note: Conference Registration Fee is Non Refundable/ Non-Transferable. Registration fee will cover only E-certificate and souvenir of the conference which will be sent by email to all registered participants.

For further queries and assistance, please contact:

Coordinator, Dr. Yuvraj Shinde Mob: +91-9763063179,

Dr. Narendra Chouhan Mob: +91 9713860772.

Registration fee may be sent by bank transfer NEFT/RTGS and by online UPI payment apps.

For the registration process link & form is given on last page.

| Mode of Payment & Account Details (NEFT/RTGS) | | | | |
|---|--|--------------------|--|--|
| Name of the Account | Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore | | | |
| Name of the Bank | HDFC Bank Ltd. | | | |
| Bank Address | Cloth Market, Indore (M.P.), India | | | |
| Account Number | 50100256398597 | | | |
| IFSC Code | HDFC0000281 | | | |
| MICR CODE | 452240003 | | | |
| Important Dates | | | | |
| Last date for Submission of Abstract | | 05 September, 2021 | | |
| Last Date of Registration | | 05 September, 2021 | | |
| With late fee (Rs. 1000/-) | | 08 September, 2021 | | |

Chief Patron

Hon'ble Shri Purushottamdas Pasari, Chancellor, SVVV, Indore, M.P. (INDIA)

Patron

Hon'ble Prof. Dr. Upinder Dhar, Vice Chancellor, SVVV, Indore, M.P. (INDIA)

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Dr. K.N. Guruprasad, Coordinator, SVIAg, SVVV, Indore, M.P. (INDIA)

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Technical Support Team

Mr. Nirmal Managre, SVIAg, SVVV, Indore Mr. Lokesh Baghele, SVIAg, SVVV, Indore

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Inaugural Address

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Prof. Dr. Upinder Dhar Hon'ble, Vice Chancellor, Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore, M.P. (India)

| Our Eminent Speakers | | | |
|----------------------|--|--|--|
| Sr.No. | Speaker Name | Profile | |
| 1. | | Director of Instruction & Dean (F/A), Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra | |
| | | Having 30 years of work experience in the area of Teaching, Research and Extension | |
| Dr. D. (Gues | Dr. D. N. Gokhale | Guided 35 M.Sc. and 05 Ph.D. Agriculture students as Chairman of Advisory Committee and Major Research Guide. | |
| | (Guest Speaker) | Contributed in research and has given several recommendations in the Joint Agresco Release Committee of different agronomical crops viz. Bt Cotton, Pigeonpea, Maize, Kharif Sorghum, Sunflower, Okra, and cropping system for the benefit of farmers. | |
| | 100 | Worked as Expert member on selection committee in Agriculture Universities. | |
| | 10 C | Acted as Convenor in several committies | |
| | | Nominated as a member of Editorial board of Indian Society of Agronomy, New Delhi for 2013-2014 and as a Councilor of Maharashtra in Indian Society of Agronomy, New Delhi for 2015- 2016 | |
| | | > Published number of research papers in reputed journals. | |
| | | He has been honoured with several Awards and Medals by different recognized NGO's and Societies such as Shiksha Ratna Puraskar and Certificate of Excellence, Glory of India Gold Medal and Dr. Radha Krishnan Gold Medal Award. | |
| 2. | 2. Dr. D. B. Deosarkar (Guest Speaker) | Director of Extension Education (DEE), Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra | |
| | | Having 30 years work exeprience in different capacities. | |
| | | Major contributions as a cotton breeder is release of hirsutum hybrids namely NHH206, NHH 250 and NHH 715 and hirsutum varieties namely NH615(Anusaya) and NH6353. Regarding desi cotton he has identified first intraspecific hybrid <i>i.e.</i> PHA 46 at CRS, Nanded and is involved in release of desi cotton varieties namely; Awata, PA08, PA528 and PA740. Nine cotton varieties were released and registered under PVP and FR Act namely PH348 PH545 PA402 NH615 PA 528 (IC number 597998) PA | |

08 (IC number 594477), PHH206 (IC number 616894) and

| | | NHH250 (IC number 616897). |
|----|---------------------------------------|--|
| | | Associated with development and release of 5 rice varieties <i>i.e.</i> Sugandha, Parag, Aavishkar, PBNR03-2 and TJP48. |
| | | Credited with Fifteen recommendations on various aspects of cotton production technology are in the "Package of Practices "of crop production. |
| | | Guided 18 M.Sc. and 08 Ph.D. Agriculture students as a Chairman of Advisory Committee and Major Research Guide. |
| | | He has published 75 research papers, 15 lead/ invited lectures were delivered in conference/symposium, 165 abstracts in national and international conference / symposium. |
| | | Life member of several professionals societies / associations. |
| | | Acted as a P.I. and Co-P.I. in three projects. As organizing secretary and convener, organised National Symposium and as a Course Director, training course was organized. Worked as Chairman of monitoring team of Cotton for Gujrat, Rajasthan and Tamil Nadu. |
| | | Receptient of several awards, honours, appreciations and recognitions like : Devi Lal Award AICCIP-2008, Best Ph.D. Thesis Award-2014, Best Teacher Award-2012 and Four Best Poster Presentation Awards. |
| | | Scientist, ICAR-National Dairy Research Institute, Karnal, India. |
| 3. | | He completed six months of commonwealth fellowship training in cattle embryology at the Ontario Veterinary College (Guelph, Canada, 2011) and one-year post-doctoral training on CRISPR- based genome editing in mice embryos at the FLI-Institute of Farm Animal Genetics (Germany, 2017-2018). |
| | Dr. Naresh Selokar (Guest Speaker) | He has contributed significantly to establishing a simplified, economical, and efficient handmade cloning (HMC) in buffalo. HMC is being in use to produce cloned and transgenic/edited buffaloes in India. Also established a somatic cell bio-bank of elite buffaloes. In addition, he has been working on other assisted reproductive techniques such as in-vitro embryo production (IVF), embryonic, adult and induced pluripotent stem cells, cryopreservation of somatic cells, oocytes and embryos, artificial insemination and embryo transfer |
| | | Authored more than 40 scientific papers in peer-reviewed journals, organized more than 10 scientific trainings/workshops/meetings. |
| | | Received several awards including most recent the Associate fellowship-2020 (NAAS, India), Young Scientist Platinum Jubilee Awards-2019 (NASI, India), Innovative Young Biotechnologist Award-2018 (DBT, India), Young Scientist Award-2015 (SERB, India), Jawaharlal Nehru award for |
| | | outstanding doctoral thesis research in agricultural and allied |
| | | |

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Registration form link: <u>https://forms.gle/LA6kEsVcCGmNzN5u9</u>

| Name: Mr. /Ms. /Dr. | /Prof. (In Block Letter): |
|------------------------|---|
| Designation: | |
| Organization: | |
| Mailing Address wit | th Pin Code: |
| E-mail: | |
| Contact Number: Ge | ender: |
| Title of Abstract/Pa | per: |
| Sub-theme: | |
| Category of Particip | ation (Faculty/Scientist/Research Scholar/Students/Others): |
| | Fee Details |
| Cash Receipt/NEFT | /Net Banking Ref. No |
| Date | Conference Registration Fee (Rs.) |
| Total Amount (Rs.) | |
| Date: Place: | |
| | Signature of Applicant |
| Note: Use vaksana.s | above registration form and send along with screenshot of fee receipt via E-mail to: viag2021@gmail.com |
| OR use go | ogle form link for registration: https://forms.gle/LA6kEsVcCGmNzN5u9 |