



# Event Brochure



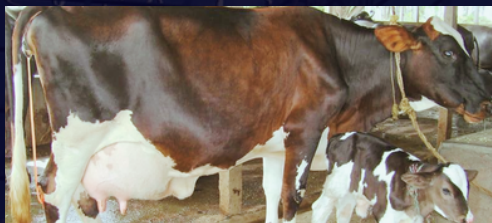
SKUAST-Jammu

# AgriThon 2024

Igniting young minds



ATTRACTIVE PRIZES



NHEP

## Precision & Economical Farming

(For students of higher education institutions of UTs of J&K and Ladakh)



<https://skuast.org/AgriThon/>

Free  
registration

### Organizer

Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu

MAIN CAMPUS CHATHA - 180009, JAMMU, J&K, INDIA

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# AgriThon 2024

## Precision and Economical Farming

### About the AgriThon



SKUAST-Jammu is organizing AgriThon – 2024 for inviting innovative and out of box solutions to the problems faced in agriculture. The event provides a useful platform to the students of higher education institutes in the UTs of Jammu & Kashmir and Ladakh to showcase their innovative approaches & technology solutions on precision and economical farming. The final event will be held at SKUAST-Jammu, Main Campus Chatha, Jammu - 180009 (J&K).

### Eligibility for participation



1. Students, faculties and innovators/entrepreneurs from any higher education institution across the UTs of Jammu & Kashmir and Ladakh can apply and participate in the event in the form of a group.
2. The group should comprise of maximum 4 participants, with no more than one faculty and one innovator or entrepreneur.
3. Participating students can collaborate with local start-ups/entrepreneur/innovator operational in UTs of J&K and Ladakh only.
4. Group size must not exceed four members and participation of at least two students in each group of four members is mandatory.
5. Student will be the team leader in each group.
6. Participation of team member / leader is restricted to only one team / idea
7. Participation of all team members and leader should be restricted to only one team.
8. Faculty members from any institute, if involved in organizing/evaluation committee cannot participate in the event as member of the group.

### Thematic areas



This event is intended to invite and encourage students to submit innovative and out of box solutions for the selected problem statements. The participants will be presenting their technological and managerial interventions for emerging challenges in J&K and Ladakh. Innovations in livestock, crop farming, mechanization and post-harvest production are the main thematic areas for this event.

**Theme I: Innovations in Livestock, Dairying, Poultry & Fish Farming**



**Theme II: Innovations in Crop and Horticulture Farming**



**Theme III: Innovations in Farm Mechanization, Digital Agriculture & Automation**



**Theme IV: Innovations in Post-harvest, Value addition, Supply chain & Logistics**





## Problem statements

Following are the problem statements under each thematic areas on which applicants can showcase innovative approaches and technological solutions to promote precision and economical farming.

### THEME I: INNOVATIONS IN LIVESTOCK, DAIRYING, POULTRY & FISH FARMING

- 1.1. Climate smart livestock, dairying, poultry and fish farm management
- 1.2. Precision livestock, dairying, poultry and fish health management
- 1.3. Innovative tools for reducing drudgery in livestock, dairying, poultry and fish farming
- 1.4. Livestock and poultry farm mechanization automation and robotization
- 1.5. Telemedicine, telehealth, and health Information modules
- 1.6. Artificial Intelligence (AI) and Machine Learning (ML) based forecasting models of livestock dairying, poultry and fish diseases
- 1.7. Innovative tools for estrus and early pregnancy detection in large animals
- 1.8. Wealth/ Green energy from livestock, poultry and fish waste and bio-wastes
- 1.9. Innovative methods for animal identification and traceability
- 1.10. Innovative livestock, dairying, poultry and fishery business models
- 1.11. Digital platform/e-market module for animal, animal products/by products
- 1.12. Innovative tools for detection of adulterants, detergents etc. in milk, meat and their products
- 1.13. Any other problem relevant to the theme

### THEME II: INNOVATIONS IN CROP AND HORTICULTURE FARMING

- 2.1. Precision agriculture including application of AI, sensors, Augmented Reality (AR) and Virtual Reality (VR), Internet of Things (IoT) and drones for production planning and price risk reduction
- 2.2. Seed supply chain management, enterprise resource planning & block chain enabled technology for seed production, distribution and marketing for smart agriculture
- 2.3. Decision support system for pest prediction, forewarning & crop management
- 2.4. Innovations for increasing Water Use Efficiency (WUE) and Nutrient use Efficiency (NUE) in agriculture and horticulture
- 2.5. Business models for biofortified crops and edible oil value chain
- 2.6. Climate smart agriculture and horticulture technologies to reduce food miles and carbon footprints
- 2.7. Wealth from agriculture / horticulture waste and biowaste into value-added bioproducts
- 2.8. Smart farming tools for monitoring soil and plants nutrients
- 2.9. Farm data management and sharing in agriculture
- 2.10. Mechanization, automation and robotics in crop and horticulture farming
- 2.11. Smart storage and dispensing machines for food grains using sensors
- 2.12. Geospatial application for smart agriculture and horticulture
- 2.13. Traceability solutions for supply chain and agricultural logistics
- 2.14. Postharvest innovations in agriculture and horticulture crops
- 2.15. Any other problem relevant to the theme

## THEME III: INNOVATIONS IN FARM MECHANIZATION, DIGITAL AGRICULTURE & AUTOMATION

- 3.1. Digital automation and robotics in agriculture and allied sectors
- 3.2. Intermediate machines for high land precision farming
- 3.3. Women friendly equipment for small farm operations
- 3.4. Real time assessment of soil qualities and precise application of the fertilizers
- 3.5. Intelligent sensors to save water and fertilizer for adapted agriculture
- 3.6. Real time detection of plant diseases and simultaneous site-specific application of pesticides
- 3.7. Device for contactless detection of biotic and abiotic stresses to crops
- 3.8. Automatic transplanter/seeder/weeder /harvester
- 3.9. Robotic harvesting of fruit & vegetables in multiple picking crops
- 3.10. Yield monitoring without crop harvesting
- 3.11. Machinery for crop residue collection, handling, storage and management
- 3.12. Solar Assisted E- machines, tractors etc for small scale farming
- 3.13. Any other problem relevant to the theme

## THEME IV: INNOVATIONS IN POST-HARVEST, VALUE ADDITION, SUPPLY CHAIN & LOGISTICS

- 4.1. Smart technologies for value added products from crop residues/milling by-products
- 4.2. Detection of veterinary drug residues in animal food products such as meat, eggs and milk etc.
- 4.3. Detection of adulterants and chemical compounds in fruits and vegetables
- 4.4. Smart monitoring and surveillance of food contamination
- 4.5. Application of Artificial Intelligence (AI) in food industry
- 4.6. Tools for food analysis, traceability and authenticity of food quality and safety monitoring in food supply chain
- 4.7. Postharvest innovations in agriculture, livestock, poultry and fishery sector
- 4.8. Alternatives of chemical ripening in fruits and vegetables
- 4.9. Management of post-harvest losses in fruit and vegetables supply chains
- 4.10. Value addition, cold storage and logistics in post-harvest management
- 4.11. Value addition, packaging and transportation of livestock, poultry, fishery, fruits, vegetables etc.
- 4.12. Any other problem relevant to the theme

### Event framework



The event will take place at two levels. The first level includes submission of concept note and its screening. The second level will include presentation of screened ideas before the judgement committee for final evaluation.

Level I	Level II
<ul style="list-style-type: none"> <li>• Teams will submit concept note on their problem statement under appropriate thematic area.</li> <li>• The concept note must not exceed 500 words.</li> <li>• It should be precise, unambiguous and must have title, justification, methodology, potential impact, technological &amp; economic feasibility and conclusion.</li> <li>• After screening by the experts of different domains, selected participating team will be notified / informed well in advance to present their solution before the evaluation committee in the second stage.</li> <li>• At level I, the entries will be evaluated based on the uniqueness of the concept/idea, problem redressal, attractiveness of solution, value proposition &amp; plan to scale-up of technology etc.</li> </ul>	<ul style="list-style-type: none"> <li>• About 15 minutes time will be allocated for the technical presentation (maximum duration of 10 minutes followed by 05 minutes discussion) physically through the pre-defined PPT template (available at <a href="https://skuast.org/AgriThon/">https://skuast.org/AgriThon/</a>).</li> <li>• Team may use any other mode for describing their idea, followed by discussion, besides presentation before the judging committee.</li> <li>• At level II, the screened ideas will be evaluated based on the uniqueness of the novelty, value proposition, market strategy, team composition &amp; involvement, risk factors/challenges &amp; strategy to overcome.</li> </ul>

## How to Apply



Interested participants (team) may register for the event by filling an on-line form through the URL: <https://skuast.org/AgriThon/>

OR

Scanning QR code



## Awards



	Position	Cash Prize under each theme (₹)
Winners from each theme (04) will be felicitated with cash prize and citations	First	1,00,000/-
	Second	50,000/-
	Third	25,000/-
	Consolation	10,000/-

\*All screened applicants will get a certificate of participation if they appear for final presentation

## Timeline



Particulars / Events	Deadline
<b>First level</b>	
Announcement	: 1 <sup>st</sup> June 2024
Registration & concept note submission	: 5 <sup>th</sup> June to 25 <sup>th</sup> June 2024 (12.00 AM)
Screening of concept note (Level I)	: 26 <sup>th</sup> June to 5 <sup>th</sup> July 2024
Evaluation & results (Level I)	: 6 <sup>th</sup> to 12 <sup>th</sup> July 2024
<b>Second level</b>	
Presentations of screened ideas at Level I	: 24 <sup>th</sup> to 26 <sup>th</sup> July 2024
Announcement of results	: 29 <sup>th</sup> July 2024

## Terms & Conditions

- There is no registration fee for participating in the event
- Physical presence of team leader along with atleast two members at second level is compulsory for presentation.
- Screened teams for Level II shall borne all the expenses, including travelling, stay etc.
- Participants has the sole responsibility of not using any content protected under third party rights
- The final results of second level will be communicated to Team leader through e-mail
- Decision made by the judges will be final and no request shall be entertained to review the judgement
- Entries submitted only in the prescribed format will be entertained
- Organizer reserves the right to change the terms without prior notice

## Organising Committee

Name	Designation	Position
<b>Prof. B.N. Tripathi</b>	<b>Hon'ble Vice Chancellor, SKUAST-jammu</b>	<b>Chairman</b>
Dr. Amrish Vaid	Director Extension	Co-Chairman
Dr. Rajinder Peshin	Director Education	Member
Dr. S.K. Gupta	Director Research & Registrar	Member
Dr. Sanjay Khar	Director, Planning & Monitoring	Member
Dr. Sudhakar Dwivedi	Dean Student Welfare	Member
Dr. Rajesh Katoch	Dean, Faculty of Vety. Sc. & AH	Member
Dr. Anil Kumar	Dean, Faculty of Agriculture	Member
Dr. S.E.H. Rizvi	Dean, Faculty of Basic Sciences	Member
Dr. Sushil Sharma	Dean, Faculty of Agril. Engineering	Member
Dr. Vikas Tandon	Dean, Faculty of Horticulture & Forestry	Member
Dr. R.K. Salgotra	Director, Institute of Biotechnology	Member
Dr. Jasvinder S Soodan	Dean, Faculty of Dairy Technology	Member
Dr. Jyoti Kachroo	Prof. & Head, Division of AEABM	Member
Shri Madan Lal	Comptroller	Member
Shri Iqbal Singh	Estates Officer	Member
Dr. Manish Sharma	Prof. & Head, Division of Stat. & Computer Sc.	Member & e-Platform Organizer
Dr. Hema Tripathi	Associate Director Extension	Organizing Secretary-I
Dr. Vikas Sharma	Prof. & Head, Soil Sc. (PI, IDP-NAHEP)	Organizing Secretary-II
Dr. Punit Chowdhary	Chief Scientist & Head, KVK Jammu	Co-organizing Secretary-I
Dr. Pawan K Sharma	Chief Scientist (Agril. Economics)	Co-organizing Secretary-II