भाकृअनुप
ICAR

NAVSARI AGRICULTURAL UNIVERSITY

NAHEP

HACKATHON ON
SMART AND REMUNERATIVE FARMING
Event Brochure

ORGANIZED BY

Centre for Advanced Agricultural Science and Technology (CAAST)
Directorate of Research
Navsari Agricultural University
Navsari-Gujarat (INDIA)
www.nau.in
https://nahep.nau.in/

IN COLLABORATION WITH

ndri
IVRI
IRMA INSTITUTE OF RURAL MANAGEMENT ANAND
CAFRI

BACKGROUND

This event is envisioned to offer an opportunity to the students, faculties and/or entrepreneurs/innovators to showcase their innovative approaches and technology solutions to promote smart and remunerative farming practices in India. Further, this initiative of NAHEP-CAAST-NAU, Navsari in collaboration with Indian Veterinary Research Institute, Izatnagar, Uttar Pradesh; National Dairy Research Institute, Karnal, Haryana; Centre for Social Entrepreneurship & Enterprises (CSEE): Institute of Rural Management, Anand, Gujarat and Central Agroforestry Research Institute, Jhansi, Uttar Pradesh and Dr. Babasaheb Ambedkar Technological University, Lonere, Maharashtra will act as a catalyst to enhance learning capabilities, innovativeness, employability and entrepreneurial drive in the agriculture and allied sector.

THEMATIC AREAS

This event is intended to invite and encourage participants to come out with an innovative and out of box solutions for the problem statement. The participants will be presenting an efficient and sustainable solution through technology and managerial intervention for emerging challenges at local and/or national level. Livestock, agriculture, forestry and food quality are the main thematic areas for this event.

PROBLEM STATEMENTS

Following are the problem statements from different thematic areas on which participants can showcase their innovative approach and technological solutions to promote smart and remunerative farming practices.

Sr. No.	Problem statement
Theme 1 : Livestock sector (Cattle, Buffalo, Sheep and Goats only)	
i.	Wealth from livestock waste
ii.	Sensors for management and health of livestock
iii.	Artificial intelligent system/tool for optimum productivity, better health and welfare of animals
iv.	Value addition of milk and milk products
v.	Climate smart dairy farming
vi.	Farm data management and sharing in livestock farming
vii.	Dairy farm mechanization automation and robotization
viii.	Nutrition, breeding, management and diagnostic interventions for livestock
ix.	Technology options for relief and rescue of animals in Disaster
x.	Innovative livestock business models
Theme 2: Agriculture sector	
i.	Wealth from agricultural waste

ii.	Postharvest innovations in agricultural and horticultural crops
iii.	Mechanization, automation and robotics in agriculture
iv.	Disease and pest warning and prediction system in agriculture
v.	Sensors for increasing productivity in agriculture
vi.	Artificial intelligence in agriculture
vii.	Climate smart agriculture
viii.	Drones for agriculture
ix.	Farm data management and sharing in agriculture
x.	Innovative agripreneurship models
Theme 3: Forestry sector	
i.	Wealth from forest/agroforestry waste
ii.	Value addition of NTFPs and MAPs for newer entrepreneurial opportunities
iii.	Artificial intelligence/drones/GIS/remote sensing in forestry
iv.	Scope of invasive and non-invasive plant species for utilization
v.	Climate smart agroforestry
vi.	Data management and sharing in forestry
vii.	Innovative forestry business models
viii.	Tree breeding & management of fast-growing indigenous species
ix.	Forest protection & technological interventions against theft and disaster
x.	Forestry mechanization, automation and robotics
Theme 4: Food quality and safety	
i.	Control over prohibited food colorants and other food additives
ii.	Pesticides, mycotoxins and veterinary drugs residues in raw and processed foods
iii.	Monitoring and surveillance of the quality of food
iv.	Foodomics-A Promising Tool for Food Analysis
v.	Traceability and authenticity of food
vi.	Quality and safety monitoring in food supply chain
vii.	Application of Artificial intelligence in food industry
viii.	Green analytical chemistry in food analysis
ix.	Alternatives of chemical ripening agents
x.	Family farmer: Potential and future

AWARDS

Winners from each theme will be felicitated with cash prize and citations.

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

Position	**Cash prize** (INR in thousand)
1	25000.00
2	15000.00
3	10000.00

ELIGIBILITY FOR PARTICIPATION

This will be a team event. A team comprising of students, faculties and/or innovators from any university/technical institution across the country can participate in this event. This team will comprise of maximum 4 participants, with no more than one faculty and/or one innovator/entrepreneur. Participating students can collaborate with national level technology institutes and/or local start-ups/industry. Participation of two students in each team is mandatory and student will be the team leader in each group. Participation of an individual is limited to only one team of this event.

HOW TO APPLY

Interested participants (team) can register in this event by filling an online form through this URL : https://nahep.nau.in/nahep_hackathon/register or scanning QR code given in this brochure. You can fill registration form only once therefore take utmost care to do so.

HOW THIS EVENT WILL BE CONDUCTED

This event will be conducted in two stages. In the first stage teams will submit concept note on their problem statement. The concept note must not exceed 500 words. It should be explicit and must have title, justification, methodology, potential impact, technological & economic feasibility and conclusion. After screening, selected participants will be notified to present their solution (product/practices) for the problem statement (offline/online/hybrid mode) before the expert committee in the second stage. About 15 minutes time will be allocated for the presentation and discussion. The presentation should focus on innovativeness, market need, scalability, technical and economic feasibility, budget requirement, stage of development and potential impacts etc of the solution (product/practice). The right to reject any entry at any stage of this event remains with organizers if there are any discrepancies. Final decision/s of the judging committee will be acceptable to all and no representation against their decision/s will be accepted.

TIMELINE

Particulars	Deadline
Registration	23rd February, 2022
Screening result	25th February, 2022
National level event	05th March, 2022
Announcement of final result and awards	05th March, 2022

ADDRESS FOR CORRESPONDANCE

NAU-CAAST Secretariat

Directorate of Research

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Contact No.: 9099062296, 9106829400

ORGANIZERS

PATRONS

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CHAIRMEN

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Dr. M.S. Chauhan, Director, National Dairy Research Institute, Karnal, Haryana

Dr. A. Arunachalam, Director, Central Agroforestry Research Institute, Jhansi, Uttar Pradesh

Dr. Triveni Dutt, Director, Indian Veterinary Research Institute, Izatnagar, Uttar Pradesh

Dr. Karbhari Vishwanath Kale, Hon'ble Vice-Chancellor, BATU, Lonere, Maharashtra

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Prof. Kirti Bardhan, Assistant Professor (Crop Physiology,), CoF, NAU, Navsari

REGISTRATION FORM

(This is a sample registration form. Follow given URL or scan QR code to get registered)

1. Name :
2. Father`s name :
3. Age :
4. Sex :
5. Social category :
6. Designation :
7. Degree programme :
8. Major subject :
9. College :
10. University/institute :
11. State :
12. Mobile No. :
13. Email Id :
14. Upload your photo :
15. Fill details of your team (minimum 03 and maximum 04 member per group, not more that 01 faculty and 01 Entrepreneur/Innovator in each group)

https://nahep.nau.in/nahep_hackathon/register

Sr. No.	Name	Designation	Major subject	Institute	Mobile No.	Email Id
a.	Team leader: student	Student				
b.	Student	Student				
c.	Faculty					
d.	Entrepreneur/Innovator					

16. Your thematic area: drop down, Theme 1, Theme 2, Theme 3, Theme 4
17. Your problem statement (with serial no as per brochure):
18. Whether this proposal was submitted for thesis research work/any other competition/agency earlier Yes/No
19. If yes then provide details (name of persons, title, agency/competition, output) and output of its earlier submission
20. Paste your concept note in the box given below (Maximum 500 words are allowed)
21. I accept all terms and conditions of this event.
22. Submit