



PUSA KRISHI



COHORT 2024

Introduction

Pusa Krishi, IARI, a leading institution in agricultural innovation and entrepreneurship, has long been at the forefront of nurturing agri-startups in India. With the launch of its startup incubation programs, UPJA and ARISE, on April 1, 2024, Pusa Krishi reaffirms its commitment to empowering the next generation of agripreneurs. These programs are designed to equip aspiring entrepreneurs with vital resources, mentorship and funding to turn their innovative ideas into successful ventures.

Under the RKVY RAFTAAR scheme of the Ministry of Agriculture and Farmers Welfare, Pusa Krishi has intensified its efforts to foster a robust agri-startup ecosystem. UPJA focuses on established agri-startups, providing required support for technology validation, pilot testing and market entry. Startups at the Minimum Viable Product (MVP) stage can obtain funding of up to Rs. 25 lakhs, accelerating their growth and success.

On the other hand, ARISE caters to early-stage agri-startups, offering comprehensive mentoring and industry exposure to help refine and develop their innovative concepts. With funding of up to Rs. 5 lakhs, this program is tailored to nurture the entrepreneurial spirit in agriculture, ensuring impactful solutions emerge to meet the sector's challenges.

This year, the program has been expanded to include student entrepreneurs, providing selected candidates with Rs. 4 Lakhs to develop their products. Together, these initiatives reflect Pusa Krishi's dedication to advancing the agri-tech landscape and fostering sustainable agricultural development.

Message

Latest agricultural technologies and innovations are transforming the future of agriculture by making it more efficient and sustainable. Precision farming, fueled by data analytics, optimizes resource use for higher yields and less waste. Drones enable rapid crop health monitoring, facilitating timely interventions. Meanwhile, biotechnology is creating resilient crop varieties that bolster food



Dr. TR Sharma
Director, IARI

security. These advancements empower farmers, enhancing productivity and improving their quality of life.

This year's handpicked startups, representing some of the brightest minds in our country, are bringing forth transformative ideas that have the potential to reshape agriculture. By leveraging cutting-edge technologies, they aim to improve farming practices, increase productivity, and ensure food security for everyone.

I take great pride in how Pusa Krishi is nurturing these startups, offering them the necessary support and resources they need to thrive. Together, we can tap into the potential of technology to foster sustainable growth, benefiting our farmers and positioning India as a leader in agricultural advancement.

Heartiest Congratulations to the startups of the 2024 cohort! Let us work hand in hand to build a future where technology and agriculture work in harmony, paving the way for a prosperous and sustainable India.

Message

Research and technology are the driving forces behind the transformation of agriculture sector. The startups selected for this year have been chosen for their unique ability to combine research insights with innovative technology, positioning them to make a significant impact. Pusa Krishi is not just an incubator; it's a dynamic space where research and entrepreneurship come together, paving the way for solutions that will shape the future of agriculture.



Dr C Viswanathan
Joint Director (Research)

Our dedication to nurturing innovations, alongside cutting-edge advancements, will lead to breakthroughs that tackle the pressing challenges faced by our farmers.

To the 2024 cohort, "Your commitment to merging research with entrepreneurial spirit is truly inspiring. Together, we envision a future where technology enhances farming in transformative ways."

Congratulations to each of you for being pioneers in this exciting journey. Your efforts shine a light on the path to research-driven advancements in agriculture!

Message

I am excited to welcome the 2024 cohort of UPJA and ARISE incubation programs! This year, we have chosen 41 outstanding startups that truly represent the innovation and strength of India's agricultural sector. In a country with a strong agricultural tradition, we believe that entrepreneurship is the driving force behind meaningful change. You, our chosen startups, embody this spirit and are dedicated to making a significant impact in the agricultural sector.



Dr. Akriti Sharma
CEO Pusa Krishi, ICAR – IARI

At Pusa Krishi, we provide essential support through technical mentoring and validation, ensuring the right product-market fit, financial management, IP management, team building, industry connections, business mentoring, pilot opportunities and investment facilitation. Together, we can enhance resource management, embrace cutting-edge technologies and work towards securing food stability for our nation.

As we embark on this exciting journey, remember that true success is built on perseverance, adaptability and a passion for innovation. Embrace the opportunities that lie ahead, foster meaningful partnerships and make the most of every experience.

On behalf of entire Pusa Krishi team, I extend my heartfelt congratulations to the 2024 cohort. Let's work together to plant the seeds of innovation and cultivate a fruitful future for Indian agriculture!



Yellows & Whites Pvt Ltd

<https://yellowsandwhites.in>

Team



Yash Jaiswal
Co-Founder



Ashutosh Khungar
Co-Founder



Aditya Kotturu
Co-Founder



Post-Harvest, Food
Technology



UPJA 2024



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Tech Brief

Yellows & Whites provides pasteurized liquid eggs for culinary safety and efficiency, while repurposing eggshells into affordable agro supplements to stabilize farmer incomes and promote sustainability.

Team



R Kennedy Prakash
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K Mallika
Co-Founder



RK Sonika
Co-Founder



RK Sneha
Co-Founder



Post-Harvest, Food Technology
& Value addition



UPJA 2024



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Tech Brief

TAaral Exports is partnering with organic coconut farmers across 7,000 acres to manufacture premium organic coconut products free from preservatives, chemicals, and additives. This initiative positions Aaral Exports as a leading icon in the organic market, providing high-quality, genuine organic coconut products to meet the growing demand of high-quality product manufacturers and health-conscious consumers.



Team



Shshank Shrivastava
Co-Founder



Sabnam Kumari
Co-Founder



Waste to Wealth & Green
Energy in Agriculture



UPJA 2024



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Tech Brief

Planterra Banana Fibre is transforming banana waste into vegan leather which replaces the use of traditional animal leather. This sustainable alternative is eco-friendly, cruelty free and empower local farmers.

Team



Karthikkumar D
Founder



Agricultural Inputs &
Biotechnology



UPJA 2024



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Tech Brief

Viyen Biotech's product BIO-exPa is based on green nanotechnological nutrients encapsulated by biopolymers, ensuring no residue. This approach enhances plant growth by using sustainable green raw materials, significantly promoting the uptake of both macro and micronutrients.



Bhoomi AI Solutions Pvt Ltd

<https://bhoomiai.com>

Team



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Co-Founder



Janit Anjaria
Co-Founder



Precision Agriculture



UPJA 2024



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Tech Brief

Bhoomi AI Solutions has developed a real-time advisory platform that utilizes machine learning models to identify pests and crop diseases from images uploaded by farmers. Once the issue is diagnosed, the system recommends appropriate pesticides or alternative treatments.



Aqua Doctor Solutions

<https://efishtutor.com>

Team



Debtanu Barman
Founder



Agriculture Allied Sectors



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UPJA 2024



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Tech Brief

Aqua Doctor Solutions offers solutions encompassing Digital platform for Aquaculture E-learning and consultations with multilingual support, facilitating knowledge dissemination and technical guidance. Additionally, an e-commerce platform offers various services, including high-quality Inputs supply chain, Doctor's call on services 24x7 and market linkages.

Team



Jubin J Kurichiyil
Co-Founder



Irene Antony
Co-Founder



Waste to Wealth & Green
Energy in Agriculture



UPJA 2024



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Tech Brief

AquaSnc Innovations is refining and packaging refined rubber wood ash rich in calcium and chlorine. It treats effluent water when mixed with nitrogen gas, aiding aeration and making water reusable. Decanter separates sludge leaving calcium-rich ash for soil amendment and crops.

Team



Nitin Saraswat
Founder



Precision Agriculture



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Tech Brief

AiPorff Software Consulting has developed PashuTham, an AI-powered solution that harnesses solar energy and employs advanced algorithms to detect and deter wildlife from invading farmland. It uses targeted audio and video frequencies in real-time through an EDGE device and a mobile app.



Diagopreutic Private Limited

<https://diagopreutic.co.in>



Team



Roshan Ratnakar Naik
Co-Founder



Lakshmi Swaroopa Naik
Co-Founder



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Tech Brief

Diagopreutic has developed colour-based rapid antimicrobial susceptibility tests for bovine mastitis diagnosis. Also, quick and accurate testing kits that detect antibiotic residues in food products like milk and meat ensuring food safety.



Team



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Co-Founder



**Gurusami
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Co-Founder



Baskar Balaji
Co-Founder



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Tech Brief

Farmxt Innovate provides drone spraying solutions to address limitations of traditional methods. The precise drone application ensures even coverage, reduces chemical wastage, and minimizes farmer exposure to chemicals.



Team



**Dr. Omkar
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Co-Founder



**Dr Prakash
Joshi**
Co-Founder



Madhavi Kokate
Co-Founder



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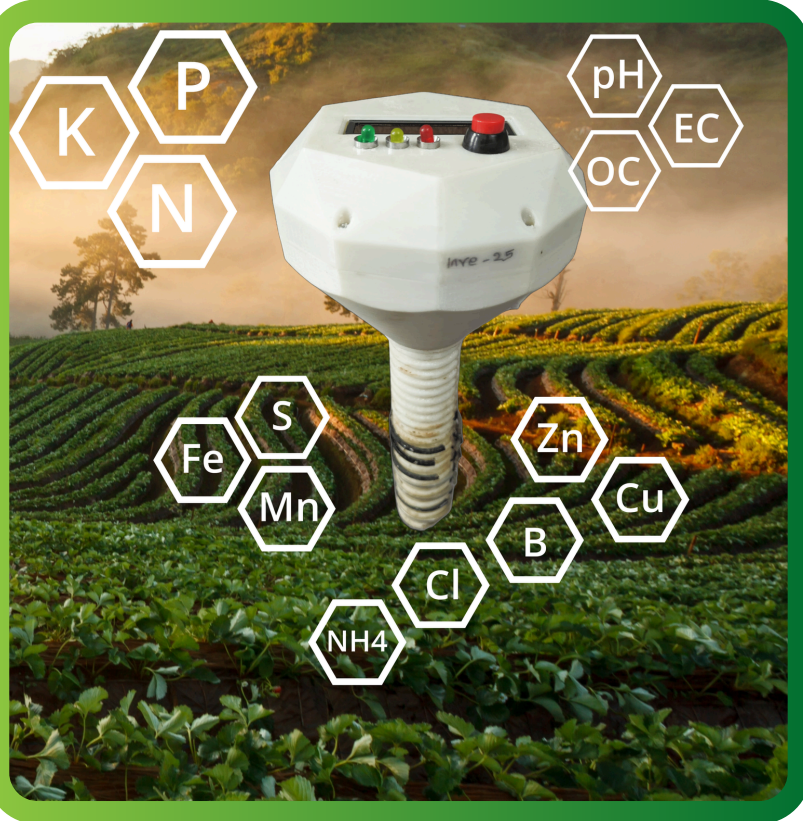
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Tech Brief

Hornet Biologicals has developed 6Sense – Aries chip that offers advanced genetic screening for Indian sheep, improving traits, resilience, and sustainability while reducing economic losses for small-scale breeders through informed breeding decisions.



Team



Aseem Johri
Co-Founder



Ankit Shivdasani
Co-Founder



Precision Agriculture



UPJA 2024



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Tech Brief

The company provides adaptable, affordable plug & sense module. It is accurate quick soil testing product with life of more than 1000 test. It doesn't require frequent calibration which decreases the operating cost.



KVB Green Energies

<https://www.kvbgreenenergies.com>

Team



Gagan Deep K V
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Nagarjun Narayan
Co-Founder



Post-Harvest, Food Technology
& Value addition



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Tech Brief

KVB Green has launched a hybrid Solar Tunnel Dryer that combines and electric power. This technology effectively preserves agricultural produce, significantly reducing post-harvest losses.



Littlewild Agri Pvt Ltd



Team



Sonu Rana
Managing Director



Rajiv Chauhan
Founder



Post-Harvest, Food Technology
& Value addition



UPJA 2024



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Tech Brief

Littlewild Agri makes pre-portioned servings fruit snacks that are delicious and retain the essential vitamins, minerals and antioxidants found in fresh fruits with the use of dehydration technology.

Team



**Vaibhav Balu
Wagaskar**
Co-Founder



Dattatraya Shelke
Co-Founder



Mechanization of
Farming



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UPJA 2024



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Tech Brief

Payoja Agri Innovations has developed an automated onion stalk removal machine that can be attached to a Tractor, which significantly reduces time, labour and costs.

Threshkart Agriculture Pvt Ltd



Team



Amandeep Singh
Co-Founder



Sumandeep Juneja
Co-Founder



Mechanization of
Farming



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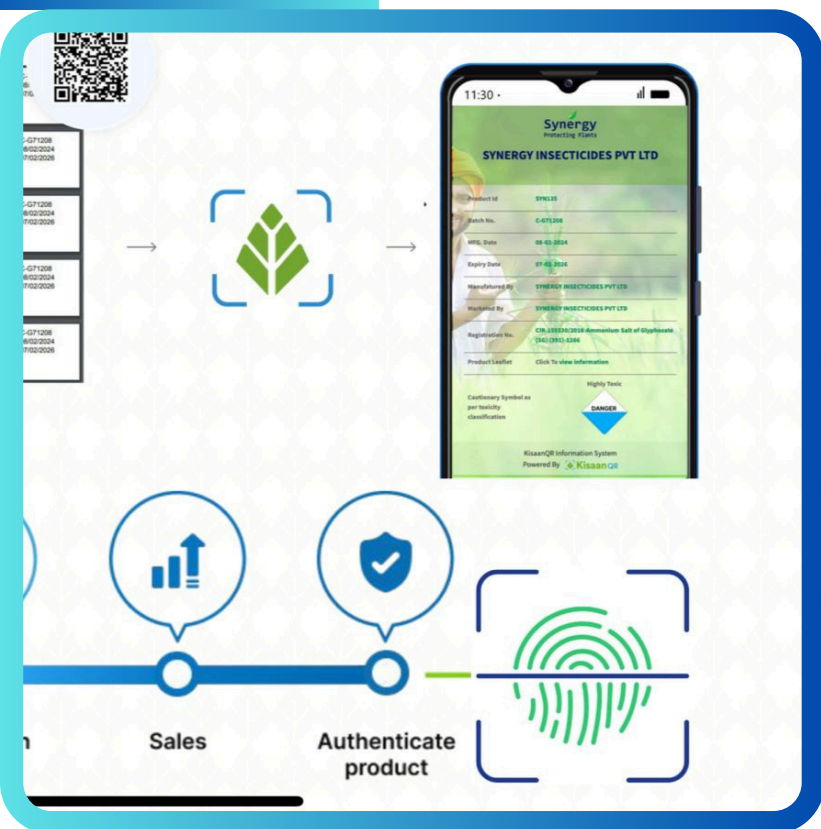
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Tech Brief

Threshkart Agriculture is working on a groundnut cum multicrop thresher solution with a rear-mounted feeding system. It's designed to boost groundnut harvesting efficiency, streamline operations, and enhance safety for smallholder farmers.



Team



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**Javagal
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Co-Founder

 Supply Chain & Agriculture Logistics

 UPJA 2024

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Tech Brief

Scalion Commerce offers AI powered B2B SaaS solutions to Agri Businesses for Supply Chain Traceability, Brand Protection, Comply with Govt norms.

Aqua Booster



Team



Hari Ramaraju
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K Mallika
Co-Founder



Dr. Sampath
Co-Founder



Dhana Malladi
Co-Founder



Agriculture Allied
Sectors



UPJA 2024



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Tech Brief

Seaweedz Energy offers a cutting-edge platform that integrates satellite and remote sensing, IoT, and cloud services to promote sustainable seaweed aquaculture. It also includes solutions like sea-feed, essential minerals, biomin, and aqua-boosters to enhance productivity and sustainability in aquaculture.



Sparkyai Private Limited

<https://sparkyaiprivatelimited.netlify.app/>

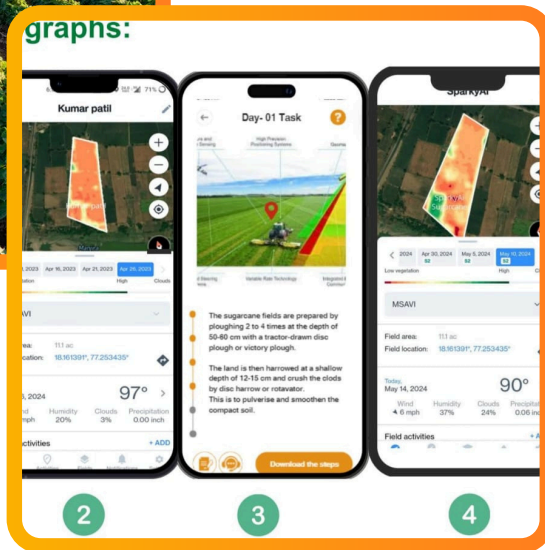
Team



Anurag
Co-Founder



Kumar
Co-Founder



Precision Agriculture



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Tech Brief

Sparkyai is providing real-time advisory to farmers by analysing the farm data with the help of integrated satellite data and machine learning model.



FPO Bazar Private Limited

<https://fpobazar.in>



Team



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Founder



Vimla Choudhary
Co-Founder



Agri FinTech



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ARISE 2024



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Tech Brief

FPO Bazar provides quick and suitable financial support via NBFCs and Banks to FPOs, Co-operative Societies, Agri VLE (village level entrepreneurs for business operations & growth. FPO Bazar help them understand the actual requirement and assist accordingly with personalized options.



Esniff Devices Pvt Ltd



Team



Pradeep Dwivedi
Founder & Director



Himanshu Saxena
Founder & Director



Precision Agriculture



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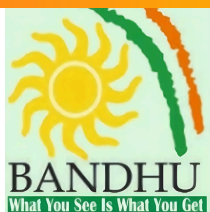
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Tech Brief

Esniff Devices is offering a paper-based colorimetric test to detect impurities in milk.



Bandhu Renewable Pvt. Ltd.

<https://teambandhu.in>

Team



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Priyaranjan Das
Co-Founder



Madhuchhanda Das
Co-Founder



Waste to Wealth



ARISE 2024



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Tech Brief

Bandhu Renewable focusses on wastewater treatment, producing reclaimed water suitable for aquaculture, drinking, sanitation, and irrigation. They have developed a Bio-filter, an organic ball bed water cleaning system which addresses water and energy management needs for both industrial and domestic sectors. The startup is working in 30 villages with aquaculture farmers.



Bharga Biotech & Re-Energy

<https://bharga.co.in>



Team



Unnikrishnan TG
Founder



Jiju PS
Co-Founder



Agricultural Inputs &
Biotechnology



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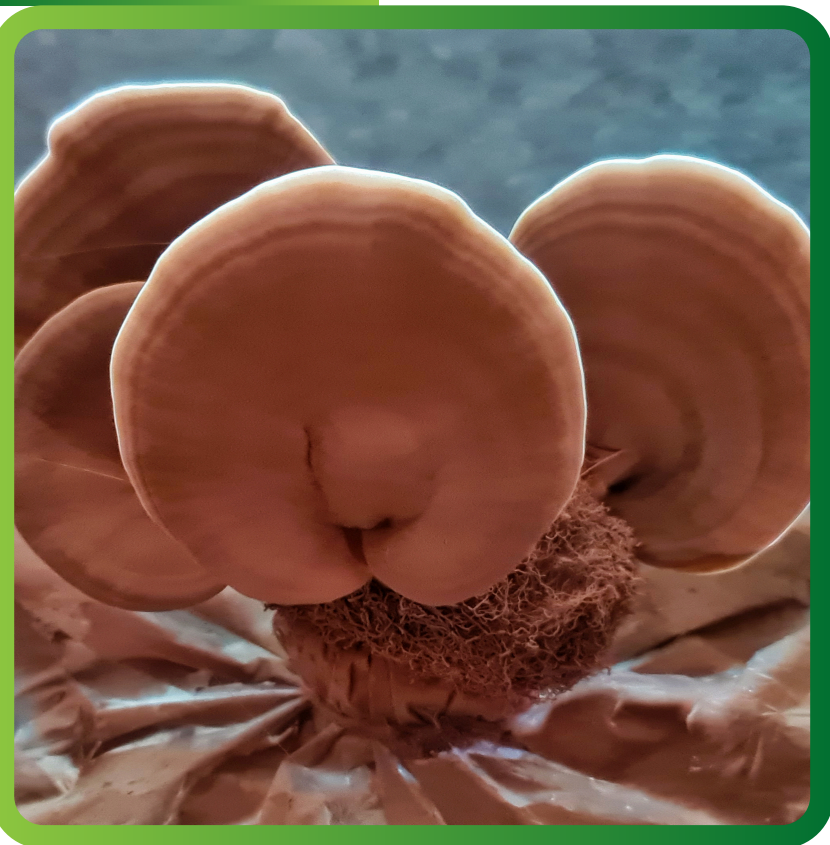
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Tech Brief

Bharga Biotech is working on a biodegradable growbag prototype crafted from lignocellulosic biomass, incorporating materials such as sawdust, rice straw, wheat straw, dried leaves, and more.



Team



Dibyendu Sarkar
Founder



Soham Sarkar
Co-Founder



Agriculture Allied Sectors



ARISE 2024



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Tech Brief

Ecovocal Solutions is supporting and encouraging women SHG to cultivate medicinal mushroom *Ganoderma lucidum* and assisting them in extraction of bioactive compounds to add value.



GHODE & JADHAV
AGRITECH

Ghode & Jadhav Agritech Equipments Industries

Team



Sagar Sunil Ghode
Co-Founder



Rushi Vilas Jadhav
Co-Founder



Mechanization of Farming



ARISE 2024



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Tech Brief

Ghode & Jadhav Agritech has introduced 'Multicrop Digger', a versatile tractor-mounted harvester designed for ground vegetables such as onions, potatoes, turmeric, and ginger. This innovative tool efficiently excavates these crops while filtering the soil, ensuring minimal damage to the produce.



InnoOrganic Tech Vista



Team



Avishek Pal
Co-Founder



Sumit Bhattacharjee
Co-Founder



Natural Resource
Management



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Tech Brief

InnoOrganic Tech Vista is developing a plant-based liquid organic fertilizer enriched with a balanced blend of macro and micronutrients, including N, P, K, Ca, Mg, Fe, Mn, Cu and Zn. Additionally, it contains a variety of phytochemicals designed to enhance crop growth by restoring soil fertility, all while preventing agricultural pollution.



Team



Sudhanshu Sharma
Founder



Susmita Roy
Co-Founder



Agriculture Extension & Education



ARISE 2024



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Tech Brief

Jaivik Jeevan Agro has developed BioBridge app that provides organic farming knowledge, connects farmers with buyers, and ensures visual traceability for B2B sales. It addresses the absence of best practices, fosters transparency & consumer trust in the organic food supply chain.



NeerTech Research and Innovation Pvt Ltd

<https://ntri.co.in>

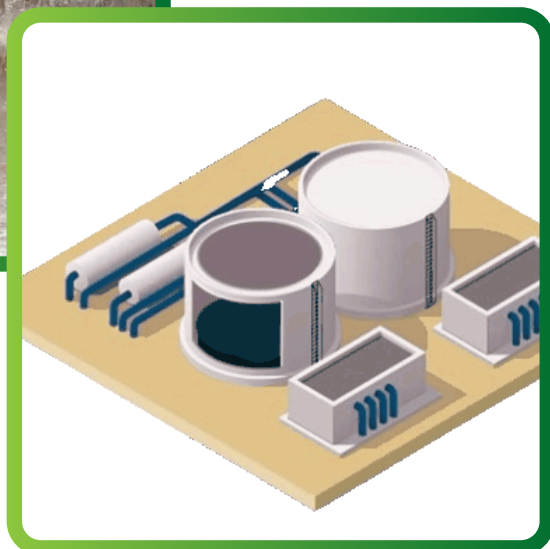
Team



Dr. Somak Chatterjee
Founder & Director



Ankit Pal
Co-Founder



Agriculture Allied Sectors



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Tech Brief

NeerTech Research and Innovation has developed a filtration system that combines activated carbon and alumina balls to effectively remove contaminants from agricultural wastewater, ensuring safe reuse and/or disposal.

Team



Deepthi Bhimala
Co-Founder &
Director



Prasad Babu G
Co-Founder &
Director



Rajaneesh Vasanta
Co-Founder &
Director



Agriculture Extension &
Education



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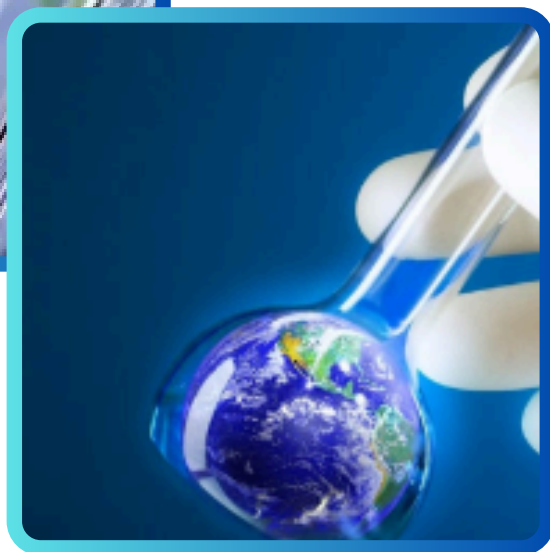
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Tech Brief

Nobrac Innovations is developing a platform that empowers farmers and the agricultural value chain to advance sustainable agriculture and carbon credits with accountability and traceability. This platform enables individuals and industries to adopt sustainable practices and combat climate change effectively. Startup working towards monetizing carbon credits for farmers.



Team



**Dr. Senthilkumar
Shamini**
Founder



Senthil Latha
Co-Founder



Agricultural Inputs &
Biotechnology



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Tech Brief

Organogenik BiotechAgro is developing a gel-based phosphate hydrolysate bio-stimulant that combines all essential amino acids and nutrients required for plant growth. Encapsulated by a biopolymer and suspended in water, this bio-stimulant supports both vegetative and reproductive growth.

Team



Savan Chaudhary
Founder



Pinki Chaudhary
Co-Founder



Agriculture Allied
Sectors



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ARISE 2024



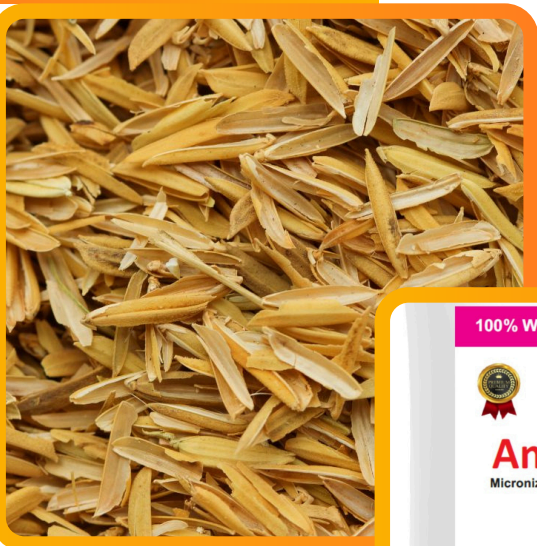
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Tech Brief

Treatsoul Pharmaceuticals has developed an animal feed supplement called Reproboost, designed to prevent farmers' losses. Reproboost is a pioneering product in the animal feed supplement market, specifically targeting the reproductive health of dairy cattle.



Rhizoticks Private Limited



Team



Ramamoorthi Vasudevan
Co-Founder



Velusamy Anbumani
Co-Founder



Agricultural Inputs &
Biotechnology



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ARISE 2024



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Tech Brief

Rhizoticks has developed biogenic nano silica from rice husk ash with the dynamic trio of Seemai Karuvelam, Neem Seed Kernel & Nilavembu. These botanical wonders pave the way for sustainable and natural pest management in agriculture.



Team



Dr. Tushar Borase
Founder & CEO



Dr. Avinash Patil
Director & Scientist



Agriculture Allied Sectors



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Tech Brief

Swentek Nordic is working on utilizing jellyfish biomass available at low cost & abundance for the production of collagen peptides having applications in value-added products in pharmaceuticals, cosmetics, and nutraceuticals.



Team



Gourish Pilla
Founder



Kazhunilathil George
Investor & Shareholder



Precision Agriculture



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Tech Brief

Zelbytes offers a comprehensive, growing technology-independent framework for agriculture. Designed for both newcomers and seasoned farmers, it provides a guided and automated farming experience. With ZelAI, farmers have an efficient, adaptable system that optimizes crop health, automates key tasks, and supports high-yield farming, making agriculture more accessible and productive.



Uma Robotics Technology

<https://umarobotics.com>



Team



Suchit Sharma
Founder



Meenakshi Sharma
Director



Precision Agriculture



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ARISE 2024



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Tech Brief

Uma Robotics is developing Uma Agribot - a Battery-operated robot which can be used for Precision spraying, logistic, weeding, Ploughing, Material movement in farms.



Vertex Eco Solution Pvt Ltd

Team



Jothi Priya
Director



Dr. S. Krupakar Murali
CEO & Founder



Agricultural Inputs &
Biotechnology



ARISE 2024



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Tech Brief

Vertex Eco Solutions has developed a Bio Organic Compost that significantly reduces the need for urea in agriculture. The highly porous biochar, which, when combined with urea, effectively absorbs it and prevents its evaporation. Additionally, the BOC contains other ingredients that enhance crop yield, promoting more efficient and sustainable agricultural practices.

Student Startup – 1

Team



Ashwini Yadav
Founder



Agriculture Allied Sectors



Student Startup



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Tech Brief

The student has developed Biosurfactant which helps to reduce surface tension and thus helps to enhance the degradation of hydrophobic PAHs in contaminated soil. Three biosurfactant based products (bead, water dispersible granule and liquid formulation) in testing stage.



Student Startup – 2

Team



Saksham Raj
Co-Founder



Aisha Nazrin
Co-Founder



Waste to Wealth & Green
Energy in Agriculture



Student Startup



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Tech Brief

The student has developed an Eco-transplanter made from agricultural waste, specifically rice husk, which is fully biodegradable. This product allows seedlings to be transplanted directly into the soil, offering an environmentally friendly alternative to traditional plastic nursery bags. By decomposing naturally, the Eco-transplanter promotes sustainable agriculture and reduces plastic waste.



Team



Anurag Raghav
Founder



Agricultural Inputs &
Biotechnology



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Student Startup



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Tech Brief

The student is working to develop a natural fertilizer having high NPK ratio promoting plant growth and mitigating use of synthetic fertilizers. Compatible with chemical fertilizer, this natural fertilizer will be fast.



Student Startup – 4

Team



Kavita
Founder



Waste to Wealth & Green
Energy in Agriculture



Student Startup



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Tech Brief

The student is working on to utilize vast amount of onion skin waste as a viable source of quercetin, anthocyanins, healthy oil and making the process zero waste by preparing MCC from residue.



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