



## THE LEAF

# THE OFFICIAL NEWSLETTER OF VIT SCHOOL OF AGRICULTURAL INNOVATIONS AND ADVANCED LEARNING (VAIAL)

B.Sc. (Hons.) Agriculture Programme Accredited by ICAR- New Delhi

VOLUME 3, ISSUE 3 2025

#### FROM THE DESK OF DEAN



Dear readers,

Greetings from the VAIAL family!

It gives me great pleasure to share the highlights of this quarter, which reflect our continued commitment to academic excellence, innovation, and community engagement. Our faculty members have secured funded projects and consultancy assignments, reinforcing our research impact. Significant events such as the RAWE orientation, International Conference, World Mango Day, Farmers Programmes, and various Training student-led initiatives showcased our collective enthusiasm and dedication to advancing agricultural education and sustainability. I extend my sincere appreciation to all faculty, staff, and students for their active participation and contributions that continue to elevate our institution's achievements and outreach.

Dr. R. Rajendran





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## VIT SCHOOL OF AGRICULTURAL INNOVATIONS AND ADVANCED LEARNING (VAIAL)

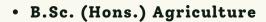
#### **ABOUT VAIAL**



VIT School of Agricultural Innovations and Advanced Learning (VAIAL) is dedicated to agricultural education, research, and extension. Its core activities include teaching, student training, conducting farmers' training programmes, and implementing outreach and field initiatives. The school places a strong emphasis on integrated and self-sustainable organic farming. It actively promotes research in agriculture and allied sectors while delivering agricultural education using modern technologies both in the classroom and in the field.

#### **PROGRAMMES OFFERED**





- Ph.D in
  - Agronomy
  - Horticulture
  - Plant Breeding and Genetics
  - Microbial Technology
  - Agricultural Entomology
  - Agricultural Extension Education
- o Agri-business Management
- Agricultural Biotechnology
- Food Science and Technology
- Agricultural Engineering
- Plant Pathology



#### FACULTY ACHIEVEMENTS



#### Congratulations Dr. Sowbiya Muneer!!

- Listed in the World 2 % Scientist list by Stanford
- Appointed as Visiting Professor University Sain's, Malaysia

#### **FUNDED PROJECTS**





ANRF-PAIR Dr. Priyadharshini B, Assistant Professor (Senior) & Head, Dept of Plant Pathology and Agricultural Entomology has been sanctioned an ANRF-PAIR Interdisciplinary Research Project as Co-PI, in collaboration with Schools of Mechanical Engineering and Computer Science, Centre for Clean Environment VIT Vellore.

> Project Title: AI-driven Smart Approaches for Polygeneration, Innovative Farming & Biopharma Research; Amount: ₹1.5 Crore

#### Faculty Startup Venture Grant -2025-26

Dr. Priyadharshini B, along with Dr. Sasikala R (SCOPE) and Dr. Thirumalaikumar R (VAIAL), received the Faculty Startup Venture Grant 2025-26 under VIT's Entrepreneurship Development Cell on Sep 22, 2025.

- o Project: Assessment of Fertilising Properties of Pleurotus-Biodegraded Coir Pith for Sustainable Myco-Pot and Myco-Tray Design
- o Goal: Eco-friendly, nutrient-rich nursery solutions; Grant: ₹2,00,000

#### **CONSULTANCY PROJECTS**





Dr. J. Paul Mansingh (VAIAL); Dr. Gunji Bala Murali, Dr. K. Balaji (SMEC)) and Dr. P. Suresh Kumar, Automotive Research Centre (ARC) have been awarded with a consultancy project on 'Smart Manipulator Processor' by Lakshmi Precision Technologies Ltd., Coimbatore on 23.07.2025 for Rs. 1, 32, 750.



Dr Sowbiya Muneer has been sanctioned with a consultancy project on: Hydrothermal liquefaction of biomass into biofuel by Technology Innovation Institute, UAE-Grant of 42600 INR. Her role as Co-Consultant.

Dr. Karthika Rajendran served as Section Editor for Plant Science Today (e-ISSN: 2348-1900) from Nov 2024 to Oct 2025, reviewing 54 articles





#### FACULTY ACHIEVEMENTS



30-09-2025

01-10-2025

#### **PATENTS**

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2.

3.

Liquid

Nutrient

Method

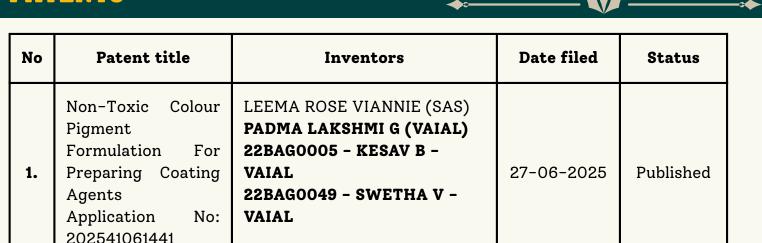
**Process** 

Scoby

Producing

Biofertilizer

Preparation



PARTHASARATHI T (VAIAL)

Sibi Pirasaath C (21BAG0026)

Mahil N B (21BAG0056)

MURUGANANDAM L

(SCHEME)

Lochana K B (21BAG0039)

KALAICHELVAN G (VAIAL)

SURIYAPRIYA S (SBST)

M	T	T

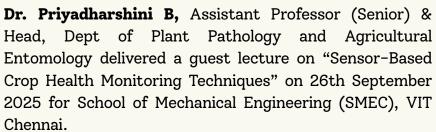


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Tattva Hical and Compounds Private Limited (THC), No. 469, 2nd Phase, Vasanthanarasapura Industrial Area, Tumkur, Karnataka, India – 572128, and VIT (represented by **Dr. Utpal Das**) signed a Memorandum of Understanding (MoU) on 21 July 2025 for consultancy and student internship purposes.

#### **FACULTY OUTREACH**



Multi-

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Kombucha Tea and

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#### EVENT HIGHLIGHTS



#### **IC STEEH 2025**

International Conference on

Sustainable Technologies for Energy, Environment, and Health

17-19 September 2025

Jointly Organized by SAS, SBST, SCE, SCHEME and VAIAL as a part of the Ruby Jubilee celebrations.



As part of the Ruby Jubilee celebrations, IC STEEH 2025 was hosted by five schools with participation from Indian and international researchers. On the second day, VAIAL held school-level technical sessions

featuring 8 eminent speakers and 46 oral presentations from across the country. VAIAL Scholar Mr. Frank won the best paper presentation award during the conference.

**Dr. Paul Mansingh J.** served as the school-level convenor for the conference. VAIAL secured a sponsorship of ₹94,000 from NABARD (National Bank for Agriculture and Rural Development).





#### **NATIONAL MANGO DAY- JULY 22**

National Mango Day was celebrated on July 22, 2025, at VIT-SAIL. Kamarai Auditorium. Over 94 farmers from six districts participated in the event. Dr. T. N. Balamohan, Former Dean of Horticultural College, TNAU, delivered а lecture "Production and Supply Chain Management of Mango."



THE LEAF ISSUE 3 The event fostered active and insightful discussion between the farmers and the scientists.



The event facilitated expert interaction and technology transfer in mango cultivation. The Mango Day Quiz Competition and Mango-thon was organised in conjunction with National Mango Day celebrations. The Programme was organised by **Dr. Utpal Das & Dr. Ramesh Kumar.** 





#### **EVENT HIGHLIGHTS**

#### **RAWE ORIENTATION PROGRAMME 2025**

At VAIAL, the final-year B.Sc. (Agri.) students undergo the RAWE (The Rural Agricultural Work Experience) program to gain hands-on experience in real-world farming and rural settings. A 5-day orientation was conducted by RAWE coordinators **Dr. Paul Mansingh J., Dr. Anbarasan P., Dr. Mohan Raj K., Dr. Padma Lakshmi G., and Dr. Merlin Mathew** to prepare students for field exposure and farmer engagement.



Guest lecture by **Mr. Mahendran M. Manivaasan, DHAN Foundation** on "Scope of Farmer Producer Organization (FPO) in Agricultural Development



Guest Lecture by **Dr. Ravikumar Theodore, Principal, Kumaraguru Institute of Agriculture, Erode** on Systems Thinking in
Agriculture



**Guest lecture** by **Mrs. Archana Stalin**, **CEO & Founder MyHarvest** - What Agri Students Can Learn About Delivering Safe Food During Village stay.



Guest lecture by **Mr. M. Murugan, Forest Range Officer** on "Participatory Rural
Appraisal and Community Forest



Guest Lecture by **Dr. Thiagarajan, Deputy Director of DHAN Foundation** on Role of NGO's



#### EVENT HIGHLIGHTS



#### FARM-A-THON: SEEDING TOMORROW'S TECH



The Farm-A-Thon, held on 22-23 September 2025 and organized by **Dr. Padma Lakshmi G and Ms. Lincy Kirubhadharshini**, brought together nine student teams from VIT to promote innovation, sustainability, and community building in agriculture.



Participants showcased creative solutions to enhance farm productivity and address key agricultural challenges.

#### **FARMERS TRANING PROGRAMME**

A Farmers Training Program on Ashwagandha Cultivation, Value Addition, and Market Linkage was held on 26 September 2025 at the VIT-Agri Clinic, Vellore. **Dr. P. Manivel,** Principal Scientist and Head, ICAR-NIRC, Vedasanthur, shared insights on cultivation, processing, and market linkage, empowering farmers toward sustainable income generation. The program was organized by **Dr. J. Paul Mansingh, Dr. K. Mohanraj, and Dr. Merlin Mathew.** 



#### ANRF-PAIR FARMERS TRAINING AND WORKSHOP

The Hub Institute, VIT, organized the ANRF-PAIR Farmers Training Programme and Workshop on 19–20 August 2025 under the theme "Sustainable Agriculture." Sessions focused on AI-based smart lighting systems and biomass energy from agricultural waste, with participation from farmers, faculty, and researchers of Annamalai University, JNTU Kakinada, and Dr. Babasaheb Ambedkar Marathwada University. (Organized by **Dr. Sowbiya Muneer.)** 





#### WORLD COCONUT DAY

World Coconut Day 2025 was held on September 2, 2025, at the Agriclinic, organized by **Dr. Priyadharshini B, Dr. Madhusmita Dishri, and Dr. Neenu Augustine,** with 40 participants. Resource persons Dr. S. Mohandas and Mr. Gowthaman S. K. shared insights on advanced coconut cultivation, value addition, and sustainability. The event aimed to promote modern farming practices, rural employment, and innovation. A "Coco-Thon" competition encouraged creative, eco-friendly products from coconut by-products under the theme "Coconut Waste to Wonder."







#### VAIAL PUBLICATIONS





- Digital Transformation in the Poultry Industry: Assessing Adoption Through the UTAUT Model and Managerial Profiles, A., Sedina, Adeline; A.F.Y., Ihou, Atsu Frank Yayra; A., Korem, Ayira; M.J., Paul, Mansingh J., International Journal of Agricultural Science, Research and Technology in Extension and Education Systems, Vol:15, Issue: 2, Pg.No:(77-86), DOI: 10.71505/ijasrt.2025.1202476
- Therapeutic potential of Anamirta cocculus (L.) Wight & Arn. leaf aqueous extract-mediated biogenic gold nanoparticles, N.K., Sishu, Nayan Kumar; C.I., Selvaraj, Chinnadurai Immanuel; K.P., Arunachalam, Krishna Prakash; H.C., Murthy, H. C.Ananda, Green Processing and Synthesis, Vol:14, Issue: 1, DOI: 10.1515/gps-2025-0073
- Therapeutic potential of Anamirta cocculus (L.) Wight & Arn. leaf aqueous extract-mediated biogenic gold nanoparticles, N.K., Sishu, Nayan Kumar; C.I., Selvaraj, Chinnadurai Immanuel; K.P., Arunachalam, Krishna Prakash; H.C., Murthy, H. C.Ananda, Green Processing and Synthesis, Vol:14, Issue: 1, DOI: 10.1515/gps-2025-0073
- Integrating AI and statistical modelling for enhanced microalgae growth in 3D Bioprinted polymeric Scaffolds-a hybrid approach, Y., Sharma, Yamini; S.D., Roy, Subha Deep; D.K., Raja, Das K.; V., Shankar, Vijayalakshmi, Chemical Engineering Journal Advances, Vol:23, DOI: 10.1016/j.ceja.2025.100821
- B., Kesav, B., Scientific Reports, Vol:15, Issue: 1, DOI: 10.1038/s41598-025-09442-9



- Facile synthesis of xanthan gum-based sheets loaded with ganoderic acid F for evaluation of therapeutic potential, molecular docking, and ADMET profiling, A., Sharmila, Arunagiri; C.I., Selvaraj, Chinnadurai Immanuel, International Journal of Biological Macromolecules, Vol:322, DOI: 10.1016/j.ijbiomac.2025.146619
- Assessing the socioeconomic and environmental determinants of flood vulnerability in India: a panel data approach, K.T., Felix, Kannan Thomas; M., Balasubramanian, Muniyandi; P.L., Govindarajan, Padma Lakshmi;
- Dragon fruit (Hylocereus spp.) as a potential crop for nutraceutical properties, livelihood enhancement and climate change mitigation, M., Balaji, Mangalambika; U., Das, Utpal; R., Vashishth, Rahul, Cogent Food and Agriculture, Vol:11, Issue: 1, DOI: 10.1080/23311932.2025.2544956
- Biogenic synthesis of Albizia lucidior mediated magnetite nanoparticles (Fe3O4 NPs):
   Therapeutic applications and photocatalytic activity, V.M., Hadkar, Vrushali Manoj; N.K.,
   Sishu, Nayan Kumar; S.P., Jayabharathi, Swathy Prakash; A., Sharmila, Arunagiri; C.I.,
   Selvaraj, Chinnadurai Immanuel, Biocatalysis and Agricultural Biotechnology, Vol:67, DOI:
   10.1016/j.bcab.2025.103676
- Tea tales: An analytical exploration of branding strategies and consumer trends in the tea industry, G., Surya, G.; P., Anbarasan, P., Journal of Agriculture and Food Research, Vol:23, DOI: 10.1016/j.jafr.2025.102190
- A digitizing craftsmanship: a comparative study of traditional vs. SDF-based shoe last making using 3D scanning and computer numerical control technologies, G., Surya, G.; P., Anbarasan, P.; null, Frontiers in Mechanical Engineering, Vol:11, DOI: 10.3389/fmech.2025.1610798
- Fertigation studies on physiological parameters and yield attributes in nutmeg (Myristica fragrans Houtt), G., Vaidehi, G.; S., Malarvannan, S.; K., Mohanraj, K.; S.K., Nisha, S. K., Plant Science Today, Vol:11, Pg.No:(362-368), DOI: 10.14719/pst.6334
- Realistic application of biogenic nanoparticles: future perspectives and myth, A.P., Singh, Aditya Pratap; S., Chetry, Sanjay; H., Singh, Harshit; T., Ghosh, Tuhina; K., Atta, Kousik; R.K., Rout, Rakesh Kumar; U., Das, Utpal; D., Acharya, Diptikanta, , DOI: 10.1016/B978-0-443-33819-9.00006-8
- A comprehensive review on cold plasma applications in the food industry, R., Sasikumar, Raju; S.K., T, Selva Kumar; I.B., Mangang, Irengbam Barun; G., Kaviarasu, G.; R., Kaushik, Ravinder; J., Paul Mansingh, J.; V., Tomer, Vidisha; A.K., Jaiswal, Amit K., Sustainable Food Technology, DOI: 10.1039/d5fb00148j
- Institutional dynamics in climate change adaptation a bibliometric analysis, P., Jaisridhar, P.; R., Nirosha, R.; S., Jasimudeen, S.; M., Senthilkumar, Murugaiyan; null; P., Raja, Pushpanathan, Frontiers in Environmental Science, Vol:13, DOI: 10.3389/fenvs.2025.1598908
- Mahapatra PP, Bae DW, Notaguchi M and Muneer S (2025) Grafting enhances drought stress tolerance by regulating the proteome and targeted gene regulatory networks in tomato. Front. Plant Sci. 16:1591437. doi: 10.3389/fpls.2025.1591437-IF 4.8
- Morphological characterization of strong culm traits and their association with yield performance in rice (Oryza sativa L.), T.G., Susmi, T. G.; N., Devasena, N.; R., Selvaraj, Ramchander; P., Kalaiarasi, Patrica; J.L., Pramitha, J. Lydia; K., Indira Petchiammal, K.; P.D., Kumar, P. Dinesh; S.A., Jasmin, S. Agalya, Electronic Journal of Plant Breeding, Vol:16, Issue: 2, Pg.No:(258-267), DOI: 10.37992/2025.1602.020



#### **POPULAR ARTICLES**



- 1. Jayyanth Kaarthik, P., SriVidhya, A. P., & Mansingh, J. Paul\*. (n.d.). Food forest A new perspective of farming. AgriGate Magazine.
- 2. Govind, S., Mansingh, J. Paul\*, & SriVidhya, A. P. (n.d.). Book keeping in agriculture. Agri Magazine An International e-Magazine.
- 3. Suhitha, P., SriVidhya, A. P., & Mansingh, J. Paul\*. (n.d.). Coconut oil: From kitchen staple to luxury. Sabujeema Agri Newsletter Magazine.
- 4. Pooja Priyadharshini, S., Sri Vidhya, A. P., & Mansingh, J. Paul\*. (n.d.). Liquid nano-clay and the transformation of unproductive sandy soils Promise for India. Innovative Agriculture.
- 5. Jeetha Shree Kumaresan, S., SriVidhya, A. P., & Mansingh, J. Paul\*. (n.d.). When trade turns bitter: Why Indian agriculture stands at the frontline. Agri Magazine An International e-Magazine.

#### VAIAL IN NEWS









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