



# REINSS 2026

International Seminar on

## **REINVENTING SOIL SYSTEMS: DIGITAL INTELLIGENCE, BIOMES AND SUSTAINABLE FOOD SECURITY**

 28-29 October 2026

 College of Agriculture, Vellayani

*Organized by*

Department of Soil Science and Agricultural Chemistry  
College of Agriculture Vellayani, Kerala Agricultural University

*In association with*

Indian Society of Soil Science, Trivandrum Chapter  
Thiruvananthapuram, Keralam, India



On behalf of the Organizing Committee, we warmly invite you to REINSS 2026, the International Seminar on “**Reinventing Soil Systems: Digital Intelligence, Biomes and Sustainable Food Security**”, during **October 28–29, 2026** at College of Agriculture, Vellayani, Thiruvananthapuram.

Established in 1955 at the Lalindloch Palace of erstwhile Travancore royal family, College of Agriculture, Vellayani, Thiruvananthapuram, stands as a landmark institution established with visionary commitment in advancing the science of agriculture and laying the foundation for a knowledge-driven agricultural future in the State. Over the past seven decades, the College has evolved from its historic beginnings into a distinguished centre of agricultural education, research, innovation, extension and technology dissemination. With the establishment of Kerala Agricultural University (KAU) in 1972, the College became one of its constituent institutions, further strengthening its role in shaping agricultural science and supporting the transformation of Kerala’s agricultural landscape.

REINSS 2026 brings together scientists, researchers, students, faculty, extension professionals and industry experts to explore emerging frontiers in digital soil intelligence, climate-smart agriculture, soil-plant microbiome engineering, nature-based solutions and regenerative soil management. We look forward to welcoming you to the capital city of Keralam for an intellectually stimulating and memorable event.

### Chairpersons, REINSS 2026

Director, ICAR-Central Tuber Crops Research Institute (CTCRI), Sreekariyam

Professor & Head, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani

### Highlights of REINSS 2026

300+ Delegates

12+ Invited speakers

5+ Scientific Themes

Oral & Poster Presentation Awards

Separate Awards for Students and Faculty

Publication in Scopus Indexed Journals

Live streaming of lead talks

e-Certificate for online participants

Exhibitions and Stalls

Networking Opportunities



## About the Hosts

### College of Agriculture, Vellayani

College of Agriculture, Vellayani, is a key institution for agricultural education in Kerala. It offers UG, PG and doctoral programmes with hands-on training through farm operations and field programmes. The college is a temple of knowledge with 25 departments and conducts research in soil fertility & waste management, crop production & improvement, genetics & plant breeding, biotechnology, pest control, and socio-economic studies. It also engages in extension activities, providing training to farmers and researchers on topics like waste management, tissue culture, crop production and analysis of soil, plant, manure and pesticides and also contributes to agricultural advancements throughout the state.

Across generations, the college has been a nurturing ground for agricultural scientists, educators, researchers, professionals and leaders who have contributed to the advancement of agriculture at regional, national and global levels.

### Department of Soil Science and Agricultural Chemistry

The Department of Soil Science and Agricultural Chemistry, one of the oldest teaching and research departments of the College, was started in 1955 and is entrusted with the responsibility of undertaking teaching, research and extension in various fields of Soil Science and Agricultural Chemistry including soil fertility, nutrient management, smart farming, soil health, organic waste management etc.

### Indian Society of Soil Science (ISSS)

The Indian Society of Soil Science (ISSS) came into existence on December 22, 1934 in Calcutta under the Act XXI of 1860 (Registration No. 8164/252 of 1934-35) with 28 members. The Trivandrum Chapter of the Indian Society of Soil Science was initiated on October 7, 2025, at College of Agriculture, Vellayani, Thiruvananthapuram. Members include scientists and students from College of Agriculture, Vellayani & Central Tuber Crop Research Institute Sreekariyam.

## About the Seminar

**Reinventing Soil Systems: Digital Intelligence, Biomes and Sustainable Food Security (REINSS 2026)** advances a transformative vision for soil systems by integrating digital soil intelligence, climate smart agriculture, soil-plant-microbiome engineering, and nature-based solutions to confront pressing global challenges, viz. land degradation, declining soil health, climate variability, and food insecurity. The seminar highlights the application of artificial intelligence, remote sensing, precision nutrient management, and data driven decision support tools to optimize soil resource use efficiency. The seminar seeks to catalyse interdisciplinary collaboration among soil scientists, ecologists, agronomists, technologists, policymakers, and industry leaders by aligning cutting-edge research with practical field implementation. REINSS 2026 aims to strengthen regenerative soil pathways, enhance ecosystem services, improve carbon sequestration, and promote sustainable agriculture. Ultimately, the deliberations aspire to build resilient, productive, and climate adaptive soil systems that underpin long term food, nutrition, and livelihood security at regional and global scales. The seminar will feature invited talks by distinguished scientists, along with competitive oral and poster presentations.

## Venue & Location

**Seminar Venue:** College of Agriculture, Vellayani, Thiruvananthapuram - 695522, Keralam, India



### About Thiruvananthapuram

Thiruvananthapuram, the capital city of Keralam, is built across seven hills along the southwest coastal border of India. Known for pristine beaches, historic architecture and lush green canopies, the city is also a major scientific hub with institutions such as ICAR-CTCRI, BRIC-RGCB, IISER, IIST, CSIR-NIIST, SCTIMST, NCESS, C-DAC and VSSC.

**Climate in October:** Late October is generally pleasant, with comfortable temperatures ranging from 25°C to 31°C, making it a suitable post-monsoon window to explore the region.



## How to Reach the Venue

**By Air:** Thiruvananthapuram is well connected by domestic and international flights from around the world. The Thiruvananthapuram International Airport (TRV) is about 13 km from the venue.

**By Train:** Thiruvananthapuram Central (TVC) & Thiruvananthapuram North (TVCN) are two major railway stations with superfast, express and Vande Bharat train connectivity.

**By Road:** The city has excellent highway connectivity via NH 66 and frequent KSRTC bus services to the venue and major destinations including Kochi, Bengaluru, Madurai and Chennai



## Local Attractions

- Sree Padmanabhaswamy Temple
- Kovalam and Varkala beaches
- Napier Museum
- Kowdiar Palace
- Kuthiramalika Palace
- Neyyar Wildlife Sanctuary
- Ponmudi Hill Station



## Accommodation

Guest house accommodation available in the college will be allotted to invited guests. Participants will be provided with off-campus accommodation on a payment basis. The website will be updated with hotel/ guest house listings, contact information, and tariffs.



**Seminar Dates**

28-29 October 2026



**Official Email**

reinss.coav2026@gmail.com



**Website**

<https://reinss2026.coavcs.org/>

# Seminar Themes

## 1. Digital Soil Intelligence for Precision and Climate Smart Agriculture

- Artificial intelligence, machine learning and big data analytics for climate-smart agriculture
- Digital soil mapping, remote sensing, GIS and geospatial intelligence
- IoT and sensor networks for crop health and climate monitoring
- Digital agriculture for resource conservation, socio-economic development and scaling
- Digital technologies for precision nutrient, water and crop management for sustainability

## 2. Nature -Based Solutions for Climate Resilience in Fragile Landscapes

- Nature-based solutions for soil conservation and landscape restoration
- Climate-resilient soil, water and watershed management
- Restoration and sustainable management of degraded and problem soils
- Soil carbon, climate mitigation and ecosystem resilience
- Climate change, emerging pest, disease and weed threats and environmental pollution
- Socio-economic pathways for landscape restoration and sustainable ecosystems

## 3. Blue-Green Soil Systems: Coastal, Wetland and Flood-Prone Agro-Ecosystems

- Soil-water interactions and sustainable management of coastal agro-ecosystems
- Coastal problem soils, salinity management and climate adaptation
- Blue carbon, greenhouse gas dynamics and climate mitigation
- Water quality, pollution and safe reuse in agriculture
- Climate change impact on biodiversity and emerging biotic stresses
- Sustainable coastal livelihoods, ecosystem services and community resilience

#### 4. Soil-Plant-Microbiome Engineering for Field Crops and Horticultural Systems

- Soil biodiversity, microbial ecology and soil–plant–microbe interactions
- Microbiome engineering for climate-resilient and resource-efficient agriculture
- Microbial biofertilizers, biostimulants and biological crop protection
- Organic amendments, microbiome modulation and soil health
- Metagenomics, multi-omics and advanced microbiome technologies
- Crop improvement, agricultural biotechnology and genome engineering for climate-resilience and sustainable food security

#### 5. Regenerative Soil Pathways for Food, Nutrition and Livelihood Security

- Crop physiological adaptations in regenerative production systems
- Climate-resilient, nutrition-sensitive and sustainable farming systems
- Regenerative soil health, biodiversity and ecosystem management
- Diversified and climate-resilient farming systems
- Circular bioeconomy and resource recycling in agriculture
- Sustainable nutrient management, carbon farming and resource-use efficiency
- Climate-resilient crops, nutrition security and sustainable intensification
- Inclusive pathways for sustainable agricultural transformation
- Post-harvest management & value addition for resilient food systems and nutritional security

### Awards

**Best Presentation Awards:** Distinguished jury will evaluate the presentations and select the **Best Oral and Poster Presentations** across various scientific sessions. **First, Second, and Third Prizes** will be awarded to the outstanding presentations in each category.

#### Award Categories:

- **Category I: Students**
- **Category II: Faculty/ Researchers/ Scientists**



# INAUGURATION

**Dr. Himanshu Pathak**  
Director General  
International Crops Research  
Institute for the Semi-Arid  
Tropics (ICRISAT), Hyderabad,  
India

## Lead Speakers



**Dr. Kesav R Adhikari**  
Adjunct Professor, Agriculture and  
Forest University, Nepal  
President of Nepalese Society  
of Soil Science



**Dr. Ajay Kumar Mishra**  
Senior Associate Scientist  
International Rice Research  
Institute



**Dr. Panneerselvam Peramaiyan**  
South Asia Cropping Systems Agronomist  
International Rice Research Institute



**Dr. Daniel Evans**  
Senior Lecturer in Soil  
Formation, Centre for Soil,  
Agrifood and Biosciences  
Cranfield University, UK



**Dr. Wayne Honeycutt**  
Retired President and CEO  
at Soil Health Institute  
Colorado State University, US



**Dr. Murali Gopal**  
Principal Scientist  
(Ag. Microbiology)  
Head, Division of Physiology,  
Biochemistry & PTH  
ICAR- CPCRI, Kozhikode



**Dr. P. Sureshkumar**  
Professor and Head (Retd.)  
Radiotracer Laboratory  
Kerala Agricultural University  
Thrissur



**Dr. Aundy Kumar**  
Professor and Principal Scientist  
Division of Plant Pathology  
ICAR-IARI, New Delhi



**Dr. Vidya Suseela**  
Associate Professor  
Plant & Environmental Sciences  
Clemson University, US



**Dr. S Karthikeyan**  
Professor (Microbiology)  
Department of Agricultural  
Microbiology, TNAU, Coimbatore



**Dr. Bholuram Gurjar**  
Postdoctoral Research Associate,  
Texas A & M University, US



**Dr. Kapil Chobhe**  
Soil & Crop Sciences  
Texas A & M University, US

# Call for Abstracts & Registration (Offline mode)



## Call for Abstracts

Abstracts of scientific papers are invited for oral and poster presentations during REINSS 2026. Abstracts should be submitted through the official seminar portal- <https://reinss2026.coavcs.org/>



## Guidelines for Abstract Preparation

| Items            | Specifications                                                                                                                                                    |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Software         | MS Word or equivalent compatible software                                                                                                                         |
| File format      | .docx                                                                                                                                                             |
| Font & Font Size | Times New Roman; 12                                                                                                                                               |
| Page size        | A4 (210 × 297 mm); 1 inch / 2.54 cm margin on all sides                                                                                                           |
| File name        | Theme number name.docx                                                                                                                                            |
| Theme            | Mention the thematic area on the upper left corner of the page                                                                                                    |
| Title            | Concise and specific                                                                                                                                              |
| Authors          | Full names with an asterisk (*) for presenting or corresponding author; details of affiliation below author names; superscript numerals for multiple affiliations |
| Main content     | Maximum 300 words. State objective, significant findings and major conclusions. Avoid tables, figures and references                                              |
| Keywords         | 5-8 relevant keywords, arranged alphabetically and separated by commas                                                                                            |

- **Certificates of Participation** will be provided to on-site participants
- **e-Certificates** will be issued to online participants.

The seminar will also feature **live streaming of keynote and lead talks**, enabling virtual attendees to participate in the scientific sessions remotely.

## Important Dates

**Deadline for abstract submission** : **October 5, 2026**

**Intimation of acceptance of abstract** : **October 10, 2026**

**Deadline for early bird registration** : **October 10, 2026**



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**Website**

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## Registration Fee

| Participants                            | Early bird<br>(INR) | Early bird<br>(USD) | Late/Spot<br>Registration<br>(INR) | Late/Spot<br>Registration<br>(USD) |
|-----------------------------------------|---------------------|---------------------|------------------------------------|------------------------------------|
| Scientists / Faculty                    | 2000                | 150                 | 2500                               | 250                                |
| Extension Personnel /<br>Industrialists | 3000                | 200                 | 4000                               | 250                                |
| Students                                | 1000                | 100                 | 1250                               | 125                                |
| RA / SRF / JRF / Other<br>Researchers   | 1250                | 125                 | 1500                               | 150                                |

*Note: All fees are inclusive of GST. Registration fee includes participation in the seminar, lunch, refreshments, seminar bag, souvenir etc.*



### Mode of Payment

Participants can pay the registration fee online or account transfer in favour of " **Trivandrum Chapter of the Indian Society of Soil Science** " payable at Thiruvananthapuram, Keralam, India to the account details given below:

Account number: **45019716859**

Account name: **Trivandrum Chapter of the Indian Society of Soil Science**

Bank name: State Bank of India

Branch: Vellayani

IFSC: **SBIN0070019**

For Registration:

[Click Here](https://reinss2026.coavcs.org/)

[Website: https://reinss2026.coavcs.org/](https://reinss2026.coavcs.org/)



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## Sponsorships & Exhibitions

Industries, biotechnology companies and laboratory equipment manufacturers are invited to showcase their products and portfolios. The seminar will provide opportunities for companies to interact with delegates and institutions.



## Organizing Leadership

### Chief Patron

- Dr. Sajitha Rani, Hon. Vice-Chancellor, Kerala Agricultural University

### Patrons

- Dr. Thomas George, Dean of Faculty, College of Agriculture, Vellayani, Kerala Agricultural University
- Dr. A. Latha, Director of Research, Kerala Agricultural University
- Dr. Binoo P. Bonny, Director of Extension, Kerala Agricultural University
- Dr. Bindu M. R., Director of Planning, Kerala Agricultural University

### Convenors

- Dr. G. Byju, Director, ICAR-CTCRI, Sreekariyam
- Dr. Rani B., Professor & Head, Department of Soil Science & Agricultural Chemistry & ADR, RARS-SZ, Vellayani, Kerala Agricultural University

### Co-Convenors

- Dr. Shalini Pillai P., Professor and Head, Department of Agronomy and Professor (RC), KAU
- Dr. Bini Sam, Professor (Agricultural Engineering) KVK Kollam and ADE(SZ), KAU
- Dr. Santhosh Kumar T., Associate Professor & Head, CRS, Balaramapuram & GC Member, KAU
- Dr. Beena R., Associate Professor and Head, Department of Plant Physiology & Technology & GC Member, KAU
- Dr. Gayathri G., Assistant Professor, Department of Genetics and Plant Breeding & GC Member, KAU
- Dr. Allan Thomas, Dean of Faculty (BSH) & Professor and Head, Department of Agricultural Extension Education, KAU
- Dr. Yamini Varma C.K., Professor and Head, Instructional Farm, Vellayani, KAU

### **Organizing Secretaries**

- Dr. Naveen Leno, Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, KAU
- Dr. S.Visveswaran, Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, KAU
- Dr. Gowri Priya, Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, KAU
- Dr. Aparna B., Professor & Head, Department of Organic Agriculture, College of Agriculture, Vellayani, KAU
- Dr. Kiran Karthik Raj, Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, KAU
- Dr. Raji Swaroop, Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, KAU
- Dr. Rekha V. R. Nair, Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Vellayani, KAU
- Dr. Ramesh V., Principal Scientist (Soil Science), ICAR-CTCRI, Sreekariyam
- Dr. Jeena Mathew, Senior Scientist (Soil Science), ICAR-CTCRI, Sreekariyam
- Dr. Priya U. K., Scientist (Soil Science), ICAR-CTCRI, Sreekariyam