PROFILE

Name: Ms. Hema Sree Sopeti
Educational Qualifications: MSc.,Specialization in Plant Sciences (USA), APSET 2025, APRCET 2024
Designation: Assistant Professor
Department: Botany
Date of joining Maris Stella: 04.11.2024

I Academics

Degree	Institution/University	Year
MSc in Botany (Gold Medalist)	Sri Padmavati Mahila Visvavidyalayam, Tirupati	2024
BSc in Botany, Zoology, Chemistry	Sri G C S R Degree College, Rajam	2022
Diploma in Sustainable Agriculture	Valencia College, Orlando, USA	2021

II Professional Experience

Position Held	Institution	Year
Assistant Professor (Botany)	Maris Stella College, Vijayawada	November 2024 – Present
Agricultural Intern	Fleet Farming, Orlando, USA	January 2021 – May 2021
Industrial Trainee	Central Sericulture Research and Training Institute, Mysore	May 2024 – June 2024

III Academic & Administrative Roles at Maris Stella

- Organized International Conference on “Innovations in Life Science Research: Harnessing Transformative Technologies for a Sustainable Future (LIFT 2025)” March 11 & 12, 2025.
- Participated in Capacity Building Workshop on “Research Techniques & Manuscript Development” for Service-Learning Programmes (December, 2024)
- Participated in IP Awareness / Training Program (January, 2025)
- Attended 1st Educators Conclave organized by ICT Academy at Chennai (April, 2025)

IV Academic Contributions to other Institutions

- Presented on the theme “Ancient Indian History as a part of Cultural Heritage of Different Countries” at Valencia College, Orlando, USA (2021).
- Delivered webinars on the Role of Organic Farming in Indian Agriculture to student communities at Sri GCSR Degree College, Rajam (2022).

V. Certificate Courses Done

https://docs.google.com/document/d/1VbDJEof3z8TQks8O-I6ybzM5G8yTq5sw/edit?usp=sharing&ouid=107769080358957310525&rtpof=true&sd=true

- Diploma in Computer Applications — MS Office, Adobe Photoshop, Computer Fundamentals and Internet Concepts.
- Various Certificate courses completed from various international institutions:

1. Plant based Diets - **Wageningen University & Research**
2. The health effects of climate change - **Harvard University**
3. Cell biology: mitochondria - **Harvard University**
4. Climate change education - **BID**
5. Essential human biology - **The University of Adelaide**
6. Sustainable global food systems- **The University of Adelaide**
7. Waste management and critical raw materials - **Delft**
8. Strengthening community health work programs - **Harvard University**
9. Mental health and nutrition- **University of Canterbury**
10. Global challenges for a sustainable society - **KU Leuven**
11. Super Earths and life - **Harvard**
12. Autism and Mental health - **Curtin University**
13. Climate change: carbon capture and storage - **The University of Edinburgh**
14. Designing a climate - neutral world: an introduction - **Delft**
15. Big data for Agri-food: principles and tools - **Wageningen University & Research**
16. Understanding agribusiness, value chain and consumers in global food systems - **The University of Adelaide**
17. Cities: past, present and future of urban life - **Harvard University**
18. Breeding programme modelling with AlphaSimR - **The University of Edinburgh**
19. INSPIRE - **Columbia University**
20. Foundation for Client Care: human body and disease basics - **Osmosis from Elsevier**
21. Built environment sustainability assessment - **Universitat Politecnica de Valencia**
22. Global environment and trends in technological innovation - **Tecnologico de Monterrey**
23. Stakeholder outreach - Effective communication of complex environmental threats - **University System of Maryland**
24. Higher Education teaching in the age of AI - **Stellenbosch University**
25. China's perspective on climate change - **Tsinghua University**
26. Nutrition for health and sustainability - **EIT- Food**
27. Nitrogen: a global challenge - **The University of Edinburgh**
28. Environmental protection and sustainability - **Israel University**
29. Frontiers of science: climate and us - **Columbia University**
30. Climate change: science and negotiations - **SDG Academy**
31. Climate solutions - **The University of Edinburgh**
32. Transforming our world: achieving the sustainable development goals - **SDG Academy**
33. Incorporating renewable energy in electricity grids - **Imperial College London**
34. Nutrition and healthy living - **University of California**
35. Mental health: mindfulness and self- care - **University of Cape Town**

VI Workshops / FDPs / Training Programmes Attended

- Hands-on training by Ministry of Small, Micro Entrepreneurs, Government of India on Mushroom Cultivation (June 2024- September 2024).
- Presented on the theme **Ancient Indian History** as a part of *Cultural Heritage of Different Countries* at **Valencia College, Orlando, Florida, USA (2021).**
- Participated and presented on **Eminent Role of Women Scientists- Pioneers of Indian Science & Technology** at two-day National Seminar on *Women in Science and Technology*

for Sustainable Future organised by **Indian Science Congress Association, Tirupati Chapter and SPMVV (2022).**

- Presented a paper entitled **Unclenching the Barriers of Women's Mental Health- A Daunting Social Outlook** in the Two-day National Seminar on Health and Wellbeing of Women: Universal Agenda of 2030 by **National Commission for Women, Government of India, New Delhi and SPMVV (2023).**
- Participated and presented a poster entitled **Artificial Intelligence - The Revolutionary Technology Possessing Extension of Human Intelligence** in seminar on *Recent Trends in Science & Technology: Scope for Innovations* on the occasion of **National Science Day Celebrations (2023)** and awarded the **Best Poster Presentation** award on National Science Day Celebrations.
- Presented on **Food Security - Causes for Alarming Hunger Storm in the Society** at **International Conference** *on Emerging Strategies in Nutrition, Food and Lifestyle for Health Management (2024).*
- Participated in Two-day National Webinar on **Intellectual Property Rights: The Vision for Development (2023).**
- Participated in Two- day National Webinar **on Recent concepts and perspectives in Mycology** on the occasion of **World Fungus Day - 2023**.
- Participated in the celebrations of **International Day of Forests (CIDF-2023)** acted as Volunteer and participated in competitions of Essay writing, Elocution and Rally.
- Actively participated in various International conferences during the Exchange Program in the USA.
- Participated in Capacity Building Workshop for Faculty on "Research Techniques & Manuscript Development for Service- Learning Programmes" held on 12th & 13th December 2024 at Maris Stella College Vijayawada, organized by the IQAC and sponsored by the United Board for Christian Higher Education, Asia.
- Participated in **IP Awareness/Training program on** January 29, 2025 organized by **Intellectual Property Office**, India.
- Attended the **1st Educators Conclave** organized by **ICT Academy** in Le Royal Meridian, Chennai on 12th April, 2025.

Academic Projects

- Mass production of biocontrol agents for pest management at Central Sericulture Research and Training Institute, Mysore.
- Micro propagation of *Bacopa monnieri* at Sri Padmavati Mahila Visvavidyalayam, Tirupati.
- Biodynamics in sustainable agriculture at Valencia College, USA.

VII Awards & Recognitions

- Scholarship Awardee of Community College Initiative Program (US Dept of State) — 2021.
- Panellist on US President's Honorary List — Spring 2021, Valencia College.
- Received the Sri P. Balakrishna Reddy Gold Medal for securing First Rank in M.Sc. Botany (2024) from the Department of Biosciences & Sericulture at Sri Padmavati Mahila Visvavidyalayam during the 22nd Convocation. The medal was presented by the Hon'ble Governor of Andhra Pradesh, Abdul Nazeer, in the presence of former DRDO scientist and "Missile Woman of India," Dr. Shashikala Sinha.

VIII Research Contribution

Areas of Research:

- Sustainable Agriculture, Plant Tissue Culture, Integrated Pest Management.

Academic Projects:

- Mass production of Biocontrol agents to control Uzi fly, leaf roller, thrips, mites and mealybugs at Central Sericulture Research and Training Institute.

- Micro propagation of *Bacopa monnieri* at Sri Padmavati Mahila Visvavidyalayam, Tirupati.
- Biodynamics in Sustainable Agriculture at Valencia College, USA.

Review Papers Published in Journals:

- Hema Sree Sopeti published a research article entitled "Understanding the Risks of Repeatedly Heated Cooking Oil: Need for Comprehensive Research Imperative in India" (2026) Rekhadevi Perumalla Venkata and Hema Sree Sopeti in the International Clinical and Medical Case Reports Journal. Vol 5, Issue 2, Pages 1-8 (IF 3.192) Q3.

Review Papers Presented:

- Presented on **Eminent Role of Women Scientists- Pioneers of Indian Science & Technology** at two-day National Seminar on *Women in Science and Technology for Sustainable Future* organised by **Indian Science Congress Association, Tirupati Chapter and SPMVV (2022).**
- Presented a paper entitled **Unclenching the Barriers of Women's Mental Health- A Daunting Social Outlook** in the Two-day National Seminar on Health and Wellbeing of Women: Universal Agenda of 2030 by **National Commission for Women, Government of India, New Delhi and SPMVV (2023).**
- Presented a poster entitled **Artificial Intelligence - The Revolutionary Technology Possessing Extension of Human Intelligence** in seminar on *Recent Trends in Science & Technology: Scope for Innovations* on the occasion of **National Science Day Celebrations (2023)** and awarded the **Best Poster Presentation** award on National Science Day Celebrations.
- Presented on **Food Security - Causes for Alarming Hunger Storm in the Society** at **International Conference** *on Emerging Strategies in Nutrition, Food and Lifestyle for Health Management (2024).*

Books / Chapters in Books Published:

- "Pollen as a Tool in Detecting and Tracing Illicit Drug Plants – A Special Focus on *Calotropis gigantea*: A Review.**"** Published as conference proceedings with ISBN 978-81-964603-0-3.

- "Pteridophytes as Bioindicators and Flood Mitigators in the Krishna River Basin: AI-Assisted Identification and Insights from the 2024 Vijayawada Floods". Published as conference proceedings with ISBN No.978-93-343-9899-1 in Two-Day National Conference on Artificial Intelligence and Machine Learning For Lifesciences (AIMLS-2025)organized by the Departments of Botany and Biochemistry, S.R.R. & C.V.R. Government Degree College (A), Vijayawada, Andhra Pradesh and Consortium of Autonomous Colleges, Govt. of Andhra Pradesh, during November 14–15, 2025.

- "Biotechnological Paradigms for Health Sustainability: From Reactive Medicine to Precision Medicine". Published as conference proceedings with ISBN No. 978-93-5635-205-6 in Two-Day International Conference on Eco-Adaptive Research for Techno-sustainable Harmony (IC- EARTH 2026) sponsored by DST-SERB/ANRF on 12th & 13th February, 2026 organized by Department of Chemistry, S.R.R. & C.V.R. Government Degree College (Autonomous), Vijayawada.

Patents

https://drive.google.com/file/d/12ipKtAIji399M_Z8yqkU3rLqsIyyTUsc/view?usp=sharing

- Rekha Devi P. V., Renuka Satya Sree Nalam **Sopeti, Hema Sree**.
  "StellVita Millet Mocha Bar — A Millet-Based Functional Energy Snack for Active and Health-Conscious Consumers."
  Indian Patent Application No. **202641023321 A**, Filed: 27 Feb 2026, Published: 06 Mar 2026.
- Rekha Devi P. V., **Sopeti, Hema Sree**, Renuka Satya Sree Nalam.
  "StellVita Postpartum Wellness Powder — A Standardized Ayurvedic Herbal Formulation for Maternal Recovery and Lactation Support."
  Indian Patent Application No. **202641023325 A**, Filed: 27 Feb 2026, Published: 06 Mar 2026.
- **Sopeti, Hema Sree**, Renuka Satya Sree Nalam, Rekha Devi P. V.
  "StellVita-Fe Bar: Functional Seed-Based Iron Toffees for Maternal Health."
  Indian Patent Application No. **202641023322 A**, Filed: 27 Feb 2026, Published: 06 Mar 2026.
- Renuka Satya Sree Nalam, **Sopeti, Hema Sree,** Rekha Devi P. V.
  "StellVita NutriPulse Bar — A Clean-Label, Plant-Based Protein Bar for Daily Nutrition."
  Indian Patent Application No. **202641023317 A**, Filed: 27 Feb 2026, Published: 06 Mar 2026.

IX Workshops / Conferences / Seminars Organised

- Organized International Conference on "Innovations in Life Science Research: Harnessing Transformative Technologies for a Sustainable Future (LIFT 2025)" (March 2025)

X Awards & Recognitions

- Scholarship Awardee of **Community College Initiative Program - 2021** sponsored by US Department of State.
- Panellist of **US President's Honorary List for the Spring term - 2021** from Valencia College, Orlando, Florida- USA.
- Best NSS Volunteer — NSS Unit-XVIII, SPMVV (2022-2024).

XI Technical Skills & Volunteering

- Technical Certificate in **Plant Sciences Specialization** from **Valencia College, Orlando, Florida, USA**.
- Certified in **Digital Marketing** Course by **Mahindra Pride Classroom, Naandi Foundation and Andhra Pradesh Information Technology Academy (2021-22).**
- Three Months training program by **Ministry of Micro, small and medium enterprises, Government of India**- Hands-on training in **Mushroom cultivation** - gained experience in substrate preparation, spawn inoculation, management of growth condition, practised harvesting techniques and quality control measures.
- Hands-on training experience in One- day National workshop on ***Importance of Millets in the present day scenario*** in the view of International year of Millets- 2023 (an initiative of **Azadi Ka Amrit Mahotsav).**
- Awarded **Diploma in Computer Applications** on the successful completion of course in MS Office, Adobe Photoshop, Computer Fundamentals and Internet Concepts.
- Certified in Cocoon Handicrafts (2024) from Sri Padmavati Mahila Visvavidyalayam, Tirupati.
- Completed 50+ volunteering hours at Second Harvest Food Bank, USA.
- Active and Best **National Service Scheme (NSS)** Volunteer from NSS Unit- XVIII, SPMVV during 2022-2024.

- Volunteered as a **Guest Faculty in Botany** – November 2021 to January 2022 at AP Model School & Junior College.
- Conducted webinars on the **Role of Organic farming in Indian agriculture** at Institutional levels to the student community.
- Organised Awareness programs on the **Ill Effects of Chemical fertilizers and pesticides** in the neighbourhood farmer community.