



# ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution)



Approved by AICTE, affiliated to Anna University,  
accredited by NBA and NAAC with 'A' Grade  
Perundurai, Erode - 638 057.



# R&D CHRONICLE



Department of Agricultural Engineering

A Showcase of Research Excellence and Innovation



Academic Year 2025-2026

## INSIDE THIS ISSUE

Explore the research contributions and achievements of our faculty members.

01



### FUNDING

Research grants and funded projects that empower innovation and create real-world impact.



02



### JOURNAL PUBLICATIONS

High quality research articles published in reputed national and international journals.

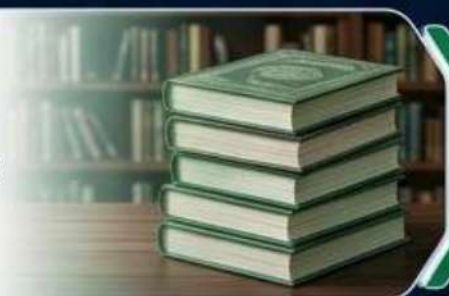


03



### BOOK CHAPTERS

Scholarly contributions to edited volumes that enrich academic knowledge and research.



04



### CONFERENCE PUBLICATIONS

Research papers presented in national and international conferences that share ideas and inspire collaborations.



05



### PATENT PUBLICATIONS

Innovative ideas and technologies protected through patents for societal benefit.



06



### AWARDS & RECOGNITIONS

Honors and recognitions received for outstanding research contributions and achievements.



“Nurturing ideas, cultivation knowledge, harvesting innovation for a sustainable tomorrow.”





A Showcase of  
Research Excellence  
and Innovation

Research grants and funded initiatives  
that empower innovation and  
create real-world impact.



01



 <b>FACULTY NAME</b>	R.K.M. Harishkumar
 <b>EVENT NAME &amp; DETAILS</b>	Farmers Survey — Tamilnadu Agricultural
 <b>FUNDING AGENCY</b>	TN Agricultural Department
 <b>AMOUNT</b>	₹ 50,000

**TITLE**

Tamilnadu Agricultural  
Engineering Department  
for Conducting  
Farmers Survey

02



 <b>FACULTY NAME</b>	K. Murugesan, Dr. M. Dhananivetha
 <b>EVENT NAME &amp; DETAILS</b>	Research Project in Tomato — Shefa Agricare Technologies
 <b>DATE</b>	Research Project
 <b>AMOUNT</b>	₹ 60,000

**TITLE**

Research Project in  
Tomato — Shefa  
Agricare Technologies

03



 <b>FACULTY NAME</b>	Shefa Agricare Technologies
 <b>EVENT NAME &amp; DETAILS</b>	Research Project in Tomato
 <b>DATE</b>	Research Project
 <b>AMOUNT</b>	₹ 60,000

**PROJECT**

Research Project in  
Tomato

04



 <b>FACULTY NAME</b>	A.K. Karthikeyan
 <b>EVENT NAME &amp; DETAILS</b>	Design and Development Project
 <b>DATE</b>	TNSCST IPD
 <b>AMOUNT</b>	₹ 79,000

**PROJECT**

Design and  
Development of  
automatic banana  
transplant machine





2025 - 2026 ACADEMIC YEAR

01



FACULTY NAME:	Dr. Krishnaswamy	
TITLE OF THE PAPER:	Failure Investigation of Single Bolt Glass Fiber Reinforced Polymer Angle Member with Gusset Plate under Tensile Load	
NAME OF THE JOURNAL:	Structural Integrity Procedia	
CATEGORY:	International Journal, Scopus Indexed & Web of Science	NATIONAL / INTERNATIONAL: International
YEAR:	2025	

02



FACULTY NAME:	Dr. R.M. Muthuraman	
TITLE OF THE PAPER:	A Correlation Study on Physico-Chemical Characteristics and Treatment of Dairy Wastewater by Using Natural Coagulants	
CONFERENCE:	International Conference on Green Technology & Sustainability (ICGTS 2025)	NATIONAL / INTERNATIONAL: International
CATEGORY:	International Conference, Scopus Indexed	NATIONAL / INTERNATIONAL: International
YEAR:	2025	



# BOOK CHAPTER PUBLICATIONS



2025-2026 ACADEMIC YEAR

04



**NAME OF THE FACULTY:** Dr. M. Dhananivetha  
**TITLE OF THE PAPER:** Ecology and Management of Pollinators in Agroecosystems for Sustainable Productivity  
**BOOK NAME:** Elite Publishing House, New Delhi  
**ISBN:** 978-93-7108-275-4  
**DATE:** 2025  
**DETAILS OF PUBLICATION:** Full book published by Elite Publishing House

05



**NAME OF THE FACULTY:** Dr. M. Dhananivetha  
**TITLE OF THE PAPER:** Progressive Approaches in Agriculture and Allied Sciences  
**BOOK NAME:** The Pustakalaya Publication  
**ISBN:** 978-93-49921-29-0  
**DATE:** 2025  
**DETAILS OF PUBLICATION:** Full book published by The Pustakalaya Publication

06



**NAME OF THE FACULTY:** Mr. A.K. Karthikeyan  
**TITLE OF THE PAPER:** Renewable Energy in Buildings  
**BOOK NAME:**  
**ISBN:** 978-93-5980-202-2  
**DATE:** 2025  
**DETAILS OF PUBLICATION:** Full book

07



**NAME OF THE FACULTY:** Mr. A.K. Karthikeyan  
**TITLE OF THE PAPER:** Tractors and Farm Engines  
**BOOK NAME:**  
**ISBN:** 978-93-5692-152-8  
**DATE:** 2025  
**DETAILS OF PUBLICATION:** Full book



# PATENT PUBLICATIONS

2025-2026 ACADEMIC YEAR



01



**FACULTY MEMBER:** Ms. K. Bharathi  
**TITLE OF THE INVENTION:** Design and fabrication of precision fertilizer applicator  
**REGISTRATION ID:** Application No: 202641024543A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

02



**FACULTY MEMBER:** Dr. M. Dhananivetha & Dr. R. Krishnasamy  
**TITLE OF THE INVENTION:** Development of a budget-friendly Tapioca planter to enhance planting efficiency  
**REGISTRATION ID:** Application No: 202641019977A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

03



**FACULTY MEMBER:** Mr. K. Murugesan  
**TITLE OF THE INVENTION:** Design and development of a Tamarind shell and seed separator machine  
**REGISTRATION ID:** Application No: 202641024547A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

04



**FACULTY MEMBER:** Mr. R.K.M. Harishkumar  
**TITLE OF THE INVENTION:** Design and fabrication of low-cost turmeric planting machine for sustainable spice farming  
**REGISTRATION ID:** Application No: 202641024545A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

05



**FACULTY MEMBER:** Mr. R.K.M. Harishkumar  
**TITLE OF THE INVENTION:** Design and fabrication of a low-cost turmeric planting machine for sustainable spice farming  
**REGISTRATION ID:** Application No: 202641024545A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025



# PATENT PUBLICATIONS

2025-2026 ACADEMIC YEAR



05



**FACULTY MEMBER:** Ms. R. Keerthika  
**TITLE OF THE INVENTION:** Enhancing the market value of Mudavattu kalkilangu (*Drynaria quercifolia*) through  
**REGISTRATION ID:** Application No: 202641020011  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

06



**FACULTY MEMBER:** Dr. R.M. Muthuraman  
**TITLE OF THE INVENTION:** Design and fabrication of a multi-crop seed cleaner suitable for small scale farming  
**REGISTRATION ID:** Application No: 202641024540A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

07



**FACULTY MEMBER:** Mr. A.K. Karthikeyan  
**TITLE OF THE INVENTION:** Design and fabrication of a multi-crop seed cleaner suitable for small scale farming  
**REGISTRATION ID:** Application No: 202641024540A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

07



**FACULTY MEMBER:** Mr. A.K. Karthikeyan  
**TITLE OF THE INVENTION:** Design and development of an automated mushroom bedding machine  
**REGISTRATION ID:** Application No: 202641024939A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025

08



**FACULTY MEMBER:** Mr. A.K. Karthikeyan  
**TITLE OF THE INVENTION:** Design and development of an automated mushroom bedding machine  
**REGISTRATION ID:** Application No: 202641024939A  
**NATIONAL/INTERNATIONAL:** National  
**DATE:** Publication Date: 2025



# BOOK CHAPTER PUBLICATIONS

2025-2026 ACADEMIC YEAR



04



**NAME OF THE FACULTY:** Dr. M. Dhananivetha  
**TITLE OF THE PAPER:** Ecology and Management of Pollinators in Agroecosystems for Sustainable Productivity  
**BOOK NAME:** Elite Publishing House, New Delhi  
**ISBN:** 978-93-7108-275-4  
**DATE:** 2026  
**DETAILS OF PUBLICATION:** Full book published by Elite Publishing House

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**NAME OF THE FACULTY:** Dr. M. Dhananivetha  
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**NAME OF THE FACULTY:** Mr. A.K. Karthikeyan  
**TITLE OF THE PAPER:** Renewable Energy in Buildings  
**BOOK NAME:**  
**ISBN:** 978-93-5980-202-2  
**DATE:** 2026  
**DETAILS OF PUBLICATION:** Full book

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**NAME OF THE FACULTY:** Mr. A.K. Karthikeyan  
**TITLE OF THE PAPER:** Tractors and Farm Engines  
**BOOK NAME:**  
**ISBN:** 978-93-5692-152-8  
**DATE:** 2026  
**DETAILS OF PUBLICATION:** Full book





# FACULTY ACHIEVEMENTS

## Honors and Recognitions

01



**NAME OF THE FACULTY:**

**Dr. R. Krishnasamy**

**ACHIEVEMENT:**

Published book chapter in Springer Nature —  
“2nd International Conference on Innovative,  
Sustainable Materials and Technologies”

**DATE:**

**March 2026**

02



**NAME OF THE FACULTY:**

**Mrs. K. Bharathi**

**ACHIEVEMENT:**

Published two books — “Agricultural  
Meteorology and Climate” and “Fundamentals  
of Agronomy” with DvS Scientific Publication

**DATE:**

**2025**

03



**NAME OF THE FACULTY:**

**Dr. M. Dhananivetha**

**ACHIEVEMENT:**

Published two books — “Ecology and  
Management of Pollinators in Agroecosystems”  
and “Progressive Approaches in Agriculture and  
Allied Sciences”

**DATE: 2025**





# THANK YOU

## FOR BEING PART OF OUR RESEARCH JOURNEY

Your dedication, passion and innovation drive progress and inspire a better tomorrow. Together, we continue to create impact through knowledge and discovery.

"Research is the bridge between curiosity and discovery, building a future of endless possibilities."



**INNOVATE** —  
Ideas that inspire  
change



**COLLABORATE** —  
Together we  
achieve more



**IMPACT** —  
Research today,  
better tomorrow



**INSPIRE** —  
Empowering minds,  
enriching futures

**THE JOURNEY CONTINUES... STAY CURIOUS. KEEP EXPLORING.**