ERODE SENGUNTHAR ENGINEERING COLLEGE

Department of Agricultural Engineering

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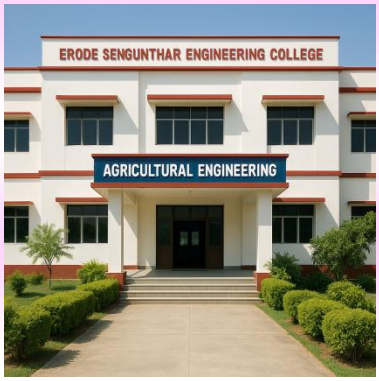
From the Desk of the Head of Department



It is my sincere pleasure to welcome you to the Department of Agricultural Engineering at Erode Sengunthar Engineering College. Our department is dedicated to advancing education, research, and innovation in agricultural technologies that address the evolving needs of modern farming and sustainable agriculture.

Our vision is to be a center of excellence that nurtures highly skilled agricultural engineers who can drive technological advancements, improve productivity, and contribute to environmental sustainability. We continuously update our curriculum and research programs to incorporate cutting-edge developments such as precision agriculture, renewable energy applications in farming, and water resource management.

Looking ahead, we are focused on strengthening our industry partnerships, expanding research collaborations, and encouraging student-led innovations that can make a real impact on local and global agricultural challenges. Our goal is to empower students to become leaders in agricultural engineering, ready to solve critical problems and support the farming community with practical, sustainable solutions.

I invite all our students, faculty, and partners to engage actively with our programs and contribute to building a future where technology and agriculture work hand in hand to ensure food security and environmental stewardship.

Together, let's cultivate innovation and growth for a sustainable tomorrow.

Warm regards,

Dr. K. M. Gopala Krishnan,
Head of the Department,
Department of Agricultural Engineering,

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Erode Sengunthar Engineering College.

Focus Areas and Future Directions :

Commitment to Academic Excellence: Erode Sengunthar Engineering College continues to prioritize high-quality education, integrating theoretical knowledge with practical skills to prepare students for gl
obal challenges.

Innovation and Research Focus: Our Institution is expanding its research capabilities, encouraging interdisciplinary projects and collaborations with industry to foster innovation, especially in emerging fields like precision agriculture, renewable energy, and smart technologies.

Industry Collaboration and Employability: Strengthening ties with leading industries remains a core focus, ensuring that curriculum and training align with current market demands, thus enhancing student employability and entrepreneurship.

Sustainability and Community Engagement: Our Institution emphasize sustainable development goals, promoting eco-friendly technologies and social responsibility, while actively engaging with local communities to address regional agricultural and engineering challenges.

Future Growth: Looking forward, our college aims to further enhance infrastructure, introduce cutting-edge programs, and boost global partnerships to elevate their status as centers of excellence in engineering and agricultural education.

VISION

- Our vision is to be the premier comprehensive Agricultural Engineering department in the world serving society through innovative technology to sustainably advance agriculture, industry, and living systems.

MISSION

- To carry out the education process in a professional manner to produce graduates with competencies in the field of agricultural engineering.
- To play an active role in solving problems in the field of Agricultural Engineering sector through synergy with other scientific discipline groups.
- To Undertake Global Research and Development activities in the field of Agricultural Engineering.
- To Bring out ethically strong and competent Agriculture engineering professionals for the benefit of society.

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FACULTY PUBLICATION

S.no.	Name	Title	Journal
1.	**Mr. R. K. M. Harish Kumar**	Exploring Biochemical Changes and Nutritional Composition in Mungbean Genotypes	*Journal of Scientific Research and Reports*
2.	**Mr. R. K. M. Harish Kumar**	Harnessing Nanotechnology for EcoFriendly Crop Enhancement and Sustainable Agriculture	*Journal of Experimental Agriculture International*
3.	**Mrs. M. Dhananivetha**	Climate-smart agriculture: Strategies for resilient farming systems	International Journal of Research in Agronomy
4.	**Mr. Muthuraman, R. M.**	Adsorption of Cr(III)ions using low-cost material and assessment of water quality in grey water a sustainable approach	*Rasayan jounaral of chemistry*
5.	**Mrs. Bharathi, K.**	Critical Role of Zinc and Molybdenum in Enhancing Sustainable Pulse Production In India	Biochemical.Cell. Arch
6.	**Mrs. Bharathi, K.**	"Crop Disease and Pest Management in Agriculture via UAV Remote Sensing and Advanced Machine Learning Models"	IEEE 2025 3rd (ICICACS)
7.	**Ms. R. Keerthika**	A Comprehensive Review on Recent Advances in Sustainable Agriculture	Journal of Scientific Research and Reports
8.	**Mrs. Bharathi, K.**	IoT – Enabled Smart Irrigation System with Attention Bidirectional LSTm for Optimized water management and crop Yields	2025 3rd (ICICACS)2025 IEEE

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Faculty Publication

Book

S. No.	Name of the Faculty	Title of the Book	Publisher name	Month / year of publication	Indexed in Scopus / ISBN
2024 - 25					
1	**Krashankant Sharma, Vaibha Parmeshwar Gulwane, Mandhata Singh,** R. K. M. Harish Kumar, **Dr. Sandeep Rout and Ms. Shreejaya Sivdas**	Modern Innovations In Agricultural Science And Technology	DvS scientific Publication, Uttar Pradesh	2025	9789366881485
2	**Akshay Kumar Kurdekar, Shiv Kumar Ahirwar,** Harish Kumar, R. K. M., **Manjusha, M. R., Gadha Sreekumar**	Modern Agriculture Exploring Current Trends	BS Global Publication House, Uttar Pradesh	2025	9788196497354

Book Chapter

S. No.	Name of the Faculty	Title of the Book Chapter
1	M.Dhananivetha.	Comparing the carbon sequestration potential of different organic horticultural practices
2	M. Dhananiveth a	Monsoon and rainfall pattern: Implications for crop production
3	K. Bharathi	Chemical Properties of Soil
4	K. Bharathi,	Enabling Smart Farming Practices through Internet of Things (IoT) in Agriculture
5	R. M. Muthurama n	Environmental Factors
6	R. M. Muthurama n	Smart Irrigation Systems for Water Conservation
7	A. K. Karthikeyan	Horticulture Tools and techniques;A Guide for Gardeners
8	A. K. Karthikeyan	Sustainable Agriculture : Practices and Principles
9	Keerthika, R.	Harnessing Biodiversity for Pest Management
10	K. Bharathi	**Investigating the Insecticidal Properties of Plant Extracts Against** *Spodoptera* ***litura***
11	A. K. Karthikeyan	Renewable Source in Buildings - an Optimized Approch towards future Sustainability
12	Dr. M. Dhananiveth a	Farmers Traditional Practices for Pre and post Harvest pest control in crop production
13	K. Bharathi	Design and Evaluation of Mechanical Weeder for Sugarcane
14	A. K. Karthikeyan	Testing and evaluation of Banan Planter
15	Harishkuma r, R. K. M.	Design and Fabrication of seed drill for coriander and greens
16	K. Murugesan	Evaluation of physical and Chemical Properties of different Combinaion of coir compost and farm residues
17	A. K. Karthikeyan	Testing and evaluation of carrot and radish harvester
18	M. Dhananiveth a	Design and evaluation of cassava planter

19	K. Bharathi	Testing and evaluation of sesame thresher to increease Farmers productivtiy
20	R. Keerthika	Enhancing the nuritional properties of palm (*Borassus flabellifer)* through value addition
21	Harishkumar, R. K. M.	Testing and evaluation of sugarcane Loader
22	R. M. Muthuraman	Design and evaluation of butter chuner

Industrial Visit

S.No	Year	Place
1.	II	Agricultural Research Station Bhavanisagar.
2.	IV	Central Sericulture Research and Training Institute, Mysore
3.	IV	ESCORTS, Bangalore
4.	IV	Mysore Cooperative Milk Union
5.	III	Tamilnadu Agricultural university- Plant Protection- Insect Museum
6.	III	Central Sericulture Research and Training Institute, Mysore
7.	III	ESCORTS, Bangalore
8.	III	Cold Storage National Agricultural Development Programme 2011-2012
9.	II	Krishi Vigyan Kendra Gobichettipalayam
10.	IV	Saravanan Mushroom production Unit Gobichettipalayam
11.	III	Ao Honey Farm Eddapadi-Salem
12.	III	**IAEC**-Integrated Agricultural Extension Centre -Bhavani
13.	III	National Institute of Food Technology Entrepeneurship And Management (NIFTEM)
14.	III	**TNAU**– Institute of Agriculture - Kumulur
15.	III	**ICAR**-Central Institute of Agricultural Engineering Coimbatore
16.	III	**TNAU**-Agricultral College and Research Institute - Madurai
17.	III	**NABARD**-Agribusiness Forum & Food Processing Unit - Madurai
18.	III	Sree Sai Ram Fish Farm Madurai
19.	III	The Dhan Academy Madurai

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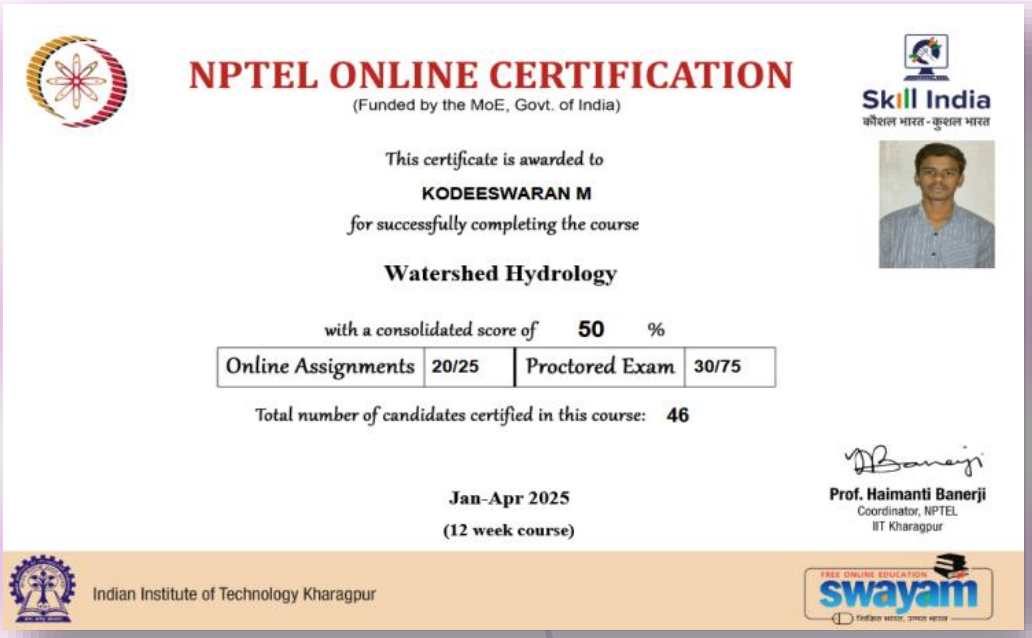
STUDENT ACHEIVEMENT

Sowmiya, S., Lavanya, K., and Bharani, S. of Second Year have participated in the Hackathon organized by Kalaignarkarunanidhi Institute of Technology, Coimbatore on 08.03.2025 at the national level and secured First Prize (I).

Kodeeswaran M., a third-year student, successfully completed the NPTEL course on Watershed Hydrology from January to April 2025.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

KODEESWARAN M

for successfully completing the course

Watershed Hydrology

with a consolidated score of 50 %

Online Assignments	20/25	Proctored Exam	30/75

Total number of candidates certified in this course: 46

Jan-Apr 2025

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Dinakar. A and Lakshmi Narayanan.M of second year participated in Ideathon and won First Prize (I).

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Selvaganapathy, V., Kaviyarasan, R., and Nandha Kumar, S. of Second Year have participated in the Project Expo organized by Saintgits Institute of Management, Kottayam on 24.02.2025 & 25.02.2025 at the national level and secured Second Prize.

Lakshmi Narayanan.M And Dinakar.A filed Patent in HERBAL ANTIBIOTIC TEA COMPOSITION WITH COCONUT LEAF, ZINGIBER OFFICINALE, BORASSUS FLABELLIFER AND ELETTTARIA CARDAMOMUM FOR BLOOD SUGAR

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :20/03/2025

(21) Application No.202541024947 A
(43) Publication Date : 28/03/2025

(54) Title of the invention : HERBAL ANTIBIOTIC TEA COMPOSITION WITH COCONUT LEAF, ZINGIBER OFFICINALE, BORASSUS FLABELLIFER AND ELETTARIA CARDAMOMUM FOR BLOOD SUGAR REGULATION

(51) International classification :A23F0003340000, A23L0027300000, A23G0003480000, A23F0003160000, A61K0036000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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1)Mohanraj
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2)M. Lakshmi Narayanan
3)A. Dinakar
4)Dr. Subramani Rajapandi
5)Dr. K.M.Gopalakrishnan
6)Mr. R.K.M. Harish Kumar
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
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5)Mr. R.K.M. Harish Kumar
Address of Applicant :Assistant Professor Department of Agricultural Engineering, Erode sengunthar engineering college, Perundurai, Erode -638057 ---------- ----------

(57) Abstract :
This research explores the preparation of a special herbal tea from coconut leaves, zinger, palm sugar, and Elettaria (cardamom). The combination of these plant materials not only yields a very refreshing and fragrant tea but also offers many advantages to the body. Coconut leaves are said to be highly nutritious, as they contain minerals needed for healthy bones and teeth such as calcium and magnesium. Zinger, or ginger, has a natural anti-inflammatory nature, easing stress, calming stomach ailments, and relieving colds. Palm sugar, a natural sweetener, is a more preferred option than processed sugars because it regulates blood sugar levels with just a touch of sweetness in the tea. Elettaria, or cardamom, adds the depth of flavor with the characteristic spicy-sweet scent and possesses digestive as well as anti-inflammatory effects. All of these combined make an excellently balanced tea that not only quenches the senses but also guarantees absolute well-being. This additive- and preservative-free herbal tea is a better choice than industrially processed teas. The mixture of ingredients in nature provides a healthy, tasty beverage that supports digestion, triggers immune system activation, and offers essential nutrition, hence suitable for individuals concerned about health.

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Research & Innovation

Name of the Student	Title of the Project
JAGADEESH S KESAVA PERUMAL M STEPHANRAJ M	EVALUATION OF PHYSICAL AND CHEMICAL PROPERTIES OF DIFFERENT COMBINATION OF COIR COMPOST AND FARM RESIDUES
NIKITHA E G RINOJA SHERIN D SRIDHAR R SRINITHI K	DESIGN AND EVALUATION OF MECHANICAL WEEDER FOR SUGARCANE CROP
MATHAN KUMAR A NIRANCHANI S RAJALAKSHMI V SENTHILKUMAR V	TESTING AND EVALUATION OF BANANA PLANTER
JAGATHEESHAN S PRIYA V VINITHA E VINOTHINI K	TESTING AND EVALUATION OF CAROOT AND RADISH HARVESTER
DINESH KUMAR T SRIDHAR N SANDEEP KUMAR SANTHOSH MAHTO	DESIGN AND EVALUATION OF CASSAVA PLANTER
DEEPIKA S MAHA LAKSHMI M MEGHA A PREETHI D	ENHANCING NUTRITIONAL PROPERTIES OF AVACADO THROUGH VALUE ADDITION
BOOJA B A DURGA S SALINI J SARANYA P	DESIGN AND FARBRICATION OF SEED DRILL FOR CORIANDER AND GREENS
AFSAL A KISHORE N BOOBESH K	DESIGN AND EVALUATION OF SESAME THRESHER
KARAN K RAM KUMAR K SURESH KUMAR P VALAVAN T M	EVALUATION THE NUTRITIONAL PROPERTIES OF PALM THROUGH VALUE ADDITION
GOKUL G MUNIKRISHINA K NITHIN K J JAWAHAR M	TESTING AND EVALUATION OF SUGARCANE LOADER
KAVIN KUMAR K SARON RAJA R SUBASH A B	DESIGN AND EVALUATION OF ELECTRIC HONEY EXTRACTOR
AKALYA K BHUVANESHWARI P GIRISHA V KAVYA T	DESIGN AND EVALUATION OF BUTTER CHUNER

DEPARTMENT EVENTS

- Mr. K. Murugesan, Associate Professor, acted as a resource person in the training and field demonstration under TNIAMP Phase II conducted by the Department of Agriculture, Pallipalayam, Erode on 26.12.2025**.**
- Mr. K. Murugesan, Associate Professor, acted as a resource person in the training and field demonstration under TNIAMP Phase II conducted by the Department of Agriculture, Pallipalayam, Erode on 26.12.2025.
- The Department of Agricultural Engineering has organized a workshop on “Secret Life of Bees: Insights from the Apiary” on 17.02.2025, with Mr. R. Annamalai, AO Honey, Edapadi, Salem as the resource person.
- The Department of Agricultural Engineering has organized a workshop on “Precision Land Surveying for Sustainable Agriculture” on 04.03.2025, with Mr. S. Raj Kumar, Chartered Survey Engineer, Salem Land Survey Institute, Salem as the resource person.
- The Department of Agricultural Engineering has organized a workshop on “IoT in Agriculture” on 20.03.2025, with Mr. Sakthivel, Software Developer, InOutTek Solutions, Perundurai, Tamil Nadu as the resource person.

Laboratory facilities

Soil science laboratory

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Food process engineering laboratory

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PHOTO GALLERY

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PLACEMENT & CAREER

K.AKALYA
KAVERI IRRIGATIONS, ERODE
1.8 LPA

P. BHUVANESHWARI
KAVERI IRRIGATIONS, ERODE
1.8 LPA

V. A. BOOJA
AMEEE NDT PVT LTD
1.8 LPA

V. GIRISHA
MOBITECH WIRELESS SOLUTION PVT LTD, ERODE
1.2 LPA

K. KAVIN KUMAR
KAVERI IRRIGATIONS, ERODE
2.3 LPA

T. KAVYA
KAVERI IRRIGATIONS, ERODE
1.8 LPA

N. KISHORE
MOBITECH WIRELESS SOLUTION PVT LTD, ERODE
1.5 LPA

M. MAHALAKSHMI
SATHYAM BIO PVT LTD, MADURAI
1.6 LPA

K. MUNIKRISHNA
MOBITECH WIRELESS SOLUTION PVT LTD, ERODE
1.5 LPA

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V. PRIYA
MUKIL WATER MANAGEMENT INDIA PVT LTD,
COIMBATORE

N. SRIDHAR
SATHYAM BIO PVT LTD, MADURAI
1.6 LPA

R. SRIDHAR
SATHYAM BIO PVT LTD, MADURAI
1.6

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