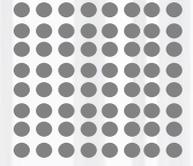




# SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY



(Autonomous)



ISSUE 07 | VOLUME 01 | AUGUST 2025

# SYNERGY

ACHIEVEMENTS IN PROJECTS, PLACEMENTS, RESEARCH AND EDUCATION

## DEPARTMENT OF MECHANICAL ENGINEERING



## Message from the Chairman.....



Bharat Jyoti

**Dr. Ravuri Venkata swamy Garu**

**Founder Chairman,  
SV Group of Educational Institutions.**

Education Is The Foundation Of Progress, And I Have Always Believed That Quality Education Can Transform Lives And Communities. With A Vision To Uplift The Backward Rayalaseema Region, I Established Srinivasa Educational Academy In 1998 With Like-minded Philanthropists And Educationists. Since Then, We Have Expanded Our Institutions To Provide Excellence In Nursing, Law, Engineering, And Medical Education.

Sri Venkateswara College of Engineering & Technology (Autonomous) stands as a testament to our commitment to technical education, consistently achieving outstanding results and national recognition. Our mission is not just to impart knowledge but to empower students with skills that lead to self-reliance and success

Beyond education, we have taken steps to serve society through RVS Hospitals and the proposed RVS Institute of Medical Sciences, ensuring accessible healthcare for the people of Chittoor and neighboring districts.

It is my firm belief that education, when combined with values and innovation, paves the way for a brighter future. I invite students to be part of this journey and strive for excellence in their chosen fields.

## Message from the Vice Chairman.....



### **Sri. Ravuri .V. Srinivas** Garu Vice Chairman, SV Group of Educational Institutions.

At Sri Venkateswara College of Engineering & Technology (Autonomous), our mission is to provide world-class education while fostering innovation, leadership, and social responsibility. Under the banner of Srinivasa Educational Academy, we have been committed to excellence, ensuring that our students receive not just academic knowledge but also the skills and values necessary for success in a rapidly evolving world.

With a strong foundation in engineering and management education, we have created an ecosystem where students from across the globe, including countries like Malaysia, Sudan, UAE, and Bhutan, come to pursue their dreams. Our relentless pursuit of quality has earned our institutions national recognition, NBA and NAAC accreditations, and a reputation as a preferred destination for top recruiters.

Beyond academics, our commitment to social responsibility remains unwavering. Through initiatives like Smt. Haarika Memorial Literary and Cultural Association and Helping Hands, we continue to support education, healthcare, and community welfare programs. It is our belief that education should not only empower individuals but also contribute to the betterment of society.

I welcome students to join our journey of excellence, innovation, and service to society. Together, we can build a brighter future.

## Message from the Principal.....



### **Dr. Matam Mohan Babu, Ph.D., MISTE, MISH** Principal, Sri Venkateswara College of Engineering & Technology (Autonomous)

We are committed to transforming our campus into a center of engineering excellence, where research, innovative pedagogy, and strong values come together to meet the demands of today's world. Our goal is to ensure that our students emerge as technologically skilled and ethically responsible leaders who can contribute meaningfully to the global community

I encourage each of you to embrace this journey with passion and dedication. May you soar high, explore new horizons, and make a lasting impact—both through your profession and the power of education

## Message from the Head of the Department Mechanical Engineering



### Dr.S. Arunsaco

Associate Professor

Head of the Department – Mechanical Engineering  
Sri Venkateswara College of Engineering & Technology  
(Autonomous)

At The Department Of Mechanical Engineering, Sri Venkateswara College Of Engineering & Technology (autonomous), We Are Committed To Nurturing Innovative Thinkers, Problem Solvers, And Industry-ready Professionals. Mechanical Engineering Is The Foundation Of Technological Advancements, And Our Curriculum Is Designed To Blend Theoretical Knowledge With Practical Applications, Research, And Industry Exposure.

#### Vision

To be recognized as a center for quality education in Mechanical Engineering and allied areas and to train young students to solve the problems of tomorrow.

#### Mission

- M1** : Provide excellent foundation through Teaching-Learning and train the students based on research to help them progress for Higher education.
- M2** : Fostering student development with special focus on domain and soft skills for a prospective career placement.
- M3** : Developing students with skills in entrepreneurship contributing to job creation and societal development.
- M4** : Creating an ecosystem for continuous development of faculty and students by providing relevant infrastructure and resources.

We emphasize hands-on learning, interdisciplinary research, and skill development to equip our students with the ability to tackle real-world engineering challenges. Our well-equipped laboratories, dedicated faculty, and strong industry collaborations ensure that students gain a competitive edge in the ever-evolving engineering landscape.

I encourage our students to think critically, innovate fearlessly, and uphold ethical values in their professional journey. With determination and dedication, I am confident that each of you will contribute significantly to the field of mechanical engineering and make a meaningful impact on society.

**Wishing you all a rewarding  
and  
successful journey ahead!**

## Recent Development in Mechanical Engineering

### Thermoacoustic Technology – A Greener Path in Mechanical Engineering

Mechanical engineering is steadily evolving with innovations that combine sustainability, efficiency, and simplicity. One of the **recent breakthroughs** is in **Thermoacoustic Technology**, which is drawing global attention as a promising alternative to conventional refrigeration and waste-heat recovery systems.

### What is Thermoacoustics?

Thermoacoustics is the science of using **sound waves to drive heat transfer**. In a thermoacoustic engine or refrigerator, acoustic waves compress and expand gas within a resonator. This interaction creates temperature gradients, enabling heat to be moved from one end of the system to the other — much like a refrigerator but **without compressors, pistons, or harmful refrigerants**.

### Recent Developments

- **Advanced Regenerators:** New porous materials and micro-structured designs minimize energy losses and improve heat exchange.
- **Traveling Wave Designs:** Research shows that traveling-wave configurations deliver higher efficiency compared to standing-wave systems.
- **Compact & Sustainable Systems:** With no moving parts, these devices promise **high reliability, reduced maintenance, and eco-friendly operation**.
- **Waste Heat Utilization:** Thermoacoustic devices can be powered by industrial waste heat, converting unused energy into useful cooling or electricity.

### Why It Matters

Traditional refrigeration relies on refrigerants with high Global Warming Potential (GWP) and complex moving parts. Thermoacoustic systems avoid these drawbacks, offering:

- **Eco-friendly operation** (no harmful refrigerants).
- **Durability and low maintenance** (no moving parts).
- **Versatility** in both power generation and refrigeration.

As industries push for **greener technologies**, thermoacoustics could revolutionize how we cool, store, and utilize energy in the coming decades.

### Reference

Gaikwad, M. K., Shinde, S., Dandavate, A. L., et al. (2025). *Advancements in thermoacoustic technology: a comprehensive review and analysis of recent research*. *International Journal of Air-Conditioning and Refrigeration*, 33, Article 14.

## Students Development Highlights

### Inaugural Function of MEDHA - Mechanical Engineering Department Honorary Association

The Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, organized the Inaugural Function of MEDHA - Mechanical Engineering Department Honorary Association on 22nd August 2025 at the E-Class Room (R-221).

The event was graced by the presence of faculty members, students, and distinguished guests. The primary objective of MEDHA is to provide a collaborative platform for mechanical engineering students to enhance their technical knowledge, leadership skills, and innovative capabilities.

During the function, the importance of professional associations in shaping students' academic and career development was emphasized. The association is expected to organize guest lectures, workshops, technical contests, and industrial visits to bridge the gap between classroom learning and practical exposure.

The inauguration of MEDHA marked a significant step toward fostering innovation, teamwork, and technical excellence among budding mechanical engineers of SVCET.

**SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY**  
(Autonomous)  
Accredited by NBA (Tier-1) & NAAC with 'A+' Grade, Approved by AICTE & Affiliated to JNTUA, Ananthapuramu  
R.V.S Nagar, Chittoor - 517127, Andhra Pradesh.

**Department of Mechanical Engineering**  
**Cordially Invites you for the Inaugural Function of**  
**MEDHA**  
Mechanical Engineering Department Honorary Association

**22<sup>nd</sup> August 2025**

**E-Class Room (R-221)**

## Faculty Participation in National Level FDP on Research and Proposal Writing

The Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, takes pride in the active participation of its faculty in academic and research development programs.

The following faculty members of the Department of Mechanical Engineering successfully completed a 5-Day National Level Faculty Development Program (FDP) on "Advanced Techniques Used in Research and Funding Proposal Writing" organized by the Department of Mechanical Engineering, SVCE&T, in association with ACT Academy, Palakkad, Kerala, from 25th August 2025 to 30th August 2025.

This FDP aimed to enhance the research and proposal writing skills of faculty members, focusing on advanced methodologies, research design, and strategies for preparing effective funding proposals. The program provided valuable insights into improving the quality of research output and securing research grants from reputed funding agencies.

The Department congratulates all faculty members for their active participation and contribution towards strengthening the research culture in the institution. Such initiatives not only enrich faculty expertise but also inspire students to pursue research-driven learning.

### Dr.A. Mahamani, Professor



### Dr.A.R. Babu Professor



### Dr.Ahilan Professor



### Dr.C. Uma Maheshwari Associate Professor



### Dr.G. Balaji Professor

### Dr.K. Baskaran Assistant Professor

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**DR. G. BALAJI**  
PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT539

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**DR. K. BASKARAN**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT551

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

### Dr.P. Ankammarao Assistant Professor

### Dr.P. Venkataramana Associate Professor

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**DR. P. ANKAMMARAO**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT544

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**DR. P. VENKATARAMANA**  
ASSOCIATE PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT543

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

### Dr.S. Arunsaco Associate Professor

### Dr.S. Johny James Associate Professor

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**DR. S. ARUNSACO**  
HOD & ASSOCIATE PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT540

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**DR. S. JOHNY JAMES**  
ASSOCIATE PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT541

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

### Mr.C.Sivalingam Assistant Professor

### Mr.D.Gopinath Assistant Professor

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**MR. C. SIVALINGAM**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT550

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

Sri Venkateswara College of Engineering & Technology,(Autonomous)  
Chittoor-517127, Andhra Pradesh

**Achieving Excellence Together**  
**A.C.T ACADEMY**  
www.actacademy.in

**CERTIFICATE OF PARTICIPATION**  
This Certificate is Proudly Presented to

**MR. D. GOPINATH**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS), CHITTOOR  
CERT.REF.NO : 2025/ACT/SVCET/AT549

For having attended 5 Days National Level FDP on **"Advanced Techniques Used in Research and Funding Proposal Writing"** held from 25.08.2025 to 30.08.2025 Organized by Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (Autonomous), Chittoor, Andhra Pradesh in Association with ACT Academy, Palakkad, Kerala.

*S. Arun Saco*     *P. Venkataramana*     *M. Mohan Babu*     *M. Soudamini Menon*  
Dr. S. ARUN SACO     Dr. P. VENKATARAMANA     Dr. M. MOHAN BABU     Dr. SOUDAMINI MENON  
HOD, Convener     Associate professor     Principal, SVCET     Director, A.C.T Academy  
SVCET, Chittoor     Organizing Secretary     Chittoor     Kerala

### Mr.G. Vikas Reddy Assistant Professor



### Mr.N. Sakthivelan Assistant Professor



### Mr.R. Rajesh Assistant Professor



### Mr.S. Jawahar Assistant Professor



3. Dr. AHILAN C, Professor from Sri Venkateswara College of Engineering and Technology (Autonomous), successfully participated in a five-day online Faculty Development Program (FDP) on "Cutting-Edge Research in Mechanical Engineering." The program was organized by the Department of Humanities & Sciences (Mechanical Engineering) at Ashoka Women's Engineering College, Dupadu, Kurnool, Andhra Pradesh.

Held from 14th July to 18th July 2025, the FDP provided a robust platform for faculty to engage with emerging research trends, advanced methodologies, and interdisciplinary collaboration within the field of mechanical engineering. The initiative reflects the institution's commitment to academic excellence and continuous professional development.

This event also highlighted Ashoka Women's Engineering College's proactive role in promoting high-quality academic exchange, empowering educators to inspire innovation in both teaching and research.

## Student Achievements:



The Department of Mechanical Engineering is proud to announce that Chukka Vinay Kumar actively participated in HackWithIndia – Build It Tour Bengaluru, an event that explored the fusion of Emotional Intelligence and Technology.

The hackathon provided a unique platform for students to engage in innovative problem-solving, apply their technical knowledge, and collaborate with peers from diverse backgrounds. Through this participation, students gained valuable exposure to emerging technologies, creativity-driven challenges, and teamwork in a competitive environment.

The Department congratulates Chukka Vinay Kumar for his enthusiastic involvement and for bringing laurels to the institution by showcasing the innovative spirit of SVCE&T students.





# SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY



(Autonomous)

NIRF Ranking 201-300 Band | Recognized as College with Potential for Excellence by UGC | Accredited with 'A+' Grade by NAAC & NBA | Approved by AICTE, New Delhi | Affiliated to JNTUA, Ananthapuramu

Guest Lecture on

## OVERVIEW OF ELECTRICAL VEHICLE

Organized By  
Department of Mechanical Engineering

SPEAKERS



Ms. J. PAVALAM  
AP/EEE



Ms. A. M. HEMALATHA  
AP/EEE

For II B.Tech I Sem Mechanical Engineering Students

Date: 29-08-2025 | Time: 02.30 PM to 04.00 PM | Venue: : R120 Dosult Lab

Coordinator  
**Mr. C. Sivalingam**  
Assistant Professor

HOD ME  
**Dr. S. Arunsaco**  
Associate Professor

Principal  
**Dr. M. Mohan Babu**  
SVCET, Chittoor



## EDITORIAL TEAM



**Mr. C. Sivalingam**  
Assistant Professor



**Mr. S. Jawahar**  
Assistant Professor



**Dr. S. Arunsaco**  
Associate Professor & HOD



**Mr. C. Satheesh**  
Graphic Designer  
SVCET



**Mr. T. Venkatesh**  
**23785A0313**  
Student



# SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous)

