



ISSUE 11 | VOLUME 01 | NOV-DEC 2025

SYNERGY

ACHIEVEMENTS IN PROJECTS, PLACEMENTS, RESEARCH AND EDUCATION

DEPARTMENT OF MECHANICAL ENGINEERING

**SRI VENKATESWARA COLLEGE OF
ENGINEERING & TECHNOLOGY**

(Autonomous)



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.....



Shri. 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

Electrification & Transportation Innovations

Electrification is one of the most impactful recent developments in mechanical engineering, particularly in the transportation sector. The global shift toward electric vehicles (EVs), hybrid systems, and alternative propulsion technologies has expanded the role of mechanical engineers beyond conventional engine design to integrated electro-mechanical systems.

A major focus area is battery technology and thermal management. Mechanical engineers are designing advanced cooling systems for lithium-ion and solid-state batteries to improve safety, extend battery life, and enhance energy efficiency. Lightweight structural designs using aluminium alloys and composites further increase vehicle range while maintaining safety and performance.

Another significant innovation is the development of electric powertrains. Mechanical engineers contribute to the design of high-efficiency electric motors, gear reduction systems, regenerative braking mechanisms, and compact drivetrains. These systems reduce mechanical losses and improve overall vehicle efficiency compared to internal combustion engines.

In addition to road vehicles, electrification is transforming railways, marine systems, and aerospace applications. Electric and hybrid propulsion systems are being explored for short-haul aircraft, drones, and urban air mobility solutions, emphasizing noise reduction and lower emissions. Similarly, electric propulsion in ships is gaining attention for reducing fuel consumption and environmental impact.

Mechanical engineering also plays a vital role in hydrogen fuel cell technology, which is emerging as a complementary solution to battery-based electrification. Engineers are involved in fuel cell stack design, hydrogen storage systems, and thermal and structural optimization of fuel cell vehicles.

Overall, electrification and transportation innovations are redefining mechanical engineering by integrating sustainability, energy efficiency, and advanced system design. These developments support global goals of reduced carbon emissions and cleaner mobility, making mechanical engineers key contributors to the future of transportation.

References

1. Deloitte, *Manufacturing Industry Outlook*, 2025.
2. Gravis Engineering, *Top Mechanical Engineering Trends Transforming Industries*, 2025.
3. International Journal of Mechanical Engineering and Clean Energy Innovation, 2024.

Faculty Achievements



Dr. P. Venkataramana



Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

Application Details	
APPLICATION NUMBER	202541073998
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	04/08/2025
APPLICANT NAME	1 . DR.B.VINOD 2 . Dr. K. CHANDRASEKHAR REDDY 3 . Dr.S SUNIL KUMAR REDDY 4 . Dr. P. VENKATARAMANA 5 . K. SAI SUJITH 6 . MANIKUMAR VELUGULA 7 . Dr. R. PRAKASH
TITLE OF INVENTION	ARTIFICIAL INTELLIGENCE FOR MONITORING AND ALERTING ON VEHICLE EMISSION ABNORMALITIES
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	22/08/2025

1. Faculty Patent Publication in Artificial Intelligence

Dr. P. Venkataramana, Associate Professor, Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology, Chittoor, is a co-applicant of a published patent titled "Artificial Intelligence for Monitoring and Alerting on Vehicle Emission Abnormalities." The innovation emphasizes AI-driven monitoring to improve emission control and environmental sustainability.
Faculty Achievement – Certificate of Appreciation



Dr. P. Venkataramana



Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

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E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	22/08/2025

2. AI-Based Vehicle Emission Monitoring Patent Published

A patent titled “Artificial Intelligence for Monitoring and Alerting on Vehicle Emission Abnormalities” has been published by the Indian Patent Office on 22 August 2025. Dr. P. Venkataramana, Associate Professor, Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology, Chittoor, is one of the co-inventors. The invention focuses on applying artificial intelligence to detect and alert abnormal vehicle emissions, contributing to improved environmental monitoring and sustainable transportation.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



Skill India
कौशल भारत - कुशल भारत

This certificate is awarded to
P VENKATARAMANA
for successfully completing the course



Introduction to Machine Learning

with a consolidated score of **52** %

Online Assignments	22.22/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **6928**

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jul-Oct 2025
(12 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL25CS91S470701616

To verify the certificate



No. of credits recommended: 3 or 4

NPTEL Certification Achievement

Dr. P. Venkataramana has successfully completed the NPTEL online certification course "Introduction to Machine Learning", conducted by IIT Madras under the Ministry of Education, Government of India, during July–October 2025, demonstrating proficiency in fundamental machine learning concepts.



NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



Skill India
कौशल भारत - कुशल भारत

This certificate is awarded to
ANKAMMARAO PADAMURTHY
for successfully completing the course



Machine Learning and Deep Learning - Fundamentals and Applications

with a consolidated score of **52** %

Online Assignments	22.16/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **1755**

Jul-Oct 2025
(12 week course)

Dr. Sailesh Kashyap
Coordinator, Centre for Educational Technology,
IIT Guwahati



Indian Institute of Technology Guwahati



Roll No: NPTEL25EE181S1270700787

To verify the certificate



No. of credits recommended: 3 or 4

NPTEL Certification Achievement

Dr. P. Ankammarao has successfully completed the NPTEL online certification course "Machine Learning and Deep Learning – Fundamentals and Application", conducted by IIT Guwahati under the Ministry of Education, Government of India, during July–October 2025, demonstrating proficiency in fundamental machine learning concepts.

SVCET Participate in VibethonX 2025 at Hyderabad



Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, successfully participated in VibethonX 2025, a prestigious technical event organized by Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad. Representing Team TECH Titans, the participant showcased technical enthusiasm and collaborative skills during the event. The participation highlights SVCET's continuous encouragement of student involvement in national-level technical competitions and innovation-driven platforms. VibethonX 2025 served as an excellent opportunity for students to engage with emerging technologies, teamwork, and problem-solving in a competitive environment.

Certificate of Participation

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has participated in FEC
Mumbai Hackathon organised by Sardar Patel Institute Of
Technology.



Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, actively participated in the FEC Mumbai Hackathon, organized by the Sardar Patel Institute of Technology, Mumbai. The event provided a competitive platform for students to demonstrate their technical skills, innovative thinking, and problem-solving abilities. Participation in such national-level hackathons reflects SVCET's commitment to encouraging experiential learning, innovation, and exposure to emerging technological trends among its students.



Certificate of Excellence

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has 1644th rank in Daily
quiz [date: 19-10-2025] of Management: October
Series organised by Unstop.



SVCET Student Secures Notable Rank in National Management Quiz

Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, achieved a 1644th rank in the Daily Quiz – Management (October Series) conducted on 19 October 2025 and organized by Unstop, a national-level competitive learning platform. The achievement reflects the student's consistent effort, managerial aptitude, and commitment to continuous learning. Such recognitions bring pride to the institution and highlight SVCET's emphasis on academic excellence and student participation in competitive platforms.





Certificate of Excellence

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has 642nd rank in Daily
quiz [date: 08-10-2025] of Management: October
Series organised by Unstop.



SVCET Student Secures Notable Rank in National Management Quiz

Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, secured an impressive 642nd rank in the Daily Quiz – Management (October Series) conducted on 8 October 2025. The quiz was organized by Unstop, a leading national-level competitive learning platform. The achievement highlights the student's strong analytical ability, managerial knowledge, and dedication to continuous academic improvement, bringing recognition to both the student and the institution.



Certificate of Participation

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has participated in Hack-A-
Thon 1.0 organised by St. Peter's Engineering College
(SPEC), Hyderabad, Telangana.



SVCET Student Participates in Hack-A-Thon 1.0 at Hyderabad

Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, participated in Hack-A-Thon 1.0, organized by St. Peter's Engineering College (SPEC), Hyderabad, Telangana. The hackathon provided a platform for students to apply innovative ideas, strengthen problem-solving skills, and gain hands-on experience in a competitive technical environment. Participation in such events reflects the institution's focus on innovation, creativity, and experiential learning.

Certificate of Participation

This is to certify that **Chukka Vinay Kumar** from

**Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor**

has participated in **Arrays and Strings Mastery** organized

by the **IEEE TEMS, VIT Vellore.**



Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, participated in the “Arrays and Strings Mastery” technical event organized by IEEE Technology and Engineering Management Society (TEMS), Vellore Institute of Technology (VIT), Vellore. The event aimed at enhancing students' problem-solving skills and strengthening their fundamentals in data structures and programming concepts. The participation reflects the student's active involvement in national-level technical learning platforms and brings recognition to the institution.

Certificate of Participation.

This is to acknowledge that

C.vinay Kumar

has attended Agentathon 2025, the **Largest Agentic AI hackathon**, which broke the World Record and was hosted by **GDG Hyderabad** at Malla Reddy University, Hyderabad, on December 20 and 21, 2025.



Aarshad Dinesh Devani

Lead - Google Developer Groups Hyderabad
Co-Organizer - Google Developer Groups
Cloud Hyderabad



J Siv Ram Shastri

Co-Organizer - Google Developer Groups
Cloud Hyderabad



Student Participates in World Record–Holding Agentathon 2025

Hyderabad: C. Vinay Kumar participated in Agentathon 2025, recognized as the world's largest Agentic Artificial Intelligence hackathon, which set a world record during the event. The hackathon was hosted by Google Developer Groups (GDG) Hyderabad at Malla Reddy University, Hyderabad, and was held on December 20 and 21, 2025. The event brought together developers, innovators, and AI enthusiasts from across the country to collaborate on advanced agentic AI solutions, providing participants with significant exposure to cutting-edge technologies and industry practices.



COURSE COMPLETION CERTIFICATE

The certificate is awarded to

Chukka Vinay Kumar

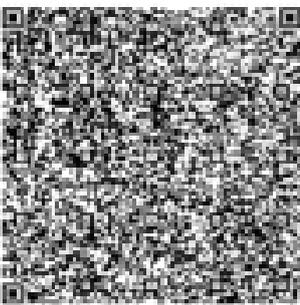
for successfully completing the course

Introduction to Artificial Intelligence

on December 24, 2025

Infosys | Springboard

Congratulations! You make us proud!



Issued on Wednesday, December 24, 2025
To verify, scan the QR code at <https://infosys.com/infosys.com>

Sathish B.N.
Sathish B. Nanjappa
Senior Vice President and Head
Education, Training and Assessment
Infosys Limited

SVCET Student Completes Artificial Intelligence Course by Infosys

Chittoor: *Chukka Vinay Kumar*, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, has successfully completed the online certification course titled "Introduction to Artificial Intelligence" offered by Infosys, in collaboration with Springboard. The course, completed on December 24, 2025, provided foundational knowledge in artificial intelligence.



To: The Head of Department, Mechanical engineering

From: Chukka Vinay Kumar, Roll Number: 24785A0304*

Date: December 30, 2025

Student Participation in International Hackathon

Chukka Vinay Kumar, a student of the Department of Mechanical Engineering, Sri Venkateswara College of Engineering and Technology, actively participated in HACK-A-THON 1.0, an International Level Hackathon, on December 30, 2025. The hackathon was conducted as a 32-hour continuous event on the 12th and 13th of December 2025 at St. Peter's Engineering College, Hyderabad. Organized by the Department of Computer Science and Engineering (CSE) and IT – Origin Association, the event provided an excellent platform to apply technical and analytical skills in a competitive, real-world problem-solving environment. The participation reflects the student's enthusiasm for interdisciplinary learning, innovation, and hands-on experience beyond the classroom.

Statement of Achievement

Vinay kumar Chukka

has successfully achieved student level credential for completing the Python Essentials 1 course, provided by Cisco Networking Academy in collaboration with OpenEDG Python Institute.

The graduate has studied:

- *Design, develop, debug, execute, and refactor simple computer programs written in Python 3.*
- *Think algorithmically to analyze problems and implement them as computer processes.*
- *Use the syntax, semantics, and the most important elements of the Python Standard Library to write Python scripts and resolve typical implementation challenges.*
- *Understand the role of a programmer in the software development process.*
- *Attempt the qualification PCEP – Certified Entry-Level Python Programmer from OpenEDG Python Institute and continue their professional development at an intermediate level with Python Essentials 2.*



Scan to Verify

Issued on: Mar 02, 2025

Lynn Bloomer

Lynn Bloomer
Director, Cisco Networking Academy

Vinay Kumar Chukka has successfully completed the Python Essentials 1 course conducted by Cisco Networking Academy in collaboration with the OpenEDG Python Institute, earning a student-level credential in Python programming.



Certificate of Participation

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has participated in Coding
Challenge- organised by Tough Tongue AI.



Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, actively participated in a Coding Challenge organized by Tough Tongue AI through the Unstop platform. His participation reflects his enthusiasm for competitive coding and commitment to enhancing his programming and problem-solving skills beyond the classroom.





Certificate of Participation

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has participated in Lens
Flare of Synergy '25 organised by International Institute
of Information Technology (IIIT), Bangalore.



Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, participated in Lens Flare, an event conducted as part of Synergy '25, organized by the International Institute of Information Technology (IIIT), Bangalore. His participation reflects active involvement in technical and professional development activities beyond the regular curriculum.



Certificate of Excellence

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor has 1576th rank in Daily
quiz [date: 10-10-2025] of Management: October
Series organised by Unstop.



Chukka Vinay Kumar, a student of Sri Venkateshwara College of Engineering and Technology (SVCET), Chittoor, secured the 1576 rank in the Daily Quiz on Management conducted on 10 October 2025 as part of the October Series, organized by Unstop. This achievement reflects his active participation and competency in management-related competitive assessments.



Certificate of Participation

This is to certify that
Chukka Vinay Kumar

from Sri Venkateswara College of Engineering and
Technology(SVCET), Chittoor as Team vinaykumarchukka1 has
participated in **Chatbot Evolution: Show Off Your Hotbot!** organised
by Vellore Institute of Technology (VIT-AP), Andhra Pradesh.



Chukka Vinay Kumar, a student of Sri Venkateswara College of Engineering and Technology (SVCET), Chittoor, participated as a team member in *“Chatbot Evolution: Show Off Your Hotbot”*, a technical event organized by Vellore Institute of Technology (VIT-AP), Andhra Pradesh. The participation highlights his interest in emerging technologies and practical applications of artificial intelligence.

EDITORIAL TEAM



Mr. C. Sivalingam
Assistant Professor



Mr. S. Jawahar
Assistant Professor



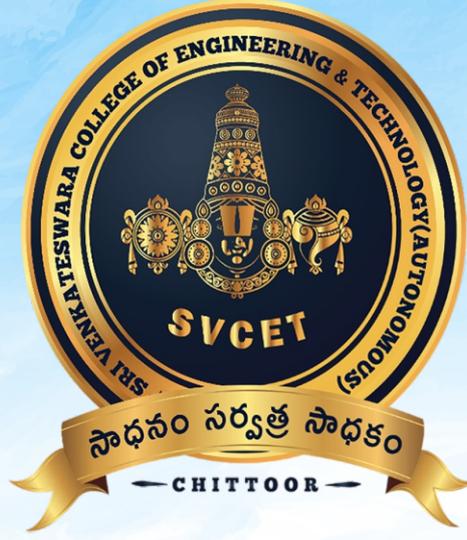
Dr. S. Arunsaco
Associate Professor & HOD



Mr. C. Satheesh
Graphic Designer
SVCET



Mr. T. Venkatesh
23785A0313
Student



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