



# SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY



(Autonomous)

RVS Knowledge District, Tirupati Road, Chittoor-517127, A.P

ISSUE 02 | VOLUME 01 | FEBRUARY 2025

# SYNERGY

ACHIEVEMENTS IN PROJECTS, PLACEMENTS, RESEARCH AND EDUCATION



## MANUFACTURE



## DEPARTMENT OF MECHANICAL ENGINEERING





## Message from the Chairman.....



**Bharat Jyoti**  
**Dr. Ravuri Venkata swamy**  
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**

**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.

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

## Hyundai Unveils Creta Flex Fuel Prototype: A Step Towards Sustainable Mobility

In January 2025, **Hyundai Motor India** showcased the **Creta Flex Fuel prototype** at the **Bharat Mobility Global Expo 2025**, marking a significant step in India's transition toward alternative fuel technologies. This initiative aligns with the Indian government's push to adopt **ethanol-blended fuels** as a sustainable and cost-effective alternative to conventional petrol and diesel.

### Key Features of the Creta Flex Fuel Prototype

- Fuel Compatibility:** The prototype is designed to run on a range of ethanol blends, from E0 (100% petrol) to E100 (100% ethanol).
- Engine Adaptation:** The vehicle features an advanced 1.5-liter petrol engine, modified to handle ethanol's different combustion characteristics while maintaining performance and efficiency.
- Reduced Emissions:** Ethanol-powered vehicles significantly lower carbon monoxide and particulate matter emissions, contributing to a greener automotive future.
- Flex Fuel Readiness:** The model aligns with India's Ethanol Blending Program (EBP), which aims for 20% ethanol blending (E20) by 2025 and greater adoption of 100% ethanol-powered vehicles.
- Cost and Performance Benefits:** Ethanol, being a renewable resource derived from sugarcane, maize, and agricultural waste, offers a cheaper and locally produced fuel alternative, reducing India's reliance on oil imports.

### Hyundai's Vision for Flex Fuel Technology

Hyundai's introduction of the **Creta Flex Fuel** is part of its broader **sustainability roadmap**, complementing its electric and hydrogen-powered vehicle initiatives. **Tarun Garg, COO of Hyundai India**, emphasized that the brand is committed to aligning with government policies promoting cleaner and more sustainable mobility solutions.

The Creta Flex Fuel prototype is currently in the **testing phase**, with **commercial rollout plans expected in the coming years**. Hyundai is also collaborating with **Indian research institutions** to optimize ethanol fuel efficiency and ensure smooth market adoption.

### India's Ethanol Transition: A Growing Industry Shift

The Indian government, under the leadership of **Union Minister Nitin Gadkari**, has been advocating for **flex-fuel vehicles (FFVs)** to reduce dependency on fossil fuels. Several automakers, including **Maruti Suzuki, Tata Motors, and Toyota**, are actively developing **E100-capable vehicles**, paving the way for a more sustainable automotive industry.

With the unveiling of the **Creta Flex Fuel prototype**, Hyundai has reinforced its position as a leader in **alternative fuel technologies**, bringing India one step closer to a **cleaner and more self-reliant energy future**.

### References:

- India Today Auto. (2025). *Hyundai Showcases Creta Flex Fuel Prototype at Bharat Mobility Global Expo 2025*. [India Today](#)
- Ministry of Road Transport & Highways. (2025). *Ethanol as an Alternative Fuel: The Future of Indian Automobiles*. PIB, New Delhi.



## FACULTY ACHIEVEMENTS

### As Resource Person

#### Dr. A. Mahamani, Dean R & D

- Delivered a session in a **One-day Online Workshop on Design Thinking, Critical Thinking, and Innovation Design** at **Sri Padmavathi Mahila Visvavidyalayam (Women's University), Tirupati**.
- Received a Certificate of Appreciation for the contribution.

This achievement highlights Dr. A. Mahamani's expertise in fostering innovation and critical thinking, contributing to academic excellence.





# INNOVATION AND ENTREPRENEURSHIP OUTREACH PROGRAM

**Dr. A. Mahamani, Dean R & D**

- Conducted an **Innovation and Entrepreneurship Outreach Program** for **8th and 9th class government school students** at **Putalapattu, Chittoor**, in association with the **IIC Cell**.
- The program was held on **22.02.2025** to foster awareness and enthusiasm for innovation and entrepreneurship.

These achievements highlight Dr. A. Mahamani's dedication to promoting innovation, critical thinking, and entrepreneurship among students at various levels.



## Guest Lecture on "Transforming Ideas into Assets: Design Thinking & Patent Mastery"



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**DEPARTMENT OF MECHANICAL ENGINEERING**

Session on  
**Transforming Ideas into Assets: Design Thinking & Patent Mastery**

**SPEAKER**  
**Dr.A. Mahamani**  
Dean, R&D

Date : **21/02/2025**  
Time : **10 AM Onwards**  
Venue : **E-Class Room (R-221)**

Coordinator  
**D. Gopinath**

HOD, M.E  
**Dr.Arun Saco**

Principal  
**Dr.M. Mohan Babu**

The Department of Mechanical Engineering organized an insightful **Guest Lecture** on **"Transforming Ideas into Assets: Design Thinking & Patent Mastery"** on **21st February 2025**.

The session was conducted by **Dr. A. Mahamani, Dean R&D**, who provided valuable insights into the process of innovation, design thinking methodologies, and the importance of intellectual property rights in engineering. The lecture emphasized how students can translate creative ideas into tangible assets through structured design and patenting strategies.

The session was **coordinated by Mr. D. Gopinath** and was attended by **II B. Tech and IV B. Tech students**, equipping them with essential knowledge to foster innovation and protect their ideas in the competitive engineering landscape.



# Guest Lecture on "Recent Trends in Thermochemical Energy Storage Systems"

The poster features the SVCEET logo at the top left, the college name in large bold letters, and the MEDHA logo at the top right. Below the college name, it lists accreditation details and the department's association with MEDHA. The central text announces the guest lecture. A circular portrait of Dr. P. Ankammarao is shown next to his name and title. A calendar icon indicates the date as February 22, 2025, and a clock icon shows the time as 10:10. A location pin icon points to E-Class Room R-221. At the bottom, the names of the Coordinator, HOD, and Principal are listed. The background includes a power plant image and a green energy storage tank.

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Department of Mechanical Engineering in association with MEDHA  
Conducting Guest Lecture on  
**Recent Trends in Thermochemical Energy Storage Systems**

**22<sup>nd</sup>**  
February  
**2025**  
Saturday

**Resource Person**  
**Dr. P. Ankammarao**  
Associate Professor  
Department of Mechanical Engineering  
SVCEET, Chittoor

**E-Class Room R-221**

Coordinator  
**Dr. P. Venkataramana**

HOD, ME  
**Dr. S. Arunsaco**

Principal  
**Dr. M. Mohan Babu**

The **Department of Mechanical Engineering**, in association with **MEDHA**, organized a **Guest Lecture** on "**Recent Trends in Thermochemical Energy Storage Systems**" on **22nd February 2025**.

The session was delivered by **Dr. P. Ankammarao, Assistant Professor**, who provided valuable insights into advanced energy storage technologies, their applications in sustainable energy solutions, and future research opportunities in the field.

The lecture was **coordinated by Dr. P. Venkataramana** and was attended by **II B. Tech and IV B. Tech students**. The session aimed to enhance students' understanding of thermochemical storage systems, fostering interest in renewable energy innovations and their role in addressing global energy challenges.

This initiative reflects the department's commitment to equipping students with knowledge of emerging technologies and promoting interdisciplinary learning.

# Faculty Achievement: Enhancing Research Excellence

The Department of Mechanical Engineering at **Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor**, takes pride in recognizing the professional development of its esteemed faculty member, **Mr. R. Rajesh**, Assistant Professor.

Mr. R. Rajesh successfully attended a **Two-Day National Faculty Development Program (FDP)** on **“Research Paper and Project Proposal Writing”** from **7th to 8th February 2025**.

## Event Details:

**Program** : National FDP on Research Paper and Project Proposal Writing

**Date** : 7th – 8th February 2025

**Organized by:** Department of Engineering, Sri Venkateswara College of Engineering and Technology (Autonomous), Andhra Pradesh

In Association with: A.C.T Academy, Kerala

This FDP served as an invaluable platform for faculty members to enhance their skills in **academic research, proposal drafting, and research methodologies**. Such initiatives are essential in fostering a culture of **innovation and academic excellence** within the institution.

We extend our heartfelt congratulations to **Mr. R. Rajesh** for his dedication to professional growth and his commitment to advancing the research landscape of the department.



The certificate is framed with a decorative border. It features the logos of Sri Venkateswara College of Engineering & Technology (Autonomous) and A.C.T Academy. The text is centered and includes the recipient's name, title, and department. It also mentions the program details and the resource persons who conducted the FDP. A QR code is provided for authenticity, and the issue date is noted as 10-02-2025.

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Palakkad, Kerala-678005  
[www.actacademy.in](http://www.actacademy.in)

## CERTIFICATE OF PARTICIPATION

THIS CERTIFICATE IS PRESENTED TO

**MR.R.RAJESH**  
ASSISTANT PROFESSOR  
DEPARTMENT OF MECHANICAL ENGINEERING  
SRI VENKATESWARA COLLEGE OF ENGINEERING & TECHNOLOGY  
(AUTONOMOUS),CHITTOOR  
CERT.REF.NO : 2025/SVCET/FEB/A070

For having attended Two Day National Level Faculty Development Programme (Online) Titled **“Research Paper and Project Proposal Writing”** on 07.02.2025 and 08.02.2025, Organized by Department of Humanities and Sciences, Sri Venkateswara College of Engineering & Technology (Autonomous), Andhra Pradesh, & A.C.T Academy, Kerala. **Dr.B.Surendiran, Dr.Yogesh Jorapur, Dr.Renold Elson, & Dr.Sunil H Der**, Served as Resource Persons.

**QR AUTHENTICITY**

**ISSUED DATE: 10-02-2025**

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

**Dr. K. Komala**  
Head & Professor, HAS  
SVCET

**DR. SOUDAMINI MENON**  
Director, A.C.T Academy





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## Value Added Course on

## Introduction to Data Structures through Python

Organized By  
Training and Placement, SVCET(A) in Association with  
Department of Mechanical Engineering



### Resource Person

**Mr. Sivaram**, M.Tech,  
Python and Data Structures Trainer,  
BeeKodar Technologies Pvt Ltd.

**Date:** 05.02.2025 to 15.02.2025

**Time:** 9.20 AM to 4.40 PM

**Venue:** R 207

### Coordinators

Dr. S. Arunsaco  
Dr. P. Venkataramana  
Mr. C. Sivalingam

### HOD ME

Dr. C. Vijaya Bhaskar Reddy

### Principal

Dr. M. Mohan Babu

The Department of Mechanical Engineering recently conducted a Value-Added course for III B. Tech II Semester students, focusing on Introduction to Data Structures through Python.

This initiative aimed to equip students with fundamental programming skills essential for problem-solving and computational thinking. By integrating Python into the learning process, students gained hands-on experience in data structures like arrays, linked lists, stacks, and queues, which are crucial for optimizing engineering applications.

Such training programs bridge the gap between core mechanical concepts and modern computational tools, preparing students for industry demands and interdisciplinary research.

# Interinstitutional Dynamic Hackathon 2025



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**An Inter Institutional Dynamic Hackathon 2025**  
**Organized by**  
**Institutional Innovation Council, SVCET**  
**in collaboration with**  
**Dynamic Crane Engineers Pvt. Ltd.**  
**and**  
**Inter Institutional Inclusive Innovations Centre (i4C)**



**Date: 19/02/2025**  
**Venue: Dassault Lab**  
**Time 10 AM**

**Short listed teams will be nominated for Dynamic Hackathon 2025**

**IIC, Convener**  
Dr.A. Mahamani

**Principal**  
Dr.M.Mohan Babu

Organized by: Institutional Innovation Council, SVCET  
In Collaboration with: Dynamic Crane Engineers Pvt. Ltd.

**IIC Convener**  
**Dr. A. Mahamani**

Students from the **Department of Mechanical Engineering** participated in the event held on **19.02.2025**.

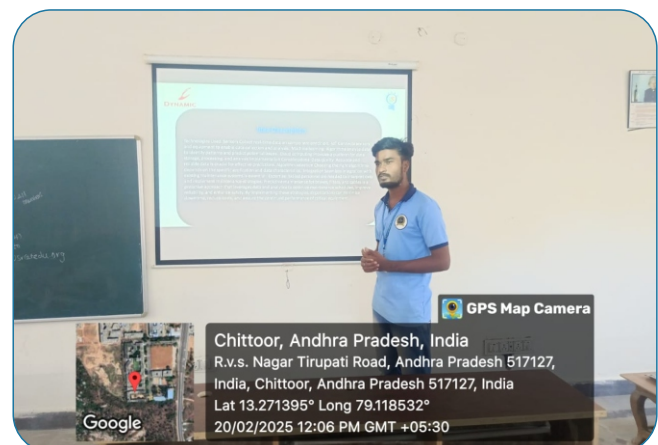
Participating Teams and Projects

## Team 1: Mechanical Marvels

Project Title: Predictive Maintenance and Consumable Replacement System for Crane Operations

### Team Members:

- K. Yadhakrishna (23785A0306)
- G. Dileep Kumar (23785A0303)
- B. Vasanth Kumar (23785A0301)
- P. Umar Farooq (23785A0310)





## Team 2: Design Dynamos

Project Title: Integrated Diagnostic and Maintenance Management System for Crane Operations



## Team Members:

- Vikram Kumar (22781A0309)
- Shubhnarayan Pandey (22781A0308)
- Dharmanath Mandal (22781A0301)
- T. Venkatesh (23785A0313)

## Team 3: Mighty Warriors

Project Title: Load Monitoring and Balancing System for Safe Crane Operations

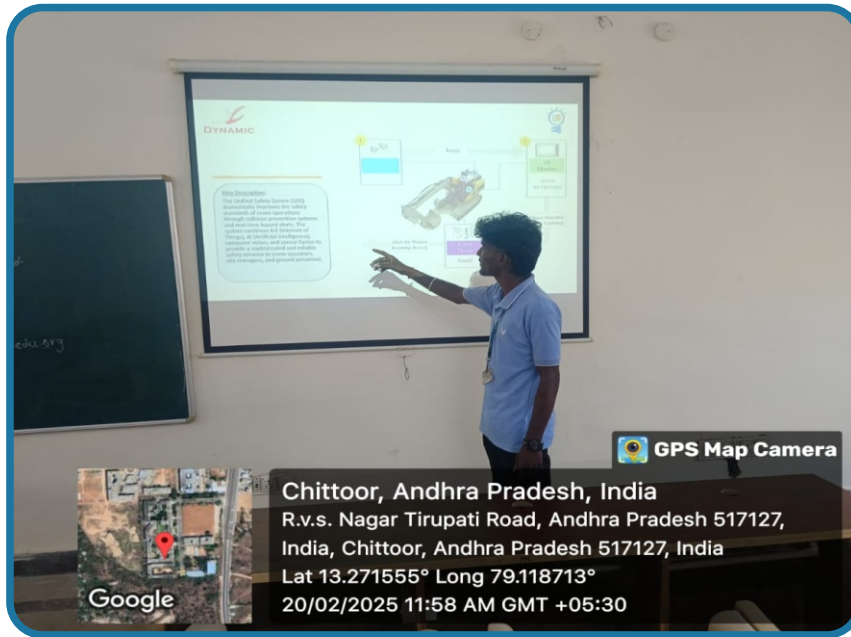


## Team Members:

- G. Naga Kumar (23785A0304)
- J. Nagendra (23785A0305)
- P. Siva Prasad (23785A0309)
- K. Dinesh (23785A0307)

## Team 4: Dynamo Spark

Project Title: Unified Safety System for Collision Prevention and Hazard Alerts in Crane Operations

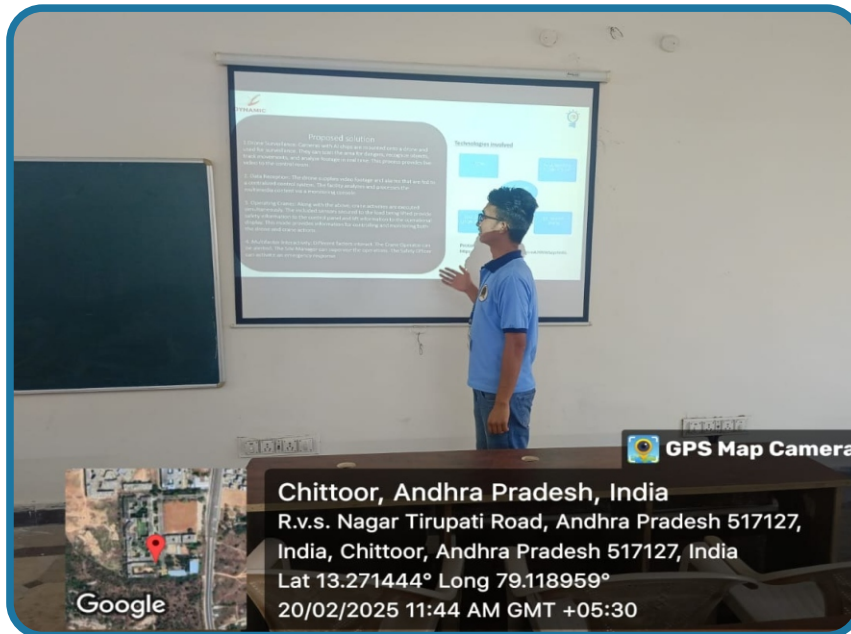


### Team Members:

- S. Venkateshan (22781A0306)
- S. Sai Kumar (22781A0307)

## Team 5: ESPAA

Project Title: Drone-Enabled Lift Zone Surveillance and Hazard Detection for Crane Operations



### Team Members:

- Prashun Gopali (23781A0306)
- Arpit Sinha (23781A05G9)
- Sandesh Bhandari (23781A33J7)
- Swathi Suchi (23781A33J9)

This hackathon provided a platform for students to showcase their innovative solutions in crane operations, focusing on predictive maintenance, safety, and efficiency.



## ACADEMIC TOPPERS

Semester End Examination: December 2024 / January 2025

The Department of Mechanical Engineering is proud to recognize the outstanding academic achievements of our students. The following students have demonstrated excellence in their respective semesters:

### II B. Tech I Semester

Roll No	STUDENT NAME	SGPA
23781A0306	PRASHUN GOPALI	9.03
24785A0307	GUDURU BHUVAN CHANDRANA	8.4
24785A0301	LAPAKA CHANDU	8.35
24785A0310	JELLI DHANUNJAYA	8.33
24785A0315	KUMMARA NAGA PRANAY	8.13

### III B. Tech I Semester

Roll No	STUDENT NAME	SGPA
22781A0301	DHARMANATH MANDAL	9.02
23785A0313	THUPAKULA VENKATESH	9.00
23785A0304	GAMPA NAGA KUMAR	8.37
23785A0303	G DILEEPKUMAR	8.33
23785A0301	MALABANDARU VASANTH KUMAR	8.3

### IV B. Tech I Semester

Roll No	STUDENT NAME	SGPA
21781A0301	ANAMBATTU YUGANDHAR	8.96
22785A0304	DHARMAVARAM SREENIVASAREDDY	8.87
22785A0318	PATAN MAHEER	8.61
22785A0324	VANNALU	8.17
22785A0309	GOLLA SHIVANANDA	8.00

Congratulations to all the toppers for their dedication and hard work. Keep striving for excellence.



## Java Full Stack Training Program Participation



**S. Venkateshan**  
**22781A306**

S. Venkateshan (Roll No: 22781A0306), a III-year student of the Department of Mechanical Engineering, participated in a Java Full Stack Training Program organized by the Training and Placement Department in association with Lara Technologies.

The training, held from **19th February 2025 to 4th March 2025**, provided hands-on experience in full-stack development, covering front-end, back-end, and database management. This initiative highlights the department's encouragement towards multidisciplinary learning, enabling students to expand their technical skills beyond core mechanical engineering.





## EDITORIAL TEAM



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



**Mr.S. Jawahar**  
Assistant Professor



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



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





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