



KG REDDY
College of Engineering
& Technology
AN AUTONOMOUS INSTITUTION

NEWSLETTER

VOLUME 7 • 2023-2024



**ENGINEERING
INDIA'S
CHANGEMAKERS**

www.kgr.ac.in

VISION AND MISSION OF THE INSTITUTE

VISION

To become an institution which is internationally recognized for its holistic approach to engineering, innovative teaching and learning culture, research and entrepreneurial ecosystem, and sustainable social impact in the community.

MISSION

- To offer undergraduate and postgraduate programs which are supported through industry relevant curriculum and innovative teaching and learning processes that would help students to succeed in their professional careers.
- To provide faculty and students with an eco system that fosters innovation, research, entrepreneurship and international exposure through strategic partnerships with government organizations and collaboration with industries.
- To provide holistic learning environment to students which will contribute to their personal and professional growth and enable them to become leaders in their respective fields.
- To contribute to the development of the region by using our technological expertise to work with nearby communities and support them in their social and economic development.

VISION AND MISSION OF THE DEPARTMENT

VISION

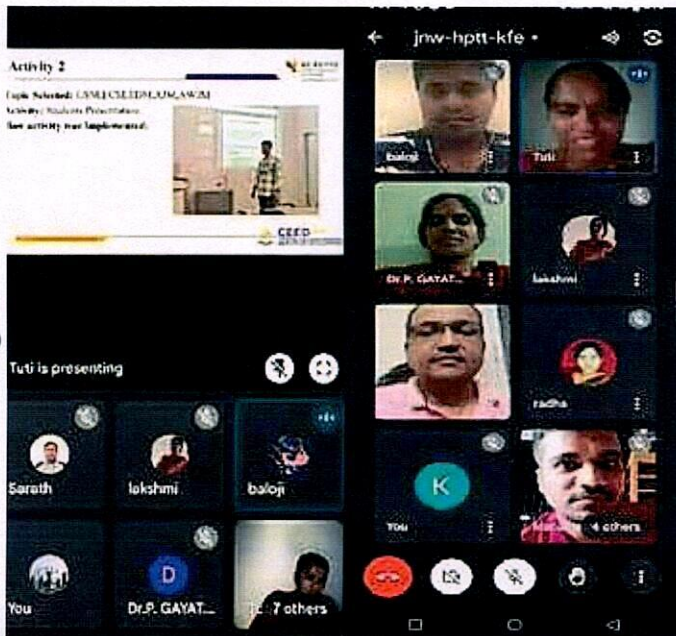
To be recognized as a department, providing quality technical education and producing highly competent and skilled engineers to suit the latest trends in modern industry and to act as a catalyst for sustainable development.

MISSION

- To impart quality education to the students and enhance their skills to make them globally competitive mechanical engineers.
- To improve quality of teaching by implementing innovative teaching and learning.
- To provide a collaborative environment that stimulates faculty and students to achieve their highest potential through Entrepreneurship, sustainable Development and Research

DEPARTMENT OF MECHANICAL ENGINEERING

1. Dr.D.Baloji, Assistant Professor attended teaching and learning conclave Presentation conducted by CEED



2. Mrs. G. Keerthi Reddy, Assistant Professor and Mr. Anil Kumar, Assistant Professor attended a One Week Faculty Development Program on "Student Centered Pedagogies for Engineering Courses" organised by CEED



Mr P Papi Reddy and Dr S Venu Kumar are Participated in FDP.

3. BOS Meeting held on 3rd July 2023, Attended by the experts from IIT Hyderabad, ESCI Staff College



4. New faculty joined on 20th July 2023.



KALLURI

5. Dr Jayahari, Professor in the Department of Mechanical Engineering is entrusted with a new leadership role of Dean-R & D with effect from 01-08-2023.

DEPARTMENT OF MECHANICAL ENGINEERING

STUDENT ARTICLE

COLLEGE LIFE

STUDENT vs PROFESSIONAL LIFE

Hi Friends this is Nageshwar, a student of CSE, final year

Well..!!!! I wanted to write on this topic since long back but could not write because I did not have too fundas to write about Professional life (I had some ideas about professional life based on the feedbacks from seniors but wanted to have some personal experience. Now that I have started doing my project in IIIT-H, got exposure to Professional life, therefore it's the right time to write on this topic, so here I go!!!).



Let me first start with a glimpse of my college life. College life is full of memories, some awful and some awesome. You tend to start learning on your own, understand the need of friends in life, have some of the beautiful moments of life that you would like to cherish throughout your life and the list goes on...

It starts with ragging session, then fundas from senior. One starts with attending classes regularly but later bunking classes becomes a habit. You have times when you fight with friends and sometimes with others and the friends with whom you fought come to your rescue when needed, watching movies (in multiplex as well as on computer (DC++ Rocks!!!)). Happening/ non-happening love life, also sometimes you feel frustrated (because of problems in personal life, academics and sometimes even because of the reasons that you are not aware of) you have all those wonderful matches where you are a part of the team inside as well as outside the ground, you cheer the team. Mugging just before the exams with friends and managing to get decent grades and the time just passes and graduate from the college with some degree and jobs with awesome packages (not always!).

And then you enter the professional life where life is totally different from your college life. Now you need to be more formal (in dress as well as in all general things). Here am really thankful to my college (K G REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY) in this regard from where I got habituated to be a professional, you can't bunk office like you used to bunk classes. You can't treat your manager/ mentor the same way you used to behave with your professors. You can't crash in the office like you used to, you have to be there on time, you can't ignore projects with impossible deadlines, can't delay the submission of the reports, can't make somebody to wait just because you did not finish your work and sometimes significantly lower pay compared with relevant peer group in the market. And here one more thing which plays major role is self-learning, which is generally not practiced in college life has its own consequences. From all the description that I have given here about professional life I conclude that the professional life is boring but that is also not true because if I stop here then probably I won't be looking at the other side of the coin. Also one gets exposure to the industrial world, you get experience and a chance to showcase your talent or the medium to implement the things that you learned in the college also you get the idea about the things that are rapidly changing in the world, be it electronics, IT, medical or any field. You keep yourself updated and strive hard to make your dreams come true.



BY
RAGAMGARI NIKHIL
20QMSA0315

DEPARTMENT OF MECHANICAL ENGINEERING (ME)

1. Ms G. Keerthi Reddy, Assistant Professor, attended the Teaching and Learning conclave presentation conducted by CEED on 29-08-2023.



2. Mrs. K. Kalpana, Assistant Professor; Mr. P. Kondala Rao, Assistant Professor; Mr K. Praveen Kumar, Assistant Professor; and Mr. Anil Kumar, Assistant Professor, attended a one-day faculty workshop on "CAMPX Implementation in campus" organised by CEED in association with IQAC KGR CET on 29-08-2023.



3. Mrs G. Keerthi Reddy presented a paper entitled "Assessment of wear properties on treated AISI 410 Martensitic stainless steel by an Annealing process," in a Scopus-indexed journal.

Assessment of Wear Properties on Treated AISI 410 Martensitic Stainless Steel by Annealing Process

G.Saravanan¹, V.Rahul², Upendra Mahatme³, G.Keerthi Reddy⁴, T.Sharon⁵, G.Suresh⁵, R.Karthikeyan⁵ and Ram Subbiah⁶

¹Mechanical Engineering, PSNA College of Engineering and Technology, Dindigul, Tamilnadu

²Mechanical Engineering, CVR College of Engineering, Hyderabad, Telangana

³Physics Department, K. Z. S. Science College, Kalmeshwar, Nagpur, Maharashtra

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⁵Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, Telangana

Abstract. Martensitic stainless steels find less application in commercial products as they have high hardness, strength, and wear resistance. It lacks in ductility and exhibits moderate corrosion resistance compared to other stainless steels. As a result, annealing process were used to strengthen the ductility and maintain stability in hardness of martensitic stainless steel material. AISI 410 was chosen for this research work and the samples were made to cylindrical shape for the following dimensions: 50 mm length and 08 mm diameter. The specimens were annealed at temperatures of 730°C, 830°C, and 930°C. The untreated material is kept aside for results comparison. All specimens were subjected to wear test using a pin on disc wear test apparatus. All the specimens were examined using a scanning electron microscope for the surface morphological changes. The outcomes were compared and the best specimen for the required application was chosen. It was discovered that there was a phase change from the martensite stage to the residual austenite stage."

1 Introduction

Stainless steel is known for its corrosion-resistant properties, due to the presence of chromium in the steel. The chromium in the air combines with the oxygen to generate a thin coating of oxide on the stainless steels surface, which helps to protect it from further corrosion [1-4]. In addition to its corrosion resistance, stainless steel is durable and strong, making it a popular material for a wide range of applications. Martensitic stainless steel is well-known for its hardness and strength [5-8]. The ductility of the material is found to be poor. AISI410 is a specific grade of martensitic stainless steel, which is known for its high strength, hardness and wear resistance. The carbon content makes cementite in combined

4. Dr Baloji presented paper in a Scopus Indexed journal

DEPARTMENT OF MECHANICAL ENGINEERING

STUDENT ARTICLE

**TAKING DEGREE FOR EDUCATION :**

You must open up your mind and eyes to the very fact that the college life will educate you for life .Knowledge is power therefore knowledge should increase and our nation be made powerful “Swami Vivekananda said to make India powerful men must have muscles of iron and nervous of steel which is the strength of mankind”.

Education can make you stronger whereas qualification will make you burdened by so many degrees. Qualification plus right direction which will give you the strength to reach your target and destination.

In my point of view degree should be taken with education qualification of any person will happen only when people think positively and practically. Education sharpens your brain memory and intelligence power.

Get educated,

Get well-equipped.

“EDUCATION IS THE KEY TO SUCCESS IN LIFE”

BY
PADAMATI LAXMA REDDY
19QMLA0307

DEPARTMENT OF MECHANICAL ENGINEERING (ME)

1. Mr. S Sathish and Mrs. K Kalpana attended EDUMEET-2023 on Factory Automation (Bridging the gape between Academics and Industry



2. An Alumni Meet with all the Mechanical staff, Hod and Placement Officer, Dr Danial Prabakar was held on 30th September 2023

DATE - 30th SEPTEMBER 2023
TIMINGS - 10.00 AM

KG REDDY
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Mechanical Department
Cordially Invites You To
ALUMNI MEET -2023 (ONLINE)

Join In Google meet
<https://meet.google.com/cdh-lazo-whm>



3. Mrs K Kalpana presented in Monthly Teaching & Learning Conclave



4. Mr S Suresh, Mrs K Kalpana, Mrs K Udayasri and one of the Mechanical student registered a Patent

(12) PATENT APPLICATION PUBLICATION (21) Application No: 202341047333 A
(19) INDIA
(22) Date of filing of Application: 13/07/2023 (43) Publication Date: 01/09/2023

(54) Title of the invention: DESIGN & FABRICATION OF STAIRCASE ELEVATOR WITH LEAD SCREW MECHANISM

(71) Name of Applicant :
1) KG Reddy College of Engineering and Technology
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(57) Abstract:
"DESIGN & FABRICATION OF STAIRCASE ELEVATOR WITH LEAD SCREW MECHANISM" An indoor and outdoor staircase elevator (100) with a single lead screw mechanism that is safe and cost-effective solution that adheres to special requirements and difficulties that people face when using the stairs. The staircase elevator reduces the production costs and the amount of time needed for construction by implementing a lead screw mechanism to raise and lower the platform to transfer people. The present staircase elevator maximizes comfort, usability, and aesthetic appeal in the home. Fig. 1

No. of Pages: 13 No. of Claims: 4

The Patent Office Journal No. 35/2023 Dated: 01/09/2023 57193

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DEPARTMENT OF MECHANICAL ENGINEERING

STUDENT ARTICLE

How to Develop Lifelong Friendships While in College...

Developing lifelong friendships may be one of the most rewarding aspects of college life. This article has a few suggestions how to develop these types of friendships.

Friendship Statistics

Between the ages of 15 and 25 is when most people establish lifelong friendships.

Singles tend to rely on friends for companionship.

Best friends usually become an extended family.

Since many students who are in college may not have family or friends from high school nearby, they're looking for other people to study with and hang out. College friends are somewhat different than friends from high school because you bond in different ways. You may bond during late night study sessions, making dinner together, or during long drives home. In a way, they're somewhat like your family away from home. Some friends may make sure that you wake up in time for your midterm or make you soup when you're sick. During college there are a variety of ways to develop these friendships, which have the potential of becoming lifelong friendships.

Living with Roommates

Sometimes many students make lifelong friendships with their roommates. If you have a good experience with your roommate during your first year of college, you may want to continue living with that roommate. You may also decide to live with other people as well. Sharing a house or an apartment allows you to spend time with people and really get to know who they are. You may learn things that only their families know about them like how long they take in the shower or what kinds of odd things they like to eat. Living together also provides opportunities for a lot of inside jokes, which can create even stronger bonds. You may also become closer when one of you becomes sick, and the parental instinct kicks in.

Joining a Club

By joining a club, you may be able to find people who share similar interests. Usually college campuses offer a variety of clubs like those that are associated with academic majors, public interests, politics, music, or careers. There are also fraternities and sororities at different colleges. Clubs provide an opportunity to meet people outside of the classroom, and the opportunity for you to get involved with something that you're passionate about. Being involved in extracurricular activities may also alleviate some of your stress.

Making Friends for Life

Developing lifelong friendships does take some time. Don't be discouraged if the first couple of people you meet don't turn out to be the type of friends you were hoping for. You may need to keep on trying to meet new people. You may make friends with people who you wouldn't have considered being friends with before. If you feel uneasy about the friends you have made, try to remember what you liked about your friends from high school. Keep yourself surrounded by good people who share similar goals to help you stay on track.

EXAMPHOBIAaaaaa

Diseases: I am "o" phobia(fear of exam)

Causes: examination

Prevention: 1 avoid preparing theory before exams, read before hand
2) stop watching idiot box(t.v)
3) stop playing whatever game you have been playing
4) occurring period :march or april

Symptoms: depression, loss of appetite, immediate safety measure;
Walk in the garden, listen to mess

BY

G DHEERAJ KUMAR
20QM5A0302

Everyday is a second chance

DEPARTMENT OF MECHANICAL ENGINEERING

- Mr P Kondala Rao, Assistant Professor attended a one-week International short term training programme at Anurag University from 9th to 13th October 2023.
- Mr S Sathish, Assistant Professor attended a one-week International short term training programme at Anurag University from 9th to 13th October 2023.
- Mrs. K Udaysri, Associate Professor published a book titled "Industrial Engineering and Management".
- Dr L Jaya Hari, and Dr D Baloji from Mechanical Engineering published a paper on "Evolution and Characterization of Zirconium 702 alloy at various temperatures (SCI) Arch. Metall. Mater".

About the Authors



Prof. (Dr.) A. Shanmuganathan is a committed academican, researcher and speaker, has vast professional experiences over 27 years in Academics and in Industries. As a Professor in the Department of Mechanical Engineering he has published patents and a number of research papers in leading international journals and conferences including Elsevier and Scopus indexed journals. He has worked abroad in Government Universities for two decades and worked as Dean, Principal and Director-Academics during his tenure emphasizing collaborated-working-model in Higher Educational Institutions (HEIs). He has extended his consultancy services to industries and local communities ensuring excellence of University-Industry-Government Linkage. He has published his research work contributing to "University-Industry-Government" linkage in King Khalid University, Kingdom of Saudi Arabia. He did projects using Stainless Steel, Mild Steel, and PVC as materials by involving students towards building their practical knowledge and skills in reality in making them Industry-Ready. He is delivering a number of online lectures and are available in his own youtube channel for reference and interactions of students and professionals globally.



Mrs. Udaya Sri Kakarla working as an Associate Professor in the Department of Mechanical Engineering, KG Reddy College of Engineering & Technology has about 20 years of teaching experience. She received her B. Tech degree in Industrial Production Engineering with distinction and M. Tech. degree in Thermal Engineering with distinction from JNTUH, Hyderabad. She has published 09 research papers in refereed international journals and 05 research papers in the proceedings of various international conferences. She has received several best paper awards for his research papers at various international conferences. Her areas of research include variable compression ratio engines, condition monitoring, Renewable energy systems. She is an active member of IEEE and IET.



Mrs. G. Sridevi working as an Assistant Professor in the Department of Mechanical Engineering Centurion University of Technology and Management - Odisha, has about 9 years of teaching experience and 9 years of industrial experience in project management of EPC bulk material handling projects. She received her B. Tech degree in Mechanical engineering and M. Tech. Degree in Mechanical engineering with distinction from Centurion University of Technology, Odisha. She is pursuing her Ph.D. degree in Centurion University of Technology and Management - Odisha. She has published 11 research papers in refereed international journals and 2 research papers in the proceedings of various international conferences. Her areas of research include research on composite materials, Nano Technology and Advanced manufacturing processes.



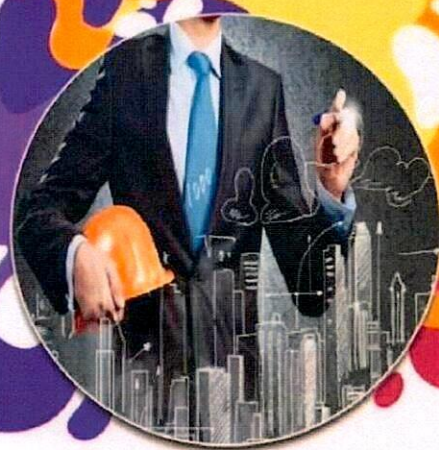
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INDUSTRIAL ENGINEERING AND MANAGEMENT

Prof. (Dr.) A. Shanmuganathan
Mrs. Udaya Sri Kakarla | Mrs. G. Sridevi



INDUSTRIAL ENGINEERING AND MANAGEMENT



Prof. (Dr.) A. Shanmuganathan
Mrs. Udaya Sri Kakarla
Mrs. G. Sridevi

DEPARTMENT OF MECHANICAL ENGINEERING

STUDENT ARTICLES

అమ్మ!

అమ్మ!

మనకు ఉవా తలెదో అమ్మ.

మనం ఈ భూమిపై ఉన్నాము అంటే దానికి కారణం అమ్మ.

అమ్మ అనే మాట మన తనమనీ పులకం పుట్టేస్తుంది

అమ్మ అనే పిలువతుంటే మన హృదయాని పులకం పుట్టేస్తుంది.

అమ్మ గురించి చెబితే అదేం చేసుకొన వాళ్ళుండరు .

అయినా ఎంత చెప్పినా తక్కువే కదా!

తనలో ఎంత బాధ ఉన్నా మన నమ్మకై చూసేతుంది

తనకు లేకపోయినా మనకు వెళ్ళాలనే తపన పడుతుంది

మనకే పినన గాయం అయినా మనకంటే తన ఎక్కువ బాధ పడుతుంది

తనకు మరలను మరటి మనకు నడక నడిచి మనకే

గొప్ప వాళ్ళిగా తీర్చిదిద్దుతుంది ఆ మాతృమూలీ!

మన సుఖమే తన సుఖంగా,

మన బాధనే తన బాధగా,

మన గురించే తన గురించుగా

మనకే ఇంట్లో వాళ్ళిగా తీర్చిదిద్ద ఈ భూమిపై

మనకు కోరికే దేవత అమ్మ.

అమ్మ అంటేనే అమ్మలతామసే

అమ్మ అంటేనే మన జననం అసే

అమ్మ అంటేనే మన కీర్తిం సంక్షేపంగా ఉంటుందన తెలివే అమ్మ.....

తన మాణాని లెక్క చేయకుండా బాధను బోధన

నడకు అంచలలే మనకు జన్మనిచ్చే

మనలో చూసే ఆ బాధనంతా మరే

నరునిగానో తాకుతుంది తను పులకం

ఇంట్లో రుణాని మూలకలుకన ఏమీ ఎరగనట్లు

మనకోసం ఉంటా మనకే నీవలు చేసేతుంది ఆ మాతృమూలీ

ఆ దేవుడిక నైతం లేని ఈ బాగాని మనకు ఎలా

తీర్చిదిద్ద ఆ దేవుడిక కృతజ్ఞతలు

ఏ జన్మను మనయిచ్చే...

ఏ జన్మను బంధువో...

ఈ జన్మలే ఇలా అమ్మ.....

అమ్మ.....

నే వాద నీవకోసం

నా ఈ జన్మను మరేయం.



BY
PANJALA SUMANTH GOUD
19QMIA0311