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RCET RAIPUR

The official newsletter of Krishna Vikash HEI Raipur



VISION

TO CONTRIBUTE TO THE PROGRESS OF THE STATE, NATION AND HUMANITY AS A WHOLE PROVIDING EDUCATION THROUGH RESEARCH AND INNOVATION TO THE FUTURE CITIZENS AND CREATING A NEW ORDER OF PEACE AND PROSPERITY.

MISSION

TO PAVE A PATH FOR THE STUDENTS TO TREAD CONFIDENTLY, GAINING KNOWLEDGE AND SKILLS THROUGH THAT THEY MAY USE TO TAKE THE NATION TO THE PINNACLES OF SUCCESS.

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MEET THE TEAM

EDITORIAL DESK

Dear Readers,

The realm of higher education is presently experiencing a period of significant change as it endeavors to align with worldwide developments. When reflecting on the recent events occurring at Rungta College of Engineering & Technology (RCET), we are filled with pleasure and enthusiasm. Supervised by Krishna's Vikash Group, our institution is dedicated to providing students with exceptional learning experiences and supporting their overall development. We celebrated Foundation Day on the occasion of birthday of our respected chairman Shri Murali Krishna Dasari Sir by organizing blood donation camp, expressed gratitude to non-teaching staff of the group.



This particular month has been exceptionally remarkable. The civil engineering students get on a site visit, acquiring hands-on insights into various aspects of construction such as building, renovation, foundation, and roadworks. We extend our heartfelt congratulations to 12 students from our institute who secured positions as business development executives at Hacksol Forensic Services Lab Private Limited. Moreover, our faculty members continue to advance in their respective fields, contributing to research and publishing cutting-edge articles and patents. The NSS team organized a plastic waste collection drive on World Earth Day, encouraging a sense of social responsibility toward the environment. To enhance students' prospects, preparatory sessions for government exams were organized. The ECS team hosted a best out of waste, debate, BGMI E-sports, chess, carrom, essay writing competitions showcasing the exceptional talents of our students. A project exhibition was held, showcasing the innovative ideas conceived by our students. As we bid farewell to our senior B.Tech batches, our juniors organized a memorable farewell party, highlighting the cherished moments shared. Our philosophy highlights the integration of enjoyment and motivation into the educational journey.

I wish even greater achievements and advancement in the times ahead!

BEST REGARDS,

DR. PRAGYA AWADHIYA,

ASSOCIATE PROFESSOR & HOD FIRST YEAR,

RUNGTA COLLEGE OF ENGINEERING & TECHNOLOGY, RAIPUR

MEET THE TEAM

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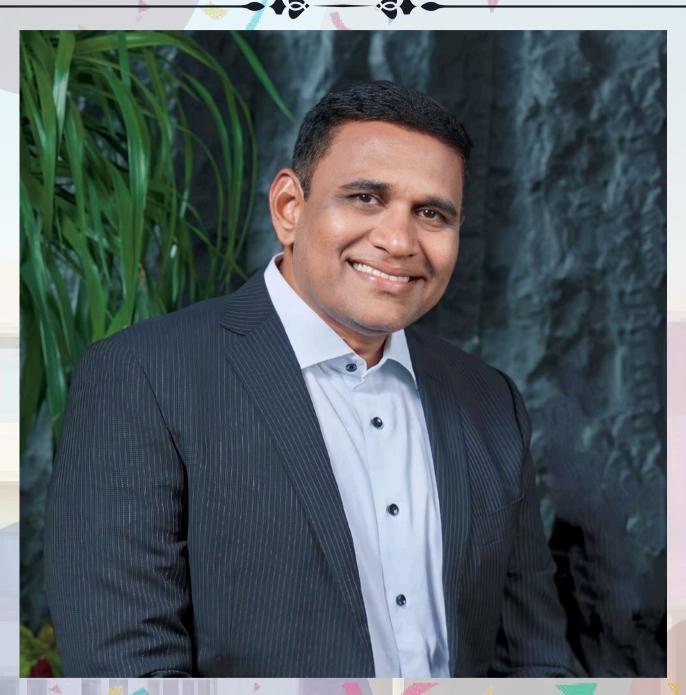
HAPPY SINGH CSE 4TH SEM



KHUBCHAND DEWANGAN
CSE 4TH SEM

HAPPY BIRTHDAY

TO OUR BELOVED CHAIRMAN SIR!



Your leadership lights our path, your wisdom fuels our growth and your kindness warms our hearts. Here's to another year of inspiration and success under your guidance. Cheers to you sir!

In the realm of social development, Dasari Murali Krishna stands as a visionary leader, philanthropist and entrepreneur. Emerging from humble beginnings, his keen insight and ability to recognize social needs as opportunities for positive change, he seamlessly transitioned into Education and Health sectors. His foresight resulted in the establishment of Krishna's Vikash, an institution that empowers the youth and shapes future leaders.

FOUNDATION DAY BLOOD DONATION

Krishna Vikash Group of Institutions, Raipur organized a blood donation camp on 29 April 2024 to celebrate the birthday of our respected Chairman, Shri Murali Krishna Dasari Sir and it was a big success! Staff and students all joined in, showing their support for this important cause. It was a wonderful way to celebrate the Chairman's special day while also helping those in need. Everyone came together, and their efforts will make a real difference in people's lives. It's great to see such community spirit and care for others. We are proud of everyone who participated and grateful for their selfless efforts.





FOUNDATION DAY HONOR OF ALL EMPLOYEES

Foundation Day is an occasion of immense significance for any institution, marking the inception and journey of its existence. While it often garners attention for its technological advancements, the true backbone of any organization lies in its non-tech staff, whose dedication and efforts are instrumental in its smooth functioning and success. Hence, on Foundation Day, it becomes imperative to honor and recognize the invaluable contributions of these unsung heroes. The celebration of Foundation Day serves as a poignant reminder of the vision and mission upon which the institution was established. It is a time to reflect on the values that form the ethos of the organization and to acknowledge the collective efforts that have propelled it forward. Amidst the flurry of technological innovations and strategic initiatives, it is the non-tech staff who work tirelessly behind the scenes, ensuring that every aspect of the institution runs seamlessly.









On Foundation Day, it is incumbent upon us to express our gratitude and appreciation to the non-tech staff for their invaluable contributions. This can take many forms, from organizing special events in their honor to providing tangible rewards and recognition for their hard work. However, perhaps the most meaningful gesture we can offer is simply taking the time to listen to their stories, to understand their challenges, and to acknowledge their humanity.

In doing so, we not only affirm their importance within the institution but also foster a culture of inclusivity and respect that is essential for its continued success. After all, an organization is only as strong as the sum of its parts, and it is the collective efforts of all its members, both tech and non-tech alike, that enable it to thrive. As we celebrate Foundation Day, let us remember to pay tribute to the unsung heroes who labor tirelessly behind the scenes, shaping the very foundation upon which our institution stands.

PRAN PRATISHTHA

•**♦\$**·—·**\$**♦•

The Pran Pratishtha ceremony at our campus Shiva temple was a profoundly spiritual and uplifting experience, conducted with great reverence and devotion, embodying the rich tradition and rituals of temple consecration.



PROJECT EXHIBITION BY FINAL YEAR STUDENTS



SITE VISIT

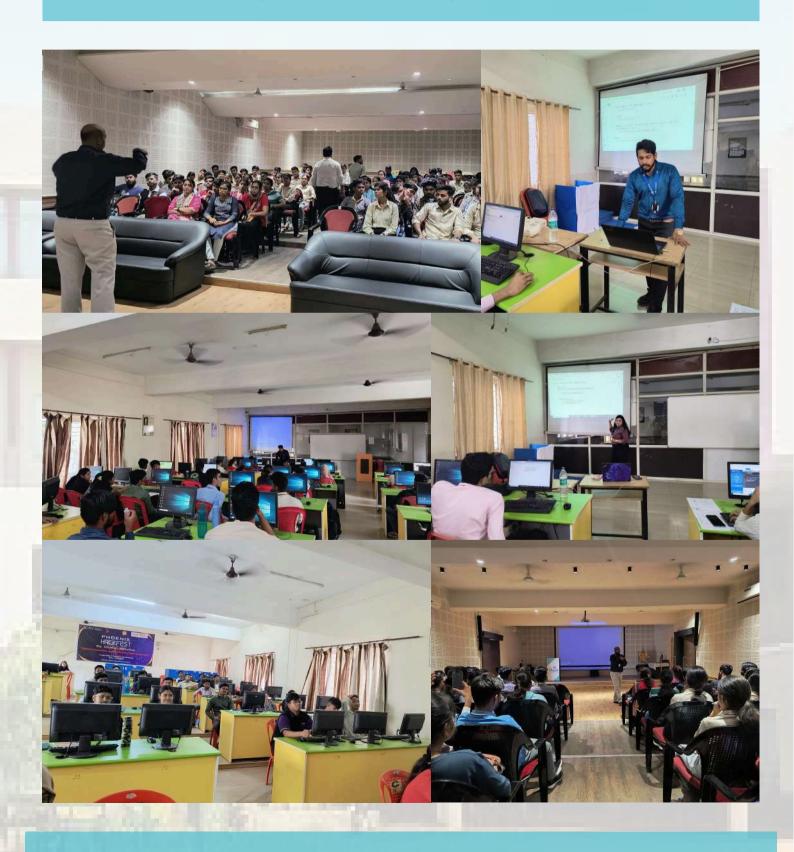
SITE VISIT OF CIVIL ENGINEERING STUDENTS, B.TECH 4TH & 6TH SEMESTER, SITE LOCATION: HOUSING BOARD COLONY, DD NAGAR





TECHNICAL TRAINING PROGRAM

Empowering minds at Krishna Vikash College, Raipur.Our two-day technical extravaganza delved deep into the realms of Java, Python, and beyond, fostering a holistic learning experience for all.



PLACEMENT

WE ARE OVERWHELMED TO CONGRATULATE OUR 12 STUDENTS WHO HAVE BEEN PLACED IN HACKSOL FORENSIC SERVICES LAB PRIVATE LIMITED AS BUSINESS DEVELOPMENT EXECUTIVE



CONGRATULATIONS

ON YOUR PLACEMENT

HACKSOL FORENSIC SERVICES LAB PVT LTD. BUSINESS DEVELOPMENT EXECUTIVE



CHETALLAPALI NIKHIL



DEENANATH BANJARE



UJJWAL CHAURASIA



VED PRAKASH



RISHABH SAHU



SUMIT VERMA

PLACEMENT

WE ARE OVERWHELMED TO CONGRATULATE OUR 12 STUDENTS WHO HAVE BEEN PLACED IN HACKSOL FORENSIC SERVICES LAB PRIVATE LIMITED AS BUSINESS DEVELOPMENT EXECUTIVE



CONGRATULATIONS

ON YOUR PLACEMENT

HACKSOL FORENSIC SERVICES LAB PVT LTD.
BUSINESS DEVELOPMENT EXECUTIVE



DURGESH SAHU



GHANSHYAM



BHAVYA KISHOR



SHUBHAM SAXENA



SUMIT SADAWARTI

ESSAY, CHESS & CAROM COMPETITION



THE COLLEGE ESSAY WRITING COMPETITION, ORGANIZED BY THE LITERACY CLUB AT RCET, RAIPUR, TOOK PLACE ON APRIL 6TH, 2024, AT FA25, RCET BUILDING. THE EVENT AIMED TO ENCOURAGE STUDENTS THROUGH WRITING AND THINKING SKILLS

THE FIXTURE WERE DRAWN AND SPILT BOYS AND GIRLS SINGLES AND DOUBLES MATCH TO BE PLAYED SIMULTANEOUSLY. THE MATCH'S UPTO THE QUARTER FINAL WAS A KNOCK OUT MATCHES. BEING **KNOCKOUT** A COMPETITION, SO LOSING A GAME WOULD SEE THEM OUT OF THE COMPETITION. HOWEVER, IT WAS NOTICED THAT ALL THE PARTICIPANTS TOOK CAREFUL MOVES WHILE PLAYING. EVERY PARTICIPANTS IN THE TOURNAMENT WERE EQUALLY STRONG. A PLATFORM WAS PROVIDED TO PARTICIPANTS AND THEY UTILIZED IT TO THEIR FULLEST.





A PLATFORM WAS PROVIDED TO PARTICIPANTS AND THEY UTILIZED IT TO THEIR FULLEST. THE TENSION IN THE GAME KEPT INCREASING AS THE DAY WENT ON. BOYS SINGLES FINAL WAS A GAME TO WATCH AS THE CONTESTANTS PLAYED VERY WELL PLAYING THEIR BEST MOVE.

E-SPORT'S (BGMI) & DEBATE COMPETITION

RCET'S INFINITY CODER CLUB HOSTED AN ELECTRIFYING BGMI E-SPORTS TOURNAMENT ON 13/04/2024 AT SEMINAR HALL. BRINGING TOGETHER STUDENTS FROM ALL BRANCHES OF ENGINEERING, THE EVENT SHOWCASED THE POWER OF COLLABORATION AND COMPETITION. THE EVENT NOT ONLY HIGHLIGHTED THE TECHNICAL SKILLS OF THE PLAYERS BUT ALSO THEIR TEAMWORK AND SPORTSMANSHIP



THE COLLEGE DEBATE COMPETITION, ORGANIZED BY THE LITERACY CLUB AT RCET, RAIPUR, TOOK PLACE ON APRIL 13TH, 2024, AT FA25, RCET BUILDING. THE EVENT AIMED TO ENCOURAGE STUDENTS THROUGH THINKING AND COMMUNICATION SKILLS.



WORLD EARTH DAY CELEBRATION BEST OUT OF WASTE

→♦\$·—--€♦**-**-

THE COLLEGE BEST OF WASTE COMPE**\text{\textit{\textit{\textit{O}}}}ON, ORGANIZED BY THE ART & CRA\tilde{\text{\textit{C}}} CLUB AT RCET, RAIPUR, TOOK PLACE ON APRIL 20TH, 2024, AT SEMINAR HALL, RCET BUILDING. THE EVENT AIMED TO ENCOURAGE STUDENTS THROUGH MAKING A BEST THINGS USING A WASTE.**

STUDENT COORDINATORS OF THE EVENT:

- 1. ANSH SHARMA
- 2. SUHANA KUMARI
- 3. PAYAL SONKAR

TEACHER COORDINATORS OF THE EVENT:

MISS. PRATIKSHA PODDAR

MISS. SHRISTI SHARMA















ELECTION AWARENESS PROGRAM: "ROLE OF YOUTH IN VOTING"



Dr. Jawahar Surisetti

ACTIVITIES UNDER SYSTEMATIC VOTERS' EDUCATION AND ELECTORAL PARTICIPATION (SVEEP) PROGRAMME ARE UNDERTAKEN TO

EDUCATE THE ELECTORS REGARDING PROCEDURE RELATING TO REGISTRATION OF NAME IN ELECTORAL ROLL, CORRECT OF THEIR EXISTING

PARTICULARS IN ELECTORAL ROLL AND DELETION OF NAME OF SHIFTED AND DECEASED FAMILY MEMBERS.

THE ELECTION AWARENESS PROGRAM AIMED TO EDUCATE AND INFORM THE YOUTH AND NEW VOTERS ABOUT THE IMPORTANCE OF

PARTICIPATING IN THE ELECTORAL PROCESS, UNDERSTANDING THEIR VOTING RIGHTS, AND MAKING INFORMED CHOICES DURING

ELECTIONS

Mr. Yogesh Sahu







FAREWELL



The Farewell Fiesta 2024, organized by the students of RCET Raipur, was a heartwarming event filled with nostalgia and celebrations. it was 2024 was a beautiful culmination of memories, laughter, and heartfelt farewells, marking the beginning of a new chapter in the students' lives.









FAREWELL BEST OUTGOING STUDENT



ANKITA SHARMA & RANVIJAY BHARTI

BEST WISHES FOR YOUR BRIGHT FUTURE...!!!

Congratulations on Achievements



Mr. Farewell Md. Danyaal Qamar (B.Tech. CSE 8th Sem)



Ms. Farewell
Priyanka Chandrakar
(B.Tech. Mech 8th Sem)



Mr. Eve.
- Sumeet Sadawarti
(B.Tech. Mech 8th Sem)



Ms. Eve Monika Sahu (B.Tech. CSE 8th Sem)

DANCE / DRAMA COMPETITION

→+\$·—-\$+•

Dance and drama competitions are vibrant showcases of creativity, talent, and passion, where performers take center stage to express themselves through movement, storytelling, and emotion. These events serve as platforms for individuals and groups to demonstrate their skills, explore diverse themes, and captivate audiences with their artistry. Whether it's a classical ballet performance, a contemporary dance piece, or a gripping theatrical production, these competitions bring together participants from various backgrounds to celebrate the performing arts in all their splendor.





WINNER (BOYS)
RAHUL DAS (6TH SEM)
SHASHANK YADAV (6TH SEM)

WINNER (GIRLS)
MAHIMA GUPTA (2ND SEM)
RENUKA NAYAK(2ND SEM)
SONALI PARIDA (2ND SEM)

RESEARCH

DR. RITESH KUMAR DEWANGAN

Congratulations



Dr. Ritesh Kumar Dewangan Professor, Mechanical Engineering Academic Coordinator

Rungta College of Engineering & Technology, Raipur

For publication of Research paper in "Journal of Failure Analysis and Prevention" SCI Indexed Journal

DOI //doi.org/10.1007/s11668-024-01919-5

Fault Diagnosis of Rolling Element Bearing with Operationally Developed Defects Using Various Convolutional Neural Networks

Devendra Sahu - Ritesh Kumar Dewungan - Surendra Pal Singh Matharu

Subsected: 22 January 2024 in second bons: 2 March 2024 Accepted: 12 March 2024 of ASAI International 2024

neural network architecture utilized multiple puralist con-volutional layers to effectively extract sick and complementary fault features. The model was configured by longlementing the categorical consustancy loss function and Adam optimizer. Evaluation of the neural network, models was performed using a confusion neutric and SNNE-visualization to results accurate fault identification. Com-parative analysis among the convolutional neural network sochologues was conducted to show their effectiveness toward fault diagnosis. The multi-input 1-O CNN ablived 17% prediction accuracy. The results demonstrate that

D. Sales G/D: Uncovering Transleing Department, CEVTU, Blebs, Orbanisqueb 491 107, belle a-mail: development/171@pnell.com

S. P. S. Mathers National Institute of Technology (NIT), Bulgor, Chilamogurb 80290, Julia

multi-input 1-D CNN model provides better accuracy in fault diagnosis compared to the other models.

RESEARCH

DR. MANISHA AGRAWAL



Congratulations



DR. MANISHA AGRAWAL DEAN (R&D)

GRANTED UTILITY PATENT

For development of 'Electrically Stimulated Germination Kit'. Patented kit is able to fasten germination of physically dormant seeds in chemical free, damage free, sustainable and eco-safe environment.



STUDIES ON ECO-FRIENDLY CONCRETE USING FLY ASH AND SILICA FUMES

PROF. KESARI VERMA ASSISTANT PROFESSOR, RUNGTA COLLEGE OF ENGINEERING AND TECHNOLOGY, RAIPUR



INTRODUCTION:-

Concrete is a mixture of cement, sand, aggregate, and water in the proper proportions. Because of the use of concrete in previous decades, infrastructure and construction work are improving day by day thanks to modern techniques and a lot of research done on concrete nowadays. In the United States, one temple is constructed of fly ash and the cement in that temple is replaced by fly ash up to 60%. So this is a very good result as well as a good research on the replacement of cement by fly ash or silica fume both are replaced with cement to achieve good results because both of these materials behave similarly. The silicon and ferrosilicon industries create silica fume (SF) as a byproduct. Non crystalline silica (SiO2) micron-sized fine spherical particles (1 m) are the main component of SF.

OBJECTIVE OF THE STUDY:-

- •The present Investigation has been undertaken to study of silica fume and fly ash to improve properties of concrete when cement is replaced by fly ash in 25%, 30%, 35%,40%, 45%, 50%, 55% and60% and silica fume kept constant at 10% of the weight of fly ash.
- In this work, the effect of fly ash and silica fume replacement on the mechanical properties of concrete is studied. Density, Compressive strength, flexural strength and Split tensile strength are performed on the properties of the fresh and hardened concrete.
- •To provide economical construction material by utilizing waste properly.

APPLICATION OF FLY ASH AND SILICA FUME

- ·Geotechnical applications, such as soil stabilization for road ways.
- ·Land fill liner so recover sand as a geo polymer material.
- ·Silica fume is utilised in the construction of high-performance concrete (HPC) parking decks, maritime construction and bridge deck overlays.
- ·Repair items Silica fume has been used in several cementations.

MIX DESIGN

• This research took into account concrete of the M30 grade. The mix was made in accordance with the IS 10262-2009 standard. M30 is compatible with mix ratios of 1:1.18:2.40:0.45. 25%, 30%, 40%, 45%, 50%, and 60% of the cement was replaced with fly ash, and 10% of the fly ash's weight was added to silica fume.

LIMITATIONS OF THE PROJECT WORK

- ·The production of eco-friendly concrete demands significant focus and precise quantities of fly ash and silica fume.
- ·There is no IS standards available for the preparation for environmentally friendly concrete.

FUTURE SCOPE OF WORK

- ·The impact loading can be used to test the concrete's performance.
- ·For environmentally friendly concrete, mathematical and empirical methodologies can be created.
- ·Studies can be carried out by adding various admixtures to reduce the water cement ratio.
- · Environmentally friendly concrete may be used for durability investigations such as sulphate attack resistance, acid resistance, and so on.
- ·Crack research examination of the cubes is also possible.

CONCLUSIONS

- The RCET, Raipur lab conducted experimental investigations, resulting in the following conclusions.
- ·With 55% cement replacement, the compressive strength after 7 and 28 days was 29. 3 MPa and 48. 3 MPa, respectively.
- ·With 55% cement replacement, the flexural strength after 7 and 28 days was 5. 1 MPa and 6. 9 MPa, respectively.
- ·The density of the concrete was increased.
- ·The results indicate that up to 55% of cement can be replaced by fly ash in concrete.
- ·It is recommended that up to 10% silica fume replacement of cement and 55% fly ash replacement be used to achieve greater compressive strength and durability.
- It is possible to deduce that fly ash and silica fume can be used as replacements for cement in concrete.

UPCOMING EVENTS



- 1. MIMICRY / STAND-UP COMEDY
 COMPETITION (4th MAY WORLD LAUGHTER DAY)
- 2. COLLAGE MAKING COMPETITION (11th MAY)
- 3. RANGOLI(11th MAY)
- 4. CODING COMPETITION(11th MAY)
- 5. STORY TELLING AND BRAIN STORMING COMPETITION (18th MAY)
- 6. BOX CRICKET / KHO-KHO (18th MAY)
- 7. AWARENESS RALLY AGAINST TOBACCO (25th MAY)
- 8. TABLE TENNIS (25th MAY)
- 9. POSTER / PAINTING COMPETITION (25th MAY)
- 10. ALUMNI / GUEST LECTURE









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> Promote all round development of students & create a sense of social responsibility.

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- B.Ed. PGDCA
- * Subject to approval of the Regulatory Body.





