



Department of Information Technology
Presents

THE QUBIT

Departmental E-magazine
November 2021

24th ASLAP
Rank
REC AMBEDKAR NAGAR

Entrepreneurship
Awareness Camp

Solar Energy
As Future Energy...



MNIT Bhopal

Collaboration



NTPC
Visit

17 November

✉ thequbit@recabn.ac.in

🌐 http://recabn.ac.in/?page_id=5407

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From the Director's Desk

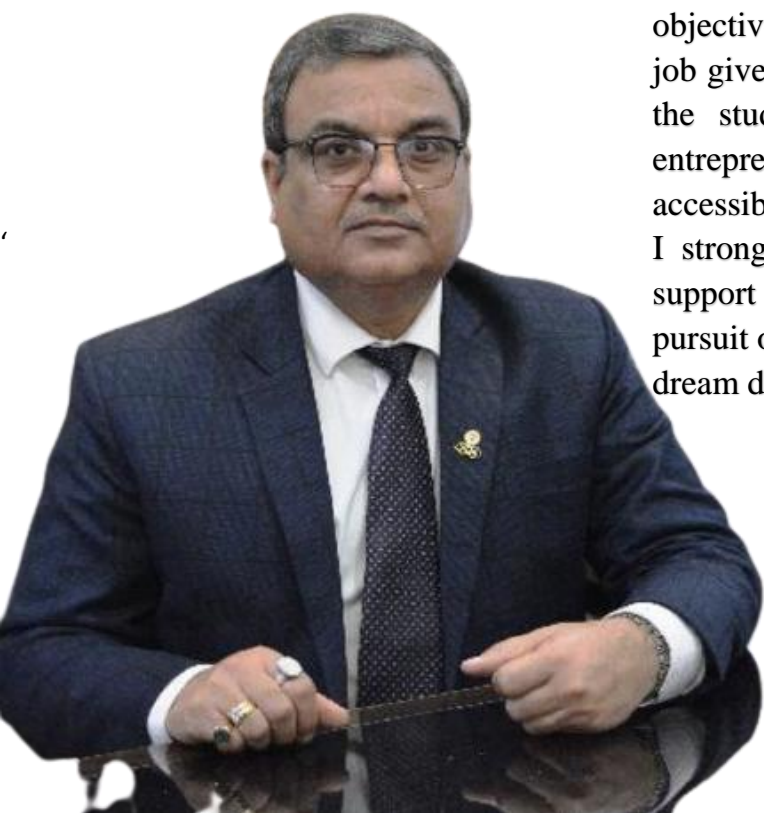
Rajkiya Engineering College (REC), since inception in the year 2010, has reached new echelons in all areas of functionality showing positive growth trend in academic discourse over the years. The motive has always been to attain the global level of excellence in scientific and technical education, fostering research, innovation, leadership qualities and entrepreneurial attitude, contributing to the advancement of the society and mankind.

We at REC consistently provide an academic and social environment that stimulates academic excellence imbued with cross cultural adaptability, flowering of soft skills and integration of human values & social concerns among students. In order to attain these multi facet objectives we have taken a number of steps aimed at developing the budding Engineers. This includes crafting of teaching learning modules in line with AKTU curriculum, floating of significant number of value-added programs on advanced knowledge domains and facilitating infrastructural support for incubation & innovative entrepreneurship. All these activities are effectively promulgated by highly qualified and well experienced faculties with high degree of precision.

Rajkiya Engineering College is committed to focus on cutting edge technology, innovations & creativity and hands on learning with an objective to convert the students from being job seekers to become job givers. In line with this philosophy, we act as a bridge between the students and various government organizations promoting entrepreneurial culture through their training programs, easy accessibility and funding support from time to time. I strongly believe that with the kind of impeccable system and support REC provides, we shall continue to create benchmarks in pursuit of achieving academic excellence and shall soon emerge as a dream destination for Engineering aspirants.

Best wishes!!!

Prof. (Dr.) Sandeep Tiwari
Director



From the HOD's Desk



The aim of the department is to be center of excellence in the information technology which will produce globally competent engineers with the moral values and technical skills for the betterment of the society. We groom our students according to the needs of the industry. We provide real life projects to our students where they can apply intuitive, imaginative and creative ideas to find appropriate solutions to the challenges faced by our society. We open frontiers of technical knowledge and reveal new horizons of change, to broaden mind-sets of our students. Apart from the study, our students are also engaged in various cultural, sports and literary activities throughout the year.

The Department has highly qualified faculty that provides a perfect base for raising students into true engineers that can adapt to changing industrial trends. Our faculty are at the forefront of technical education and cutting-edge research, creating thought-provoking and challenging programs for our students.

I wish all our students success in sharing knowledge, ideas and solving important societal needs and issues. It is my sincere endeavor to provide suitable environment- with transparency, impartiality and fairness to all the students of the department so that all can work in responsible and coordinated manner with their full potential to make it possible to fulfil all challenges. I am sure that, working as a team, we would be able to take our department to the pinnacle of its glory.

Dr. Sudhakar Tripathi
Head of Department (IT)



ABOUT THE MAGAZINE



We are delighted to present you the second edition of “The QUBIT” monthly e-magazine by the Department of Information Technology, REC Ambedkar Nagar. The QUBIT covers student articles and showcase department activities on monthly basis. This magazine is the reflection of the imagination and creativity of the students who are involved in multifarious activities. The students can share their knowledge and ideas through this medium.

We are very proud of the work displayed here by the writers, photographers, and designers who made this issue possible. We hope you enjoy reading these articles.

----FROM THE QUBIT TEAM

VISION OF THE COLLEGE



To attain the global level of excellence in scientific and technical education, fostering, research, innovation, leadership qualities and entrepreneurial attitude, contributing to the advancement of the society and mankind.

MISSION OF THE COLLEGE



- ❖ *To create an ambience for new idea, research, innovation and entrepreneurial attitude, with a high level of ethics, communication and leadership qualities.*
- ❖ *To enhance knowledge and skills of students in science, technology and human behavior that will serve the nation.*
- ❖ *To develop ability and passion to work wisely, creatively, and effectively in each member of college for the betterment of the mankind and all living beings.*



Department **Mission & Vision**



To be center of excellence in the information technology which will produce globally competent engineers with the moral values and technical skills for the betterment of the society.

- ❖ To create an environment for engineering knowledge and innovative research.
- ❖ To groom our students with the quality of leadership and communication skills by working on real life projects.



Program Educational Objectives of Department

PEO-1

To identify, formulate and solve contemporary computing problems of multiple disciplines by applying their knowledge of mathematics, information technology, and emerging technologies.

PEO-2


To apply the principles of software project management to develop innovative real world projects.

PEO-3

To improve their technical and professional skills through value addition programs and self-learning to develop a long term productive career in industry, government or academia.

PEO-4

To understand their professional, ethical, legal, and social responsibilities and contribute for the betterment of the society through active engagement with professional societies, schools, civic organizations or other community activities.



**Program
Educational
Objectives
(PEO)**

Program Outcomes of Department (POs)



PO1: Engineering Knowledge

Apply the knowledge of mathematics, including discrete mathematics, probability, statistics and fundamentals of various engineering disciplines like computer science and engineering, electronic engineering and electrical engineering in the core information technologies.

PO2: Problem Analysis

Analyze a problem and identify the computing requirements appropriate to its solution.

PO3: Design/development of solutions

Design and implement hardware and software systems, components, process or program to meet the desired needs within reasonable economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability constraints.

PO4: Conduct investigations of complex problems

Reassess literature and indulge in research to use research based knowledge and methods to design and conduct new experiments, as well as to organize, analyze and interpret data to produce draw valid conclusions and recommendations.

PO5: Modern tool usage

Use appropriate techniques, resources, and modern engineering and IT tools necessary for computer engineering practice.

PO6: The engineer and society

Show the understanding of local and global impact of computing on individuals, organizations and society.

PO7: Environment and sustainability

Integrate IT-based solutions in environmental contexts, and demonstrate the knowledge of need for sustainable development.

PO8: Ethics

Demonstrate the knowledge of professional and ethical responsibilities along with the norms of the engineering practice.

**PO9: Individual and Team
work**

Demonstrate leadership and an ability to work as a member with responsibility to function on multi-disciplinary teams to accomplish a common goal.

PO10: Communication

Demonstrate effective communicate skills in both oral and written form with a range of audiences.

**PO11: Project
Management and Finance**

Apply the knowledge and understanding of engineering and management principles to design, plan, budget and propose IT project for an identified need within a specific scope.

PO12: Life Long learning

Develop confidence to acquire new knowledge in the computing discipline and to engage in life-long learning.

Program Specific Outcomes (PSOs) of Department

PSO1

Gain detailed Knowledge of various contemporary domains to identify research gaps and hence provide solutions by new ideas and innovations.

PSO2

Have strong skills in learning new programming environments as it is used to automate things and simplify real world problems and human efforts.



Department Coordinators



Dr. Ashish Kumar Mishra
(For Final Year)



Mr. Shivendra Kumar Pandey
(For Third Year)



Mr. Sharad Verma
(For Second Year)



Mr. Prince Rajpoot
UG Coordinator

Class Representatives



Second Year



MITRASEN YADAV



ADITI JAIN

Third Year



NOOR MOHAMMAD

Final Year



VISHESH KUMAR SINGH

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1. Highlights



INAUGURATION OF Auditorium

October 5, 2021

Inauguration of the Auditorium and key note address by the 'Chief Guest' Shri Alok Kumar, Hon'ble Secretary, Chief Minister and Technical Education Department, Government of Uttar Pradesh, Lucknow.





Entrepreneurship Development Program

OCTOBER 5-9, 2021

MoU signed with :
1) Bhagyodaya
2) OORJAgram India
(P) Ltd.
3) LCB Fertilizers
(P).Ltd.
4) ROSA TECH
5) BOOND SOLAR



NTPC Visit



THREE DAYS ENTREPRENEURSHIP AWARENESS PROGRAM (NOVEMBER 15-17, 2021)

Highlights of SDC



CODECHEF KEC Chapter in collaboration with SOFTWARE DEVELOPMENT CLUB – REC AMBEDKAR NAGAR organized ‘Binary Beast- Coding Contest’ on November 20, 2021.



KRISHNA ENGINEERING COLLEGE

(Department of CSE & IT)

Binary Beast

Coding Contest organized by CodeChef KEC Chapter in association with Technoblitz Society of CSE

CONGRATULATIONS



SECOND POSITION
SHIVAM KUMAR
2ND Year (REC)



FIRST POSITION
AMAN CHHABRA
3rd Year (REC)



THIRD POSITION
PRAPHUL KUMAR
3rd Year (REC)



www.krishnacollege.ac.in



Software Development Club

Rajkiya Engineering College
Ambedkar Nagar, U.P.

Ref. No.: **RECABN/SDC/2021/03**

October 12, 2021

CODECHEF October Long Challenge 2021

CODECHEF's Long Challenge is signature monthly coding competition which spans a duration of 10 days. The coders compete while also improving their overall algorithmic knowledge. The 10 days' contest duration gives one enough time to efficiently tackle a problem by reading the concepts one doesn't know, and also gain practical experience by coding the solution to the problem, thus improving their skills significantly. This coding competition packs the excitement of programming with the fun of learning into one compelling challenge.

Contest duration: **October 1, 2021 to October 11, 2021**

Number of participants worldwide: **26,809**

The rank list for this contest is displayed below.

Result: OLC2021

Rank (Out of 26,809 participants)	Name	Branch & Year	Codechef User ID	Score (800)
81	Praphul Maurya	IT 3 rd Year	praphulkmaurya	500
81	Jitendra Kumar	IT 3 rd Year	jitu3390	500
81	Amit Tiwari	IT 3 rd Year	amittiwari123	500
81	Abhishek Singh	IT 3 rd Year	dflabs_83	500
81	Aman Chhabra	IT 3 rd Year	amchh_4621	500
81	Anupam Kumar Shukla	IT 3 rd Year	anupam54	500
81	Mohd Shadab	IT 3 rd Year	shaad82663	500
81	Ajay Kushwaha	IT 3 rd Year	ajayk_00	500
4314	Devesh Kumar Pathak	IT 2 nd Year	pathakdevesh	400
7088	Anurag Jaiswal	IT 3 rd Year	anurag84	300
7088	Prashant Kumar	IT 3 rd Year	prasit_25	300
7088	Ayush Varma	IT 3 rd Year	ayush_varma12	300
7088	Adarsh Kumar	IT 3 rd Year	adarsh_557	300
10393	Sahil Verma	IT 3 rd Year	darksun1810	200
10393	Chandra Bhushan Yadav	IT 3 rd Year	chandu2767542	200
10393	Suraj Gautam	IT 3 rd Year	suraj3110	200
10393	Shivam Kumar	IT 2 nd Year	shivam_2701	200
10393	Amit Kumar	IT 3 rd Year	jais_amit	200
10393	Chetan Singh	IT 2 nd Year	chetan_2007	200
17367	Shardendra Kumar	IT 3 rd Year	shard1907	100
17367	Vikas Yadav	IT 3 rd Year	vikasyadav2020	100

CODECHEF SNACK DOWN 21 QUALIFIERS

Starts on

15 OCT
2021

19:30 IST

Ends on

19 OCT
2021

19:30 IST

SnackDown 2021 is an annual multi-round global programming tournament conducted by CodeChef.

Contest Details:

- Duration: 4 days
- Start time: 15th October 2021, 19:30 hrs IST
- End time: 19th October 2021, 19:30 hrs IST

Final Contest Prizes:

- 1st Prize: \$10000
- 2nd Prize: \$7500
- 3rd Prize: \$5000
- 4th to 25th: \$500

Other Categories:

- 1st Indian: \$2000
- 2nd Indian: \$1000
- 3rd - 10th Indians: \$250

Registration is ongoing and will ends on October 19th 2021.

Participants solving atleast one problem will advance to the next round.

SDC_RECABN

Software Development Club

Rajkiya Engineering College
Ambedkar Nagar, U.P.

Ref. No.: **RECABN/SDC/2021/04**

November 02, 2021

CODECHEF SNACKDOWN 2021 QUALIFIERS

SnackDown 2021 is an annual multi-round global programming tournament conducted by CodeChef.

Contest duration: **15/10/2021 to 19/10/2021**

Number of participants qualified worldwide: **36993**

Number of participants qualified from REC_ABN: **42**

List of students qualified for SNACKDOWN ROUND 1A (21/10/2021 to 23/10/2021) is displayed below.

Result: SNCKQL21

Rank	Name	Branch & Year	Codechef User ID	Score (6)
1288	Shivam Kumar	IT 2nd Year	shivam_2701	3
1288	Praphul Kumar Maurya	IT 3rd Year	praphulkmaurya	3
1288	Ayush Verma	IT 3rd Year	ayush_varma12	3
1288	Aditya Singh	IT 3rd Year	aditya_25	3
1288	Arvind Yadav	IT 3rd Year	arvind_07	3
1288	Adarsh Kumar	IT 2nd Year	adarsh_557	3
1288	Abhishek Singh	IT 3rd Year	dflabs_83	3
1288	Aman Chabra	IT 3rd Year	amchh_4621	3
1288	Mohd Shadab	IT 3rd Year	shaad82663	3
1288	Pragya Singh	IT 3rd Year	pragpl	3
1288	Jitendra Kumar	IT 3rd Year	jitu3390	3
1288	Anupam Shukla	IT 3rd Year	anupam54	3
1288	Amit Kumar	IT 3rd Year	jais_amit	3
1288	Anuj Kumar	IT 2nd Year	anuj_287	3
1288	Durgesh Kumar Yadav	IT 2nd Year	dk_760	3
1288	Prashant Kumar	IT 3rd Year	prashu_7487	3
1288	Adit Shrivastava	IT 3rd Year	aadi_4444	3
1288	Shivali Agrawal	IT 3rd Year	shivaliagrawal	3
1288	Stuti Pandey	IT 3rd Year	stutupandey	3
1288	Ajay Kushwaha	IT 3rd Year	ajayk_00	3
9822	Amit Tiwari	IT 3rd Year	amittiwari123	2
9822	Shardendra Kumar	IT 3rd Year	shard1907	2
9822	Suraj Kumar	IT 3rd Year	suraj3110	2
9822	Noor Mohammad	IT 3rd Year	dnd_indolent_m	2

Software Development Club

Rajkiya Engineering College
Ambedkar Nagar, U.P.

Ref. No.: **RECABN/SDC/2021/05**

November 02, 2021

CODECHEF SNACKDOWN 2021 ROUND 1A

SnackDown 2021 is an annual multi-round global programming tournament conducted by CodeChef.

Contest duration: **21/10/2021 to 23/10/2021**

Number of participants qualified from REC ABN: **21**

List of students qualified for SNACKDOWN PRE-ELIMINATION (21/11/2021 9:00 pm to 12:00 am) is displayed below.

Result: SNCK1A21

Rank	Name	Branch & Year	Codechef User ID	Score (6)
63	Praphul Kumar Maurya	IT 3rd Year	praphulkmaurya	5
63	Suraj Kumar	IT 3rd Year	suraj3110	5
2477	Jitendra Kumar	IT 3rd Year	jitu3390	4
2477	Prashant Kumar	IT 3rd Year	prashu_7487	4
2477	Shardendra Kumar	IT 3rd Year	shard1907	4
2477	Aditya Singh	IT 3rd Year	aditya_25	4
2477	Anuj Kumar	IT 2nd Year	anuj_287	4
2477	Ayush Verma	IT 3rd Year	ayush_varma12	4
2477	Arvind Yadav	IT 3rd Year	arvind_0_7	4
2477	Amit Tiwari	IT 3rd Year	amittiware123	4
2477	Chandra Bhushan Yadav	IT 3rd Year	chandu2767542	4
2477	Abhishek Singh	IT 3rd Year	dflabs_83	4
2477	Prashant Singh	IT 3rd Year	prashantsin_22	4
2477	Aman Chabra	IT 3rd Year	amchh_4621	4
2477	Amit Kumar	IT 3rd Year	jais_amit	4
2477	Anupam Shukla	IT 3rd Year	anupam54	4
2477	Mohd Shadab	IT 3rd Year	shaad82663	4
2477	Adarsh Kumar	IT 2nd Year	adarsh_557	4
2477	Manas Singhal	IT 3rd Year	manassinghal77	4
2477	Vikash Yadav	IT 3rd Year	vikashyadav2020	4
2477	Ajay Kushwaha	IT 3rd Year	ajayk_00	4

Software Development Club

Rajkiya Engineering College
Ambedkar Nagar, U.P.

Ref. No.: **RECABN/SDC/2021/06**

November 27, 2021

CODECHEF NOVEMBER LONG CHALLENGE 2021

CodeChef Long Challenge is a 10-day monthly coding contest where you can show off your computer programming skills. The significance being - it gives you enough time to think about a problem, try different ways of attacking the problem, read the concepts etc. If you're usually slow at solving problems and have ample time at hand, this is ideal for you. We also put in a lot of efforts in getting quality problems, which would, in turn, foster your learning while solving them.

Contest duration: **05/11/2021 to 15/11/2021**

Number of participants worldwide: **20168**

The Rank list for this contest is displayed below.

Result: NOV21C

Rank	Name	Branch & Year	Codechef User ID	Score (1000)
348	Prashant Kumar	IT 3rd Year	prashu_7487	600
348	Amit Kumar	IT 3rd Year	jais_amit	600
348	Anupam Shukla	IT 3rd Year	anupam54	600
348	Vikash Yadav	IT 3rd Year	vikashyadav2020	600
705	Praphul Kumar Maurya	IT 3rd Year	praphulkmaurya	540
1049	Shardendra Kumar	IT 3rd Year	shard1907	500
2191	Chandra Bhushan Yadav	IT 3rd Year	chandu2767542	400
2191	Shivam Kumar	IT 2nd Year	shivam_2701	400
4966	Aditya Singh	IT 3rd Year	aditya_a_25	300
4966	Ayush Verma	IT 3rd Year	ayush_varma12	300
4966	Arvind Yadav	IT 3rd Year	arvind_0_7	300
4966	Aman Chabra	IT 3rd Year	amchh_4621	300
4966	Devesh Kumar Pathak	IT 2nd Year	pathakdevesh	300
4966	Adarsh Kumar	IT 2nd Year	adarsh_557	300
10308	Pankaj Kumar	IT 2nd Year	Pankaj3101	200
10308	Suraj Gautam	IT 3rd Year	suraj3110	200
10308	Naman Singhal	IT 3rd Year	naman_8076	200
10308	Chetan Singh	IT 2nd Year	chetan_2007	200
16037	Anuj Kumar	IT 2nd Year	anuj_287	100

MoU signed with E-cell MNIT Bhopal



➤ The objective of the Memorandum of Understanding:

Software Development Club, Rajkiya Engineering College Ambedkar Nagar (at this moment referred to as 'SDC-RECABN') and Entrepreneurship Cell, NIT-Bhopal (at this moment referred to as 'E-Cell NIT-B') sign this Agreement on **November 23rd 2021**. Where in, the SDC-RECABN agrees to be the social outreach partner and receive other benefits provided for in this Agreement in consideration for the services.

➤ Duration of MoU:

This MOU shall be operational upon signing and will have an initial duration of 1 year. All activities conducted before this date within the vision of the collaboration will be deemed to fall under this MOU.

Campus Ambassador E-Cell MNIT Bhopal x SDC-RECABN:

1. Neha Parveen (2nd Year)
2. Aditi Jain (2nd Year)

Social Media Handler:

1. Ankita Chaudhary (2nd Year)
2. Sabita Kumari (2nd Year)

ARTICLES & POEMS

SOLAR ENERGY: AS FUTURE ENERGY

The demands of solar energy is increasing day by day due to explosion of population and technological advancements. So, it is very crucial for us to go with reliable, cost effective, eco-friendly resource like renewable energy resources. Now the question will arise that what is renewable energy resource?



Renewable energy resource is often referred to as a clean energy resource come from the natural sources and processes that are constantly replenished by the nature. For example-wind energy, solar energy, biomass,

Tidal energy, geothermal energy, hydro energy

etc. Now the present days scenario of our country India is that it produces 84% of electricity through fossils fuel due to which coal is going to distinct. It may also possible that the government will announce blackout.

So, it become very necessary for us to go with solar energy which is promising and freely available energy source for managing long term issues in energy crisis. The geographical location of India is very great, half of the portion of the country lies in torrid region (sun light fall vertically) and another half lies in temperate region. If we establish solar power plant in torrid region, then we can overcome from such energy

crisis and also it become a tool to develop the economic status of our developing country.

India has taken great initiative regarding solar energy by establishing-

1 THE BHADLA SOLAR PARK-It is the largest solar power plant in the world, is based in Bhadla village, in Rajasthan's Jodhpur district spanning in 14,000 acres, whose capacity is to produce 2,250 MW electricity.

2 SHAKTI STHALA SOLAR

POWER PROJECT- It is the second largest solar power project in India.

The 2,050 MW plant was developed by the Karnataka Solar Park Development Corporation Limited (KSPDCL) with the help of National Thermal Plant Corporation (NTPC). It span is more than 13,000 acres of land in Tumakuru district of Karnataka.

3 Ultra Mega Solar Park-It is the third

largest solar power plant of the country India. It spans in 5,932 acres of land in Kurnool district of Andhra Pradesh which can produce 1,000 MW of electricity.

India's largest floating solar power plant is located in NTPC Simhadri Andhra Pradesh,

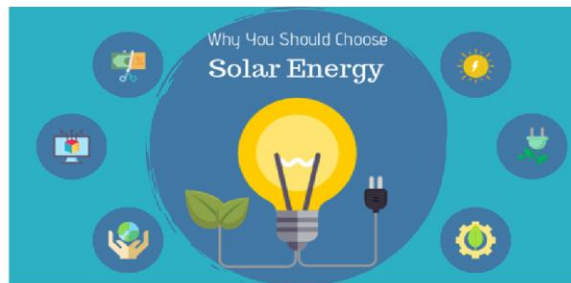


the 25 MW floating SPV project cover the area of 100 acres. Beside producing clean power, the project will also reduce water evaporation by providing shade to the covered area.

There are several such projects is running in India which is the pathway of sustainable development and as well as the economic development.

Future of solar energy-

In the upcoming year the technology improvement will ensure that solar plantation even cheaper, so solar energy become the most important source of energy for the electricity production in large part of the world by 2030. Rising conventional oil-derived price and concern regarding energy security have stimulated investment in sustainable renewable form



of energy. This will have a positive impact on our environmental climate change.

Impact of solar energy on environment-

- Going for the solar energy will reduce the greenhouse gases and CO₂ emission which is produce from burning fossils fuel.
- Implementation of electrical vehicle will reduce the air and noise pollution caused by burning fuel of oiled vehicles.
- Solar energy reduces the strain on finite resources and improving air quality index.
- Reduction of required transmission lines of the electricity grids and poles.
- Solar power reduces monthly bills and also keep our home powered during blackouts.

“I'd put my money on sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run our before we tackle that “

Thank you.

Himanshu Vishwakarma

I.T. (2nd Year)

Do You Know About

“I 4.0” ?



The 4th industrial revolution has begun from very beginning of 21st century and we are very privileged to be the part of it. It is very different from the previous revolution has done before like the steam which powers our factory and train in 1st revolution ,or the mass poduction and electricity like in 2nd ,or even the emergence of computer driven system in the 3rd .

The 4th revolution is all about to **connectivity** to industry and people around the world. All the previous revolution is about to **production and innovation** but this revolution about automatic Data Exchange in Tech.

What includes in “I 4.0” ?

“I - 4.0” refers to industries 4.0

- IOT
- Smart Factories
- Smart Cities
- Cyber Physical System (CPS)
- Artificial Intelligence.

• History

This Revolution was first introduced by a team of scientist developing a high- tech strategy of the “German Government”.

- There was a proposal passed by **WEF** that I 4.0 is included as “Strategic Intelligence” in the solution to rebuild the Economic crisis in COVID -19 crisis.

• It’s time to Industries 4.0

“I 4.0” is now not looking at there individual computerised machines but the whole network that they are talking to each other.

With the help of industries 4.0 we have intelligent factories,technology like IOT , smart machines sensors in them that are connected to network and talk to each other .So,they can diagnose their own problems alert if something is going to wrong in machine.

- We can also analyse a Big volume of data .
- We can use **AI** and **ML** to make predictive machines ,where machine tells about any breakdown in the next day and we can fix it before the time.

• “Industries 4.0” enhanced the computerizism of “Industries 3.0”

No doubt computer was introduced 3.0 ,and it was one of the biggest change in the history but it was the Industries 4.0 which ahead computer to communicate and take decision without human involvement.

• About Future Revolution

Industries 5.0 already announce ,it may be about connectivity within human, Smart Robot and machines .

PRASHANT SINGH

(1907370130045)

I.T. Third Year

ASTHA VATS

I.T. Third Year



आज तिरंगा लहरता देख याद '47 की आई,
इस मुकाम को हासिल करने, कितनो ने शहादत पाई,
ये सोच ही आँखों में धुंध सी छा गई।
भगत ने फांसी को चूमा, आजाद ने खुद ही गोली खाई,
लाखों ऐसे वीर हुए जिन्होंने वीर शाहदत पाई।
सोचो कैसा होगा मंजर, जब लक्ष्मी ने तलवार उठाई,
उस वीरांगना ने अंग्रेजों को भारत-भूमि की धूल चंटाई।
वीर सपूतों ने भारत माँ की खातिर खूब कठिनाई उठाई,
ऐसे ही नहीं हमारे भारत ने '47 में आजादी पाई।
आओ मिलकर संकल्प करें हम, ना आने देंगे आंच,
ना घटने देंगे उन वीरों की शान,
जिनकी वजह से भारत ने ये आजादी पाई।



Technology, Research & Development

Augmented Reality



What is Augmented Reality?

Augmented reality gives us data on the things that we can see. Achieved through the use of digital visual elements, sound, or other sensory stimuli delivered via technology, Augmented reality is an enhanced version of the real physical world. AR enhances the screen by adding elements to the real world. It helps in improving business, decision making, connecting employees etc. It presents virtual world elements as a part of the real world in an interactive way, a good way to render real world information.

Use of technology that works on computer vision based recognition algorithms to augment sound, video, graphics and other sensor based inputs on real world objects using the camera in Augmented Reality makes it trend among companies involved in mobile computing and business applications in particular.

Goal of Augmented reality is to highlight specific features of the physical world, increase understanding of those features, and derive accessible insight that can be applied to real-world applications. It helps in improving business, decision making, connecting employees etc.



How are AR and VR different?

Virtual Reality and Augmented Reality are not the same, they are quite different...

Augmented reality uses a real-world environment and puts virtual information on top of it to enhance the experience while Virtual Reality creates a virtual environment where people can interact in a physical or seemingly real way.

AR technology presents users with virtual objects in their natural environment. Users have to wear VR goggles or have to look at smartphone/tablet screens to see information about the things they are looking at.

Virtual Reality is a computer generated simulation of an environment or 3D image where people can interact. User wears a helmet or goggles and interacts in the pretended environment or simulation.

PRAGYA SINGH
(I.T. Third Year)

Current Affairs

Dhawan-1: Skyroot test-fires India's first privately built cryogenic rocket engine **8th Meeting of Agricultural Experts of BIMSTEC Countries held**

Skyroot Aerospace test-fired India's first privately built cryogenic rocket engine called Dhawan-1. Skyroot Aerospace demonstrated the upper stage of its Vikram-2 launch vehicle. The cryogenic rocket engine is 100 per cent 3D printed and 100 percent made in India. It has been named after Satish Dhawan, who was the third chairman of ISRO.

WHO: Omicron Poses Very High Global Risk

- Early evidence shows that; this highly mutated coronavirus could lead to surges with 'severe consequences.'
- It also noted that, "considerable uncertainties" remain about Omicron, which was first detected in southern Africa, some days ago.
- It warned that, it is possible that the variant has mutations, which would enable it to escape an immune-system response. Mutations would also boost its ability to spread from one person to another.
- WHO issued warning as several countries reported cases of this variant and started putting restrictions.
- Spain is the latest countries to report its first confirmed case of Omicron variant.

Parliament passes Farm Laws Repeal Bill, 2021

- The three farm laws of centre have been repealed by Lok Sabha as well as Rajya Sabha in the fastest repeal in recent years, following a year-long protests by farmers.
- Farm Laws Repeal Bill 2021 was tabled by Union Agriculture Minister Narendra Singh Tomar in Rajya Sabha.

6th BRICS Film Festival awards announced at IFFI

- Best film Award was shared by South African Film "Barakat" and Russian Film "The Sun above me Never Sets".
- Barakat has been directed by Amy Jephta while The Sun above Me Never Sets has been directed by Lyubov Borisova.
- These films were awarded for their brilliant cinematic portrayal of human emotions as well as magnificent storytelling on screen.

CEC: Participation of female voters in India exceeds men

- In the webinar, the chief election commissioner of India, Sushil Chandra, noted that women's participation in exercising franchise has overpassed that of men, after 7 decades and 17 general elections.
- Women's participation stood at more than 67 per cent in 2019 General Election.
- The gender gap was -16.71 per cent in 1962, has reversed to +0.17 per cent in 2019.
- India has observed a 235.72 per cent increase in female electors since the 1971 elections.

PM Modi inaugurates Noida International Airport

- PM Modi arrived at Jewar, the place accompanied by Chief Minister of Uttar Pradesh Yogi Adityanath and Civil Aviation Minister Jyotiraditya M Scindia, to lay down the foundation.
- Airport at Jewar is being developed by Yamuna International Airport Private Limited (YIAPL), which is a 100 per cent subsidiary of project's Swiss concessionaire Zurich International Airport AG.

National Apprenticeship Training Scheme extended for 5-years

- Cabinet gave approval for stipendiary support of 3 thousand 54 crore rupees to apprentices who undergo apprenticeship training under National Apprenticeship Training Scheme.
- Approval was given for the period from 2021-22 to 2025-26.
- Under it, industry & commercial organizations will train approximately nine lakhs' apprentices.
- Government has also approved an expenditure of around three thousand crore rupees for next five years. This expenditure is about 4.5 times the expenditure made in last five years.
- Increased expenditure on apprenticeship is in line with the push that National Education Policy 2020 has given to apprenticeship.

'Bharat Gaurav' scheme- Key Facts

- Private operators would also get the freedom to decide routes, fares and quality of services on the trains.
- For this purpose, railways have earmarked 3033 ICF coaches, roughly equal to 150 trains.
- Anyone including from trusts, societies, consortia and even state governments can apply to lease these trains and run them on special theme-based tourism circuits.

Australia declares 'La Nina weather event begins'

- Development of this phenomenon will bring above average rainfall across central, north and east Australia.
- This event could boost wheat yields in Australia.
- In September 2021, India had increased its wheat forecast for this season by 17 per cent to near record levels because of favourable weather.

NASA's Laser Communications Relay Demonstration (LCRD)

- The LCRD will be launched on December 4, following a two-year delay.
- It will be launched into space by Department of Defence, onboard United Launch Alliance Atlas V rocket during Space Test Program Satellite-6 (STPSat-6) mission.
- Mission will be launched from Cape Canaveral Space Force Station in Florida.
- It will benefit “Artemis manned Moon-landing mission”, which is scheduled to be executed in 2025.

Balasore (Odisha) receives “Best Marine District Award”

- Award ceremony was organised by ministry of fisheries, animal husbandry & dairying.
- Award was handed over by Union minister for fisheries, animal husbandry & dairying, Parshottam Rupala to director of fisheries of Odisha government, Smruti Ranjan Pradhan.

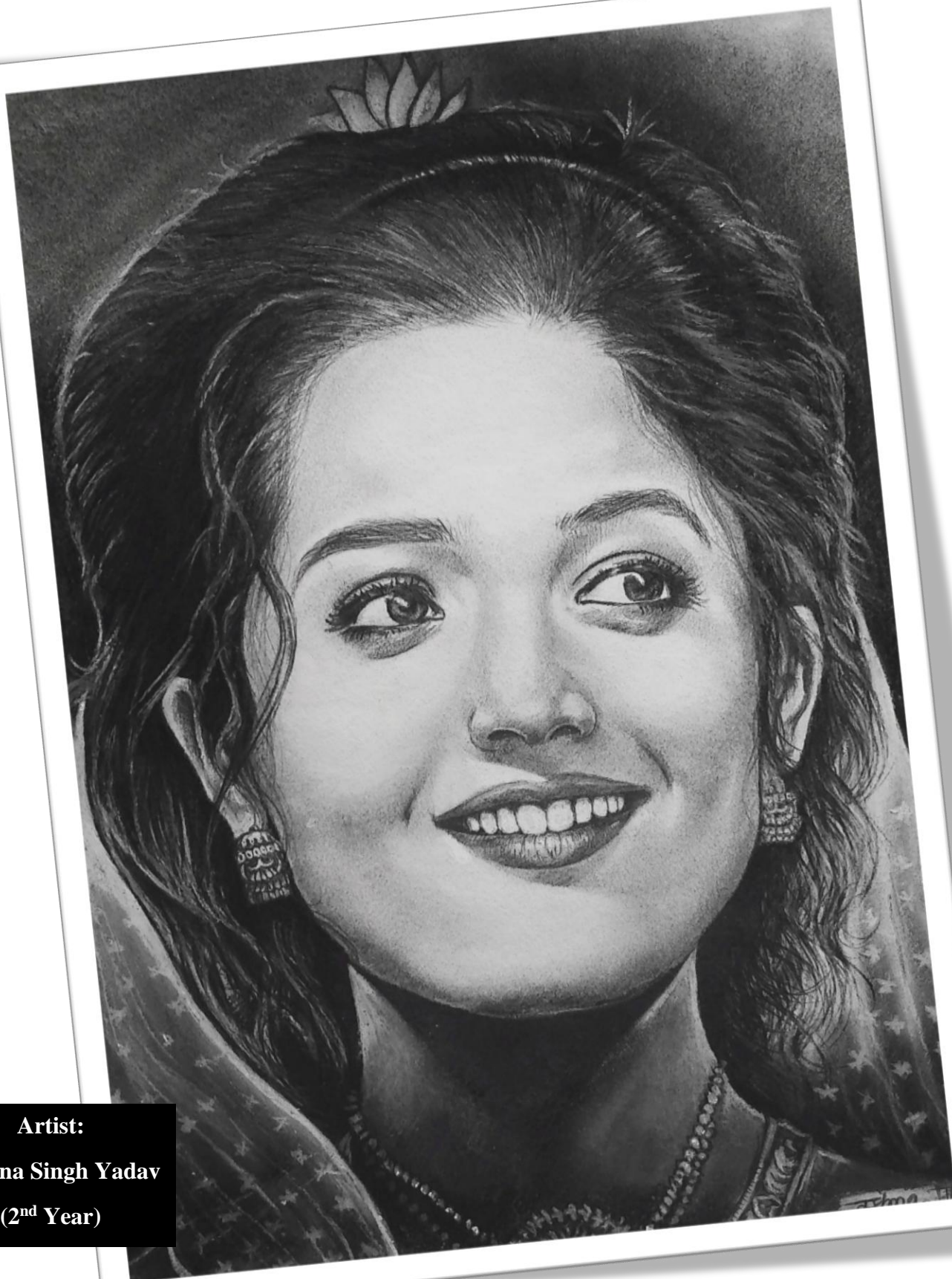
Amazon Deforestation reaches 15 years' high

- There was a jump of 22 per cent as compared to year 2020.
- As per data, Brazilian Amazon lost 13235 square kilometres of rainforest in between August 2020 to July 2021.
- This figure was highest since 2006.

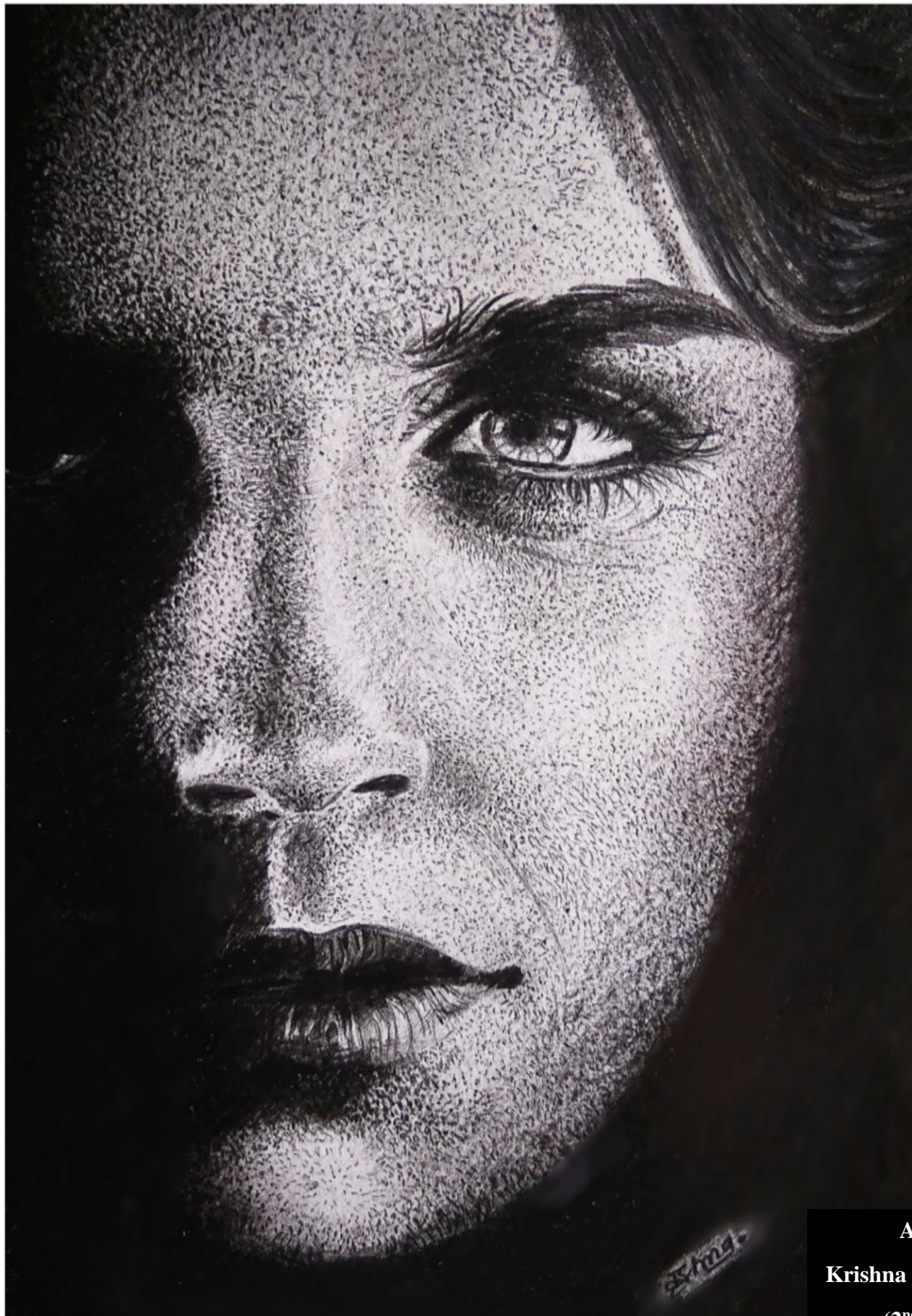
Indian Police Foundation (IPF) Survey on citizen's perception

- President and CEO of IPF, N Ramachandran, notes that they received responses from 1,61,192 people in India.
- Delhi Police was ranked for their sensitivity towards public, good behavior, accessibility, accountability and strict conduct.
- Delhi police was ranked at fifth position in technology adoption and at 10th spot for smart policing.
- States like Bihar, Uttar Pradesh, Jharkhand, Chhattisgarh, Punjab and Nagaland, scored least on the Smart Policing List.
- Bihar has been ranked last with respect to responsible policing, public trust in police and integrity & corruption free service.

! Art Corner!



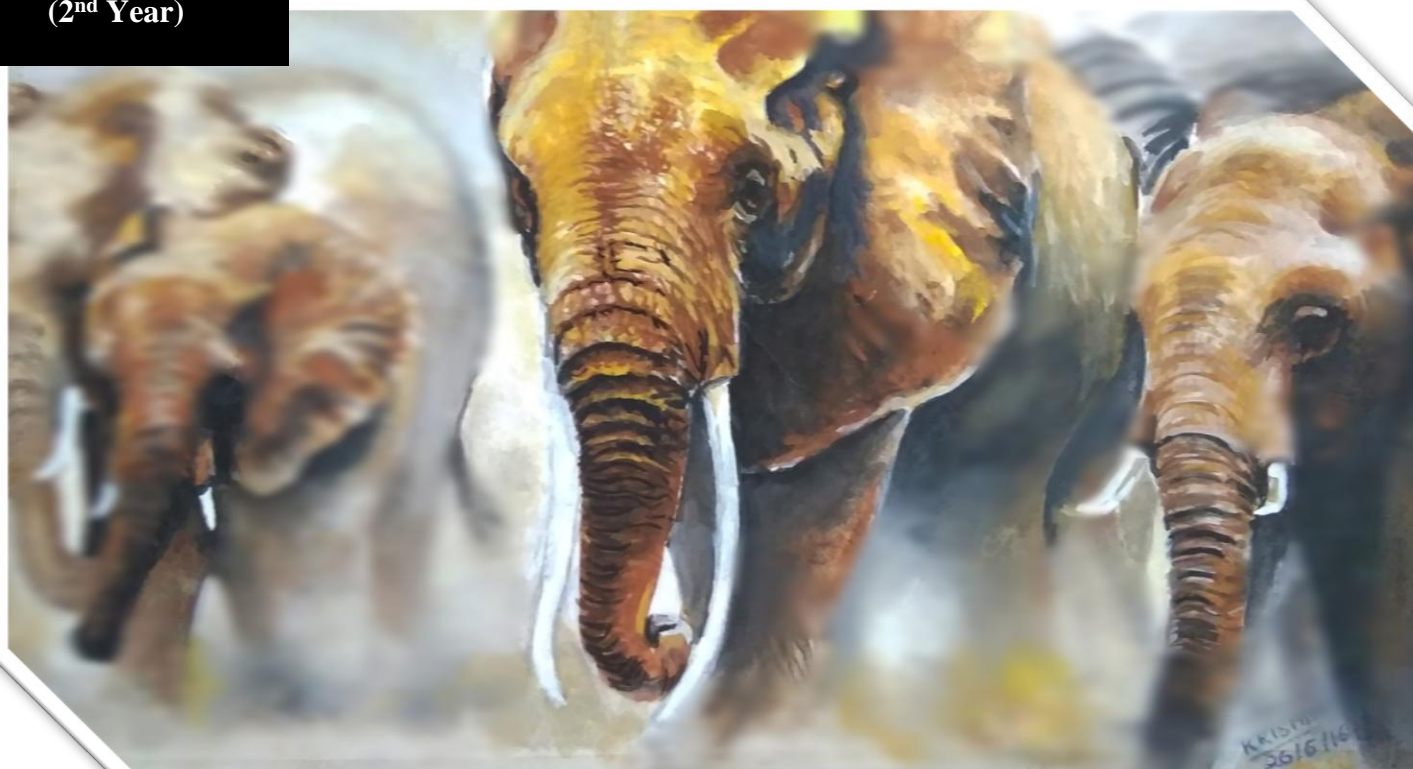
Artist:
Krishna Singh Yadav
(2nd Year)

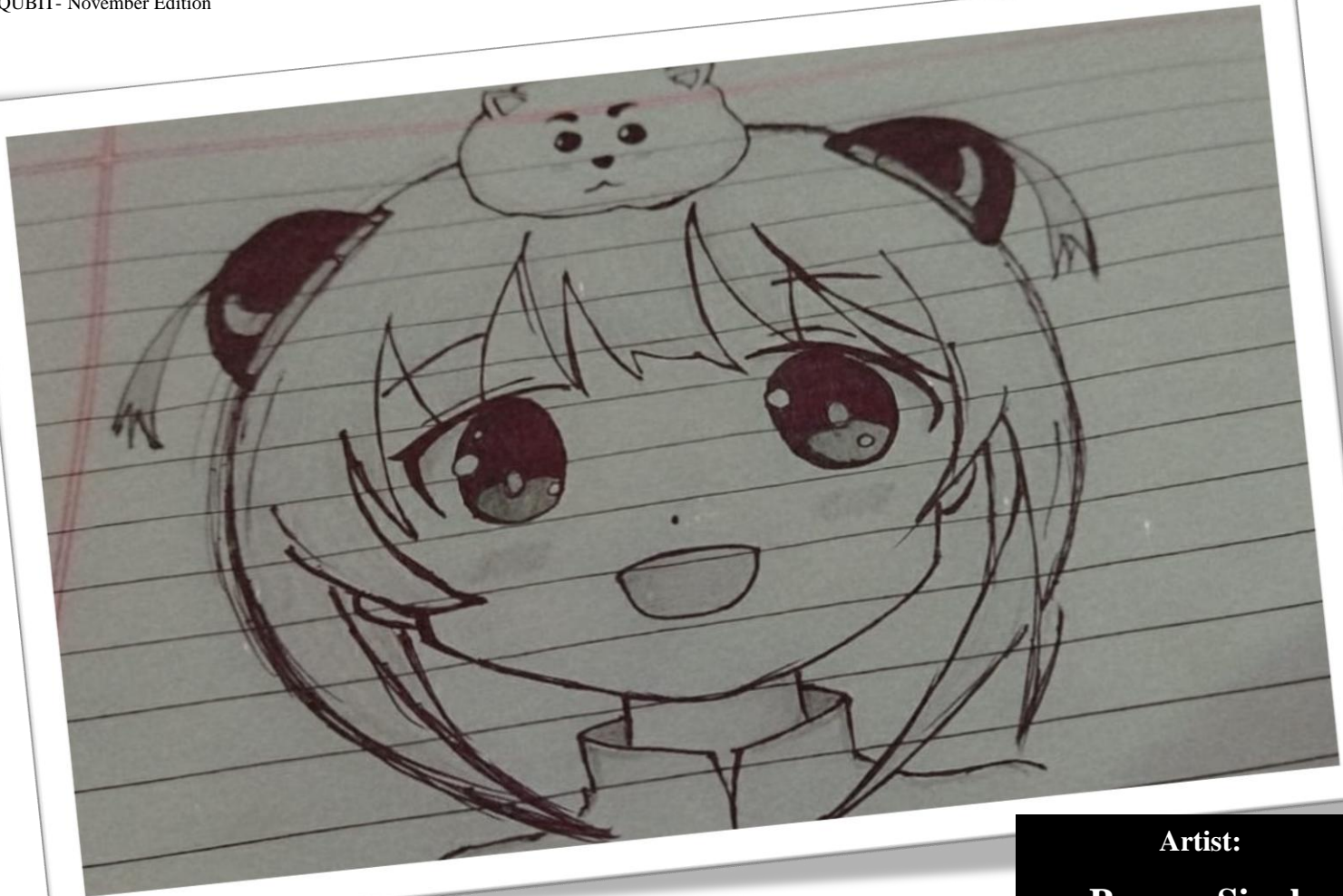


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(2nd Year)

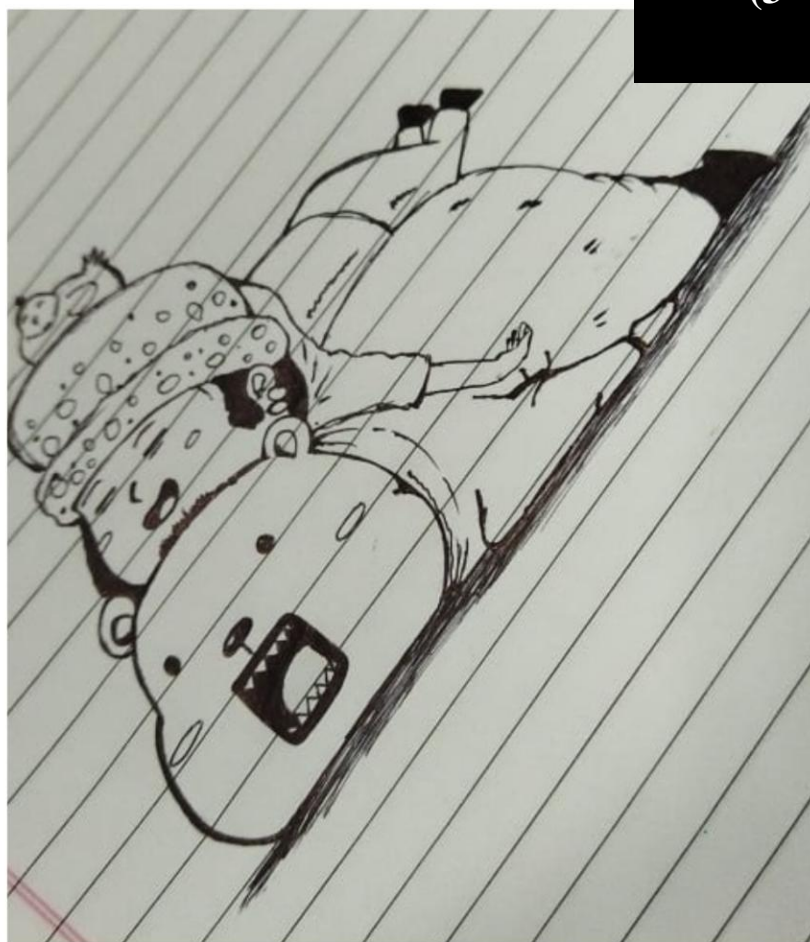


Artist:
Krishna Singh Yadav
(2nd Year)





Artist:
Pragya Singh
(3rd Year)







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 Pragati Pandey Information Technology  Package 8.5 LPA	 Devendrakumar Electrical Engineering  Package 4 LPA	 Devyanshu Verma Electrical Engineering  Package 4 LPA	 Dhruv Yadav Information Technology  Package 3.5 LPA	 Anand Kumar Barua Information Technology  Package 3.5 LPA	 Rishi Singh Information Technology  Package 3.5 LPA
 Mousumi Khatun Information Technology  Package 3.5 LPA	 Abhishek Verma Information Technology  Package 3.5 LPA	 Shivansh Patel Information Technology  Package 3.5 LPA	 Abhishek Mishra Information Technology  Package 3.5 LPA	 Ayushraj Raj Information Technology  Package 3.5 LPA	 Vishal Kumar Singh Information Technology  Package 3.5 LPA
 Rajeev Kumar Civil Engineering  Package 3.5 LPA	 Anshul Bhatti Information Technology  Package 3.5 LPA	 Mukesh Choudhary Information Technology  Package 3.5 LPA	 Saurabh Verma Information Technology  Package 3.5 LPA	 Arjun Raj Civil Engineering  Package 3.5 LPA	 Aditya Kumar Information Technology  Package 3.5 LPA
 Rishabh Kumar Information Technology  Package 3.5 LPA	 Jahnavi Raj Civil Engineering  Package 3.5 LPA	 Pragati Pandey Information Technology  Package 3.5 LPA	 Kavita Singh Information Technology  Package 3.5 LPA	 Anish Kumar Barua Information Technology  Package 3.5 LPA	 Priya Khatun Civil Engineering  Package 3.5 LPA



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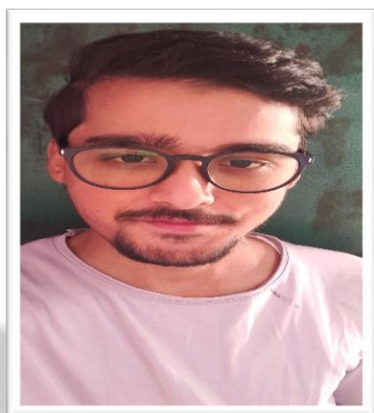
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Inspirational Movie Quotes

Dear Readers

I am putting together some of my favorite lines from movies to help you stay positive and motivated.

Waking up in the middle of night.

Sacrificing sleep, living bed early,

Skipping to shows, turning off WiFi,

Cancelling plans.

Don't worry, one day you will feel proud for doing all these things.

Nothing comes easy, you have to put in effort,

You have to put in your blood, sweat and tears.

If you have courage to start, you have courage to succeed.

Dig a little deeper, give a little bit more,

Try a little bit harder, Go the extra mile.

The reason why you are taking those classes.

The reason why you are trying to get that degree is because you are trying to design the lifestyle that you want to live.

You don't have to give a shit about who is doing what and how much your friends have prepared.

Just focus on your dreams.

Just focus on your studies.

Just focus on your goal and aspirations.

Just focus on becoming a better you.

Don't look in any direction but ahead.

Always remember you are studying for yourself and not for anybody else.

So study hard.

No matter if it seems impossible.

No matter if it takes time.

No matter if you have up all night.

Just remember that the feeling of success is best thing in the entire world.

