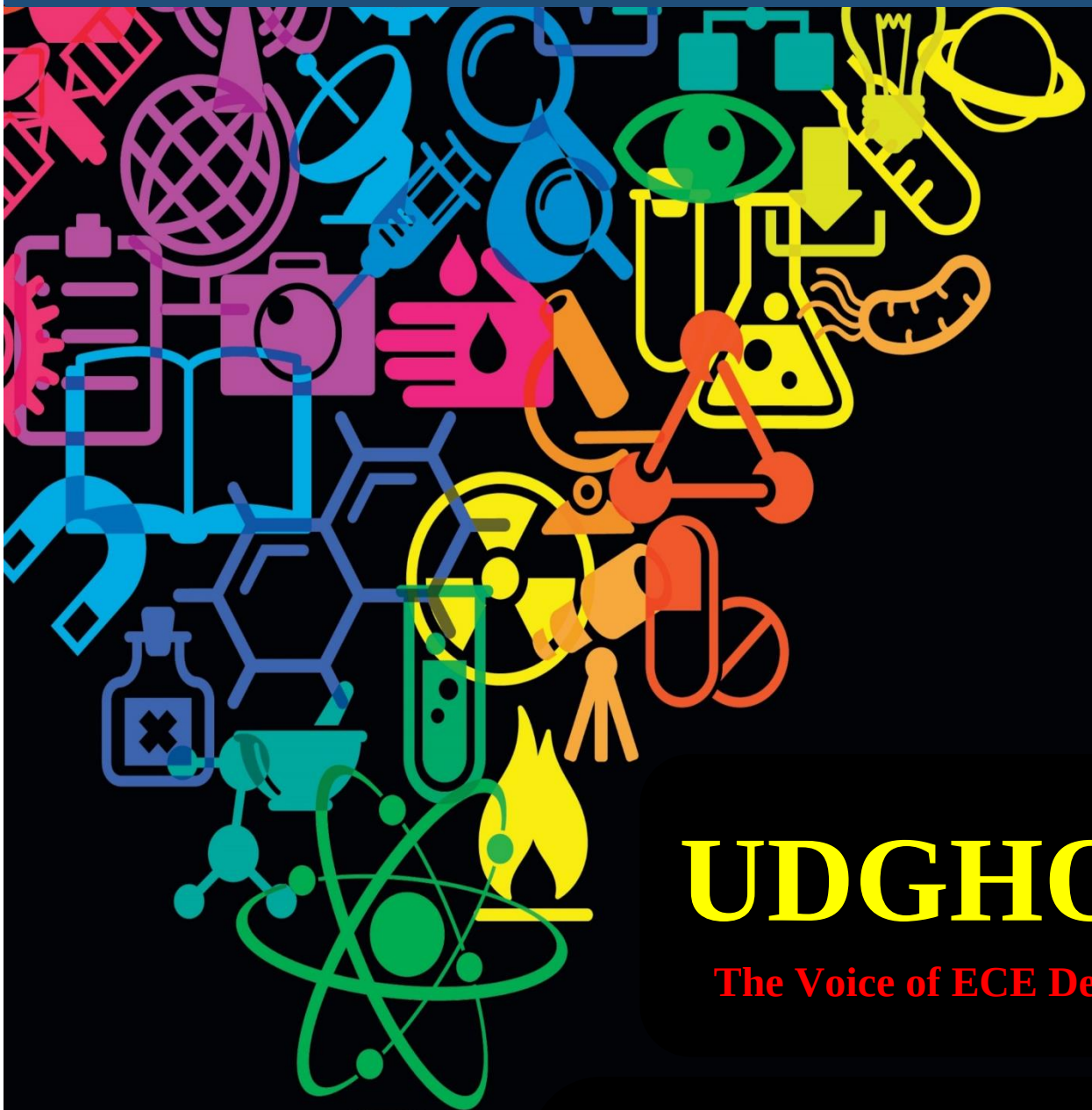
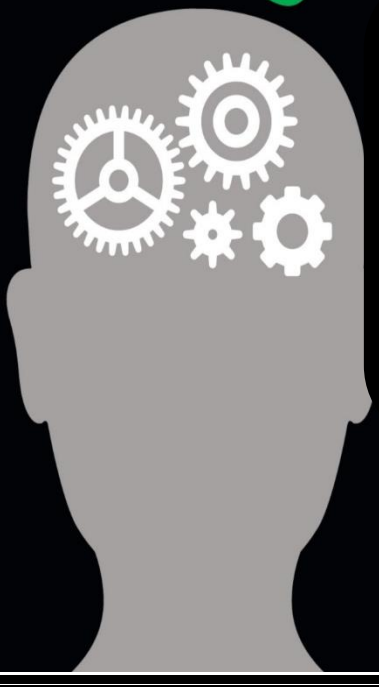
Raj Kumar Goel Institute of Technology, Ghaziabad
5th km stone, Delhi-Meerut Road, Ghaziabad



UDGHOSH

The Voice of ECE Department



December 2022 - February 2023
VOL-9 Issue-1

Patrons

Shri Dinesh Goel
Chief Patron

Mr. Akshat Goel
Patron

Dr. Laxman Prasad
Patron

Dr. D.K. Chauhan
Patron

Dr. B.C. Sharma
Patron

Dr. R.K. Yadav
Patron

Dr. Puneet C. Srivastava
Patron

Editors

Mr. Kunal Lala
Editor

Ms. Richa Gupta
Editor

Anuradha pandey
Member

Luckey Sharma
Member

NBA ACCREDITED

Vision & Mission

Vision

Vision: To develop the Department into a full-fledged Center of learning in various field of Electronics and Communication Engineering keeping in view the latest development in world.

Mission

Mission 1: To educate the students in Contemporary Technologies in Electronics and Communication Engineering.

Mission 2: To educate the students in Electronics and Communication Engineering to meet the Industrial needs.

Mission 3: To educate the students in Electronics and Communication Engineering to meet the Societal needs.

NBA ACCREDITED

Contents

1. Guest Lecture On Nanotechnology In Daily Life And Computing
2. Industrial Visit To Haier Appliances India Pvt. Ltd, Greater Noida
3. INNOVATORZO –A Technical Presentation Competition
4. Faculty Achievements
5. Faculty Technical Corner
6. Student Technical Corner
7. Placements
8. Alumni Speak
9. BRAIN TEASERS

UDGHOSH DECEMBER 2022 - FEBRUARY 2023
VOLUME – 9 ISUUE 1

Guest Lecture on Nanotechnology in Daily Life and Computing

A Guest Lecture on the topic of Nanotechnology was organized by the Department on 31st January 2023 for 2nd year students.

The resource person was Dr. Piyush Dua. He is a Professor in University of Applied Science and Technology, Sohar, Oman. He is a experienced faculty member with a demonstrated history of working in the higher education industry. He is skilled in Nanomaterials, Modelling, Nano particles, Physics, and Microscopy.

In this lecture, he explained about various uses of Nanotechnology in our daily life, also he told that how nanotechnology has changed today's era. He also added about memory resistor and their specifications.

The seminar was very knowledgeable for all the students. They were highly motivated & asked their queries from the speaker.

Industrial Visit to Haier Appliances India Pvt. Ltd, Greater Noida

An Industrial visit to "Haier Appliances India Pvt Ltd." , Greater Noida was organized by the Department on 6th February 2023. The main objective behind the visit was to make students aware of how various electronic appliances and electronic systems are manufactured.

Haier India is a 100 percent subsidiary of Haier Group, a fast-growing consumer durables company. Haier is the world's No. 1 brand of Major Appliances* for 13 consecutive years, as per Euromonitor International. The company initiated its commercial operations in India in February 2003 and offers a wide range of products across categories like Refrigerators, Air conditioners, Washing Machines Wine Cellars, Deep Freezers, Water Heaters, LED TVs, and commercial Air Conditioners.

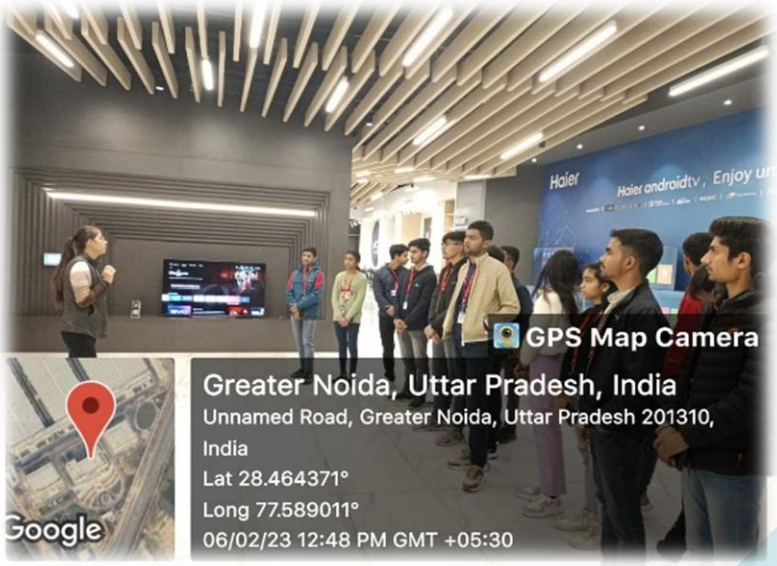
Haier is also the world's no.1 brand in Refrigeration appliances, Home Laundry appliances, Freezer and Wine Chillers. Known for introducing innovative products in India and the world, Haier is best recognized for its revolutionary products such as Bottom Mounted (BMR) and French door Refrigerators with smart convertible sections, Washing Machines like innovations like Self Clean Technology (SCT) and Near Zero Pressure (NZP), Water Heaters with shockproof technology and many other customer-inspired innovations.

The students understood about modern technology that applies on Electronic appliances to make them suitable for use in a Smart Home which makes a human life easy & advance.

Total 35 students from 2nd year participated in the vsit. The coordinators were Ms. Charu Tyagi and Ms. Farah Naz.

Haier

Haier
AQUA
Casarte


Haier
GPS Map Camera
Greater Noida, Uttar Pradesh, India
Unnamed Road, Greater Noida, Uttar Pradesh 201310, India
Lat 28.464371°
Long 77.589011°
06/02/23 12:48 PM GMT +05:30
Google

INNOVATORZO –A Technical Presentation Competition

INNOVATORZO - A Technical Presentation Competition event was organized by AECE (Association of Electronics and Communication Engineers) on 12th December 2022.

In this Mega Event participants came up with a Power point presentation about Innovation in various Emerging Technologies. Through this event, students were able to know about the future of Technology and Innovation possibilities. The event was open for all the 2nd and 3rd year students from all branches.

Following cash prizes were distributed:

Rs. 1000 for 1st Position

Rs. 500 for 2nd Position

Rs.350 for 3rd Position

Faculty Achievements

1. Ms. Arathy Rajeev attended Five-days FDP on “Cyber Security” organized by E&ICT, IIT Kanpur, from 20-24th Feb 2023.

2. Ms. Arathy Rajeev attended Two days Workshop on "Introduction to Embedded Systems & Robotics" at RKGIT Ghaziabad from 27th-28th Jan, 2023.

3. Ms. Richa Gupta participated 10 days FDP on "A Step – By - Step Guide to Write a Good Research Paper" at RKGIT Ghaziabad from 18th-27th March, 2023.

4. Ms. Richa Gupta participated in the 5-days online FDP on “Inculcating Universal Human Values in Technical Education (UHV-I)” organized by All India Council for Technical Education (AICTE), during 30th January-3rd February, 2023.

5. Ms. Richa Gupta participated in the 6-days online FDP on “Inculcating Universal Human Values in Technical Education (UHV-II)” organized by All India Council for Technical Education (AICTE), during 13^{h} March-18th March, 2023.

6. Ms. Farah Naz attended FDP on “Artificial Intelligence, Machine Learning and Interdisciplinary approach for Natural Language Programming” organized by RIT Roorkee from from 9 Feb. 2023 to 14th Feb 2023.

7. Ms. Farah Naz attended Five-days FDP on “Cyber Security” organized by E&ICT, IIT Kanpur, from 20-24th Feb 2023.

8. Mr. Kunal Lala attended Five-days FDP on “Cyber Security” organized by E&ICT, IIT Kanpur, from 20-24th Feb 2023.

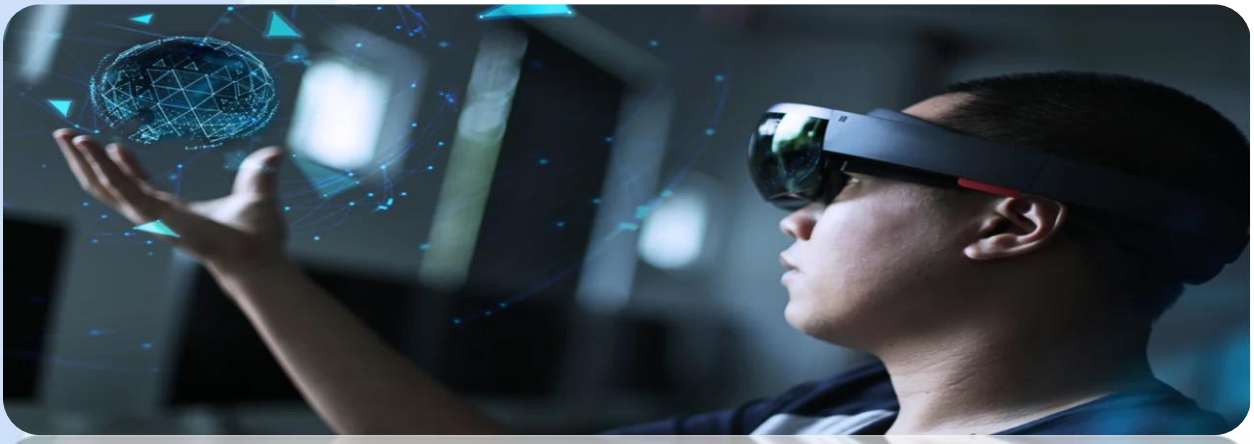
9. Ms. Farah Naz participated in the online Lecture Series on “Nonlinear Dynamics and Applications” organized by the Department of Mathematics, IIT Indore, INDIA, during 13-16th February, 2023.

10. Ms. Farah Naz participated in Three-days workshop on Engineering Materials Design and Simulations conducted by Department of Applied Science, NITTTR Chandigarh from 15/02/2023 to 17/02/2023.

11. Ms. Farah Naz attended the AICTE Recognized Faculty Development Programme on “Planning, Execution and Evaluation of Project Work” conducted by Curriculum Development Centre Department from 20/02/2023 to 24/02/2023 .

Faculty Technical Corner

AUGMENTED REALITY



Augmented Reality works by superimposing digital information onto real-world objects to create a 3D experience that allows users to interact with both the physical and digital worlds. But AR does not and cannot exist in a silo; its true value is in being part of a cloud-connected Industry 4.0 ecosystem that incorporates everything from big data to automated robots.

Here's an overview of the augmented reality process:

1. An AR-enabled device with a camera such as smart glasses, a tablet, or a smartphone parses a video feed to identify a physical object or the environment around the user, such as a piece of machinery or the layout of a warehouse.

2. A digital twin – a 3D digital replica of the object in the cloud – connects the real and virtual environments. It collects information from the physical object and digital.

In industry, AR can be used for everything from asset identification to knowledge transfer in the field to training. By incorporating the physical with the virtual to augment the way people work, augmented reality gives workers more information and context about the product or machines they're working on and the world around them.

AR is commonly used in the following areas:

- **Design and product development:** Imagine being able to prototype virtual objects that designers and potential users can walk around and examine from every angle? Thanks to augmented reality, digital twins, and the IoT, product designers can bring products to life, test them, and adjust them before anything physical is ever built.

- **Maintenance, operational control, and safety:** With AR, workers can gain immediate information on any machine they're interacting with. They can access the latest user manual or connect with an expert anywhere in the world to help them assess or repair an issue. This supports continuous production and non-disruptive performance.

These are some of the key benefits AR provides in industrial and manufacturing environments:

- **Improved product development:** Implementing AR during the design phase makes it possible for designers to respond to modern consumer demands for shorter product lifecycles and reduce costs associated with prototyping.
- **Simplified processes:** Visualized workflows offering step-by-step instructions can support predictive troubleshooting while reducing mistakes that cause rework and speeding up complex assembly tasks for workers.

It is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli and delivered via technology. It is a growing trend among companies involved in mobile computing and business applications in particular.

It enhances our experience, making it more meaningful through our ability to interact with computer-generated enhancements layered over our reality.

Ms. Farah Naz,
A.P. ECE

Student Technical Corner

THE RISE OF ARTIFICIAL INTELLIGENCE: TRANSFORMING INDUSTRIES AND EMPOWERING INNOVATION

Artificial Intelligence (AI) has emerged as a disruptive force, revolutionizing various industries and enabling unprecedented advancements. With its ability to simulate human intelligence, AI has become an integral part of our lives, driving innovations in healthcare, finance, manufacturing, and more. This article explores the profound impact of AI, its applications across industries, and the challenges and opportunities it presents.

AI refers to the development of intelligent machines that can replicate human cognitive abilities such as learning, problem-solving, and decision-making. Machine Learning (ML) and Deep Learning (DL) are two prominent subsets of AI that have garnered significant attention in recent years.

Machine Learning involves training machines to learn patterns from large volumes of data, enabling them to make predictions and decisions without explicit programming. Deep Learning, on the other hand, is a subset of ML that utilizes artificial neural networks to process vast amounts of unstructured data and extract meaningful insights. DL has been instrumental in breakthroughs such as image recognition, natural language processing, and autonomous vehicles.

AI Applications Across Industries:

1. Healthcare: AI has transformed healthcare by enhancing diagnostic accuracy, predicting patient outcomes, and assisting in drug discovery. ML algorithms can analyze medical images, enabling early detection of diseases like cancer. Additionally, AI-powered chatbots provide personalized patient care and support.

2. Finance: AI has revolutionized the finance industry with automated trading systems, fraud detection algorithms, and personalized financial advice. ML algorithms analyze financial data to identify market trends, optimize investment portfolios, and minimize risks.

3. Manufacturing: AI-driven automation has significantly improved manufacturing processes by enhancing productivity and quality control. Robots equipped with AI algorithms can perform complex tasks with precision, leading to increased efficiency and reduced costs.

4. Transportation: The transportation sector has witnessed remarkable advancements with the integration of AI. Self-driving cars leverage AI technologies like computer vision and sensor fusion to navigate roads safely. AI algorithms optimize route planning, reduce congestion, and enhance logistics operations.

5. Retail: AI has transformed the retail industry by enabling personalized shopping experiences, demand forecasting, and inventory management. Recommendation systems utilize ML algorithms to analyze customer behavior and preferences, offering tailored product recommendations.

Challenges and Opportunities:

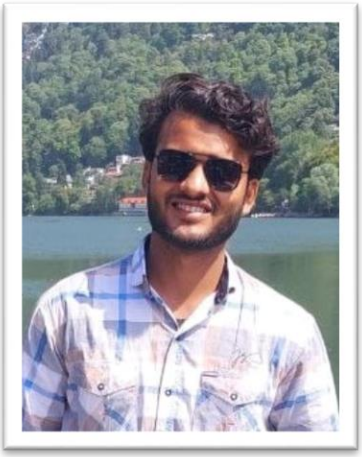
While the potential of AI is vast, it also presents significant challenges:

1. Ethical Considerations: AI raises ethical concerns surrounding privacy, bias, and job displacement. Safeguarding personal data and ensuring transparency in AI decision-making processes are critical challenges.

2. Data Quality and Accessibility: AI algorithms heavily rely on high-quality and diverse datasets. However, accessing relevant data and ensuring its accuracy and integrity pose challenges.

3. Security Risks: AI systems can be vulnerable to malicious attacks. Adversarial attacks can manipulate AI algorithms, compromising their integrity and reliability.

Artificial Intelligence is transforming industries, driving innovation, and reshaping the way we live and work. Its applications across various sectors hold immense potential for improving efficiency, accuracy, and customer experiences. However, ethical considerations, data quality, and security challenges need to be addressed for AI to reach its full potential. With continued advancements and responsible implementation, AI promises a future of limitless possibilities.



Sahzad Ansari
ECE 3rd Year

Placements

S No.	Roll No.	Name Of The Students	Branch	Name Of Company	Package Offered (Lakh Per Annum)
1	1900330310069	Srikar Sundram	ECE	Nagarro	4.50
2	1900330310029	Himanshu Negi	ECE	Unthinkable Solutions	5.00
3	1900330310017	Anubhav Joria	ECE	Innobit Systems	4.20
4	1900330310028	Harsh Anand	ECE	Innobit Systems	4.20
5	1900330310078	Vanshika Aggarwal	ECE	Innobit Systems	4.20
6	1900330310058	Shailja Ghildiyal	ECE	Appinventiv Technologies	3.60 - 4.20
7	1900330310069	Srikar Sundram	ECE	Hexaware Technologies	4.00
8	1900330310021	Ayeshi Singh	ECE	Tech Mahindra	3.25 - 5.50
9	1900330310055	Sakshi Awasthi	ECE	Tech Mahindra	3.25 - 5.50
10	1900330310045	Priyanshu Singh	ECE	Hexaware Technologies	4.00
11	1900330310055	Sakshi Awasthi	ECE	Hcl Technologies	4.25
12	1900330310001	Abhinav Tyagi	ECE	Optiemus Electronics	1.80 - 2.40
13	1900330310006	Absar Alam	ECE	Optiemus Electronics	1.80 - 2.40
14	1900330310009	Aditya Kumar	ECE	Optiemus Electronics	1.80 -2.40
15	1900330310010	Aditya Narayan Mishra	ECE	Optiemus Electronics	1.80 - 2.40
16	1900330310033	Jaishal Shandiliya	ECE	Optiemus Electronics	1.80 - 2.40
17	1900330310037	Mansi Sengar	ECE	Optiemus Electronics	1.80 - 2.40
18	1900330310039	Nikhil Sharma	ECE	Optiemus Electronics	1.80 - 2.40
19	1900330310041	Nishant Awasthi	ECE	Optiemus Electronics	1.80 - 2.40 Lpa
20	1900330310054	Ritik Attri	ECE	Optiemus Electronics	1.80 To 2.40
21	1900330310073	Umang Kesharwani	ECE	Optiemus Electronics	1.80 To 2.40

22	1900330310076	Vaibhav Srivastava	ECE	Optiemus Electronics	1.80 - 2.40
23	1900330310082	Vineet Saini	ECE	Optiemus Electronics	1.80 -2.40
24	1900330310084	Vishal Kumar	ECE	Optiemus Electronics	1.80 - 2.40
25	1900330310038	Naveen Kumar Giri	ECE	Nucleus Software	4.33
26	1900330310028	Harsh Anand	ECE	Nucleus Software	4.33
27	1900330310008	Aditya Shankar	ECE	Centilytics	7.33
28	1900330310032	Ishika Goel	ECE	Planetspark	4.00
29	1900330310032	Ishika Goel	ECE	Manikaran Group	4.28
30	1900330310004	Abhishek Gupta	ECE	Tcs	3.36
31	1900330310008	Aditya Shankar	ECE	Tcs	3.36
32	1900330310058	Shailja Ghildiyal	ECE	Tcs	7
33	1900330310082	Vineet Saini	ECE	Grey Orange India	2.4
34	1900330310025	Dibyanshu Singh	ECE	Smartbrains	2.7
35	1900330310066	Shubham Hazra	ECE	Smartbrains	2.7
36	1900330310075	Vaibhav Dev Dixit	ECE	Upgrad	7.5
37	1900330310049	Rakshit Tyagi	ECE	Satyam Software	3
38	1900330310064	Shivam Kumar	ECE	Satyam Software	3
39	1900330310022	Ayush Tripathi	ECE	Satyam Software	3
40	1900330310066	Shubham Hazra	ECE	Uproar Learning	4.5
41	1900330310066	Shubham Hazra	ECE	Ucertify	5
42	1900330310049	Rakshit Tyagi	ECE	Gandhi Automation	2.64
43	1900330310019	Ashutosh Anand	ECE	Inficold India Pvt. Ltd.	2.40 -3.00
44	1900330310025	Dibyanshu Singh	ECE	Sunwoda Electronic India Pvt. Ltd	2.48
45	1900330310016	Ankit Priye	ECE	Bng Advance	4

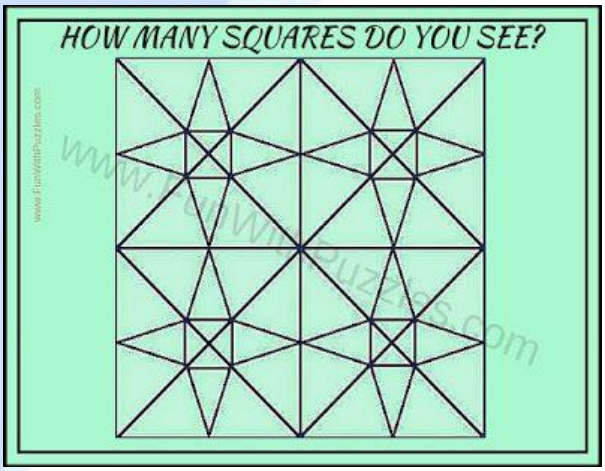
Alumni Speak

Looking back at the 4 years that I spent in Engineering, there are so many memories that come as my flashback. I had the pleasure of completing my graduation from RKGIT under the guidance of highly efficient Professors and Management. From the first day itself the institute has surprised me with such a phenomenal step by step learning process. Engineering course is not just a process of earning a bachelor's degree. It is a period which defines your life. You enter a college as a confused teenager and a right Institute serves the very purpose of molding you up in each and every respect. Thank you RKGIT for everything.

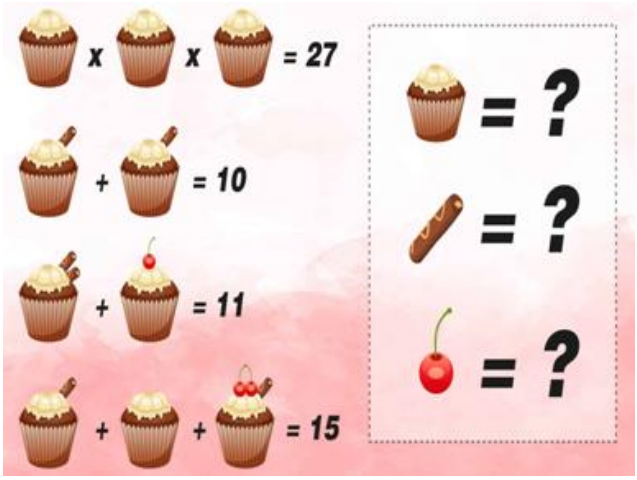
Pratibha Kumari
R&D Engineer
Synopsys India Pvt. Ltd.
Batch: 2017-2021

Brain Teasers

1. Count the number of squares.



2. Find the answer



3. Find the missing number in 7, 9, 12, 48, ?, 890

4. There are three playing cards in a row. There is a two to the right of a king. There is a diamond to the left of a spade. There is an ace to the left of a heart. There is a heart to the left of a spade. Identify the three cards.

5. A line of 100 airline passengers is waiting to board a plane. They each hold a ticket to one of the 100 seats on that flight. (For convenience, let's say that the nth passenger in line has a ticket for the seat number n.) Unfortunately, the first person in line is crazy,and will ignore the seat number on their ticket, picking a random seat to occupy. All of the other passengers are quite normal, and will go to their proper seat unless it is already occupied. If it is occupied, they will then find a free seat to sit in, at random. What is the probability that the last (100th) person to board the plane will sit in their proper seat (#100)?