

Department of CSE
Galgotias College of Engg. and Technology



THE **ESSENCE**

2017-18



galgotiasextreme.cse@gmail.com

www.facebook.com/galgotiasextremear13

From the Desk of Head Of Department



Dr. S. K. Singh

(H.O.D, I/C, Department of CSE)

Education is the key to create a society, which is dynamic and productive, offering opportunity And fairness to all. It is one of the most essential indications of human development. The importance of which cannot be undermind. It unlocks the treasure that lies.

The Development of Computer Science provides world-class research and education in modern computer science. The Department has a cohesive team of well experienced faculty members having wide experience in recent technologies.

The Department excels in varied focus area ranging from curriculum as prescribed by AKTU to game engineering. An extracurricular calender of events and competitions give students ample opportunities to work together while gaining real-world experience that prepare them for their future careers.

It gives me immense pleasure to launch the seventh edition of "THE ESSENCE". The magazine is a platform for the students to express their creative pursuit which develops in them originality of though and perception. The contents of the magazine reflects

From the Desk

of the faculties



“

Computer Science and Engineering dept. has stood above the rest in its approach to education and in its pedagogies. The ways we teach and the ways our students learn are unique and creative. It has made its mark in academic, sports and cultural fields.

Overall development of the individual is the goal of education and we all have to ensure that there is no stone left unturned to equip the students of today for the challenges of life.

Mr. Lucknesh Kumar
(Vice-President, Extreme)



“

As I understand this magazine is intended to bring out the hidden talents in the students & the teachers and also to inculcate leadership skills among them. The outside world will come to know about the of the students and the faculty through this medium Keeping this in mind, I expect the contributions to this newsletter to be very high standard and quality. It is advisable that don't leap on the back of a shaky horse, otherwise you will be walking into a minefield. Hence, first tap into your conscience and do a little bit of soul searching, you will definitely find the answer.

Mr. Aatif Jamshed
(Faculty Co-ordinator, Extreme)

Department Of Computer Science and Engineering

Visio

To be center of excellence in providing contemporary education an research in the field of computer science & engineering

Misio

To prepare students for successful careers and lifelong learning in computer science and engineering with strong professional ethics and behaviour

To ensure effective teaching & learning & quality research

To encourage innovations, product design and new technologies

Program Educational Objective

The students will have preeminent technical competence an essential skills to excel in computer science and engineering

The students will have problem solving skills and impulse for research to give contemporary solution with an instinct for lifelong learning

The students will have good communication and inter-personal skill to effectively work in multidisciplinary and diverse professional environment

The students will possess leadership qualities and team spirit to efficiently work with associates in their professional career

The students will understand their responsibilities with respect to societal and ethical need

Program Specific Outcome

Apply theoretical computer science in the design of computer-based systems in a way that demonstrates comprehension of the trade-off involved in design choice

Apply design and development principles in the construction of software systems of varying complexity

Program Outcomes

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex computer engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyse complex computer engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex computer engineering problems and design system components or processes that meet the specific needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide conclusions.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent relevant to the professional engineering practices.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norm of the engineering practices.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communications: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life learning in the broadest context of technological change.

CSI

Computer Society Of India

Computer Society of India (CSI) is the first and the largest body of computer professionals in India. It was started on 6th March 1965 by a few computer professionals and has now grown to be the national body representing computer professionals. CSI has been in close liaison with International Federation for Information Processing (IFIP).

The Computer Society of India is a non-profit professional meet to exchange views and information, learn and share ideas. The wide spectrum of members is committed to the advancement of theory and practice of Computer Engineering and Technology, Systems, Science and Engineering, Information Processing and related Arts and Sciences.

GCET- Computer Science & Engineering, CSI student chapter (Membership no. M10392)

Various activities and events are planned and executed under this flagship.

Expert Lecture on Python Language by Dr. Anirban Bhattacharya
Associate Professor, Bennett University on 11th August 2017.

Expert Lecture on Informatica by Mr. Mukesh Babu
Solution Architect ETL Informatica HCL Technologies on 25th August 2017.



C# Centre Of Excellence

Galgotia College of Engineering and Technology has announced its collaboration with C# Corner, a leading online community of C# and Microsoft developers with over 5 million monthly visitors and close to 3 million registered members.

- Under this collaboration, a Centre of Excellence is opened in the college campus - the Galgotia College of Engineering and Technology, Greater Noida, where the students of B-Tech and MCA will be provided trainings on various cutting edge technologies by industry experts and also a career guidance as well as placement assistance cell will also be established for helping the students in winning jobs after completion of their academic education.

- The CEO, Mr. Dhruv Galgotia and Director Dr. V. K. Dwivedi inaugurated the Center of Excellence in the presence of Dr. S. K. Singh HOD Incharge CSE, Dr. Gagan Tiwari HOD MCA and a team of delegates from C# Corner including Mr. Dinesh Beniwal, Vice President of Content and Marketing at C# Corner.

The Team of experts from C# Corner will work in close association with college professors and a course curriculum will be designed soon by the experienced trainers so that the students can get

ICC

Infosys Campus Connect

Campus Connect is Infosys' initiative to help increase India's competitiveness in the knowledge economy.

Campus Connect aims at evolving a model through which Infosys and engineering institutions can partner for competitiveness, enhance the pool of highly capable talent for growth requirements in Information Technology space. It is aimed at creating an effective means of backward integration into the supply chain by going into the college campuses from where the IT industry gets the people for its growth.

The goal of Campus Connect is to build a sustainable partnership with engineering education institutions for mutual benefit. A variety of things are lined up under the Campus Connect initiative.

a) Seminars and faculty training for colleges

This will give an industry perspective to the faculty.

b) Aligning the college curriculum with industry requirements and working with educational bodies for implementing it

c) Publishing Infosys courseware on the web: This will give students and faculty access to courseware designed by us. The courseware adds to the existing college courseware and highlights the integrated systems way of looking at hitherto discrete topics. This is the courseware we use to prepare our new recruits for global "industry ready" standards.

d) Sabbatical for Professors: Professors can pursue areas of research interest with us, and also add to the intellectual content.

Minifest

There is always a trailer before the movie. Extreme Club organized a grand extravaganza on 9th November called Mini Fiesta with Halloween as it's them to give a small glimpse to the students of what future beholds for them. A cluster of cheerful events were conducted to give a platform to the participants to enable them to showcase their talents. Various literary, technical and web related events were held to test the skills. The events were:

- 1) **Mask Making:** Since Halloween was the theme, we needed a goofy and spooky event to resonate our fest with the theme and creative skill at the same time. This was done by conducting Mask Making Competition.
- 2) **Quiz Competition:** Quizzes test the technical skills of the participants by testing their knowledge. Thus, a quiz competition was organized on Modern Technology by the technical team of Extreme Club.
- 3) **Coding Contest:** A fest by CS Department is incomplete without coding. So, the Technical Team of Extreme Club organized another event based on coding in which participants participated with great zeal and enthusiasm.
- 4) **Debate:** For good ideas we need human interaction, conflict, arguments and debate Extreme organized a literary bilingual event to test the debating and oration skills of the participants.
- 5) **Treasure Hunt:** A Hunt was conducted in the college by giving some technical and general clues to examine and creative and technical skills of the participants.

DAKSH

THE TECHNO-CULTURAL FEST

CULTURAL EVENTS

Thomas Wolfe once said, "Culture is the art of elevated to a set beliefs". Daksh 2018 saw a series of fantastic cultural events with students participating in them with full zeal and vigor.

Voice Of Daksh, Rangoli, Mehandi, Dance

LITERARY EVENTS

Literature is the ultimate form of art and reflection of our own society. Its the most agreeable way to ignore life. Literature is humanity talking to itself. The purpose of literature is to turn blood in ink which will become ideas and to depict the absolute truth about harsh reality. The great Techno-Cultural fest, Daksh, would have been incomplete without literature and our fest showed the majestic grandeur of literary events. The extravagance of literature gave a platform to literary freaks to show their talents, opinions, thoughts and ideas on various topics.

Debate, Story Writing

SPORTS EVENTS

ON YOUR MARKS, GET SET, DAKSH !!!

Sports can be very well defined as all forms of competitive physical activity or game which, through casual or organized participation, aim to use, maintain or improve physical ability and skills while providing enjoyment to participants, an entertainment for spectators (in some cases). Organized, well-structured youth sports and on-going physical activities can provide many benefits for children and adolescents. Positive experiences that sports and an active lifestyle bring play a important role in a young person's life.

Sports provide a platform to improve one's skills and have a lot of benefits.

To familiarise the students to these benefits and inculcate such benefitting and exemplary qualities, various enthusiastic sports events were organised during DAKSH 2018.

Chess, Badminton, Football, Volleyball
Rackethall

TECHNICAL EVENTS

Mock-Up App

You don't have to be a genius or a visionary or even a college graduate to be successful. You just need a framework, a dream and an idea to present. Mock-Up App witnessed visionary technocrats presenting their ideas.

This event consisted of participants coming up with their own innovative ideas about the app they can and would want to create. It gave a nice platform to future software developers to polish their skills as well as showcase their master skills. The event was coordinated by 3rd years, Nimisha Singh and Shikha Ganguly.

Blind Coding

It is hard enough to find an error in the code when you are not looking at it but that's where the fun lies.

The participants had to display their proficiency in the computer languages in this event. They were to be given a code in which they had to detect the errors. The event was coordinated by 2nd years, Nilant Kumar Chaudhary and Shashank Agrahari.

Gadget Review

For those interested in phones and tech in general, Gadget review was a place for them. Here the participants were given a gadget which they had to review telling their advantages and disadvantages. The event was coordinated by 2nd years, Anurag Kumar and Tushar Dubey.

WEB EVENTS

Quiz on 4th Generation computers

Computing is not about computing anymore. Its about living, living an extra edge and living in the new generation. Daksh 2018 conducted a quiz on the 4th gen computers witnessing quizzers battling till their last seconds. Viewers witnessed a clear display of their knowledge. The coordinators were 3rd years, Bamakant and Divisha Gupta and Kshiti Bajpai, 2nd year.

Solve the problem

Problem solving is hunting. It is savage pleasure and we are born to it.

All that we need is to divide the problem into as many feasible parts as possible, and then solve it. This event consisted of participants finding the problem. The coordinators were 3rd years, Bamakant and Divisha Gupta and Kshiti Bajpai, 2nd year.

Hackerrank

You might not think programmers are artists, but programming is an extremely creative profession. It is logic based creativity. Code is more than some bytes in a file. People for whom coding is their caffeine participated with full zeal in hackerrank which is an online coding platform. The event coordinators were 3rd years, Bamakant and Divisha Gupta and 2nd years, Kshiti Bajpai and Harsh Chaudhary.

Workshops

To elevate the technical knowledge among students and to yield their nature cooperate friendly, various workshops were being conducted by the CS Department over the course of last year. These workshops also help the students to get regularly inform and aware of the ever changing technology.

CEPTA Android

The CS Department of GCET in association with Compute Society of India and Extreme Club organized one day workshop on On-Campus training on Android Java. Mr N Hasar who is a Java app developer with the experience of 11 years gave the wonderful and thought provoking lecture. He is also a Oracle certified Java professional.

Python Workshop

To help the students to improve their Python skills and get the gist of this language, CS department organized a two day workshop on Python and its applications with IOT free of cost. A large number of students actively attended the workshop at Auditorium and enhanced their Python Programming skills.

Industrial Visits:

NETWORK BULLS

Network Bulls, a leading Cisco training institute based in India introduces World's Largest Cisco training labs for its students. Being a leader in offering best services on different Cisco courses, Network Bulls' provides astounding lab training facilities for its students worldwide. Having a unique lab set up for each of the course and tracks available, labs at NB are par excellence and beyond compare to any. Student of CSE department visited Network bulls campus on 17th 18th August 2017 and were introduced to a number of technical fields of networking.

TCS

An industrial visit for the second year students of C.S.E. Department was organised on 11 May 2018. The trip was organised to familiarize the students with the present day scenario of the growing industry and about the leading trends in technology.

30 selected students were given the opportunity to benefit from this, under the guidance of Ms. TanuShree Singh. The group was welcomed and addressed by Mr. Rafti Sikka and his colleagues.

The students were told about the TATA Company, its structure, working and sectors owned by the TATA Company. Following the brief introduction about the TATA Industry, the students were shown and told about the emerging technologies such as Block chaining etc. The students were made aware about this new and innovative technology of Blockchaining, how it is done, what are its features, about the scope of Blockchaining, methodologies used for achieving or implementing it, languages used in Blockchaining etc. The students were also briefed about the concept of Soft Contract and more emerging technologies.



FDPs

Various Faculty Development Programs (FDPs) were organized in our college and they successfully enhanced the learning and teaching practices.

These programs are required in order to deal with the rapidly changing paradigms in the field of education.

A FDP on Internet of Things was conducted from 25-29th September 2017. With Mr. Rajiv Kumar Nath as the main coordinator. The Keynote speakers included Dr. Seung Hwa Chung, Professor Bennett University. Dr. Neelendra Badal, Associate Professor, KNIT Sultanpur. Mr. Deepak Singh Tomar, MANIT Bhopal, Mr. Anurag Singh Baghel GBU, Ms. Sonia S Gurjar, Deputy Manager HCL Noida, Mr. Kshitij Adhlakha, CEO SECOGENIUS.

A FDP on Embedded Systems was organised from 26-30 March 2018. The Keynote speakers included Venktash Kumar Sr. Research Associate at Cybertron Network Solutions, Amit Bhandari Technical Expert- Embedded systems & Open Source Technologies. Sanjay Technical Consultant- Senior IoT Expert



Achievers:

Faculties Felicitated

It is a matter of pride and honor that the esteemed faculty, who have been working hard from years to deliver everything they have to their students, have been felicitated with BRONZE and SILVER certificates by a prominent industry called INFOSYS.

The ceremony was organized in the auditorium, where teachers were honored with the certificates for their commendable performance in the field of education and not only to make students professionally sound, but also to make them a better human being. The college is proud and delighted to have such brilliant minds as our teachers, they are such an inspiration to all of us. Bronze certificate was awarded to Mr. Aatif Jamshed and Silver certificate to Mr. Manish Kumar.

Infosys Campus Champ

Success is no accident. It is hard work, perseverance and most of all, love of what you are doing or learning to do. Radhika Bhardwaj (CS 3rd Year) of Galgotias College of Engineering & Technology exemplified success by becoming Infy Campus Champ 2k17. Selected through rigorous SOP, GD and PI rounds, they are among 120 Infy Campus Champs who will be the campus ambassadors of Infosys to colleges nationwide. We congratulate them for their accomplishment.



PERVASIVE COMPUTING Augmenting Human

Technology has long been used to augment our physical or cognitive abilities. Heavy machinery enables us to lift objects we beyond our strength, reading glasses correct and enhance our vision, or cameras capture memories for future recall. Wearable-computer pioneered the integration of technology into our clothing and even o-bodies, but ambient computing systems are also increasing capable of supporting cognitive operations: a projected us interface, for eg, can improve our sense of direction or abili to assemble a complex machine. Next-generation system promise to augment our senses, voices, motor activities, or even our minds in unprecedented way.

The vision of using computing technology to augment humans can t traced back to 1960, when J.C.R. Licklider published his seminal artic "Man-Computer Symbiosis." Wearable computers have been arou since the 1980s, and for nearly three decades mobile and pervasi computing researchers have been exploring ways to augment human including via technology embedded in the infrastructure. This progre sion toward a more heterogeneous human-machine hybrid makes th coupling, or interaction, between humans and robots increasing dynamic. Licklider explained its difference from "a mechanical extensio in which human operators are there "more to help than to be helped." I argued that computers can take a larger role, participating in real-tim action planning while humans and computers take care of separa functions in a symbiotic collaboration. A relevant inspiration can be four in science fiction. The hyper-intelligent race car Asurada in the seri Cyber Formula (1993-2000) autonomously executes a range of drivir action

The story depicts an instance of exemplary and fluid cooperati between human and robot. In practice, the actual design of such system needs to be done in an application-specific manner and requir the understanding of possible ways a robot could support manipulati tasks as well as the control shared between humans and machine. Seamlessly integrating this technology in our everyday lives, however, r mains a challenge. How do we control on-body and in-body system? How can augmented humans better tackle smart, IoT-enabled environments? What are the benefits and risks of these system

-Apoorvi Dwivedi (CSE 3rd Year

The Online Trolling Ecosystem

The practice of using disinformation and misinformation to promote parochial agendas isn't new. Both have been used by tyrants, demagogues, dictators, authoritarians, and manipulators of every stripe for millennia. One thing that's new to our generation is the digital twist of Internet trolling. Disinformation and misinformation both involve the distribution of false information, but with differing objectives. Disinformation involves the intentional planting of false information to conceal truth or deceive the audience, especially by state actors, whereas misinformation is more generic and relaxed regarding intention, concealment, and source. For our purposes, we intend the definition of disinformation to include not just governments but also political groups, ideological movements, and other social entities. Disinformation is more pernicious, being necessarily both intentional and deceptive in its pursuit of social engineering goals. Although some trolling might be without willful deception (as in the case of mistaken "true believers"), disinformation is the more natural ally of trolling and is thus our focus.

Online trolling as a form of communication is readily weaponized. Its ease of use and accessibility to anyone with an Internet connection virtually eliminates entry barriers. Its appeal as a communication tactic to tyrants, demagogues, and manipulators of all kinds is obvious. It thus fits comfortably within such models as pathocracy (rule by the maladjusted, psychopaths, narcissists, and the like) and kakistocracy (rule by the least competent) as an effective tool of online manipulation, obfuscation, and deceit. It's no surprise that trolling has become increasingly popular.

The concept of the Turing trollbot is increasingly being recognized. A trollbot is simply an automated troll. Like a chatbot, it generates texts computationally. Unlike chatbot texts, trollbot output possesses markedly weaker requirements for coherence and continuity from its context. Consider, for example, a program that uses a simple bag-of-words algorithm to detect tweets or other posts critical of a particular position or public figure. It then posts replies randomly picked from a set of stock replies like "you tell 'em baby!" and "That's SO right." Informally, let's refer to a trollbot that's indistinguishable from a human troll as a Turing trollbot—one that has passed the trolling equivalent of the Turing test. A computer-controlled chatbot passes the traditional Turing test if and only if the human tester cannot distinguish the chatbot from a human. Compared to a chatbot, a trollbot has a much easier time passing—the weaker constraints on trolling make it so.

The next time you see a hyperbolic social media post that confirms your worst fears about people of a particular race, gender, religion, or political affiliation, your first reaction should be, "nice try, Russian troll," rather than "OMG I MUST REPOST THIS EVERYWHERE!!" Learn to take a breath and pause before you immediately like, retweet, or share divisive messages from obscure sources. Be especially wary of emotional manipulation. Most importantly, fact check yourself before spreading information designed to foment outrage and factionalism. Remember that the phrase "Russian disinformation campaign" does not describe some outdated method from a bygone era, but instead represents an active, effective tool being used against you right now.

-Annavi Dwivedi (CSE 1st Year)

Features

User Data Privacy

Facebook, Cambridge Analytica, & Privacy Protection

The discovery that Facebook gave unfettered and unauthorized access to personally identifiable information (PII) of more than 87 million unsuspecting Facebook users to the data firm Cambridge Analytica has fueled growing interest in the debate over technology's societal impact and risks to citizen privacy and well-being. It is clear that national governance institutions demonstrably lack the ability to anticipate technology's future impact on the rights and duties of its citizens, much less its impact on the structure of society, ideological divides, and political schism among its citizens and the expansion of identity politics promoted by isolated social and news media echo chamber.

The ubiquity of data gathering, storage, and analytics on our device systems, applications, and social media platforms—aimed at personalizing experiences, optimizing sales, and maximizing return—have been disruptive in shaping the global economy, the flow of ideas, and access to information that resulted in the advancement of innovation around the information marketplace. This risk is further exacerbated by the fact that Internet of Things (IoT) devices are becoming more integrated into larger systems that govern every aspect of our lives, from the benign to the essential. The number of IoT devices grew from 500 million in 2003 to 8 billion in 2017 and is expected to grow to 50 billion in 2022.

These disruptive forces have a tangible influence on citizens' rights such as statutory rights—due process, equal representation before the law, the right to appeal, and trial by jury—and constitutional rights like freedom of expression, voting, and non-discrimination. Thus, it has never been more imperative to have an open discussion about the proliferation of technology in our lives and how it will affect our privacy rights and our security on both personal and national levels. It is also imperative for technologists, researchers, and innovators to take heed of the policy debate and meaningfully contribute to the development of these policies.

With a broad base of personal information readily available, microtargeting of individuals can be easily deployed. Targeted messaging can be applied to affect their behavior, bypassing existing regulations on disclosure, informed consent, or even foreign intervention. The cost of applying these methods are meager. These factors suggest that changes in policies at both corporate and legislative levels are needed to ensure that consumers and voters' personal data is protected, that they are notified of the utilization of their data, that they are seeking to influence them, and that they have the best opportunity to participate as informed citizens and consumers.

-Avikant Chahar (CSE 2nd Year)

Declutter Your Designs || MINIMALISM



We live in an age where we are constantly being fed with information. Maybe there are too many channels of information an average person is consuming these days, but this number is only going to rise up. As soon as we wake up, we are greeted with a multitude of notifications and it just escalates from there on. A very large number of TV Channels, newspapers, advertising agencies, social media, and other humans galore, trying to grab something of great value: a piece of your attention and time.

Given that people's attention is so exquisite and vanishes as easily as swiping away and scrolling down, how can a designer grab it and convey the idea a design is supposed to? Yes, you probably read the title, by Decluttering your Designs or in other words, making them minimal. It's no surprise that minimalism has taken over not only the artistic communities but even other fields such as architecture.

In a minimal design, you do not include elements that are not necessary. And you basically extend this idea to every aspect of the design. It's about bringing back design to its core, where everything is about functionality. Not only do you want the viewer to pay attention to what you want to convey, but also to not be distracted and be persuaded to think. The goal is: to reduce, such that, every little detail that remains, matters and expresses, it touches!

Remove from the Start: Always start by thinking what are the elements and details you cannot essentially remove from a design, rather than thinking about all the things you could potentially add to it. For instance, while making a prom night poster, you must mention the date, time and venue (say). After this, ask yourself, how to convey what the invite is for? A simple drawing of a couple dressed up for the event and enjoying a romantic dance does that job really well in this case. "Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away."

Features

Use a grid

The grid is a very powerful tool. After the content for the design is final, use a grid to help you organize it and create a balanced composition. It's not, however, a rule of thumb. Feel free to make a few changes and exceptions 'off the grid' to spice your layout up.

Reduced color scheme

Refrain from using too many colors. It's not the case that a minimalist design features only black & white with one accent color. In fact, be bold and free with your color choices. Use all but only those colors required to portray your design.

Be Careful with Typography

Typography can really make or break a minimal design. Don't use too many fonts or font styles, and make sure that the appeal of the font matches with that of the poster. For instance, clean serif fonts look great in places where we want to portray authenticity and power. Sans-serif fonts work great in user interfaces.

The use of Photography

While using pictures, try using large and vivid photography. Using more than one picture or collages is generally not advised. The pictures with a single focal point are the best-fits.

Use geometric elements

Try reducing your design elements to simple geometric forms instead of their actual skeuomorphic appearance. Often an abstract arrangement of geometric shapes can be used to add the needed glitz.

Create a beautiful contrast

Contrast brings attention to certain portions of the design and helps create a visual hierarchy of elements. You can use not only changes in colors but also size, shape, location and scale to create beautiful contrasts.

Generous use of whitespace/negative space

Use whitespace (or empty space) generously throughout your design. Don't think of it as 'space that needs to be filled' but rather as borders and frames for existing elements which help guide the eye through them, emphasizing and accenting the content. When there are as few elements as there are in a minimal design, what is not present becomes equally as important as what is present.

Anurag Kumar (CSE2nd Year)

Editorial Board



Apoorvi Dwivedi
General Secretary Extreme 2017-18
Chief Editor



Avikant Chahar
Creative Co-ordinator Extreme 2017-18
Lead Designer