

**MAHARASHTRA INSTITUTE OF TECHNOLOGY  
COMPUTER SCIENCE AND ENGINEERING  
DEPARTMENT**



**TECH GAMING**

**WHAT'S UP**

**E-MAGAZINE**  
**2021 ISSUE - I Volume - II**

## **VISION**

To develop the department as a center of excellence in the field of Computer Science and Engineering by imparting knowledge & training to the students for meeting growing needs of the industry & society.

## **MISSION**

Providing quality education through a well designed curriculum in tune with the challenging needs of software industry by providing state of the art facilities and to impart knowledge in the thrust areas of Computer Science and Engineering.

# PROGRAM EDUCATIONAL OUTCOMES

## PEO 1

To prepare the students to achieve success in Computing Domain to create individual careers, innovations or to work as a key contributor to the private or Government sector and society.

## PEO 2

To develop the ability among the students to understand Computing and mathematical fundamentals and apply the principles of Computer Science for analyzing, designing and testing software for solving problems.

## PEO 3

To empower the students with the ability to quickly reflect the changes in the new technologies in the area of computer software, hardware, networking and database management.

## PEO 4

To promote the students with awareness for lifelong learning, introduce them to professional practice, ethics and code of professionalism to remain continuous in their profession and leaders in a technological society.

# PROGRAM OUTCOMES

## PO 1

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

## PO 2

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

## PO 3

**Design & Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet specified

needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations

## PO 4

**Conduct Investigations of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

## PO 5

**Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

### **PO 6**

The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

### **PO 7**

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.

### **PO 8**

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

### **PO 9**

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

### **PO 10**

Communication: 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.

### **PO 11**

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.

## **PO 12**

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

## MESSAGE FROM HOD



**Healthy Life!! Our basic expectation as a human being and a key to happiness!**

Both physical and mental well-being aspires to a healthy life. One of the effective ways to achieve physical and mental well-being is sports. Sports helps to enhance physical strength and helps to improve mental well-being as well. Due to the physical

activity involved we remain healthy, and the concentration required to play any kind of sports helps us to relieve from stress and eventually lead to relaxation of mind. Considering the benefit, a special hour to play any kind of sports is mandatory in schools. Regular sports bring discipline to our mind and body. Sports is also necessarily social. In many of the sports there is a team and even if you are playing solo sports still there is a competitor, coach etc, with whom you can interact. This interaction helps in personality development.

One of the new eras of online Gaming emerged during the pandemic due to the ease of internet and online access to all, majorly the children. This gaming is not harmful if used for limited time. But playing these online games for extended period may lead to addiction and affect health. Also, while playing online games there is concern for security as there always risk of hacking. Though some online games

are educational and help to improve the problem-solving techniques, time limit should be followed strictly.

Nowadays the use of technology in sports is increasing rapidly. The devices are used for decision making and make fair judgement. In the recent pandemic situation innovative digital solutions were employed to ensure the safety protocols. The use of robots at the airports for sanitisation, carrying the sports equipment like javelin, discs, carrying luggage, providing event information etc. are few examples of digital solutions for the events. In the upcoming era of Digital innovations, we'll witness much more technology embedded in the field of sports too.

**- Dr. Smita Kasar  
HEAD CSE DEPT.**

# Articles



# SPORTS : LIFE-CHANGING EXPERIENCE

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I grew up in a small town, in a colony. I was not so good at football, cricket, kho-kho, or any other sports. Instead of that, I would say I never dare to play sports. I still remember in my school, my sports teacher insisted me to play Kho-kho as he had confidence in me, but I refused. I never dare to say yes to sports.

But when I joined engineering at my first year, I was one of the tallest girls in class. Due to my height, I was center of attraction of all my sports friends and they aiming to take me in basketball team. They asked me to join basketball team. The sports seemed cool but something I had never tried. Time went by and the basketball team insisted me to play. I told them I have zero knowledge about basketball. So, they

asked me to watch the match. First of all, I used to be audience but afterwards I decided, " Why not give it a try?"

MIT basketball girls' team 2020, we all were 8 girls in a team including me, we all were starting our new journey of basketball. First day of practice...it's not easy. I must start with basic. As I don't know how to grab a ball? ... What are the rules? ...How to play ? ... It was like finding candle in darkness. I started practicing with my friends. My other basketball friends, my senior taught me how to play and that was my first day or I can say first sports experience. Then came the second day, our whole girls team trying to fit our shoes on court. I learned to grab the ball, I learned how to do basket and days passed and I learned to play not whole but kind off. After 10 day's practice, we come to know that there was a Zenith 2020 competition. Our college girls' team was going for the same. It was a challenge to me and

my teammates to appear the basketball match on the practice of 20 days only. But we decide to play. We started practised 2- 3 hours a day.

Finally, The day come, we were going to play our first match at 9'o clock. We woke up early in the morning and practiced a bit. Our match was going to start in 15 minutes. We tried our best but we lost our first match but we didn't lose hope. On the same day evening, our second match was there and we practised again meanwhile. As soon as the game started, we come to know we have opponent team from the same college where we have tournament. Our stress level increased. As they had practice on same ground so there was more chance to win the home team. With the opening of one goal, we started the game and our confidence increased. Match was going on, alternatingly we were taking basket. Last-minute remained and we were on

plus one. We had to only check them and waste their time to win the match and at the last moment they were about to throw basket...but times up and guess what? in no times we won the second prize in Zenith 2020 competition. We all were cheerful and in mood of party...My first prize in sports. It was really a pride moment for us. I had no words to say. That was awesome experience.

I believe basketball has taught me many valuable lessons & perhaps more importantly played a significant role in developing me into responsible and discipline student. Team spirit is the most important lesson I learned from basketball. Learning to work with other individuals to achieve a common goal is a skill that I have used, and I am blessed enough to play basketball.

For me, Basketball has helps me in many aspects of life. Without the game of

basketball, I believe I would be a completely different person. Now I encourage everyone in their life and looking for motivation in their life to sports.



- Tejaswini Patil  
TY CSE

Cricket and technology go hand in hand. The Sport has evolved technically over the years. In cricket's rich history of over 140 years, innovation has developed as time passes and a decade.

As the game expanded and progresses, the technology kept up slowly but steadily. As more game were broadcast, there was more radio commentary than ever before.

With each technological reform and introduction of new technology, the game changes drastically.

But in the field of cricket, if someone has benefited the most from these technological reforms, they are the umpires.

Technology has helped umpires a lot. It has reduced the pressure of decision-making from their mind and take judgment accurately.



# TECHNOLOGY IN CRICKET

## 1. LED Bails and Stumps



Making decision of run outs and stumping was really tough for umpires. Deciding something on-field that require sheer concentration isn't possible for anyone. To overcome this problem of umpire, a new technological innovation was made: LED lights are placed in the stumps and bails.

When these bails left the stump light will start to flash. The lights can be clearly seen and so there will be no doubt whether the bails have been dislocated or not.

If we look at the working and design of it, we will get to know that these stumps are sheer application of electrical engineering

These stumps are known to glow within 1/1000th seconds of dislocation of bails from stumps.

To summarize the procedure, an inductive loop formed, accompanied by an inductive sensor that detect any inductance change. As soon as a change is recognized, the lights turn on.

## 2. Spider Cam



This technology is also used in a number of other sports. It is a system of wire that allow a camera to move both horizontally and vertically over the area of play.

It can be used by television cameras so that they are able to broadcast every

aspect of the match from the angle that shows the most action.

It can also be used to help umpires look at the game-play from a number of different angles so that they can be sure they are making the correct decision.

## 3. Hawkeyes



The technology is used to trace the exact path the ball has taken after it has been hit.

It is used to determine whether a player is LBW or not.

The path of the ball is tracked by six high-speed cameras that are positioned around the stadium.

The footage from such camera were triangulated. Hawk-eye is made up of image processing technique and 3D modeling technique.

By applying physics rules such as location data, the system can calculate the ball's next moves.

#### 4. Snick-o-meter



It is used to graphically show if the ball has touched the bat or not using sound waves.

This technology reforms helped the umpires a lot in telling whether the batsman was caught behind or not

The snick-o-meter is made up of a highly sensitive microphone embedded in one of the stumps and a sound-wave measuring oscilloscope.

The oscilloscope trace will pick up the sound when the ball nicks the bat. The high-speed camera records the ball passing the bat at the same moment.

The oscilloscope trace is then displayed with slow-motion footage of the ball passing the bat, and the shape of the sound wave may be used to identify whether the noise picked up by the microphone coincides with the ball passing the bat and whether the sound comes from the bat hitting the ball or from another object.

This application of AI mixed with sound wave detection and data analytics has helped the umpires a lot more than expected.

## 5. Hotspot



Another application of technology in the game of cricket is hotspot.

In cricket, it is a ball-tracking technique that uses infrared (IR) cameras systems to identify heat signatures created by ball impact. It is used to determine whether or not a batsman should be dismissed.

It can tell if the ball hit the player, his or her equipment like bat, pad, glove or the ground.

This information can be crucial in assessing whether or not the batter should be dismissed. At least two infrared cameras are used on either end of the straight borders in the spot technique.

The majority of these cameras are mounted on top of the sight screen.

The information acquired by the two infrared (IR) cameras is sent to a computer, which generates a series of black and white negatives frames. The exact point of contact is determined using a process known as the subtraction procedure.

Being an application of AI, the hotspot is 90-95% accurate while making decision.

## 6. Stumps Camera and Mic



Stumps cameras and mic are micro which are embedded inside one of the three stumps

The stumps camera helps in capturing the shots facing by the batsman.

Same stumps mics also record the audio on crease which will also help umpires

## 7. Decision Review System (DRS)



Technology when injected into cricket gave birth to a review system named as "Decision Review System". This was for the wrong decisions taken by umpire.

Whenever a team felt that the umpire had given a wrong decision, they were free challenge it on the ground of cricket. The decision was then referred to the 3rd umpire.

The 3rd umpires then used to look into the decision and

review it using various technologies. They used to use different camera angles and other various technologies.

After looking at everything, if the decision was found to be correct then the umpire was told to stay with their decision, otherwise, they had to change it and reverse the decision.

This DRS was made just for the decisions of the fall of a wicket whether it is out or not.

*"Innovative gadgets gave cricket a tech twist"*

**- Mayank Patle  
TY CSE**



# BASKETBALL

The game of basketball has truly become global in the last few years. The game is currently popular in the United States as well as India. Also, it is described by many as a fierce game because of the fun and competitive element in it. Also,

this is one of the games which is played indoors and still caters to billions of fans around the world.

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In our college we have adequate facility with an indoor court in college itself. We have both men's and women's team participating every year at various Inter college National/State level tournaments. The student athletes of our institution

are very much hardworking, with their hard work they have ameliorated basketball in our institution and as well as we have a profound name in all the other institution where we have shown our talent. Every year we participate at various events

as- BAMU University games, National level sports event at BITS GOA, National level sports meet at MIT PUNE, State level inter college tournament at SGGSNanded, National level sports tournament at IIT Powai. We also have our own event "MIT FIRE-BALL" which we organise at the time of gathering for all the branches (men's and women's). Our women's team has been winning the title from past 3 years at SGGNanded and in 2019 both men's and women's team bagged the runner up position in basketball at "Zenith" State level sports tournament at SGGNanded. MIT provides us facilities for practice, support in academics while we play for our institution, travelling and accommodation facility. Basketball is a fierce game where endurance and stamina are two important factors, particularly we have 2 events every semester and all the student athletes are disciplined and punctual towards their

practice with that they are assiduous towards their academic too.

With playing a sport there is a fun factor too, all these events are organised in a proper manner and are enjoyable. There are many memorable moments like from winning the title to working hard and putting our everything on the court for winning the match.

Basketball makes the student athletes physical strong and mentally fit, also it plays a vital role in shaping the character of a student, it makes you work under immense pressure, develop the quality of planning, self-confidence, social adaptability, and co-operation. This team sport develops harmony and brotherhood amongst all players.



- Ganesh Hange  
BTECH (CSE)



# CHESS

The origin of the game of chess is credited to India where chess was derived from the game of 'chaturanga' before the 7th century. During the 9th century, Arabia and Persia led to the emergence of the game top the European countries. The queen's, as well as the bishop's modern-day powers, were framed in Spain during the end years of the 15th century. The 19th century saw the standardization of the current rules of the game.

## HISTORY OF CHESS

Chess is a strategic board game played between two players on a checkerboard with 8X8 square grid arrangements of 64 squares. This Article on chess game also includes the history of the game of chess. It is very interesting to note that not only children but people of all ages play this game with a great interest.

## **RULES OF THE GAME OF CHESS**

At the start of the game, each player has 16 pieces, precisely 8 pawns, 2 bishops, 2 knights, 2 rooks, 1 queen, and 1 king. Different types of pieces have different styles of movement. Pawns have the least power while the maximum power is held by the queen. Players play with the objective of putting the opponent's king in a position of the threat of being captured from where the king cannot escape. Opponent pieces are attacked and captured in the process of encroaching on the opponent king's territory so as to finally call for checkmate. A player loses a chess game on being declared checkmate, on being timed out in a time mentioned game, or on conditions he/she resigns from the game.

## **IMPORTANCE OF CHESS IN DEVELOPING STRATEGIC THINKING**

The game of chess comes with a whole lot of benefits increasing the mental

faculties of a person with an improvement in the capability to learn, think, and make decisions in the right manner. Building the analytical power of a person, chess helps a person frame better strategies not only while playing the game but also in the aspects of life. This also makes a person learn the significance of foresight so as to make plans and take measures accordingly. Playing chess also better the skills in communication and aptitude with better recognition of patterns. The value of persistence, patience, concentration and hard work is derived from repeated participation in chess.

## **MAJOR CHESS COMPETITIONS**

The international body governing the game of chess is FIDE (Federation International des Echecs). Many countries have their respective national organizations for chess that are further the members of the FIDE. An interesting fact is that the FIDE being a member of the IOC (International Olympic

Committee) organizes its own Olympiad without involving chess in the Olympic Games. The chess Olympiad is organized as a team event every two years. Other major competitions are the World Junior Chess Championship, The National Chess Championships, and the European Individual Chess Championship.

## TITLES AND RANKS IN CHESS

FIDE offers lifetime titles to players. Such titles are mentioned below:

- Grandmaster (GM) or International Grandmaster (IGM)
- International Master (IM)
- FIDE Master (FM)
- Candidate Master (CM)

All the above-mentioned titles are meant for both men and women. There are titles meant only for women like the title of Woman Grandmaster (WGM)

## FACTS

- The first World Chess Champion to have been generally acknowledged was Wilhelm Steinitz. He claimed the title in 1886.
- The current World Chess Champion is Norway's Magnus Carlsen.
- The Women's World Champion is China's Ju Wenjun.
- The longest chess game in a tournament (according to the number of moves) was played between Ivan Nikolic and Goran Arsovic in 1989 at Belgrade. The game lasted for a total of 269 moves taking 20 hours and 15 minutes all total before getting the game declared as a draw.
- Abhijit Kunte (born March 3, 1977 in Pune) is a chess Grandmaster from India



# **ROLE OF VIRTUAL GAMES IN REHABILITATION OF STROKE PATIENTS**

they can also be utilized as a support tool for rehabilitation activities and provide an enjoyable environment for patients and increase adherence to treatment sessions. As it turns out, various studies have been performed to determine the effectiveness of the mentioned games. A systematic review study found that games improved 69% of psychological therapy outcomes, 46% of clinician skills outcomes, 42% of health education outcomes, and 37% of disease self-management outcomes. Another study examined the games managed for rehabilitation in respiratory conditions and concluded these games were effective.

Modern games can be used for physical rehabilitation of post-stroke patients keeping in mind the following questions:

- (1) Which type of games is the most used in general?
- (2) Which gamification approaches can be used to



improve the performance of post-stroke patients?

- (3) What was the most common type of physical rehabilitation in stroke survivors?

- (4) What can be the evaluation results of games used in post-stroke patients?



According to study of some results, emerging games possess the capacity and potential to rehabilitate physical aspects in post-stroke patients; furthermore, these games can help

patients improve their independence. According to surveys, virtual reality-based approaches and “the Nintendo Wii Fit” games were used more than other games. (the most common use of games in post-stroke survivors’ rehabilitation was related to limb movement and balance training. Due to the included studies’ results, different indicators and scales have been calculated and statistically analyzed to evaluate and test game-based physical rehabilitation therapies for post-stroke patients. (These statistical analysis demonstrated the positive effect of innovative rehabilitation is provided in the form of games for these patients. Even in many studies, applied games in different environments (virtual reality, and video-based games) have led to a great improvement in patients’ physical problems such as balance disorder, upper extremity spasticity, and limbs’ immobility and muscular weakness. Researchers in these studies have

concluded that they can incorporate these games into the treatment plan and physiotherapy of post-stroke patients and use them as alternative therapies to traditional methods because, in these experimental studies, significant improvements in all outcome measures were found after the intervention. However, in infrequent articles, no significant differences can be observed in all assessment scales (baseline and post-intervention assessments in the experimental and control groups) to evaluate game-oriented physiotherapies’ effectiveness.

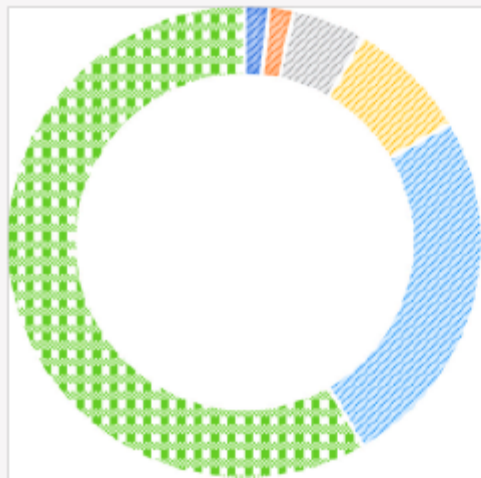
Game-based approaches lead to patients being able to smoothly perform their rehabilitation movement techniques without going to the treatment centers. (these games can immerse the person in the environment by providing virtual or augmented reality capabilities and multiplying the effectiveness of the

The emerging gaming technologies, like virtual reality and augmented reality have changed not only changed the world of entertainment altogether but also have a great impact on many other domains. One such domain is rehabilitation of patients recovering from some of the medical conditions that may cause major physical/mental or emotional impact on one's life.

Stroke is one such disease that can lead to disability and affect people's daily activities and lead to reduced performance. Most people with post-stroke disability experience changes in emotional function, limb movement, balance, and muscle strength, and there is a risk of falling for these patients in performing ordinary activities, all of which affect the quality of life of survivors. Post-stroke physical rehabilitation in common is a gradual process that can take months or even years, and these patients require

multiple sessions of treatment. However, patients may not be able to attend these treatment sessions for rehabilitation fully. Several factors may lead to limited access to these treatment sessions, including the following: difficulty accessing a physiotherapist by the patient, high cost of attending the treatment session, patient's age and disability, the long distance that the patient has to travel, or poor patient compliance. One of the solutions that can be offered to overcome these problems is to do rehabilitation activities at home; for rehabilitation exercises to be affective at home, high-intensity methods focused on specific repetitions of the practice with the feedback of performance should be used. Consequently, one of the innovative methods that can obviate the above problems is applying modern games; these games have been used in various fields, including education, public policy, and healthcare. Furthermore,

treatment. (therefore, the use of appropriate technology-based gaming solutions can improve patients' treatment and minimize the waste of time and cost of providing traditional motor rehabilitation. Consequently, these game-based treatments are considered complementary to traditional ones and can reduce the workload of therapists and accelerate the rehabilitation process. Future research should focus on how task-specific game-oriented systems can improve function after stroke, and statistical studies can show this effect more.



The distribution of studies based on gamification types.

game chosen to rehabilitate poststroke patients cannot be a useful tool to alternate with the traditional physical rehabilitation methods, and applying them can destroy the patient's time and motivation. (the reason for the ineffectiveness of newly emerged games for motor rehabilitation of stroke patients can have different reasons as follows: insufficient session times and training duration to generate consistent improvements in all patients, the insufficient number of participants in the experimental studies (randomized trails would require at least 25 participants in each group), the high mean age of patients in both intervention and control groups (underlying disability of people due to their age), and excessive movement limitations of the patients recruited in the study. According to this study's results, the most pop

ular type of game for physical rehabilitation of post-stroke patients was virtual reality games. Virtual reality-based games allow patients to interact with a virtual environment while performing rehabilitation exercises and simulating real functions. These games increase patients' motivation to perform rehabilitation exercises and provide a pleasant environment for patients, which can lead to more repetition of rehabilitation exercises in these patients. People get feedback while playing virtual reality games, and this factor encourages patients with disabilities to attend therapy sessions and use their remaining functional capacity to succeed in the game. Results have shown that "the Nintendo Wii Fit" games are used more than other games to rehabilitate post-stroke patients. Several factors can lead to the most use of this game. Among these factors, we can mention the price of these games, which are relatively

inexpensive. These games are widely available to people, and studies have shown that providing an attractive environment increases patients' enjoyment and more repetition of rehabilitation exercises. Features of the Wii Fit game system lead to the stimulation of people's interest in continuing to play and can be useful for improving motor function and balance control. Studies showed that the most common use of games in the rehabilitation of stroke survivors was related to limb movement and balance training. In other words, the results of studies that were run to examine the effect of games on people after a stroke had shown these games were effective in improving the balance of people and strengthening the muscles of the limbs. In a systematic review conducted by Corbetta, the effectiveness of virtual reality games has been investigated and concluded that managed games have the most

significant impact on patient mobility. According to the results of this survey and other studies that show the effect of the game on maintaining balance and movement, it is recommended to use these games in poststroke survivors.

This systematic review had several strengths and limitations. One of the strengths was the use of broad keywords to search in 4 crucial databases. And limitation of this review was the different scales used to measure people's performance, and this factor made it difficult to compare the results of different surveys.

*(This article has been summarized by Dr. Geeta Tripathi only for CSE Dept. Magazine What's Up. The original article can be found at <https://www.hindawi.com/journals/jhe-2021/9928509/>)*



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# CLOUD: THE FUTURE OF **GAMING?** HOW?

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In the last few years, gaming has become one of the most expeditious-growing industries in India. From the days of playing Tetris on the computer to implementing AI in GTA5, the gaming industry has always been at the forefront of innovation and progress.

However, an incipient chapter has now been integrated to the world of gaming through cloud computing. Cloud computing has revolutionised video streaming

accommodations and led to the substratum of giant corporations such as Google and Netflix. A prime example of a platform that grew on the cloud, Youtube has scaled massively in the last decade to provide an even better video streaming experience.

While the gaming industry's future is expected to skyrocket in the coming year, according to a report by Research and Markets, the ecumenical gaming market

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was worth \$ 167.9 billion in 2020, and was expected to reach \$ 287.1 billion by 2026, growing at CAGR of 9.24 per cent between 2021-2026. However, cloud gaming continues to remain in an infantile stage. Companies like Microsoft are taking giant leaps towards the magnification of AI in the gaming industry through cloud computing.

Ahead of its Xbox and Bethesda Showcase, Microsoft promulgated the latest updates on its expansions of the Xbox Game Pass subscription accommodations.

From incrementing the number of screens, to including astute TVs from third-party manufacturers and integrating its own streaming contrivances, Microsoft is on track to capture a more consequential portion of the gaming market. It plans to utilize the cloud to provide an Xbox cloud gaming subscription accommodation on contrivances with less horsepower. The company already offers a homogeneous accommodation on Android and iOS contrivances via a beta version of its Xbox Cloud Gaming accommodation.

## GOOGLE STADIA



A couple of years back, when Google promulgated its cloud gaming accommodation Stadia, it was met with scepticism. At that time, it was advertised as being capable of streaming 4k resolution video at 60 fps to players through the company's many data centres

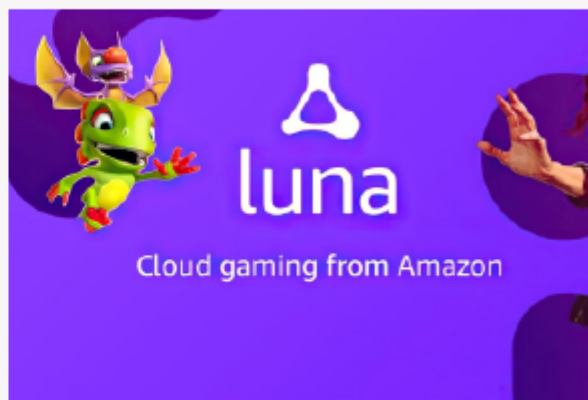
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across Chrome browser, Chromecast, and Pixel devices. Tech gurus, however, argued that the streaming experience was not as smooth as the home console. But Stadia was just the commencement of an incipient gaming era.

## AMAZON LUNA

In September 2020, Amazon promulgated its cloud gaming platform Amazon Luna. Amazon Luna is a cloud predicated video streaming accommodation for Fire TV, smartphones, tablets, and computers. It competes with the likes of Microsoft xCloud and Google Stadia.

Apart from the 4k support at 60fps, Luna is additionally verbally expressed to integrate Twitch— a popular video streaming site that sanctions gamers to broadcast and game simultaneously. Amazon Luna runs on Windows servers and NVIDIA GPUs in Amazon's AWS compute cloud, sanctioning developers to port subsisting games to Luna easily.



## XBOX



With the latest Game Pass Subscription expansion, Xbox is working with ecumenical TV manufacturers to embed the Xbox experience directly into

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internet-connected televisions with no extra hardware. It also explores incipient subscription offerings for Xbox Game Pass, sanctioning more players to experience immersive games across contrivances. Besides this, Xbox is also building its own streaming contrivances for cloud gaming to reach gamers on exhibit contrivances like TV or monitor, without a console that could ultimately transmute the gaming experience.

Currently, Microsoft is upgrading its data centres across the globe with the Xbox Series X hardware to amend the gaming experience by enabling more

expeditious load times, ameliorated frame rates, and the faculty to play Xbox Series X|S optimised games.

Later this year, Xbox plans to integrate cloud gaming directly into the Xbox app on PC, integrate it into their console experience, and provide users with experiences like 'Try before you download!'

While cloud gaming is currently a marginally functioning concept, the technology represents the future of gaming. It won't be too long before more players adopt cloud gaming to provide a hassle-free immersive gaming experience to their customers.



- Ustad Syed Aarshik Farhaan  
SY CSE



# NCC - "THE PRIDE"

## WHAT IS NCC?

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NCC is the Indian military cadet corps wing of the Indian armed forces. NCC offers training to the students of schools and colleges. The duration of this training is 3 years.

During the training of NCC, candidates get the basic military training. The training is conducted to develop the interest of young students in

all three forces; the army, the navy and the air force of India.

According to the National Cadet Corps', the main aim of NCC is to create an organized, trained and motivated youth. With this aim, NCC not only creates soldiers for the nation but it also develops the leadership skills in the youth.



## HOW TO JOIN NCC?

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Any student either boy or girl can join NCC. There are two wings in NCC; The junior wing and the Senior wing.

**Junior Wing:** The minimum age to join the NCC junior wing is 13 years. The enrollment period for the training of junior wing is 2 year.

**Senior Wing:** To join the senior wing the candidate's age should be up to 26 years. The enrollment period for this training is 3 years.

# BENEFITS OF NCC

## 1. Scholarships

66 cadets doing professional courses are also awarded Rs 30,000/- each for one year and is common for Boys and Girls cadets all over India

## 2. Reservation in Education

Many competitive exams have reservation for certificate holders in terms of awarding ranks.

## 3. Defence Benefits

For the candidates who aspire to join the defence forces, NCC "C" certificate is a golden opportunity for them to go to SSB directly. These candidates are exempted from giving the common entrance exam and are called directly for SSB.

- i. CDSE (Men)
- ii. Special Entry (Men and Women)
- iii. Recruitment as Jawan

If a cadets wants to join the defence forces as as Soldier GD/clk/skt/tech/tdn cat, he will be eligible for the award of following benefits:

- "A" Certificate: 05 marks (GD) 05 marks (clk/skt/tech) 05 marks (tdn)

- "B" Certificate: 10 marks (GD) 10 marks (clk/skt/tech) 10 marks (tdn)

- "C" Certificate: Holders of C certificate and who have participated in Republic day parade will be exempted from CEE for rect sol clk /skt, sol tech and sol NA cat and will be awarded 100% marks in lieu of CEE.

## 4. Other Benefits of "C" Certificate

- Department of telecommunication: Bonus marks awarded for recruitment
- NCC: Civilian Gliding instructors/Girl Cadet Instructors/ Whole Time Lady Officers.

## 5. Non-Tangible Benefits while serving in NCC

- State Govts: Preference for State Services in certain States
- Industry: Some industries give preference to NCC C certificate holders for various jobs related with the field of security.
- NCC Games: Cash awards to teams and individuals for excellence.

- International Outreach: Youth Exchange Program, Foreign cruise (Navy or Coast Guard).
- Air Wing Cadets get to fly Micro light aircraft as part of their training.

*"Obey with smile, be punctual, work hard and without fuss, make no excuses and tell no lies"*



- Cadet. Sakshi Sudame  
TY CSE



- Cadet. Komal Nagare  
TY CSE



# SPORTS ANALYTICS

Sports are competitive so it's no wonder many types of statistics are meticulously kept on file to see which players or teams can beat records. Data science is used to make decisions and predictions along with predictive casual analytics and machine learning. In simplified terms, sports analytics is nothing but using the data related to a game or sport to come up with predictive machine learning models. This data can range from

individual performance of the players, weather conditions on a matchday to recent records of the team's performance, etc. With this data, the main objective would be to improve the overall performance of the team and increase their probability of winning.

In the sports industry, predictive analysis is done to evaluate the insights and inform the team of the necessary steps they should take on

the game day. Websites like ESPN, Cricbuzz, etc. use data science to predict the performance of players and teams in different league matches. These machine learning models are

prepared by analyzing the base and the history of the team, how the players might perform against the rival team, weather conditions, and many other small considerations.

## HOW SPORTS ANALYTICS CHANGES THE GAME



Data analytics have changed the game and are vital in helping team managers, coaches and players ensure they're prepared to win. Since preparation is key to winning, professional teams take sports analytics

seriously and gather as much data as possible to ensure they have a competitive edge. Some of the most important data that teams analyze before a game include

- Opposing team player statistics, such as common plays or configurations and types of scoring.

- Recent wins and losses and how individual player performance contributed to these games.

- Game-day weather conditions and players' experiences in these conditions.

- Game statistics, including how many games they

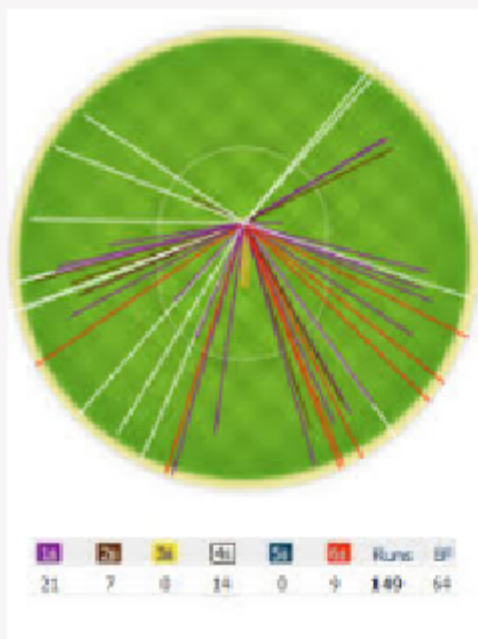
must win to make it to the playoffs or surpass previous records.



Professional sports teams work hard to gather relevant data to prepare for games. There are many ways players, teams and fans use statistics and data to enhance their position.

## PLAYER ANALYSIS

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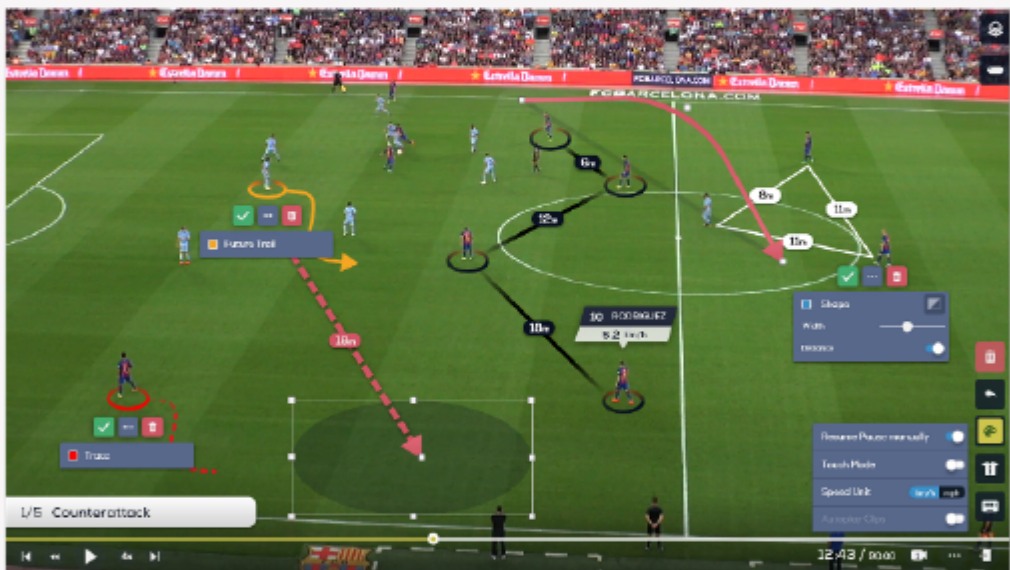


To improve performance, players keep track of their own statistics and analyze how they played in previous games. Nutrition, training hours and game performance produce different types of statistics, such as how fast the player runs, how much weight they lift, or how much protein they ate during the day.

By tracking this data and comparing it to how they felt on game day or how they performed, players can make changes to their training routines or diet to get better at their sport. When all players focus on their

own performance analytics and pinpoint how to improve, this analysis and the changes that come with it help prevent organizations from becoming the most disappointing sports team in the league.

## TEAM ANALYSIS



Each player must be focused on individual performance but playing together as a team is also crucial in securing a win. When teammates adopt data science together, they can analyze how they perform together.

Coaches may experiment with player combinations to see if better statistics are achieved with different lineups on the field. For example, if an MLB player catches 90% of a teammate's throws to first but only 45% of

another teammate's throws, the coach is likely to pair the more successful partners on game day.

Using data analytics, team managers can develop machine learning techniques to identify winning player combinations and successful strategies.

## FAN ANALYSIS

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Sports is a business and the more engaged the fans are, the more profit organizations experience. By learning about data analytics in the online world, sports management teams can discover how and when fans are likely to attend events or buy merchandise.

Management analyzes social media patterns,

attendance and merchandise sales to better understand what consumers want out of the game. This allows them to identify what's important to fans, such as an engaging mascot or unique merchandise. Management can then be sure to provide these amenities to keep fans satisfied and coming back.



- Prof. S R Chaudhary


# ANIMERA

## WHY ANIME IS SO UNDERRATED

Hi mates, before we dive into the topic let me give u the disclaimer first., just forget the misunderstanding of "uhh, anime is just a cartoon", "I am not a kid to watch cartoons", "anime is for kids." for a while forget about this misconception and be along with me for few paragraphs.

The main difference between cartoon n anime are cartoons are very simple, childish, and are not much relatable to the real world on the other hand animes are all about deep themes, mature content, closest to reality, amazing story plots, well defined, a film looking, and target audience are people like us student.

now u will say then it's a cartoon of adults... no dude let's just call it \*anime\*



I won't intrduce anime as u already considered it as a cartoon but I explained the journey from cartoon to anime, let us start with the Why,

Why anime is so special even than all the movies

It's all about Inspiration, Creativity, Knowledge Provides a glimpse of diverse cultures across the world, Infinite. There are thousands of good anime. Getting bored with isn't easy.

once u start watching anime then u will find out

anime is one of those things that let you relax and take a break from real life. Besides, being able to take a break and enjoy the content made is just fun. It releases you from the burdens you deal with for about thirty or so minutes, just enough to let you rest.

u will realize anime is not just some consecutive pictures motion to entertain children when u will watch "DeathNote"( legendary anime) It will prove more concepts, conflicts, and discussions on human in it. And recognize the director trying to express something in his masterpiece, just the same thing as it is in novels and movies, but with more flexible techniques. I know it sounds odd, but I can only describe it that way

So many of my morals, interests, friend, and ways of looking at life have spawned from anime called NARUTO. Such Anime has been the main reason for me and my best friend Pushkar having

such a strong bond, like brothers. I have met outer friends, good friends who like anime. As per my observation anime is the greatest friend of introverts, shy and non-talkative people. just because of that when we see anyone watching anime in a public place like a library, classroom we feel like what a weirdo. but on the other side, that so-called weirdo is having a hell of a lot of fun in his own world. another interesting observation is the vibes of two who watch anime matches automatically, they can keep talking about it as much as they want cause anime is just another world away from anxiety, depression, sadness, anger, loneliness, jealousy, self-criticism, fear, or rejection.

It's like a chocolate cookie. You are available to a variety of loads of cookies. At the start when you try it for the first time, you love it. You eat a lot. Then you become a fan. Then slowly n steadily, you eat regularly but not too

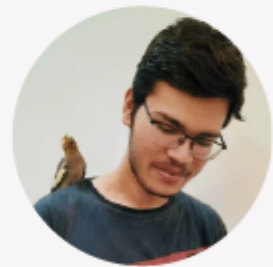
much. You don't hate it but you still love it and the lessened number of cookies shows that you've adjusted with your priorities in day-to-day life. Maybe they'll become a part of your life. I am not forcing u to watch day n night. It should be followed as the way of entertainment or stress busters.

well, if this explanation ignited a spark to tryout anime, let me recommend u the

animes and if it doesn't then at least don't call it cartoon :)

1. deathnote
2. naruto
3. Attack On Titan
4. demon slayer
5. koruko no basket

It totally depends on your interested genre so just search for ur type and have a crazy rollercoaster ride of emotion, fights, surprise, amusement, and pleasure.



- Somesh Kharat  
TY CSE

**Codechef**

# CODECHEF MITA CHAPTER

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CodeChef MITA Chapter established on: 31st October 2020

Establishment Purpose:

To build a coding committee that endeavor and excels in Competitive Programming to increase exposure and better job opportunities.

## Current CodeChef MITA Chapter Team:

Faculty Advisor: Mr. Kiran Khandarkar

CodeChef MITA Chapter Team Leaders:

- President (Mr. Govind Khedkar)
- Competitive Programming Lead (Ms. Tejaswini Patil)
- Outreach and Media Lead (Ms. Aqsa Khan)
- Events Lead (Ms. Nikita Patwa)

CodeChef MITA Chapter Executive Members:

- CP Executive Member (Ms. Vaishnavi Nighvekar)
- O & M Executive Member (Mr. Tejas Badone)
- O & M Executive Member (Ms. Shubhangi Gadhave)
- CP Executive Member (Mr. Abhishek Dahihande)

Events Conducted:

- Chapter's Appetizer 24 hours Programming Contest (29th September 2021).
- "Codechef really That hard?" Programming Workshop (09th October 2021).
- Team activity on Introduction to Competitive Programming and 40 hours Programming Contest (16th-17th October 2021).



# COMPETITIVE PROGRAMMING

Insights of CP

Someone has rightly said that” Before software can be reusable it first has to be usable”.

Competitive programming is simply a sport to play where errors may occur but lastly to score a goal there is always a solution awaited.

Competitive Programming teaches you to find the easiest solution in the quickest possible way. CP enhances your problem-solving and debugging skills giving you the real-time fun. It's brain sport. As you start solving harder and harder problem in live-contests your analytical and rational thinking intensifies.

# COMPETITIVE PROGRAMMING:

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Generally competitive programming is a mind sport where everyone showcase his/her skills of problem solving under various constraints (that force everyone to think deeply or efficiently). Anyone who does competitive programming can enhance his/her problem solving approaches. You will learn how to approach a problem with the best of the best possible ways, you will learn how to analytically think and solve a problem and analyze it's space and time complexity.

## KEY THINGS REQUIRED TO BE REGULAR IN COMPETITIVE PROGRAMMING:

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### 1. Patience:

Most important thing you need to learn is patience while doing the problems. Anyone who starts competitive programming as a beginner face impatience, and the reason behind this is that he/she is not getting the AC(the most awaited green sign) on some problems even after trying that problem since last 2 or more days, and this leads into the impatience. I have met many people who starts the competitive programming

and left it just after a week, and they all used to say that we can't waste our time on a single problem for more than few hours. So please you need to patience and gradually you will surely feel the improvement in solving problems.

### 2. Do participate regularly in contest:

Please do participate regularly in as many as contest you can, why because participating in the contests you will learn many new

topics and will get experienced how to fight with the programmers from across the globe. But please make sure as a beginner you will face some difficulties while solving the problems in any ongoing contest because there will be some pressure of getting ranked above your competitors.

Sometimes you will also find decrement in your rating, but please don't get demotivated or discouraged everyone have gone through all these things to become a successful programmer ,rating is just a matter of time as the time will pass and you will keep practicing ,then you will see increment in your rating.

## KEY STEPS IN LEARNING COMPETITIVE PROGRAMMING:

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### 1. Choose any well known programming language used for Competitive programming:

You can do competitive programming in any programming language but it is highly recommended that you choose one of C/C++ or Java. The reason being that the time of execution is a key factor in Competitive Programming and so, choosing a language whose time of execution is fast is surely going to give you a

benefit. C/C++ and Java are relatively faster, particularly when compared to languages like Python. Python is slow as compared to C/C++ and JAVA, that's why very less number of programmers used to do Competitive Programming in Python due to its time factor which is highly prioritized in Competitive Programming.

## 2. Choose some platforms to practice Competitive programming and to participate in contest:

As per my personal experience if you are a beginner i will recommend everyone to start with HackerRank, it has really the best user interface and IDE. HackerRank has a good set of problems for beginners placed in well defined manner according the tags and difficulty levels. The main thing that HackerRank provide to the users is that if you get stuck on some problem from very long time and only passing some of the test cases, then you can download the test cases and you can review your logic to do some modifications It will help in thought process to be able

to think about corner test cases. But seeing the test cases is not always good, after some duration (about 2 or 3 months) you itself should be able to think that which test case might give WA (wrong answer). And after the practice of 2 or 3 months you can also start doing practice and participating in contests on some of these famous sites CodeChef, CodeForces, AtCoder. CodeChef is known for long challenge (10 days duration), CookOff (2.5 hrs), LunchTime (3 hrs). Codeforces is known for short duration contests of atmost 3hrs long.

## 3. Get your hands dirty in Data Structures:

Data Structures are something that helps you in making the program more efficient. Having good amount of knowledge in Data Structures will help you

in selecting the optimal Data Structure for any problem. Anyone can learn Data Structures from GeeksForGeeks, it contains Data Structures tutorials and problems in rich amount.

## 4. Get your hands dirty in Algorithms:

Algorithms are something that use various data structures to implement the logic and then we get the result in form of output produced by the algorithm. You need to be very good in Algorithms, again GeeksForGeeks contains Algorithms in rich amount.

**Time/Space Complexity:** Every Algorithm has a Time and Space complexity which refers to the maximum amount of time an Algorithm will take and the maximum amount of memory an algorithm will require. While doing Competitive Programming

these two will play a key role in determining the verdict of your solution.

Always try to think of the most optimal solution, that is, one which runs with least time complexity and occupies minimum space.

**Sorting:** You must have heard of a number of sorting techniques to sort but while doing Competitive Programming most of those techniques prove to be time-consuming hence the STL library comes to rescue, it offers a function `sort()` which sorts the array in the most optimal way

## 5. Keep Practicing practicing ..... Practicing:

Always keep yourself motivated enough to solve the problem, it will help you in enhancing your problem solving skills. As now you have good knowledge of Data

Structures and Algorithms you can do really well in world of Competitive programming if you keep practicing continuously.

# WHERE TO START?

With so many online sites and resources it's very natural that one will be confused. So, to make things easier I will be going through some of the most popular sites for competitive programming and mention their specialties so that you can decide yourself which one suits you the best.

## SPOJ

Probably one of the most popular sites among the coders, it has thousands of problems with varying difficulty and whenever you are stuck on a problem just google the name of that problem and you

will surely find an editorial or a solution. There is also a SPOJ Toolkit to test your code on different test cases and compare your output with the correct answer. I would highly recommend solving at least first hundred most solved problems on Spoj, it would improve your thinking skills and you would approach a problem more algorithmically rather than in a brute way

## CODEFORCES

Codeforces on an average hosts ten short contests in a month with duration between 2–3 hours. As the name suggests, Educational Rounds are a great source for learning.

Although I would recommend participating in online contest after a month or two of practicing so that you are confident enough of yourself .

## CODECHEF



Codechef hosts three main contests in a month-Long challenge, Cook-off and Lunchtime. Long challenge has eight problems with difficulty increasing after each question and you have ten

days to solve them. Long challenge is a great source for learning new concepts and if you give them sincerely you are bound to learn at least one new thing. Cook-off is two and a half hours long contest and comprises of 5 problems. Lunchtime is codechef's another short contest and it also-comprises of 5 problems and you have three hours to solve them.

## HACKEREARTH

Hackerearth provides topic wise questions which helps you in strengthening a particular topic. It also has a tutorial at the start of each topic which covers its basic concepts. It also hosts a lot of college contests along with Circuits and Easy, two of the monthly contests hosted by hackerearth. Circuit is quite similar to Codechef Long Challenge.

The last thing that we want to discuss is:

# MISTAKES THAT BEGINNERS MAKE:

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## 1. Getting Demotivated Easily

In the beginning it is possible that you spend a complete day on a problem and still not be able to solve it. You may lose confidence, but think this way, every time you are not able to solve a problem and check the solution you learn something new. Next time you will be able to solve the question that requires that concept yourself.

## 2. Procrastination

A habit that a lot of programmers have. Think of the regret you will have when you see a question in a contest that requires a concept which you have been procrastinating to learn. So it's always better to learn something that you have been planning to, as soon as possible and not delay it for long.

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regret you will have when you see a question in a contest that requires a concept which you have been procrastinating to learn. So it's always better to learn something that you have been planning to, as soon as possible and not delay it for long.

## 4. Solving Only Easy Questions

If you are able to solve five problems continuously without any difficulty then you are not learning anything. You have to challenge yourself with a more difficult problem each time because this is the only way to improve. It doesn't matter if you are able to solve it or not every time you learn something.

## 5. Not Implementing yourself

Whenever you read a new algorithm or an editorial it's very important that you implement it yourself. 'You don't know an algorithm

unless you can code it yourself'. If you don't implement it yourself you will soon forget it. Try to practice 2–3 questions from that topic.

## **BENEFITS OF COMPETITIVE PROGRAMMING WHICH ARE LISTED HEREBY WITHIN:-**

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### **1. Ability to tackle problems from different perspectives and solve even more complex real-world problems**

Competitive coders solve lots of problems from all dimensions such as number theory, combinatorics, data structures, graph theory, sets, pure calculus, geometry and many more. Therefore, they are highly adept in solving problems which occur in daily life such as finding the shortest path from source to destination, calculating interests, minimum number of moves, and many more. One develops analytical and creative skill with decent practice.

### **2. Ability to deliver optimized results in shorter time**

Most of the competitive programming contests require you to solve around 5–6 problems in limited around of time. And, of course, our solution should be optimized and should execute under given time complexity. Thus, competitive coding really helps develop this particular skill.

### **3. Ease while building our own softwares.**

One of the real benefits of Competitive coding comes when we start building our own softwares. It helps us to build up several logics, write up a clean code, better understand the functions and modules, analyze and interpret several alternatives and features, and finally bring meaningful insights to

the software product. Personally, I have seen a good progress in my developing skills after doing CC. Nowadays, I find a pattern in what I do. It reminds me of connecting the dots as told by Steve Jobs during his Stanford Commencement Address back in 2005. Hence, I recommend everyone who really wants to build their own softwares to work on CC.

#### **4. Helps to perform well in coding interviews.**

Normally in coding interviews, easy and medium level questions of competitive coding are asked with some fewer tweaks. Performing well in CC provides confidence in coding interviews and get internships and job offers from reputed companies . I have heard from many competitive coders that they don't even bother preparing for coding interviews.

#### **5. Teaches how to work as a team.**

In some contests, we are required to make a team of 3-4 members (depending upon the contests). Some may be good at maths whereas some may be good at data structures. Having proper coordination and management is the key to ace coding contests. Hence, CC teaches us how to work in a team.

#### **6. "Failures" and "Setbacks" becomes part of life**

Every CC coders go through "Wrong Answer on Pretest ...", "Time limit exceeded", "Runtime Error", "Compilation Error", "Presentation Error", "Segmentation Fault", "Memory limit exceeded ( usually less)" and other limitations. This is where we get a chance to grow by finding our fault, mistakes, bugs and probably get "Accepted" if everything goes well. Therefore, as we keep on practicing , these failures become part of life. Those who never give up ultimately succeed.

There are many other benefits such as knowledge of lots of domain from computer architecture to development strategies of several games and many more. The limit is unlimited.

## **SO, HOW TO BEGIN YOUR COMPETITIVE CODING JOURNEY?**

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The most important tool to start your journey is the programming language. Choose any of the programming language and learn the basics. Learn simple libraries available in that language. Many people prefer Java, Python, or C++ as a kick-start tool. In my opinion, C++ is the best programming language to start. There are many reasons to it.

- It is faster than Python and Java. Here, faster means the code execution time is less. You will encounter a lot of problems where the same code in C++ gets executed within the time limit whereas Python and Java fails to.

- It has vast library called Standard Template Library (STL) which has almost all libraries to solve problems.

- Majority of coders choose C++ , so there is strong community who are willing to help you in case you feel difficulty at a point.

## **FINAL NOTE**

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Practice is the key to everything. With consistent practice and discipline, one can achieve anything that he/she wants in his/her life. The more we practice coding , the more we become adapt to it. There are coders who solve problems just by reading a single line of problem description. How? Because of practice. Therefore, we must practice a lot of

coding, understand what went wrong while solving, rectify them and repeat this whole process to become a very good and competitive coder.

**- CodeChef Core Committee**

# Poems

## जे देशासाठी लढले

जे देशासाठी लढले  
आता त्यांनाच लोक विसरले....  
त्यांच्या सारखे लढणारे  
आता देशात कमीच उरले....

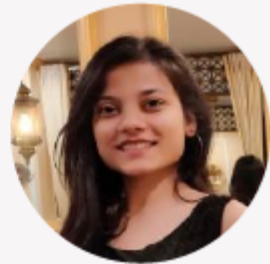
जे रक्ताच्या रंगात खेळले  
त्या रंगाचे थेंब हरवले..  
पुढे जाता जाता  
लोक त्यांनाच विसरले...

ज्यांनी देशाला उजळवले  
देशाचे चित्र रंगवले...  
त्यांनाच विसरून लोक  
बॉलीवुडच्या रंगात हरवले...

ज्यांच्या गाण्याने  
रक्तात नवीन प्राण येतो ...  
काळाच्या धावपळीत  
तो स्वरच हरवतो...

ज्याने देशाला घडवले  
स्वतःचे प्राण हरवले...  
त्यांच्याच आवाजाला  
लोक स्वप्नाप्रमाणे विसरले...

जे स्वतःचे दुःख विसरले  
दुसऱ्याच्या सुखासाठी वळले  
त्यांना स्मरण करणारे  
आता लोकच कमी उरले...



- Vaishnavi Nighvekar  
TY CSE

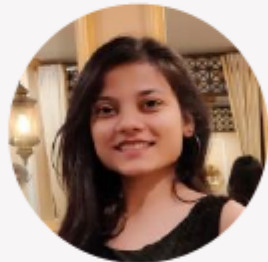
## HAME AZAADI DO

Azadi ke Jashn manane Wale logo,  
Hamari bediya to chudva do...  
Do pal ki Zindagi Sahi,  
Hame bandhkar he dilva do...

Hame sanskar sikhane wali duniya,  
Jara apne bete ko tameez bhi sikha do...  
Chalo hame samman na sahi,  
Par hamari izzat to bacha lo...

Hame Lakshmi ka roop kahene wale  
logo ,  
Hame 2 Pal ki khushi to dilva do...  
Salo se nokar bante aaye hai tumhara ,  
Us maa ke muskurahat ko khone na do...

Azadi ki jashn manane vale logo ,  
Hamari bediya to chudva do...



- Vaishnavi Nighvekar  
TY CSE



## MOTHER

You teach me to fly and  
Encourage me to touch the sky...

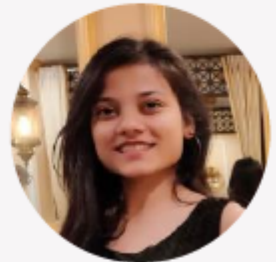
You always taught me right  
To make my future bright...

You are the sunlight of my day  
That keeps every dark cloud away...

You are the tree I learn upon  
You are the one that makes trouble be gone ...

You paint my smile  
When I only felt hurt and pain,  
And hold my hand  
Till I become stronger again...

Thank you maa for being so honest and true  
Your daughter will never stop loving you...



- Vaishnavi Nighvekar  
TY CSE

## उड़ान

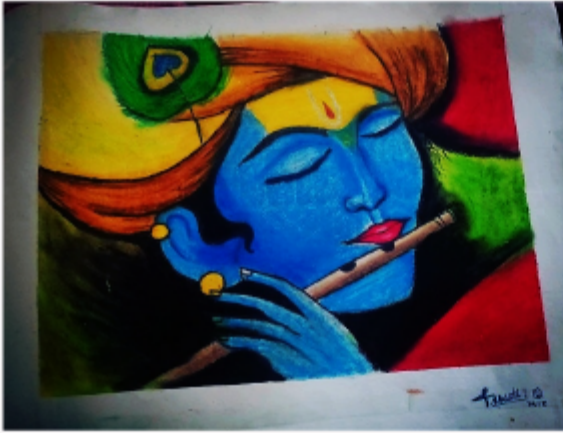
हौसले की उड़ान कहती है कि,  
जा छू ले चाँद अगर ये तेरी इस्तियारी में हो..  
बेशक!! नामुमकिन तो वो भी नहीं ..  
बशर्ते मेरी गैरत-ए-नजर के दायरे में हो !



- Dr. Geeta Tripathi

# Sketches

# SKETCHES

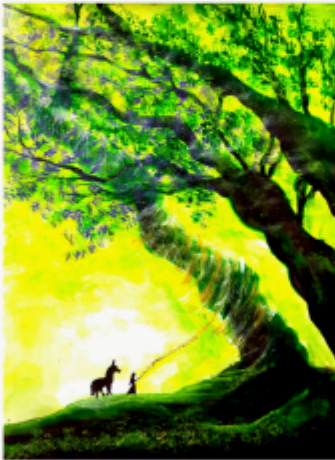


- Shruti Govindalwar  
BTECH CSE

# SKETCHES

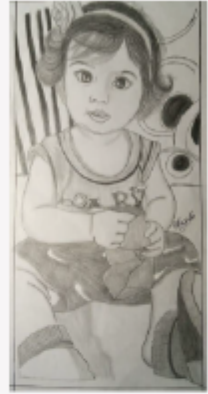


# SKETCHES



- Sakshi Sudame  
TY CSE

# SKETCHES



- Shruti Jawale  
BTECH CSE

# SKETCHES



- Somesh Kharat  
TY CSE

# SKETCHES



- Dr. Geeta Tripathi

# Achievements

Lokmat Times

## Aurangabad judoka Priyanka Gupta bags gold at Schools Nationals

SPORTS REPORTER  
AURANGABAD, DEC. 20

Talented local judoka Priyanka Gupta lived up to expectations by winning the gold medal in the Schools National Judo Championship held in Gujarat.

A Santaji Junior College student, Priyanka defeated her opponents from Gujarat, Kendriya Vidyalay and other teams to walk away with the gold medal.

Priyanka was trained by the chief coach Bhimraj Rahane, Ashok Jangme and Shailesh Kawle at Bajaj Nagar Judo Club. The Secretary of Maharashtra State Judo Association, Datta



Aphale, President of Aurangabad District Judo Association Ajeet Muley, Secretary Atul Bamanodkar, Vishwas Joshi, Vishwajit Bhawe and other officials have congratulated Priyanka on her impressive performance.

Aurangabad Main  
Page No. 11 Dec 21, 2018  
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I am Priyanka Gupta from Second Year Computer Science Engineering Department. I am a sports person too.

Sports and Games are means of Mental and Physical growth. Either study or work alone makes us exhaust. Sports remove our mental exhaustion. Sports are integral part of education. Education without sports is incomplete. We learn how to tackle the diff-

icult situation without losing hope.

When I was of 11 years old, I joined Judo and Karate Classes to learn Self Defence. Then I started playing Judo which is an Olympic Games as well as Authorized game. I started winning medals so I came in spotlight and sir gave more time in order to develop my techniques. My coaches Ashok Jan game and Bhimrao Rahane Sir really supported me a lot and motivated me to bring me up.

When I was studying in 11th std, I won Gold Medal in National School Games of India in Judo Sport and selected for Khelo India Government Scheme by which every month I get 10 thousand Rupees per month from Indian Government as Scholarship. I also won 1 Gold, 1 Silver and 2 Bronze medal in National Level Competitions. And also won 6 Gold, 4 Silver and 3 Bronze medals in State Level Competitions.

Though during Covid-19 Pandemic, there wasn't much outside activity, at that time my coaches switch to online training which help me a lot.

My regular sports activities lead me into better concentration and remain fit physically and mentally. Because of this I could perform excellent even in my studies too, and made my parents feel proud by scoring 100% in my SSC Board Examination.

Sports therefore, I can say, plays very important role in my life.



- Priyanka Gupta  
SY CSE

# ACHIEVEMENTS



- Mayank Patle  
TY CSE



Shruti Govindalwar -  
TY CSE

# ACHIEVEMENTS

## Copyright Projects

Sr. No	Name of Student	Name of Guide	Project	Name of Project	Copyrighted Material	Published In
1	Ms. Swati Sharma Mr. Mayur Bidwe Ms. Aarti Zawar	Mr. Prashant Khosre	Major Project-II	Secure File Sharing	Software copyright	Oct, 2021
2	Mr. Manmeet Kaue Chhabda Mr. Sonu Jangid Ms. Pratiksha Kolte	Dr. Geeta Tripathi	Major Project-II	TaxPro	Poster copyright	May, 2021
3	Ms. Ratnaprabha Purandare Ms. Aakanksha Tripathi	Mr. J. S. Dhage	Minor Project	MaskOn	Poster copyright	May, 2022
4	Ms. Shruti Jawale Ms. Priya Tangde	Dr. Geeta Tripathi	Minor Project	Sarvadnya Gift Shop	Poster copyright	May, 2023

## ACHIEVEMENTS

### Appendix F – Students Achievements 2020 – 2021

Sr. No	Name of Student	Department	Award/Recognition	Organization	Details	Level
1	Mr. Vedant Karmalkar	CSE	Best Paper Award	MET Bhujbal Knowledge City, Nashik	Best Paper Award for paper titled "Twego Trending : Data Analytics Based Search Engine Using Elastic-search", International Conference on Innovations and Trends in Computing ICITC 2021, Feb 26-27, 2021	International
2	Ms. Vaishnavi Nighvekar	CSE	Essay Competition (1st Prize)	Dr. B.A.M.U. Aurangabad	On the occasion of Student day celebration at department of CSE and IT, Dr. B. A. M. U. Aurangabad with IETE Aurangabad Centre. Competition held on 21st February 2021	University
3	Mr. Vedant Karmalkar	CSE	Selected for sponsored international project	University of Limerick, Ireland.	Selected for project in Blockchain in collaboration with Biocomputing and Developmental System (BDS) Group February 2021	International

4	Ms. Kunika Kulkarni	CSE	Selected for sponsored international project	University of Limerick, Ireland.	Selected for project in Blockchain in collaboration with Biocomputing and Developmental System (BDS) Group February 2021	International
5	Mr. Abhishek Hole	CSE	Selected for sponsored international project	University of Limerick, Ireland.	Selected for project in Blockchain in collaboration with Biocomputing and Developmental System (BDS) Group February 2021	International
6	Mr. Saurabh Munde	CSE	Selected for sponsored international project	University of Limerick, Ireland.	Selected for project in Blockchain in collaboration with Biocomputing and Developmental System (BDS) Group February 2021	International
7	Mr. Vedant Karmalkar	CSE	Got internship for the international project	University of Limerick, Ireland.	Project in Blockchain in collaboration with Biocomputing and Developmental System (BDS) Group,	International
8	Ms. Aakanksha Tripathi	CSE	Presented Paper in National E-Conference on Advanced Research in Material Science	Department of Physics (SF), Kamraj College, Thoothukudi, Tamilnadu.	Paper titled, "Mask - on a Covid Warrior Face Mask Detection", NECARMS, 22nd -23rd February 2021	National
9	Ms. Ratnaprabha Purandare	CSE	Presented Paper in National E-Conference on Advanced Research in Material Science	Department of Physics (SF), Kamraj College, Thoothukudi, Tamilnadu.	Paper titled, "Mask - on a Covid Warrior Face Mask Detection", NECARMS, 22nd -23rd February 2021	National

10	Mr. Sankalp Pol	CSE	Project selected for 2nd Round in HW category	SIH-2020	Project titled, "Artificial intelligence enabled robotic trash boat to drive & harvest floating trash from urban drain". April 2020	National
11	Mr. Sankalp Pol	CSE	Project Selected in National Innovation Contest 2020	IIC	Project titled "AI Enabled Smart Weed Cutter Robot Vehicle" June 2020	National
12	Mr. Roman Kazi	CSE	Won the Championship	JetKing Pune	Won the Championship at Institute level and won a Scholarship of 20% discount for the courses in JetKing May 2020.	National
13	Mr. Shreeganesh Hange	CSE	Best Cadet Award 2021	NCC Marathwada Division	Best Cadet Award 2021, Certificate 'C' with grade 'A'	National
14	Ms. Sakshi Sudame	CSE	Winner	MIT Aurangabad	Saptarang 2021- Digital Poster Design Competition, June 20	National

## Appendix F – Students Achievements 2021 – 2022

1	Ms. Tejaswini Patil	CSE	First Prize	AURO university Gujarat.	Gandhyan Innovative Idea Competition, organized by, AURO university Gujarat. (Project topic – Quick Cloths Drying Machine) 2 October 2021	National
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## ACHIEVEMENTS

### Faculty Achievements

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**Dr. Smita L. Kasar**  
HEAD OF DEPARTMENT,  
CSE

1. Delivered Expert Talk for five days STTP on 'Cyber Security and Blockchain' organized by G. H. Raison Institute of Business Management, Jalgaon, on 27 th Oct 2021.
2. Reviewer for the research papers in track of "Security, Privacy & Ethics in Digital Era" for ICCICT-2021 organized by Sardar Patel Institute of Technology, Mumbai.
3. Reviewer for the VISHWACON 2020 an International Conference on "Recent Trends in Engineering and Technology", held on 20 Nov 2020.



**Dr. K. V. Bhosle**  
ASSOCIATE PROF. CSE

1. Reviewer for the Geocarto International academic journal published by Taylor & Francis.
2. Reviewer for the Computers and Electronics in Agriculture journal published by elsevier.



**Dr. B. S. Sonawane**  
**ASSISTANT PROF. CSE**

1. Resource person for the 45 day faculty development program NISHTA organized for Jilha Parishad Teachers with 536 teacher participants.
2. Resource person for the 15 day faculty development program on ICT organized for Jilha Parishad Teachers with 200 teacher participants.



**Dr. Geeta Tripathi**  
**ASSOCIATE PROF. CSE**

1. Session chair for International Springer Conference Evolutionary Computing and Mobile Sustainable Networks (ICECMSN) 2021 held on 28–29 September 2021 organized by RV Institute of Technology and Management, Bengaluru, Karnataka
2. Examiner for PhD Thesis for a candidate of CSE dept, Dr. C. V. Raman University, Kota, Bilaspur (C.G.), Sep 2021.
3. Published copyright in Sep 2021 in collaboration with faculty and students of RV Institute of Technology and Management, Bengaluru, Karnataka
4. Delivered online Expert Lecture for students of Third Year CSE on topic 'Computer Networks– Error Detection and Correction' at Rajiv Gandhi College of Engg, Research and Technology, Nagpur, on 25 th Feb 2021
5. Resource Person for webinar on 10th July 2021 on topic 'Orientation Session for students and faculties under IIC' organized by dept. of ECE, Guru Nanak Institute of Technology, Hyderabad



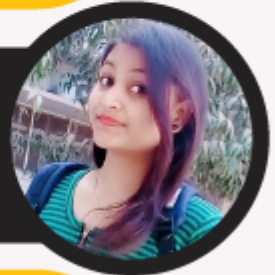
**6. Dr. Geeta Tripathi delivered a session on Universal Human Values in One Week UHV workshop for Non teaching staff at Marathwada Institute of Technology Aurangabad on 16/8/2021.**

# Inspiring Roots

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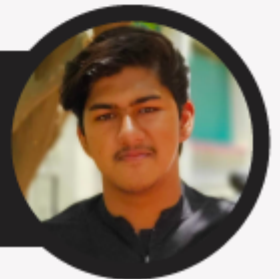
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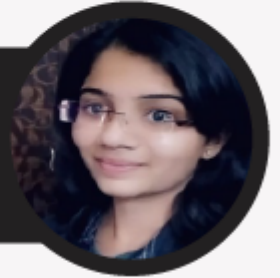
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**\* till 31st October 2021**

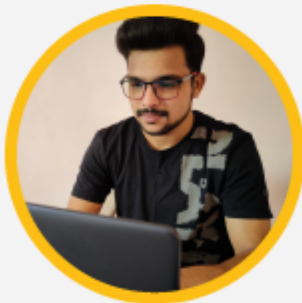
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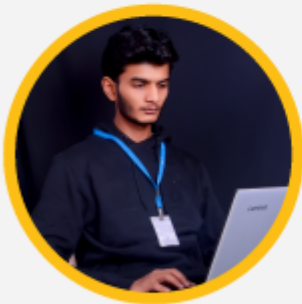


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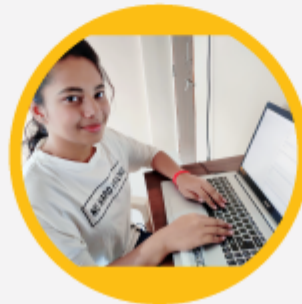
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