

**YASHODA SHIKSHAN PRASARAK MANDAL, SATARA**

**YASHODA TECHNICAL CAMPUS**

**DEPARTMENT OF E & TC ENGINEERING**



**DEC 2020**

**.... TECHNICAL MAGAZINE**

# Department of Electronics & Telecommunication Engineering (YASHOTECH-ELECTRONICS) 2020-21 (ODD SEM)



**YASHODA INSTITUTES, SATARA**

<b>ENGINEERING (B.TECH)</b>	<b>POLYTECHNIC</b>	<b>INSTITUTE CODE: 6757</b>
<ul style="list-style-type: none"><li>ARTIFICIAL INTELLIGENCE &amp; DATA SCIENCE</li><li>COMPUTER SCIENCE &amp; ENGINEERING</li><li>CIVIL ENGINEERING</li></ul>	<ul style="list-style-type: none"><li>ELECTRICAL ENGINEERING</li><li>ELECTRONICS &amp; TELECOMMUNICATION ENGINEERING</li><li>MECHANICAL ENGINEERING ( B.Tech/M.Tech)</li></ul>	<ul style="list-style-type: none"><li>NAAC B+</li><li><b>ARCHITECTURE (B.Arch)6880</b></li><li><b>MBA / MCA / PHARMACY (D/B/M)</b></li></ul>
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**TODAY'S READER  
CAN BE A TOMORROW'S  
LEADER !**

## PRESIDENT'S DESK

I welcome you to YSPM's Yashoda Technical Campus, Satara, an Institution which inculcates true values while disseminating quality education for shaping the career of our students. All our institutes are approved by the concerned statutory bodies and fulfill all the norms and standards laid down by them. Our technical campus is located in a lush, green, pollution free, picturesque environment. Our institutes have well qualified, experienced and student caring faculty, well equipped laboratories, spacious lecture halls and tutorial rooms, well maintained rich library, e-library, Wi-Fi Campus, Computer with Internet Facility, and a play ground with sports facilities. We emphasize on overall personality development of our students. Our faculty pays attention to each students a platform to excel not only in academics but also in co-curricular and a multi disciplinary study culture. Amenities provided by our institutes include transport facility, hostel facility, reprographics facility, canteen, STD PCO, medical centre, sports centre etc.

We are committed to import value based quality education along with development of positive attitude, skills and abilities to apply knowledge in order to meet the challenges of future. I extend my best wishes for your bright and prosperous future.

**Prof. Dasharath Sagare**  
Founder President  
YSPM - YSS, Satara

## EDITOR'S DESK



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## Overview of Department

Welcome to the Department of Electronics & Telecommunication Engineering at YSPM's Yashoda Technical Campus, Satara. The department has been immensely active and professionally productive since its inception in 2011. The department is having a mixture of well-experienced and young, enthusiastic faculty members who are involved in industry-institute interaction besides their day-to-day teaching activities. The E& TC Engineering department was established at Yashoda Technical Campus, Satara, in the academic year 2011-12 and offers a Bachelor of Technology Degree. The Department of E & TC Engineering at Yashoda Technical Campus (YTC) delivers the latest knowledge in Electronics Engineering along with Computational Facilities including MATLAB, Mi-Power, and Turbo C+ programming Software. It prepares students for industry and academia careers and also creates young entrepreneurs.

### Strength of Department

- Well Qualified, Experienced staff.
- Well-Equipped laboratories.
- E-Library, E-Books, Departmental Library facility for students.
- Girls and boys hostel with all facilities.
- College bus facility for students and staff.
- Wi-Fi, Computers, Software Facility.

### Vision of the Department

Vision To be an excellent technological hub in the field of Electronics and Telecommunication Engineering ensuring state-of-the-art knowledge transfer through teaching and research activities to meet educational, societal, ethical need of the nation.

### Mission of the Department

Mission:

M1.To Provide cutting edge platform to explore innovative, creative and entrepreneurial leadership qualities among the students .

M2.To be hungry for academic excellence through innovative procedure.

M3.To inculcate leadership quality and ethical values.

M4.To accept/ face technological challenges through the continuous efforts in collaboration with industry

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## ARDUINO UNO



Arduino is an open- source hardware and soft- ware company, projectand user community that designs and manufactures single-board micro- controllers and microcon- troller kits for building digital devices and interactive objects that can sense and control objects in the physical and digital world.

### ADVANTAGES:

- Inexpensive
- Cross-platform
- Simple, clear programming envi- ronment
- Open source and extensible soft- ware

Name – GAIKWAD ANKITA NANDKUMAR

S.Y .E&TC



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## Raspberry Pi

A small and affordable computer that you can use The Raspberry Pi is a series of small single-board computers developed in the United Kingdom by the Raspberry Pi Foundation to promote teaching of basic computer science in schools and in developing countries.



Two 5V pins and two 3V3 pins are present on the board, as well as a number of ground pins (0V), which are unconfigurable. The remaining pins are all generalpurpose 3V3 pins, meaning outputs are set to 3V3 and inputs are 3V3-tolerant.

### Outputs:

A GPIO pin designated as an output pin can be set to high (3V3) or low (0V).

### Inputs:

A GPIO pin designated as an input pin can be read as high (3V3) or low (0V). This is made easier with the use of internal pull-up or pull-down resistors. Pins GPIO2 and GPIO3 have fixed pull-up resistors, but for other pins this can be configured in software.

MASUGADE MADHURI ARUN, Second Year



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## **Movies an Engineer should watch**

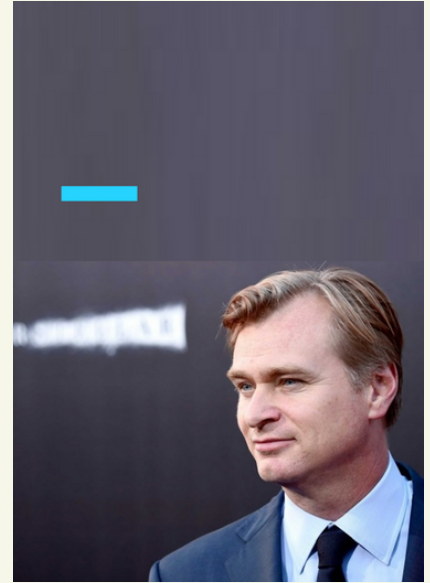
### **1. INTERSTELLAR**

2 out of the 10 films listed here have been directed by Christopher Nolan. It takes more than a director to make a movie like this. With our time on Earth coming to an end, a team of explorers undertakes the most important mission in human history; traveling beyond this galaxy to discover whether mankind has a future among the stars. There is no better sci-fi movie than this nor will ever be.

### **2. INCEPTION**

A masterpiece, The Movie took 4 years of shooting and was worth every bit of it.

Inception is a feast for the mind and the senses, the kind of movie experience we dream of. No matter how you look at it - as a new take on the heist film, as a narrative mind game, or as a metaphor for filmmaking itself - Inception will thrill you into thinking about weird new ideas.



### **3. PREDESTINATION**

Predestination chronicles the life of a Temporal Agent (Ethan Hawke) sent on an intricate series of time-travel journeys designed to prevent future killers from committing their crimes. I DARE YOU TO UNDERSTAND THE MOVIE ON THE FIRST WATCH.

### **4. ARRIVAL**

When mysterious spacecraft touch down across the globe, an elite team--led by expert linguist Louise Banks (Amy Adams) are brought together to investigate. As mankind teeters on the verge of global war, Banks and the team race against time for answers and to find them, she will take a chance that could threaten her life, and quite possibly humanity. More Heart melting than Science fiction.



**DHUMAL NIKITA RAJENDRA TY.E&TC**



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You can win

Winners don't use excuses, they find solutions

Winning is and has become the central use of society and everything we do revolves around this one dynamic structure. The most heartening quote is "Winners never quit and quitters never win". Victory tastes very sweet and there are many advantages of winning. As hard as you win, the sweeter the taste of victory. If you feel better about yourselves you improve your confidence. If your hunger to win grows it becomes greater than the fear of losing. The set up is to specific goals, you need to know where you are going. Don't be afraid of failure, take responsibility of that because who takes failure as their own they saw success. Winners are the one who are self-aware about their mistakes and decisions brought them.



If you are too cautious about success might lose opportunity and you might not have a second chance. The main difference between losers and winners is that winners stay dedicated in their goal to become a winner. And in the end it comes to working hard. Don't forget that the more efforts you put, the better results you will have in any fields of life.

BHOSALE MANSI SATISH, TY

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**Recent Technologies 21st century has seen a huge boom in Technological development.**

## 5G TECHNOLOGY

4G - the mobile network that's used around the world to make calls, send messages and surf the web. Now there are plans for 4G to be replaced by 5G. 5G - a new, faster network that has the potential to transform the internet. 5G is a software defined network - it means that, while it won't replace cables entirely, it could replace the need for them by largely operating on the cloud instead. This means it will have a 100x better capacity than 4G which will dramatically improve internet speed. For example, to download a two-hour film on 3G would take about 26 hours, on 4G you'd be waiting 6 minutes and on 5G you'll be ready to watch your film in just over three and a half seconds. But it's not just internet capacity that will be upgraded. Response times will also be much faster.



### HYPERLOOP:

Billed as the fastest way to cross the surface of the earth, hyperloop represents the greatest leap in transport infrastructure for generations. With passengers sitting in pods that travel at airline speed through pressurized tubes using electric propulsion and magnetic levitation, the concept promises to slash journey times between major cities from several hours to a matter of minutes. While it may feel like science fiction, hyperloop is now on the cusp of becoming a reality. Hyperloop was first conceived in 2012 by Tesla and SpaceX founder, Elon Musk.

**MANE DHANASHRI HANMANT, TY**



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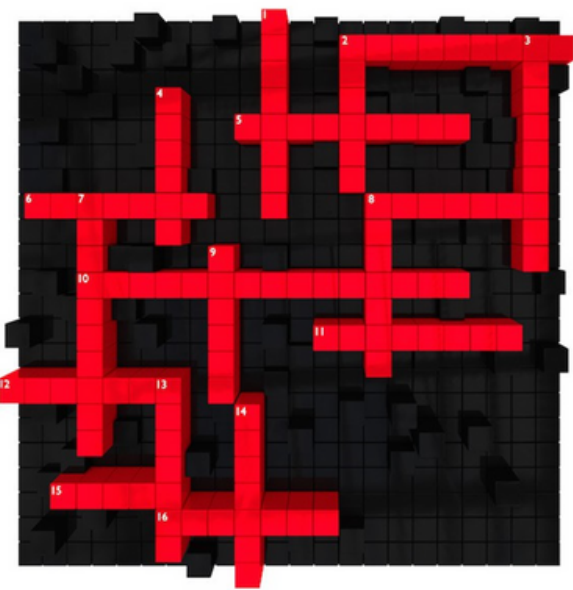
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## Crossword Puzzle

Test the level of your understanding in the basics of Electronics



### Across

2. A diagram that shows the electrical connections of the electronic components
5. Current is considered to be the movement of .
6. A voltage source that converts chemical energy to electrical energy
8. A flow of electric charge
10. A characteristic of a secondary cell
11. A material that is composed of a mixture of elements
12. The term used to designate electrical pressure

### Down:

1. A voltmeter is used in with the circuit.
2. A device that opens or completes an electrical path
3. A material that opposes the movement of free electrons
4. One coulomb passing a point in one second
5. A resistive component that is designed to be temperature sensitive
6. A unit of charge that contains  $6.25 \times 10^{18}$  electrons
7. An atom's atomic number is determined by its number of .
10. A substance that is found only in its pure form  
It is used to measure current

MANE VAISHNAVI  
UTTAMRAO, F



## Impossible?

Do you still have unachieved dreams? Has engineering sparked an interest in you to know more? Are you aiming for a better career with better job opportunities? Do you like adventure, travelling abroad and experiencing different cultures? If you have answered most of these questions with a yes, then a Master's degree is perfect for you.

Pursuing a Master's degree is an important decision which has to be decided by you and your family. It is highly advantageous if this decision is made as early as possible. Universities abroad look for high performing students who are clear in their goals and have a passion to study. I would like to share with you steps to apply for a Master's program abroad and tips to get into top-ranking universities.



Firstly, your CGPA is important. A lot of students take their undergraduate education lightly. However, all universities have a minimal GPA cut-off and it is important to have a decent CGPA, preferably above 8 if you are aiming for a good university. The main reason for this is that, they want to know if the student is serious about their education, consistent in their efforts and willing to succeed.

Participate, participate, and participate! Universities look for all-rounded individuals who not only study well but also participate in co-curricular and extra-curricular activities. They prioritize students with research papers published in journals and those who actively involve themselves in conferences and projects. They also appreciate students who have taken up leadership positions. I would like to stress on the importance of all of these because students who have low CGPA's have received admits from top-ranked universities because of their projects and publications. Do not wait for the last two years to begin this step, instead start early.

Prajakta P.Bhosale SY.E&TC



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## HOW TO GET PLACED IN A COMPANY



Hi, Each and every one of you have an unique dream, some want to get placed in a core compa- ny, some in an IT industry. Some of you want to pursue higher studies, some want to become an entrepre- neur. Some want to do family business. The desire of each person's life may vary. Those who want to start their carrier as an employee in an industry this article will defi- nitely help you to attain your goal. Generally, the compa- nies are categorized in two ways,

1. Product or service based Company.
2. Core Company.

### To get into Core Company:

Getting offer in a core company is simple than getting in an IT in- dustry. Need to have a complete knowledge about our core subjects what we have learnt so far. Simple mantra is "Stop Studying the sub- jects and start Learning". Current world is a competitive world, we all have to equip ourselves so that we can sustain in that. There is no mercy and no frees, one who can adopt to the new technologies can able to get and survive in this cor- porate world. So start to equip you all now itself.

### The rounds in the core company:

• Aptitude plus technical MCQ's  
Face to Face interview (Tech- nical and General HR rounds) For first round, go through RS Aggarwal book, India Bix, 2braces, Exam Veda websites and know some basic con- cepts in all subjects to clear this round. For second round, main thing to clear these rounds is to have more faith and confidence upon yourself. Communicating language is secondary, have to deliver the content which you are coming to say clearly and boldly though you are not sure about that.

Apurva R. Nanavare SY.E&TC



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#### To get into IT industry:

Have to learn many things apart from your curriculum, this shows how much interest you are having in learning new things. As an ECE student if you are well versed in programming equal to CSE student, preference will always be given to us.

Rounds in an IT industry:

1. General and Technical Aptitudes
2. Programming round
3. Group Discussion
4. General and Technical HR

**First Round:** As I said above go through all the sites which is enough to clear this round.

**Second Round:** Have to write a program for the given scenario more effectively. I will tell you all secret or mantra which I always use to solve a particular program. First go through the given scenario and see the sample test cases. If you can able to understand the sample input and output then it is easy to solve the code. See, The Computer is a senseless machine, we need to tell everything clearly so that it can do. Just back track your mind, while you read the input and output samples how your mind have understood that. If you found that way, that is nothing but an algorithm. Once algorithm is framed writing program is so simple. So for all the problems, you will definitely have the solution in your mind, the only thing you need to do is search for it without getting panic.

**Third Round:** To clear this round, a simple quality you should have that is having a faith and confidence upon you and you should possess a sound listening skill. You need to believe that you can do!! Fourth Round: As I said previously, you have to speak clearly and boldly and instead of speaking unnecessarily have to stick to the point.

Mostly all the companies will have the same interview process like I mentioned above. Don't get worried if you don't know anything till now... "Never it is too late to start a thing" so start working towards your dream by today itself... Because no one knows what tomorrow will bring. Whatever the situation may be never let you to hate yourself. If everyone demotivates you, never let your heart to accept that. Those who all are achieved big, loved themselves more than anyone. If you had a faith upon you, though you don't know how to solve a particular problem in your life your mind and heart will surf it for you. "World is full of Opportunities" for those who searched for it. Always keep in this in your mind, "Whenever there is a problem there will be a solution for that particular problem". For every problem the solution will always be simple.



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