



Vidya Vikas Education Trust's

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An Initiative By

ITSA

Department of Information Technology

#SATYAVACHAN

“Acknowledging the good that you already have in your life is the foundation for all abundance.”

—ECKHART TOLLE

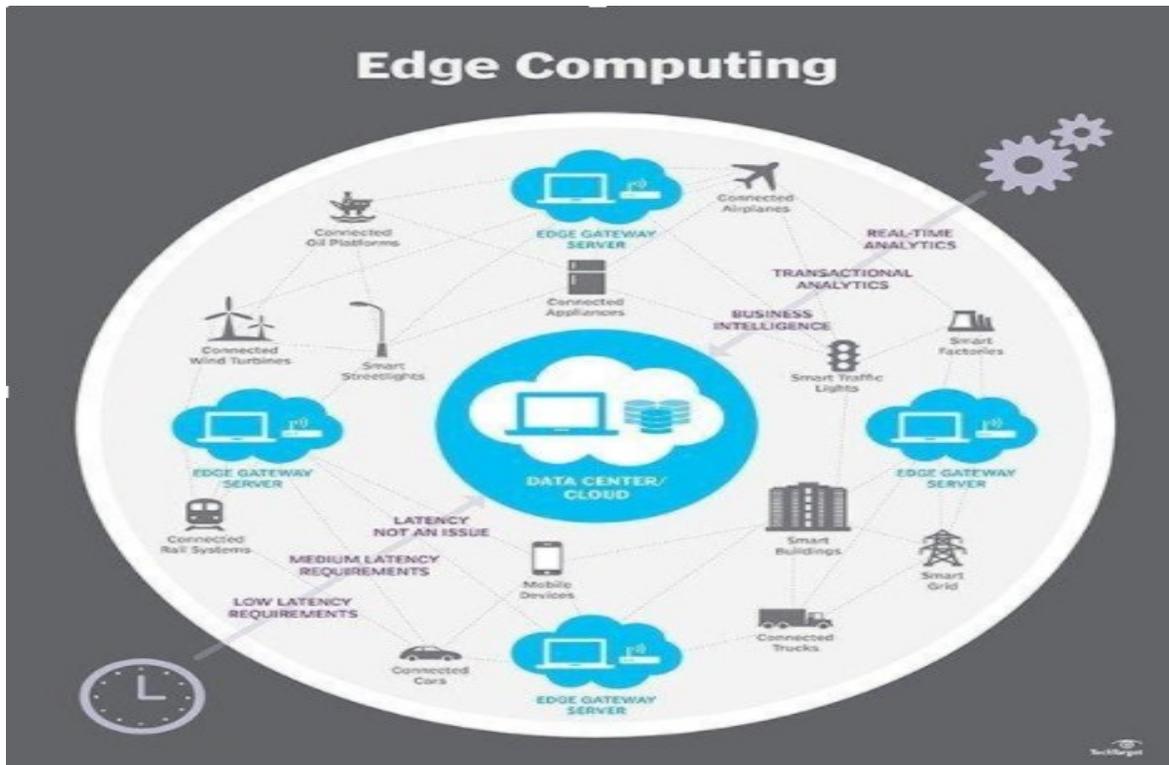
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Edge Computing

Edge computing is the latest technology trend that is getting famous by the day. The technology is based on the philosophy of bringing computing power as close to the data source. This helps in reducing bandwidth and latency.



The technology aims to run fewer processes in the cloud and shifting those processes to locations such as the user's system or an edge server. Bridging this gap between the data and the computation reduces the long-distance communication between the server and the client, which in turn enhances the speed of the process. This is why edge computing is used for handling time-sensitive data stored in remote locations that have limited connectivity to the central location. The technology will make cloud computing and IoT devices faster.

It is estimated that by 2022, the edge computing market will be worth \$7 billion. The technology will be popular in areas such as healthcare, retail, and manufacturing. Thus, it will open the doors to many job opportunities. It is expected that the salary range of an Edge computing professional will be around **\$100,400 to \$123,000 per annum**.

Source:

<https://searchdatacenter.techtarget.com/definition/edge-computing>

**- Mr. Jigar Chauhan
(Assistant Professor)**

5 Myths around Python programming language that every programmer must know

Python is among the highest growing programming language. Either you are a beginner in your career or an expert shifting from a new programming platform, Python has a slightly longer learning curve. Just like any other programming language or framework, Python also has a few myths related to it.



1. Python is used only for scripting:

The most common myth about the beginner programmers is that Python is just a scripting language. However, it also supports compilation similar to other programming languages such as Java. The process can be automated in such a way that it doesn't get detected. You don't need any septette compiler for Python.

2. It is not scalable:

Python can be scaled both horizontally and vertically. Scalability in Python is not automated. It requires some bit of engineering effort. Scaling python code requires efforts from various forms as making most of the underlying memory requires persistent database servers like SQL and enhancements from a single system to a distributed one.

3. Python does not support concurrency:

The programming language comes with built-in concurrency support. Python frameworks such as PyPy and Stackless help in involving custom concurrency. There are various categories of parallel system implementation in Python, mainly processes and threads.

4. Python is not meant for large projects:

When working with larger companies, they look for scalability and reusability of code. Python offers a predefined set of libraries to users. You can easily clone the Python code to create a new one. Large companies including Facebook, Google extensively use Python libraries and its diverse set of libraries.

5. It is insecure, critical systems lack support:

Many have a wrong perception of Python programming language. They consider it as a less secure language due to coding and simple syntax that it follows. There is a strong official support system to cater to security issues and fix them.

Source:

<https://content.techgig.com/5-myths-around-python-programming-language-that-every-programmer-must-know/articleshow/79386213.cms>

**- Mr. Akshay Agrawal
(Assistant Professor)**

Best web hosting service 2020: Find providers for your site

Whether you're working from home, running a startup, or building out a larger internet presence for your business, you'll need to select a web host. We compare the best hosting services available and help you choose the right provider for your particular needs. Here are thousands of web hosting providers. Some hosting companies run their own data centers. Others rent virtual machines from cloud service providers. All provide some way for their customers to appear online. But choosing the web hosting service that's right for you can prove to be quite the challenge. While you no longer need to be a programmer or an IT professional to properly configure a web presence, you do need to understand marketing and design and know how to get your message across.

We've spotlighted four classes of web hosting services, ranging from providers that give you a quick and easy way to build your website, all the way up to the big companies that provide full datacenter infrastructure capabilities as a service.

We've spotlighted four classes of web hosting services, ranging from providers that give you a quick and easy way to build your website, all the way up to the big companies that provide full datacenter infrastructure capabilities as a service.

And with that, let's start with the web hosting plans many entry-level folks will be most comfortable with, the website builders.

THE POINT-AND-CLICK WEBSITE BUILDERS

A website builder is a piece of software that lets you craft your business website, generally without programming. Many allow you to choose from templates and then modify those templates to suit your look and layout.

Nearly all web hosting providers include some sort of website building software, but it's often an afterthought included to simply check off a box on evaluation forms. By contrast, the website builders listed in this section are provided by web hosting services that have made point-and-click website building tools with excellent customer support and solid up-time a core priority in their offering. Each offers a rich library of gorgeous starting templates and then lets you build out from there.

[Wix](#)

[Website builder and host by the folks with those incredibly annoying commercials](#)

If you've ever watched a YouTube video, you've seen a Wix ad. They are everywhere. For all that advertising, their market share is still under 2.5% of CMS users.

That said, with 4.4 million subscribers, they've got some momentum -- and are certainly capable of grabbing attention.

When selecting a website builder, why would you go with Wix over WordPress? The answer is simple: simplicity. WordPress offers tremendous depth. Wix gets you up and running with an attractive site quickly. There is nothing like the thousands of plugins and themes offered by WordPress in the Wix world, but if you want a well-designed site and you're willing to pay from about \$13 per month to \$39 per month, you'll get started quite nicely. Higher price plans are available for e-commerce and enterprise use.

Be careful: Like many website hosting providers, you're required to pay for a full year at once, and the second year might cost more when it comes time to renew.

- cPanel: No
- SSL: Free
- SSH: No
- Backups: Site history, but no export
- Money-back guarantee: 14-day
- Support: 24/7 English call-back

Squarespace

Another website builder with gorgeous templates

In the overall pantheon of Web hosting services with their own website builders, Squarespace is squarely in Wix territory, with slightly more than 2.7%. Squarespace takes the basic website builder complex and allows you to add a variety of custom brand and product sale options -- all with beautiful presentation.

Pricing ranges from \$16 per month to \$46 per month, but if you pay for a full year, you can save about 30%. We like that Squarespace offers SSL, mobile-optimized websites, SEO features, 24/7 support, and the ability (with the higher-priced plans) to manage contributors. Intriguingly, Squarespace has just added the ability to use third-party extensions, which has been the signature competitive advantage of WordPress. We'll see whether it helps Squarespace compete in the website builder space in the long run.

- cPanel: No
- SSL: Yes
- SSH: No
- Backups: Limited export
- Money-back guarantee: 14 days
- Support: 24/7 email, some chat

Weebly

Another website builder, with better mobile support

Weebly is another website builder hosting provider that competes squarely against Wix. Market share is much smaller, right around half a percent. Pricing is less than Wix and there's a free option, as long as you don't mind ads that you can't monetize plastered across your website.

Like WordPress.com, Squarespace, and Wix, Weebly has a library of templates, but it's not as rich as those from Squarespace and Weebly (WordPress is in a whole other galaxy).

Weebly puts a few more restrictions on design, but those restrictions mean that all the templates will always be responsive and look good on smartphones as well as desktops. Weebly also allows a much richer menu structure than Wix.

If you want a simple site that works well on desktop as well as mobile, if you're good with paying under \$30 per month for the richest plan, and you don't mind more limited templates, Weebly is a valid choice for a website builder. Oh, and interestingly enough, they're owned by Square, the credit card scanning company.

- cPanel: No
- SSL: Free
- SSH: No
- Backups: Partial
- Money-back guarantee: 30 day
- Support: 24/7/365 phone

[WordPress.com](#)

[Hosting for WordPress provided by its creator](#)

Here's where things get confusing. WordPress.com is a hosting provider for WordPress websites. It's run by Automattic, the company behind the WordPress software. WordPress.com offers services ranging from free websites with restrictions, all the way up to major VIP websites like those of CNN and The New York Times. If you want to run WordPress, but you don't want to install it, one place to go is WordPress.com.

- cPanel: No
- SSL: Free
- SSH: Some plans
- Backups: Some plans
- Money-back guarantee: 30 day
- Support: Some plans email, some plans 24/7 chat

[Pagely](#)

[Managed WordPress hosting](#)

Pagely is one of a relatively small number of web hosting providers that specialize in managed hosting for WordPress customers. They tune their environments specifically for WordPress hosting and run custom installs that specifically optimize for WordPress workload requirements.

I run three of my more high-profile websites on Pagely and have done so for the past five years. One of the things I like most about Pagely is that their entire infrastructure is built on top of [Amazon's AWS](#).

- cPanel: No, they have a custom Atom panel
- SSL: Yes
- SSH: Yes
- Backups: Yes
- Money-back guarantee: 30 day
- Support: 24/7 ticket and chat

Bluehost

Hosting with a focus on WordPress

Bluehost fits into the category we call "standard-fare" hosting providers, in that it offers a wide range of services, ranging from basic shared hosting up to virtual private servers and dedicated machines. We're putting them into the WordPress ecosystem category because Bluehost has a strong focus on WordPress in its offerings.

We particularly like how this hosting service segments their WordPress offerings, ranging from basic shared hosting offerings up to their higher-performance pro plan, and then on to a WooCommerce-based shopping cart solution. All solutions come with some level of backup, an Office 365 mailbox, and malware detection and removal. We also like the staging environment that Bluehost offers, allowing you to test your site and changes before deploying them publicly.

- cPanel: Yes
- SSL: Free
- SSH: Some plans
- Backups: Basic, plus more on select plans
- Money-back guarantee: 30 days
- Support: 24/7 chat, phone, email

Source:

<https://www.zdnet.com/article/best-web-hosting-services-providers-2020/?ftag=CAD-03-10abf6j>

- Mrs. Yogita Mane
(Assistant Professor)

15 Tech skills companies are looking for in freelance software developers

IT companies around the world are hiring contract and freelance tech professionals to fill immediate demand. There is a huge demand for software developers and engineers that can work in a freelance capacity. The freelancer listing and aggregator platform, Upwork has recently published a list of most in-demand tech skills for freelancers. The platform has also published a survey citing the skills that IT managers look for in freelancers.

Here are the most in-demand tech skills for freelancers:

- 1) JavaScript
- 2) CSS
- 3) HTML
- 4) Website Development
- 5) PHP
- 6) API Development
- 7) WordPress
- 8) HTML5
- 9) Web Design
- 10) Python
- 11) Web Application
- 12) API Integration
- 13) jQuery
- 14) MySQL
- 15) React



It is no surprise that the most in-demand programming languages among freelancers are also the most popular languages for full-time positions. A survey report by Burning Glass has also listed the same tech skills as the highest in-demand skills for full-time tech positions.

The employers are looking for full-stack programmers that are capable of working in multiple technologies. The freelance developers that have the demand in today's market are expected to have extensive knowledge of HTML, CSS, JavaScript, WordPress and more.

Source:

<https://content.techgig.com/15-tech-skills-companies-are-looking-for-in-freelance-software-developers/articleshow/79356170.cms>

- Mr. Akshay Agrawal
(Assistant Professor)

ITR e-filing: Know about Which ITR Should I File?, Types of ITR and how to File ITR for FY 2019-20 (AY 2020-21)

What is ITR

The Income Tax Return or ITR is a form in which the taxpayers submit information about their income and tax payments to the income tax department. A taxpayer should file ITR on or before the due date specified. The ITR form applicable to a taxpayer depends on the type of taxpayer, whether individuals, HUF, company, etc., and you choose the ITR based on the nature and type of income and total income. Every taxpayer should also calculate the tax payable and make payments before filing the ITR. You should file an ITR in case of a carry forward of losses and set off of brought forward losses.

While filing your ITR, you should check the form 26AS for details of TDS and other income such as FD interest. You should also have your form 16 to enable filling the details of salary and tax saving deduction claims.

Types of ITR

The department prescribes seven types of ITR forms based on the type of taxpayer and income:

- ITR-1 for individuals resident in India and with total income up to Rs 50 lakh. An individual having income from salary, house property and other sources can file ITR-1. An NRI cannot file ITR-1. Salaried taxpayers can use their form 16 to file ITR. The form 16 can be directly uploaded on <https://cleartax.in/income-tax-e-filing> to file your income tax return.
- ITR-2 for individuals and HUF for their income other than income from business or profession. Individuals and NRI having income from salary, house property, capital gains and other sources can file ITR-2. Salaried individuals who have gains or losses from buying and selling shares should file ITR-2.
- ITR-3 for individuals to report their income from a business or a profession. Salaried individuals who have income from intraday trading in shares or income from futures and options should file ITR-3. Individuals can report income from salaries, house property, capital gains, business or profession (including presumptive income) and other sources in ITR-3.
- ITR-4 for individuals, HUF and partnership firms for their income under presumptive scheme of taxation. ITR-4 is for income from a business whose turnover is up to Rs 2 crore and taxed under section 44AD. Also, ITR-4 is for income from a profession whose turnover is up to Rs 50 lakh and taxed under section 44ADA. A freelancer carrying out a notified profession can file ITR-4.

- ITR-5 for partnership firms, LLP, AOP and BOI. Business entities such as LLP, partnership firms, AOP and BOI can file ITR-5 for reporting income from business and profession and any other source of income.
- ITR-6 is the income tax return for companies to file income from business or profession and any other sources of income.
- ITR-7 is the income tax return for companies, associations and trusts claiming income tax exemption.

How to file ITR

You can e-file your ITR for the FY 2019-20 corresponding to the AY 2020-21. The filing should be mandatorily online for all types of taxpayers except super senior citizens aged 80 years and above.

Types of Forms for ITR e-filing

Form 16:

Form 16 is a salary TDS certificate an employee receives from the employer. Form 16 provides the details of gross salary, exemptions such as HRA and LTA. The form also contains the details of the net taxable salary, any other income/loss reported by the employee, tax saving deductions and salary TDS.

Form 26AS:

Form 26AS contains details of tax deducted at source or TDS on various incomes such as salary, interest and on sale of immovable property. The form also contains details of self-assessment tax, advance tax paid by a taxpayer and specified financial transactions.

Form 15G and Form 15H:

Form 15G and Form 15H enable you to receive income without TDS. You can submit a Form 15G in a case you are below 60 years of age and where your annual taxable income is below the basic exemption limit. You can submit a Form 15H in case where you are a senior citizen and the tax due on your total income is nil. You need to submit the form 15G or form 15H to the person paying you income.

Source:

<https://cleartax.in/s/itr?ref=lhs-nav>

- Mr. Allan Lopes
(Assistant Professor)

Children's Day -14th November 2020 (Saturday)

We are celebrating Children's Day that commemorates India's First Prime Minister Jawarharlal Nehru's birth Anniversary every year. Children fondly call him Chacha Nehru. Seeing his tremendous love for children, the day is observed as Children's Day which is a great tribute to this great soul. He poured great affection on Children wherever he went, whether in the country or abroad.



He had good tuning with his daughter Indira, which is clear in the letters they had written to each other. This day is celebrated in all the schools of the country. Various activities such as Speeches, Competitions, Seminars, Debates, Singing and dancing take place. As per some newspaper, children will attend National Stock Exchange (NSE), as per of UNICEF's Programme.

A Short Speech on Children's Day –

Dear Students,

Today I've got an immense opportunity on this monumental occasion of **Children's Day** to address you, most precious treasure of our country. You will be the future leaders, scientists, doctors, engineers, teachers. Everybody expects from you to bring about radical transformations in the country and also in the world by devising means for development and prosperity for all human beings, by shunning any of the discrimination in the name of caste, colour and creed.

Mark Zuckerberg, Facebook CEO, had created Facebook when he was only 19. It means he had started work on this project when he might have been 14 or 15. So dear young men and women, don't underestimate your energy and power just because you are small kids. The success is not related with age. You will have to start work right now as your destination is full of travails and seemingly tougher than it appears. For that the first and foremost duty of yours is to do the work whatsoever is assigned on you by your teachers, parents and society earnestly.

At present that work is getting education. Your focus must be all in all on your studies. Prepare yourself for future. Make aim now and like Arjuna fix your eyes on that aim. You will see the future belongs to you. You can mould it for you, your family and nation. Dear young sons and daughters, **Children's Day** is symbolic. All days belong to you.

Source:

<https://www.examweb.in/childrens-day-a-short-speech-2154>

- Ms. Rovina D'britto
(Assistant Professor)

Article on Vigilant India, Prosperous India

India, a country of secularism and diversities has witnessed a glorious past that laid to the foundation of a strong democracy which has been nurturing Indians from so many years now, and this is something that is age old and is being passed from generations to generations, vigilance is such an aspect that has been an integral part of India's Development Cycle. When planning the roadmap to success, vigilance is like that one checkbox that always needs to be ticked. BEING ALERT means BEING PREPARED, and when you are already prepared then you don't fear the consequences as you naturally imbibe courage to confront any situation that might come your way. Hurdles get cleared away when you have a clear mindset and preparedness and then the decisions you make also start to favor you and result in fruitful outcomes. Vigilance is important not only from an individual perspective but also from the societal point of view, if individuals reflect the qualities of being vigilant and responsible then ultimately they can contribute to the development of their motherland. Definitely vigilance is termed as the responsibility of an individual but it is considered as a collective measure or effort that is taken for the betterment as well as upliftment of the society. If PROSPERITY is a FLOWER, then VIGILANCE is the FRAGRANCE as both compliment each other and have engraved some memorable success stories. Many stories are enticing and inspiring which mend the future of the upcoming generations and also effectively steer India's journey to achieve great milestones.

From the ancient mystic folklores to the modern era of guns and missiles, India has always been vigilant and valorous. Vigilance has been depicted in our ancient folklores of Mahabharata and Ramayana, the strength of Lord Hanuman and the wisdom of Lord Rama were glued together

along with efficient execution of Sita Maa's homecoming is a perfect example of vigilance. This reflects that even if you have the strength as well as wisdom still you cannot be victorious if you lack preparedness and proper planning. The struggle for attaining Swaraj to the hardships of getting independent from the reign of British Empire, our supreme leaders have proved that how vigilance can help a person or a community to tread the road to glory with determination. If you are alert and cautious then you leave almost negligible margin for errors as you take each and every step carefully. Even in today's world of technology and advancements, the role of vigilance has been affirmative and has showcased its benefits in almost every sector may that be corporate sector, business sector or any other respective fields that require human efforts and interactions. Understanding the valuable offerings of vigilance is essential to grasp all the positive elements associated with the process of development, So, now what exactly is prosperity? Is it a country with enormous wealth? Or is it a country having plenty of natural resources? Even if you have both, without proper planning and implementation, your country can crumble down. Wealth is temporary but virtues are permanent hence focusing on building strength pertaining to fundamental virtues on an individual level can influence the growth of an organization, community or even a country.

There are so many examples that are enough to prove that preparedness can help people as well as institutions to prosper and flourish in the most convincing way. Just like the Vigilance Systems assure the safety of any premises from the intrusion of an unauthorized person, similarly vigilance is a quality that encourages people to avoid making unwanted mistakes that usually end up in dilemma and chaos. India is on its journey to be a developed nation and in this journey the major approach relies on the collective efforts put by every responsible Indian citizen who has that power as well as ability to equally contribute to the prosperity of his country. The practical applications of vigilance can be seen almost everywhere may that be a small-scale business or even a giant chain of well-established businesses. So yes, if India and Indians become vigilant then no power in this universe can prevent India to be prosperous.

- Mr. Kaustubh Latake
(Student TE-IT)

Advent Wreath & Candles: Understanding the Meaning, History & Tradition

The History of Advent

The word “Advent” is derived from the Latin word *adventus*, meaning “coming,” which is a translation of the Greek word *parousia*. Most know Advent today as a time of anticipation and expectation of the birth of Christ. However, Advent began as early as the 4th and 5th centuries as a time of fasting and prayer for new Christians. Advent lasts for four Sundays leading up to Christmas. The Advent season not only symbolizes the waiting for Christ's birth but also for his final return.

What Is the Advent Wreath?



Eventually, the Advent wreath was created out of evergreens, symbolizing everlasting life in the midst of winter and death as the evergreen is continuously green. The circle reminds us of God’s unending love and the eternal life He makes possible. The Advent wreath is a symbol of the season, with a candle lit each of the four Sundays leading up to, and on Christmas Day. The light of the flickering candle flames reminds us who Jesus is: “In him was life, and that life was the light of all mankind. The light shines in the darkness, and the darkness has not overcome it.” (John 1:4-5). Advent candles are often nestled in the evergreen wreath. We will go further detail on the purpose and meaning behind each advent candle below. Additional decorations, like holly and berries, are sometimes added. Their red color points ahead to Jesus’ sacrifice and death on the cross, shedding his blood for our sins.

Pinecones can symbolize the new life that Jesus brings through His resurrection. Families begin lighting a candle on the fourth Sunday before Christmas, and they light another candle each subsequent Sunday.

The candles are often set in a circular Advent wreath. The most common Advent candle tradition, however, involves four candles around the wreath. A new candle is lit on each of the four Sundays before Christmas. Each candle represents something different, although traditions vary. Often, the first, second, and fourth candles are purple; the third candle is rose-colored. Sometimes all the candles are red; in other traditions, all four candles are blue or white. Occasionally, a fifth white candle is placed in the middle of the wreath and is lit on Christmas Day to celebrate Jesus' birth.

- The **first candle** symbolizes **hope** and is called the "Prophet's Candle." The prophets of the Old Testament, especially Isaiah, waited in hope for the Messiah's arrival. The purple color symbolizes royalty, repentance, and fasting.
- The **second candle** represents **faith** and is called "Bethlehem's Candle." Micah had foretold that the Messiah would be born in Bethlehem, which is also the birthplace of King David. The second candle is also purple to symbolism preparation for the coming king.
- The **third candle** symbolizes **joy** and is called the "Shepherd's Candle." To the shepherd's great joy, the angels announced that Jesus came for humble, unimportant people like them, too. In liturgy, the color rose signifies joy. This candle is colored pink to represent joyfulness and rejoicing.
- The **fourth candle** represents **peace** and is called the "Angel's Candle." The angels announced that Jesus came to bring peace--He came to bring people close to God and to each other again. This color is also purple to represent the culmination of love through the Messiah.
- The (optional) **fifth candle** represents **light and purity** and is called "Christ's candle." It is placed in the middle and is lit on Christmas Day. This candle is white to represent pure light and victory.

Source:

<https://www.crosswalk.com/special-coverage/christmas-and-advent/advent-wreath-candles-understanding-the-meaning-history-tradition.html>

- Mr. Allan Lopes
(Assistant Professor)

Alumni Meet

An alumni meet was organized on 28th November 2020 on Google Meet from 5 PM – 7 PM. It was certainly remarkable day in the journey of alumni towards their memory lane, to be with their teachers, mentors, friends and colleagues. All the existing office bearers of Alumni Association and other alumni were participated.

The event was stimulating and enjoyable and simultaneously profitable as all members shared their views ideate and good numbers of new ideas, information and insights came up. The association is hopeful to run and successfully structure and position itself into a fully functional global platform for UCOE Alumni. The alumni Association sincerely expressed its gratitude to the honorable Director for his guidance and support to make this event a grand success.



Hardik Davda
President



Eram Ansari
Vice President



Achievements

The impact of Covid-19 is being felt across the globe. All students and employees are worried about what the future holds for them. In a situation like these the best thing to do is sharpen our skills by researching and gaining knowledge over multiple subjects as well as learning through online courses and practically implementing it and competing with the best.

Our faculties have been inspiring the students to learn and implement their knowledge by participating in competitions, publishing papers & learning virtually.

Sr. No.	Name	FDP's/Event Details
1.	Ms.Rovina Dbritto	5 days FDP attended on Digital Teaching Techniques by ICT(An initiative of government of India, state government, and industry) on November 23-28,2020
2.	Mr. Allan Lopes	5 days FDP attended on Digital Teaching Techniques by ICT(An initiative of government of India, state government, and industry) on November 23-28,2020
3.	Mr. Alizain Tejani	Completed Coursera certifies on Business Analytics for Decision Making
4.	Ms. Aditi Ashwin Patel	Completed Coursera certifies on Building a Business Presence With Facebook Marketing
5.	Ms. Aditi Ashwin Patel	Completed Coursera certifies on Create Your First Chatbot with Rasa and Python

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