

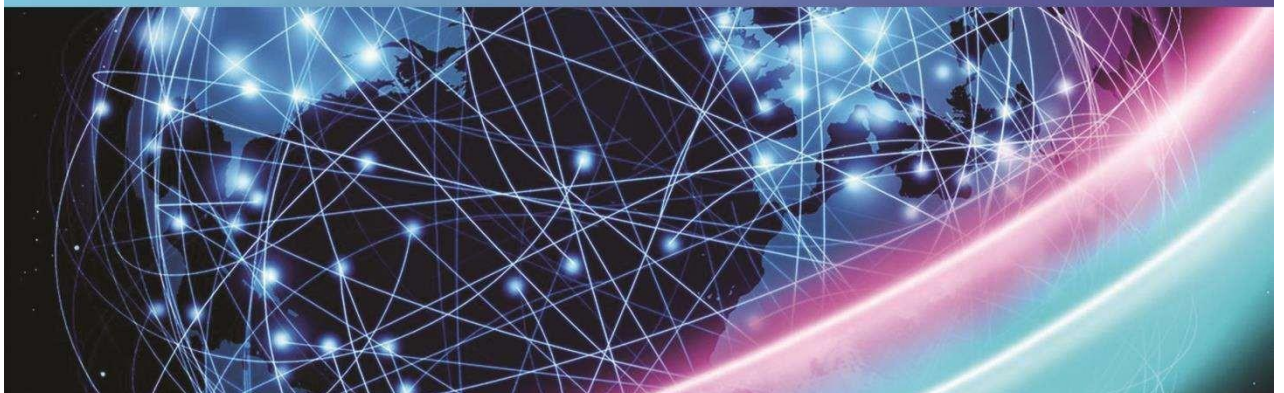
# TECHNO-WIZARDS

2019-2020



**E.G.S PILLAY ENGINEERING COLLEGE**  
(AUTONOMOUS)  
NAGAPATTINAM

Department of Computer Science & Engineering



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## MESSAGE



**Chev.S.Pamesvaran**

I deem it a great pleasure and privilege to congratulate the faculty members as they bring out their magazine. This magazine represents the newest channel to showing out the talents of our students.

We hope that this magazine will become the ultimate focus for your participation as we seek to strengthen and enhance our collaboration of knowledge.



**Dr.S.Ramabalan**

My Heartfelt congratulations for this new release of magazine. A milestone achievement indeed! There is no doubt in my mind that it will serve as a beacon to the future generations. I wish you success in all your endeavours.



**Dr.M.Chinnadurai**

I congratulate the members for releasing their magazine. This magazine is started with view to broadcast the various events for the student intelligence. Individually and collectively, this magazine is a measure of our success and foundation of our future. I wish you all the very best.



## Graduates will be able to

PO1: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6: 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.

PO7: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: 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.

PO11: 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.

PO12: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PO12 is a broad, general outcome that encompasses a wide range of learning activities and experiences. It is designed to ensure that students are prepared for the challenges of a rapidly changing technological landscape. This includes the ability to identify when and where learning is needed, to seek out and access relevant resources, and to engage in self-directed learning activities. The outcome also emphasizes the importance of lifelong learning, recognizing that the skills and knowledge acquired during college are not sufficient for a career in a dynamic field. Students are encouraged to view learning as a continuous process that extends beyond the classroom and into their professional and personal lives.

The following table provides a detailed breakdown of the components of PO12, including the specific learning activities and experiences that are expected to contribute to the achievement of this outcome. The table is organized into three columns: Learning Activities, Learning Experiences, and Assessment Methods. The Learning Activities column lists various methods of instruction and learning, such as self-paced learning, independent research, and experiential learning. The Learning Experiences column describes the types of activities and environments that are designed to foster independent and lifelong learning, including access to digital resources, participation in professional organizations, and engagement in community service. The Assessment Methods column outlines the ways in which student progress and achievement in PO12 will be evaluated, including self-assessment, peer review, and formal assessment.

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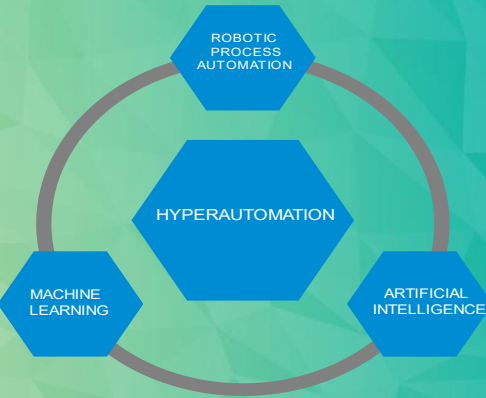
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NEW TRENDS

2019-2020

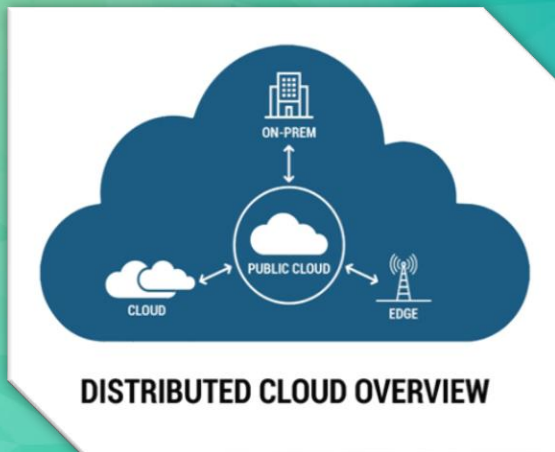


# HYPERAUTOMATION



Hyperautomation is a business-driven, disciplined approach that organizations use to rapidly identify, vet and automate as many business and IT processes as possible.

# DISTRIBUTED CLOUD



A distributed cloud is an architecture where multiple clouds are used to meet compliance needs, performance requirements, or support edge computing while being centrally managed from the public cloud provider. In essence, a distributed cloud service is a public cloud that runs in multiple locations, including.

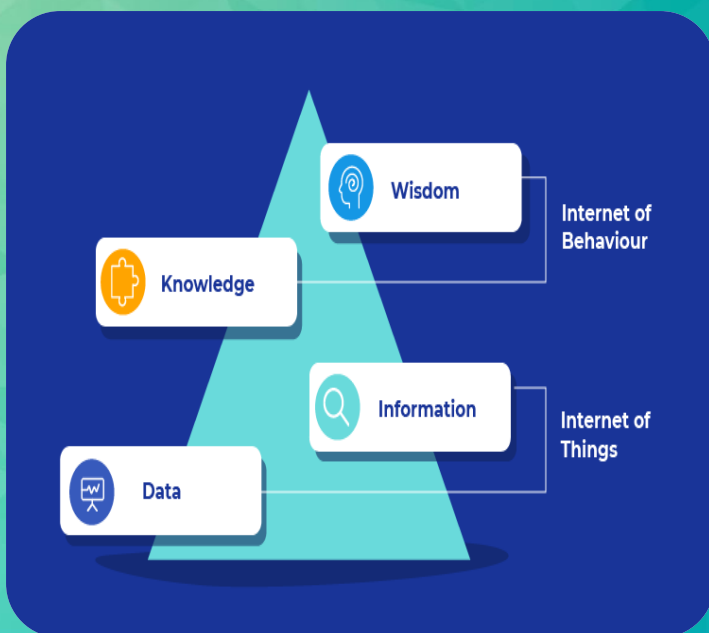
# CYBERSECURITY



Cybersecurity is one of the key technology trends to be aware of.

The increasing volume of data due to the adoption of AI, ML, Internet of Things (IoT), and other digital technologies, has put data privacy and security at constant risk of an attack.

# INTERNET OF BEHAVIOURS (IOB)



The Internet of Behaviors (IoB) is an area of research and development (R&D) that seeks to understand how, when and why humans use technology to make purchasing decisions. IoB combines three fields of study: behavioral science, edge analytics and the Internet of Things (IoT).



## 5G DATA NETWORKS



The 5G data network speculations are doing the round from quite a few months now. Internet connectivity is no doubt the backbone of various technologies we discussed in this blog – AI, automation, cloud computing, etc. Without a strong and effective internet connection, the above technologies cannot perform at their best.

## VIRTUAL REALITY



Virtual Reality is the technology by which you can immerse yourself in an environment that seems astonishingly realistic. It is the use of computer technology for creating a simulated environment. It is very popularly used for playing computer games.

# INTELLIGENT APPS



Intelligent mobile apps are essentially AI-enabled applications that provide a rich, adaptive, and personalized user experience. These apps incorporate the power of predictive and prescriptive analytics, consumer data and operational data with application development tools and the latest user-centric design to make a high-end user experience.

# BIG DATA



Big Data is a collection of data that is huge in volume, yet growing exponentially with time. It is a data with so large size and complexity that none of traditional data management tools can store it or process it efficiently. Big data is also a data but with huge size.



## AUTONOMOUS DRIVING



Tesla chief Elon Musk has said he expects his company to create a truly “complete” autonomous vehicle by this year, and the number of vehicles capable of operating with a lesser degree of autonomy – such as automated braking and lane-changing – will become an increasingly common sight.

## COMPUTER VISION



Computer vision is a field of artificial intelligence (AI) that enables computers and systems to derive meaningful information from digital images, videos and other visual inputs — and take actions or make recommendations based on that information.





# Nestlé

NESTLÉ is a Swiss multinational food and drink processing conglomerate corporation headquartered in Vevey, Vaud, Switzerland. It is the largest publicly held food company in the world, measured by revenue and other metrics, since 2014.



It ranked No. 64 on the Fortune Global 500 in 2017 and No. 33 in the 2016 edition of the Forbes Global 2000 list of largest public companies.

Nestlé's products include baby food (some including human milk oligosaccharides), medical food, bottled water, breakfast cereals, coffee and tea, confectionery, dairy products, ice cream, frozen food, pet foods, and snacks.

Twenty-nine of Nestlé's brands have annual sales of over 1 billion CHF (about US\$1.1 billion),<sup>1</sup> including Nespresso, Nescafé, Kit Kat, Smarties, Nesquik, Stouffer's, Vittel, and Maggi. Nestlé has 447 factories, operates in 189 countries, and employs around 339,000 people.

# Microsoft

**Microsoft Corporation** is an American multinational technology corporation which produces computer software, consumer electronics, personal computers, and related services.



Its best-known software products are the Microsoft Windows line of operating systems, the Microsoft Office suite, and the Internet Explorer and Edge web browsers.

Microsoft (the word being a portmanteau of "microcomputersoftware") was founded by Bill Gates and Paul Allen on April 4, 1975, to develop and sell BASIC interpreters for the Altair 8800. It rose to dominate the personal computer operating system market with MS-DOS in the mid-1980s, followed by Microsoft Windows.

The company's 1986 initial public offering (IPO), and subsequent rise in its share price, created three billionaires and an estimated 12,000 millionaires among Microsoft employees. Since the 1990s, it has increasingly diversified from the operating system market and has made a number of corporate acquisitions, their largest being the acquisition of LinkedIn for \$26.2 billion in December 2016, followed by their acquisition of Skype Technologies for \$8.5 billion in May 2011.



# Coca Cola

**Coca-Cola**, or **Coke**, is a carbonated soft drink manufactured by the Coca-Cola Company. Originally marketed as a temperance drink and intended as a patent medicine, it was invented in the late 19th century by John Stith Pemberton in Atlanta, Georgia.



In 1888 Pemberton sold Coca-Cola's ownership rights to Asa Griggs Candler, a businessman, whose marketing tactics led Coca-Cola to its dominance of the global soft-drink market throughout the 20th and 21st century. The drink's name refers to two of its original ingredients: coca leaves, and kola nuts (a source of caffeine).

The current formula of Coca-Cola remains a closely guarded trade secret; however, a variety of reported recipes and experimental recreations have been published. The secrecy around the formula has been used by Coca-Cola in its marketing as only a handful of anonymous employees know the formula. The drink has inspired imitators and created a whole classification of soft drink: colas

# Sony corporation

**Sony Group Corporation**, *Sonī Gurūpu kabushiki gaisha*, (*'soʊni/ SOH-nee*), commonly known as **Sony** and stylized as **SONY**, is a Japanese multinational conglomerate corporation headquartered in Kōnan, Minato, Tokyo, Japan.



**SONY**<sup>®</sup>  
make.believe

As a major technology company, it operates as one of the world's largest manufacturers of consumer and professional electronic products, the largest video game console company and the largest video game publisher. Through Sony Entertainment Inc, it is one of the largest music companies (largest music publisher & second largest record label) and the third largest film studio, making it one of the most comprehensive media companies.

It is the largest technology and media conglomerate in Japan. At the same period, it is also recognized as the most cash-rich Japanese company, with its net cash reserves of ¥2 trillion.

# Google

Google LLC is an American multinational technology company that specializes in Internet-related services and products, which include a search engine, online advertising technologies, cloud computing, software, and hardware.



It has been referred to as the "most powerful company in the world" and one of the world's most valuable brands due to its market dominance, data collection, and technological advantages in the area of artificial intelligence. It is considered one of the Big Five American information technology companies, alongside Amazon, Apple, Meta and Microsoft.

Google was founded on September 4, 1998, by Larry Page and Sergey Brin while they were PhD students at Stanford University in California. Google was founded on September 4, 1998, by Larry Page and Sergey Brin while they were PhD students at Stanford University in California.



# WIPRO

**Wipro Limited**, formerly known as the **Western Indian Palm Refined Oil Limited**, is Indian multinational information technology services and consulting company headquartered in Bangalore.



Apart from its core information technology business, the company also has a presence in FMCG and lighting. The Fortune India 500 ranks it the 29th largest Indian company by total revenue. It is also ranked the 11th largest employer in India with over 221,000 employees.

The company was incorporated on 29 December 1945 in Amalner, India, by Mohamed Premji as Western India Vegetable Products Limited, later abbreviated to Wipro. It was initially set up as a manufacturer of vegetable and refined oils in Amalner, Maharashtra, British India, under the trade names of Kisan, Sunflower, and Camel.



**TOP 5  
SOFTWARE COMPANIES IN  
2019-2020**

# INFOSYS

Infosys Limited is an Indian multinational information technology company that provides business consulting, technology and outsourcing services.



The company was founded in Pune and is headquartered in Bangalore. Infosys is the second-largest Indian IT company after Tata Consultancy Services by 2020 revenue figures and the 602nd largest public company in the world according to Forbes Global 2000 ranking. The credit rating of the company is CRISIL AAA / Stable / CRISIL A1+ (rating by CRISIL).

On 24 August 2021, Infosys became the fourth Indian company to cross \$100 billion in market capitalization.

Infosys provides software development, maintenance and independent validation services to companies in finance, insurance, manufacturing and other domains.

Infosys has 82 sales and marketing offices and 123 development centres across the world as of 31 March 2018, with major presence in India, United States, China, Australia, Japan, Middle East and Europe.



# TATA CONSULTANCY SERVICES (TCS)

Tata Consultancy Services (TCS) is an Indian multinational information technology (IT) services and consulting company headquartered in Mumbai. It is a part of the Tata Group and operates in 149 locations across 46 countries.<sup>1</sup>



TCS is the second largest Indian company by market capitalisation and is among the most valuable IT services brands worldwide.<sup>1</sup> In 2015, TCS was ranked 64th overall in the *Forbes* World's Most Innovative Companies ranking, making it both the highest-ranked IT services company and the top Indian company. As of 2018, it is ranked eleventh on the Fortune India 500 list.

In April 2018, TCS became the first Indian IT company to reach \$100 billion in market capitalisation<sup>1</sup> and second Indian company ever (after Reliance Industries achieved it in 2007)<sup>1</sup> after its market capitalisation stood at 6.793 trillion (equivalent to ₹7.7 trillion or US\$100 billion in 2020) on the Bombay Stock Exchange.

# HCL TECHNOLOGIES

HCL Technologies (Hindustan Computers Limited) is an Indian multinational information technology (IT) services and consulting company headquartered in Noida. It is a subsidiary of HCL Enterprise.

The HCL logo is displayed in a bold, blue, sans-serif font. The letters are thick and closely spaced, with a slight shadow effect behind them, giving it a three-dimensional appearance. The logo is centered within a white rectangular area that has a soft, glowing border.

Originally a research and development division of HCL, it emerged as an independent company in 1991 when HCL entered into the software services business. The company has offices in 50 countries and over 187,000 employees.

HCL Technologies is on the Forbes Global 2000 list. It is among the top 20 largest publicly traded companies in India with a market capitalisation of \$50 billion as of September 2021. As of July 2020, the company, along with its subsidiaries, had a consolidated annual revenue of 71,265 crore (US\$10 billion).

HCL Technologies operate in 50 countries, including its headquarters in Noida, India. It has establishments in Australia, China, Hong Kong, India, Indonesia, Israel, Japan, Malaysia, New Zealand, Saudi Arabia, Singapore, South Africa, the United Arab Emirates and Qatar.

# TECH MAHINDRA

Tech Mahindra is an Indian multinational information technology services and consulting company. Part of the Mahindra Group, the company is headquartered in Pune and has its registered office in Mumbai.



Tech Mahindra is a US\$5.2 billion company with over 125,000 employees across 90 countries. The company was ranked #5 in India's IT firms and overall #47 in Fortune India 500 list for 2019. On 25 June 2013, Tech Mahindra announced the completion of a merger with Mahindra Satyam. Tech Mahindra has 973 active clients as of April 2020.

Mahindra & Mahindra started a joint venture with British Telecom in 1986 as a technology outsourcing firm. British Telecom initially had around 30 percent stake in Tech Mahindra. In December 2010, British Telecom sold 5.5 percent of its stake in Tech Mahindra to Mahindra & Mahindra for Rs 451 crore.



# PUZZLES

"CLOUD NINE" By James E. Buell — Edited By Timothy E. Parker

## ACROSS

- 1 Thin plank  
 5 Flower of one's eye?  
 9 Marksman's aid  
 14 Withstand scrutiny  
 15 Cape Cod catch  
 16 George Bums film  
 17 Euphoric  
 20 Dufy or Wallenberg  
 21 Become ragged at the edges  
 22 Count (on)  
 23 Requiems  
 25 Looks --- everything  
 27 Joyful  
 32 Tormé forte  
 35 Return's home?  
 36 Oval nut  
 37 Fluid-level reading  
 38 Lennon's bride  
 39 Viewer-supported network (Abbr.)  
 41 "Black Orpheus" setting  
 42 For everyone to hear  
 44 Genealogy word  
 45 Pup, for one  
 46 Delighted  
 50 Norma Rae's goal  
 51 Applications  
 55 Bucket  
 58 Word with price or check  
 60 Alpaca kin  
 61 Rhapsodic  
 64 Overused, as a joke  
 65 Raced along  
 66 Advanced, as cash  
 67 Heretofore  
 68 "Outland" character  
 69 Sitcom legend Alan

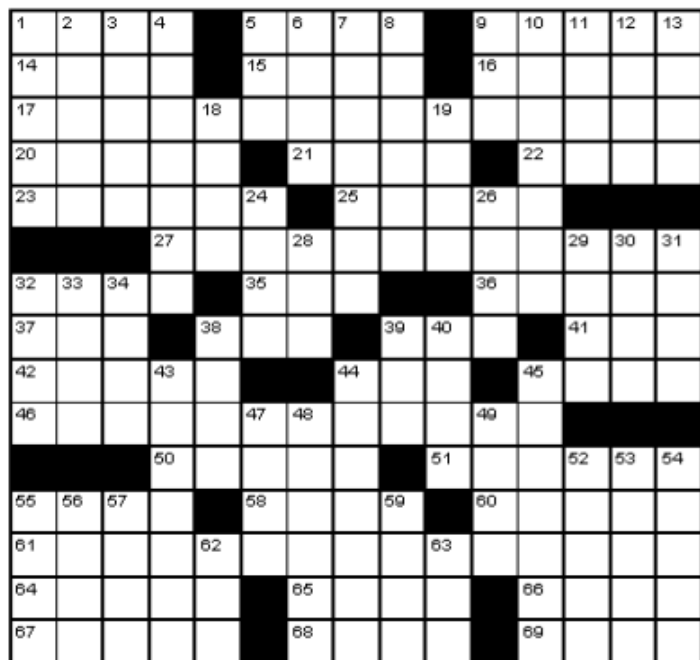
## DOWN

- 1 Thrusting weapon  
 2 Island of central Hawaii  
 3 Furrier John Jacob  
 4 Contemplated  
 5 "What was --- think?"  
 6 Dennis the Menace's dog

- 7 Places to find work  
 8 African sands  
 9 Spread seed  
 10 Chuckle softly  
 11 Fairy-tale fiend  
 12 Survey  
 13 Circular current  
 18 Nolo contendere, e.g.  
 19 Head set?  
 24 "Wheel of Fortune" option  
 26 Drifts off  
 28 He plays hard for the money  
 29 Plot size, perhaps  
 30 Word with forest or barrel  
 31 Tight tangle  
 32 Cabbage concoction  
 33 Pop choice  
 34 Base truant  
 38 Aesir ruler  
 39 Sword's superior, proverbially

- 40 Bridges or Geste  
 43 It's "instrumental" on 2 Down  
 44 Round-the-clock  
 45 Nonsensical refrain  
 47 Cleopatra's river  
 48 Select, as a career  
 49 Seagirt land  
 52 Courtroom prop  
 53 Correct the spelling, e.g.  
 54 It may be with Monica or Clara  
 55 Site of a famous campanile  
 56 Hard-working six-footers?  
 57 Brit's exclamation  
 59 Drive-\_\_\_\_  
 62 Boxer's doc  
 63 "I'm Dickens, --- Fenster"

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# GALLERY











# EGS PILLAY

## ENGINEERING COLLEGE (AUTONOMOUS)

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