TECHNO-WIZARDS

2021-2022

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

Department of Computer Science & Engineering

INDEX

MESSAGE

Chev.S.Paramesvaran

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 partcipation 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.

Department of Computer Science and Engineering

Vision of the Department

To produce globally competent computer professionals capable of adapting to the everchanging technological trends of Industry and Society

Mission of the Department

- To build the core competence desirable for a computer professional such as design,development, testing and maintenance of software systems to work on real world projects,and meet─the expected standards of Industries

- To train the students to acquire higher order skills of emerging technologies to make them preferable for employers

- To provide state-of-the-art learning facilities for effective implementation of learnercentric teaching–learning process to develop professional skills, self-learning and lifelonglearning capabilities

State the Program Educational Objectives (PEOs)

The programme Educational Objectives are

- To develop strong knowledge and skills in the domain of Computer Science and Engineering for leading a successful career in industries or entrepreneurial endeavours.
- To prepare and assist the graduates to be successful in higher education and research activities in the theory and application of computing related engineering fields.
- To train the graduates to learn and adapt to the ever-changing world of technology.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

After the successful completion, the graduates will have

PSO 1. The ability to apply software engineering principles and practices to design and develop software systems that meet the automation needs of industrial and societal problems.

PSO 2. The ability to apply their technical skills and knowledge gained in the fields such as Artificial Intelligence, Data Science, Cloud Computing, Social Network Analysis and Mobile Application development.

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.

NEW TRENDING 2021-2022

AI Permeation

AI works its wonders in a vast number of fields. This technological advancement has created opportunities in all spheres of life. It is still in its development phase and has yet to overcome ethical, legal, emotional, economic and social challenges. The developer's tools and technologies help to exploit the full potential of AI. It comprises of machine learning algorithms. The kind of AI seen on television like westworld, ex machina etc.

3D Printing

Three-dimensional (3D) printing is an additive manufacturing process that creates a physical object from a digital design. The process works by laying down thin layers of material in the form of liquid or powdered plastic, metal or cement, and then fusing the layers together. Three-dimensional (3D) printing is an additive manufacturing process in which a physical object is created from a digital design by printing thin layers of material and then fusing them together.

QUANTUM COMPUTING

Quantum computing harnesses the phenomena of quantum mechanics to deliver a huge leap forward in computation to solve certain problems. IBM designed quantum computers to solve complex problems that today's most powerful supercomputers cannot solve, and never will.

CYBERSECURITY MESH

Cybersecurity mesh is a flexible, composable architecture that integrates widely distributed and disparate security services.Cybersecurity mesh enables best-of-breed, stand-alone security solutions to work together to improve overall security while moving control points closer to the assets they're designed to protect. It can quickly and reliably verify identity, context and policy adherence across cloud and noncloud environments.

CLOUD-NATIVE PLATFORMS

Cloud-native platforms are technologies that allow you to build new application architectures that are resilient, elastic and agile — enabling you to respond to rapid digital change.

Cloud-native platforms improve on the traditional lift-and-shift approach to cloud, which fails to take advantage of the benefits of cloud and adds complexity to maintenance.

Privacy-Enhancing Computation

Privacy-enhancing computation secures the processing of personal data in untrusted environments — which is increasingly critical due to evolving privacy and data protection laws as well as growing consumer concerns.

Privacy-enhancing computation utilizes a variety of privacy-protection techniques to allow value to be extracted from data while still meeting compliance requirements.

Data Fabric

Data fabric provides a flexible, resilient integration of data sources across platforms and business users, making data available everywhere it's needed regardless where the data lives.
Data fabric can use analytics to learn and actively recommend where data should be used and changed. This can reduce data management efforts by up to 70%.

Blockchain

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An *asset* can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved

5G technology adoption

5G will boost the Internet of Things (IoT), which involves internet-powered smart devices linking and operating together. Unlike with 4G, many devices can connect to the 5G network without a significant drop in speed, latency, and reliability. That's because of the network-slicing feature that creates independent networks offering different services for each device.

Telehealth

Innovative telecare health monitoring devices track lifestyle changes and internal body states, thereby predicting potential health emergencies such as heart conditions. Other technologies improving contactless patient interactions include telemedicine robots and surgical robots.

Machine learning algorithms are also being applied to the telehealth field. The AI can scan data to select patients who should enroll in telehealth programs and send alerts if a patient's health metrics exceed a predefined threshold. As a result, doctors can have better control over a patient's day-to-day treatment.

TOP 5 MNC COMPANIES

TESLA

Tesla was founded in 2003 by a group of engineers who wanted to prove that people didn't need to compromise to drive electric – that electric vehicles can be better, quicker and more fun to drive than gasoline cars. Today, tesla builds not only all-electric vehicles but also infinitely scalable clean energy generation and storage products. Tesla believes the faster the world stops relying on fossil fuels and moves towards a zero-emission future, the better.

Tesla vehicles are produced at its factory in Fremont , California , and Gigafactory shanghai. To achieve our goal of having the safest factories in the world, tesla is taking a proactive approach to safety, requiring production employees to participate in a multi-day training program before ever setting foot on the factory floor. From there, tesla continues to provide on-the-job training and track performance daily so that improvements can be made quickly. The result is that tesla's safety rate continues to improve while production ramps.

IBM

International Business Machines Corporation (**IBM**) is American multinational corporation headquartered in Armonk, New York, with operations in over 171 countries. The company began in 1911, founded in Endicott, New York, by trust businessman Charles Ranlett Flint, as the Computing-Tabulating-Recording Company (CTR) and was renamed "International Business Machines" in 1924. IBM is incorporated in New York.

IBM produces and sells computer hardware, middleware and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. IBM is also a major research organization, holding the record for most annual U.S. patents generated by a business (as of 2020) for 28 consecutive years

Apple Inc

Apple Inc. i an American multinational technology company that specializes in consumer electronics, software and online services. Apple is the largest information technology_company by revenue (totaling US$365.8 billion in 2021

as of January 2021, it is the world's most valuable company, the fourth-largest personal computer vendor by unit sales and second-largest mobile phone manufacture. It is one of the Big Five American information technology companies, alongside Alphabet, Amazon, Meta, and Microsoft

Apple became the first publicly traded U.S. company to be valued at over $1 trillion in Augusts 2018, then $2 trillion in August 2020, and most recently $3 trillion in January 2022. The company receives criticism regarding the labor practices of its contractors, its environmental practices, and its business ethics, including anti-competitive practices and materials sourcing. The company enjoys a high level of brand loyalty, and is ranked as one of the world's most valuable brands.

Amazon (company)

Amazon was founded by Jeff Bezos from his garage in Bellevue, Washington, on July 5, 1994. Initially an online marketplace for books, it has expanded into a multitude of product categories: a strategy that has earned it the moniker The Everything Store. It has multiple subsidiaries including Amazon Web Services (cloud computing), Zoox (autonomous vehicles), Kuiper Systems (satellite Internet), Amazon Lab126 (computer hardware R&D). Its other subsidiaries include Ring, Twitch, IMDb, and Whole Foods Market.

Amazon also distributes a variety of downloadable and streaming content through its Amazon Prime Video, Amazon Music, Twitch, and Audible units. It publishes books through its publishing arm, Amazon Publishing, film and television content through Amazon Studios, and is currently acquiring film and television studio Metro-Goldwyn-Mayer. It also produces consumer electronics—most notably, Kindle e-readers, Echo devices, Fire tablets, and Fire TV.

Tata Consultancy Services (TCS)

TCS is the second largest Indian company by market capitalization and is among the most valuable IT services brands worldwide. 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 capitalization and second Indian company ever (after Reliance Industries achieved it in 2007) after its market capitalization stood at ₹6.793 trillion (equivalent to ₹7.7 trillion or US$100 billion in 2020) on the Bombay Stock Exchange.

In 1975, TCS delivered an electronic depository and trading system called SECOM for Swiss company SIS SegaInterSettle [de]; it also developed System X for the Canadian Depository System and automated the Johannesburg Stock Exchange.

TOP 5 SOFTWARE COMPANIES

ORACLE CORPORATION

Oracle is the second-largest software company in the world. The American company, based in Redwood City, California, right in Silicon Valley, is the globally leading provider of Enterprise software as well as Software as a Service (SaaS). The company was founded in 1977 by co-founders Larry Ellison, Bob Miner, and Ed Oates. Oracle achieved a worldwide revenue of $40.5 billion last year. Oracle software is primarily used in the business fields of Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), Human Capital Management (HCM), and Supply Chain Management (SCM).

ORACLE DATABASE

In 2004, Oracle Corporation shipped release 10*g* (*g* standing for "grid") as the then latest version of Oracle Database. (Oracle Application Server 10*g* using Java EE integrated with the server part of that version of the database, making it possible to deploy we-technology applications. The application server was the first middle-tier software designed for grid computing.

Adobe Inc

Adobe Inc. originally called **Adobe Systems Incorporated**, is an American multinational computer software company incorporated in Delaware and headquartered in San Jose, California. It has historically specialized in software for the creation and publication of a wide range of content, including graphics, photography, illustration, animation, multimedia/video, motion pictures, and print. Its flagship products include Adobe Photoshop image editing software; Adobe Illustrator vector-based illustration software;

Adobe Acrobat Reader and the Portable Document Format (PDF); and a host of tools primarily for audio-visual content creation, editing and publishing. Adobe offered a bundled solution of its products named Adobe Creative Suite, which evolved into a subscription software as a service (SaaS) offering named Adobe Creative Cloud.[5] The company also expanded into digital marketing software and in 2021 was considered one of the top global leaders in Customer Experience Management (CXM).

Dell Technologies

Dell Technology is primarily a manufacturer of PCs and Notebooks. However, through Dell's many subsidies, the Texas-based company has additionally been involved in the software industry for quite some time now. Dell is the majority owner of *VMware*, an enterprise and virtualization software brand. Dell also owns *Securework*, which offers cyber security services and *RSA Security*, an encryption software business.

Dell sells personal computers (PCs), servers, data storage devices, network switches, software, computer peripherals, HDTVs, cameras, printers, and electronics built by other manufacturers. The company is well known for its innovations in supply chain management and electronic commerce, particularly its direct-sales model and its "build-to-order" or "configure to order" approach to manufacturing—delivering individual PCs configured to customer specifications. Dell was a pure hardware vendor for much of its existence, but with the acquisition in 2009 of Perot Systems, Dell entered the market for IT services.

S A P

Historical references include **Systems, Applications, and Products in Data Processing**

SAP SE German multinational software corporation based in Walldorf, Baden-Württemberg that develops enterprise software to manage business operations and customer relations. The company is especially known for its enterprise resource planning (ERP) software. SAP is the largest non-American software company by revenue, the world's third-largest publicly-traded software company by revenue, and the largest German company by market capitalization.v

Apart from ERP software the company also sells database software and technology (particularly its own brands), cloud engineered systems, and enterprise software products, such as human capital management (HCM) software, customer relationship management (CRM) software (also known as customer experience), enterprise performance management (EPM) software, product lifecycle management (PLM) software, supplier relationship management (SRM) software, and supply chain management (SCM) software.

Salesforce

Salesforce is an American cloud-based software company headquartered in San Francisco, California. It provides customer relationship management (CRM) service and also provides enterprise applications focused on customer service, marketing automation, analytics, and application development.

Salesforce's main services are tools for case, task and issue management. It also gives customers tracking abilities for their raised cases and conversation features for social networking Web sites, provides analytical tools and other services including email alert, Google search, and access to customers' entitlement and contracts. They also partner with companies like IBM, Accenture, and SAGGEZZA to help integrate Salesforce's cloud-based services into their businesses.

CEO of INDIAN companies

Company	CEO
Adani Group Sudipta	Bhattacharya
Aditya Birla Group	Dr.Santrupt Misra
Air India	Ashwani Lohani
Allahabad Bank	Usha Ananthasubramanian
Amazon.com	Jeff Bezos
Ambuja Cements	Ajay Kapur
Amul	R.S. Sodhi
Andhra Bank	J Packirisamy
Apollo Hospitals	Prathap C Reddy
Apple Inc.	Tim Cook
Ashok Leyland	Vinod K. Dasari
Asian Paints	K.B.S. Anand
Axis Bank Ltd.	Amitabh Chaudhry
Bajaj Auto	Rajiv Bajaj
Bank of Baroda	P. S. Jayakumar
Bank of India	Dinabandhu Mohapatra
Bharat Heavy Electricals Ltd(BHEL)	Atul Sobti
Bharat Petroleum	D. Rajkumar
Bharat Sanchar Nigam Ltd (BSNL)	Shri Anupam Shrivastava
Bharti Enterprises	Sunil Bharti Mittal
Bombay Dyeing	Nusli Wadia
Canara Bank	Rakesh Kumar sharma
CIPLA	Umang Vohra
Dena Bank	Shri Karnam Sekar
DLF	T.C.Goyal
Federal Bank	Shyam Srinivasan
Flipkart	Sachin Bansal
GAIL	B.C. Tripathi
HCL	Technologies C Vijayakumar
HDFC Bank	Aditya Puri
Hero Motocorp	Pawan Munjal
ICICI Bank	Sandeep Bakhshi
IDBI Bank	B Sriram
Vodafone Idea Ltd.	Balesh Sharma
Indian Overseas Bank	R. Subramaniakumar
Infosys Technologies	Salil Parekh
Jet Airways	Vinay Dube
Jindal Steel	Mr. Naushad Akhter Ansari
Karbonn Mobiles	Pradeep Jain
Kingfisher Airlines	Sanjay Aggarwal
Kotak Mahindra Bank	Uday Kotak
Larsen & Toubro	Subrahmanyan
Mahanagar Telephone Nigam Ltd	Pravin Kumar Purwar
Mahindra & Mahindra	Anand Mahindra
Maruti Suzuki	Kenichi Ayukawa
Micromax Mobile	Rahul Sharma
NDTV	Suparna Singh
Oil and Natural Gas Corporation	Shashi Shanker
Punjab National Bank	Sunil Mehta
Reliance Industries	Mukesh Ambani
Royal Enfield	Siddhartha Lal
Snapdeal	Kunal Bahl
South Indian Bank	V. G. Mathew

BEST DRAWINGS
2021-2022

N.LALITHA
2nd YEAR
CSE STUDENT

F. Sifa Thahasin
CSE -"A"

By,
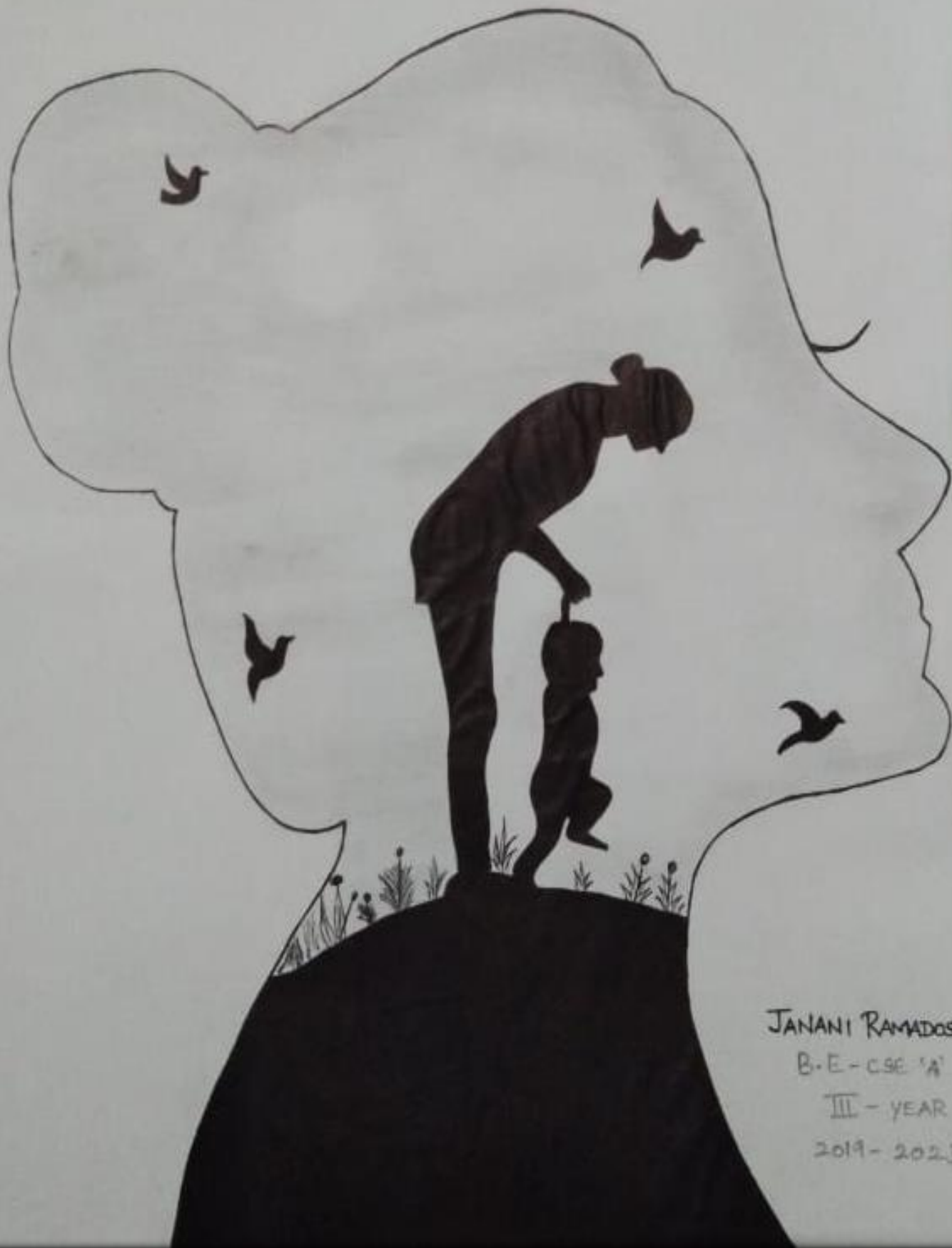Janani RAMADOSS
B·E — CSE 'A'
III — YEAR
2019 — 2023

by,

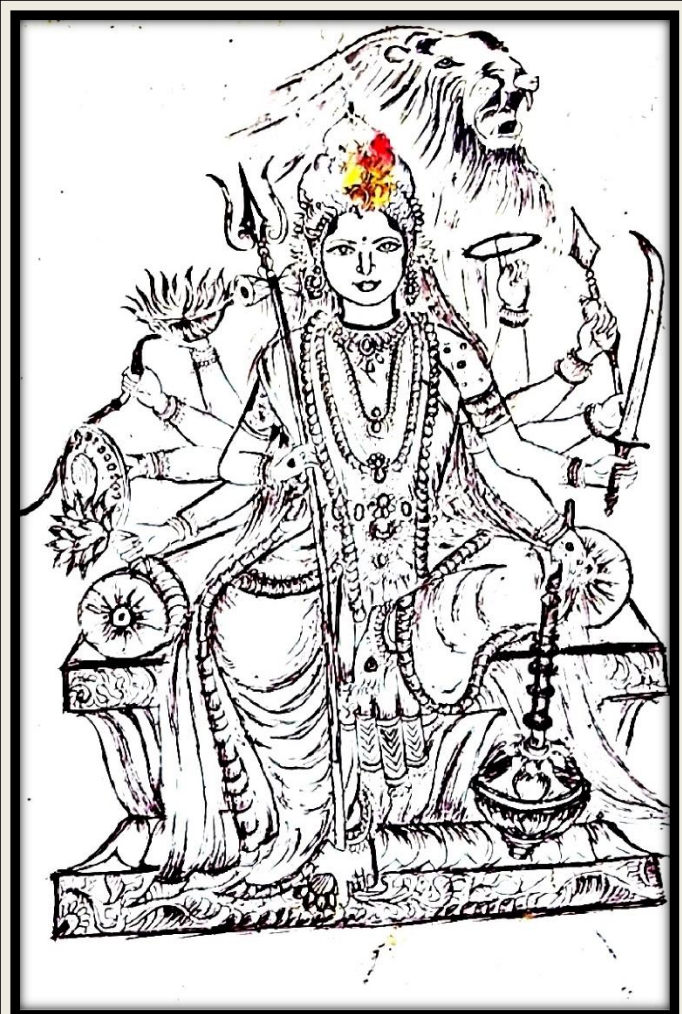JANANI RAMADOSS

B·E - CSE 'A'

III - YEAR

JANANI RAMADOSS
B.E - CSE 'A'
III - YEAR
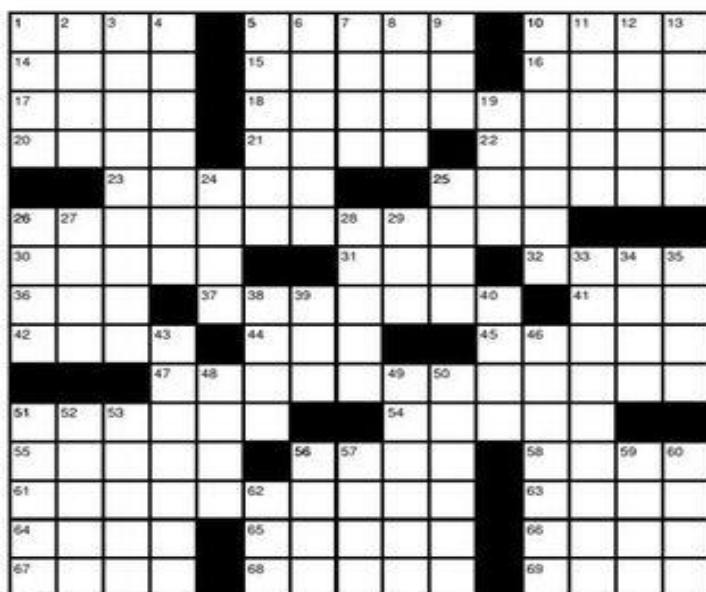2019 - 2023

ART BY :

AJANTHA.S

CSE

Pink Slip

Robert Stockton

ACROSS

1. River hazard
5. It aids commerce in Cancun, Kalamazoo, and Calgary
10. Left 21 across or 8 down
14. He's blue without his red or white
15. Offering from Google or Yahoo
16. He may be blue because he's in the red
17. Golden rule word
18. Princess in plum?
20. One might clean up at a Vegas hotel
21. Certain hand-outs
22. Coolpix camera maker
23. Fabric for a sundress
25. Creatures of clay
26. Share the stage with journalist Andrea?
30. See eye to eye
31. Lord's Prayer start
32. Blown away
36. Org. that sticks to its guns
37. Auto dealer's option, and a hint to this puzzle's theme
41. Greeting for Caesar
42. Congers and morays, e.g.
44. Keats creation
45. Novelist Joyce Carol
47. Caesar's boastful bon mot?
51. Like this clue
54. Pendragon of legend
55. Stock holding
56. Word with back or off
58. Tach readings
61. San Fran sportscaster?
63. "Piggies"
64. Caesar's challenge
65. One with grievances, perhaps
66. Classic Lotus model
67. Kind of waist
68. Strand in Rapunzel's rope
69. Oxford fellows

DOWN

1. Like one leg of a triathlon
2. First of a famous sailing trio
3. Like AZT
4. "Well said!!"
5. Himalayan denizen
6. Worn magic item
7. McDonald's, e.g.
8. Certain hand-outs
9. Tide alternative
10. Silverback, e.g.
11. No longer napping
12. Asp's output
13. Moran and Brockovich
19. Hydroxyl compound
24. "...until _____ a man with no feet."
25. "It's Raining Men" singer Halliwell
26. Heroine of a classic children's reader
27. Man-eater of myth
28. Many a software engineer
29. Blue, red, or white
33. Sport with very wet horses?
34. What to get after an insult
35. He loved Lucy
38. Unchangeable storage
39. Stir
40. A bagel and lox, perhaps
43. Buttress
46. Kept at bay
48. Mouse manipulator
49. You'll find many in a pound
50. Pronounces
51. How good was it?
52. Tony-winning Rivera
53. Dennis Miller specialty
56. Evening on the Champs-Élysées
57. Land of the leprechauns
59. Like 27 down
60. Apr. 15 data
62. Wine container

© 2009

Taking the Test :

You should work quickly and accurately through the test. Don't get stuck on any particular question: should you have any problems, return to it at the end of the test. You should divide your time per question as accurately as you can - typically this will be between 50 and 90 seconds per question. Remember that the tests are difficult and often you will not be expected to answer all the questions. Be particularly cautious if the aptitude test uses negative marking; if this is not the case, answer as many questions as possible in the time given. Remember that multiple-choice options are often designed to mislead you, with incorrect choices including common mistakes that candidates make.

Taking the Test :

You may also like to read:
• How to prepare for SHL tests. A general primer.
• What is a psychometric test?. All the info you'll need on psychometric testing.
• What is the UKCAT?. Who will need to take the UKCAT test and how it's structured.
• What is an In-Tray test?. How to approach this type of exercise, and tips for success.
• What are your weaknesses?. How to gauge where your weaknesses lie.

Tips For Success :

These five tips are well worth remembering before you take an aptitude test for real:
• Treat the test like you would any other exam.
• Work swiftly and accurately through any test.
• Work out the maximum time you can spend on any question and stick to it religiously. You can return to questions at the end. Never get stuck on any particular question, even if you think you nearly have it.
• If you are going to an assessment centre, take a calculator you understand with you. If you do not, you will be forced to use whatever they might provide you with.
• Answer as many questions as possible in the time given. But be wary of negative marking. WikiJob recommends taking practice reasoning tests for better performance during the examination. Our partner JobTestPrep has copious sample tests to try, until you have really mastered this type of assessment. You may also want to look at this psychometric workbook, which covers numerical, verbal and spatial reasoning tests, with hundreds of practice questions.

Taking the Test :

Computer science is a branch of engineering that deals with the scientific study of computers and their usage like computation, data processing, systems control,advanced algorithmic properties, and artificial intelligence. The study of computer science includes programming, design, analysis and theory. Computer science engineering projects involve designing and development of various application-based software. Computer science project topics can be implemented by a number of tools such as Java, .NET, Oracle, etc. The list of computer science project ideas is as follows.

All of these projects listed in the above list are the latest computer science project topics for engineering students that are widely implemented by the professionals.We believe that by giving this information, we have been successful to afford you the best list from the lot, and therefore anticipate your suggestions, comments, and queries on this particular article.