DIGIT-ALL

Dept. of Computer Science and Engineering.

Gandhi Institute For Technology Bhubaneswar

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DIGIT-ALL

THE E-MAGAZINE, EXPLORES THE TECHNICAL SKILLS OF STUDENTS & FACULTIES. THE MAGAZINE HAS ARTICLES ON LATEST TECHNOLOGIES, CARTOONS, QUIZZES AND MANY MORE FUN FACTS.

EDITORS:

Prof. Sitanath Biswas (Faculty)

Prof. Smruti Ranjan Swain (Faculty)

Ms. Suman Mandal (Student)

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Vision of the Department:

To produce the professionals of highest grade, bearing the ability to face the challenges posed by latest computing paradigms, founded by intuitive quality of education and driven by culture of critical thinking and creativity, towards the betterment of humankind.

Mission of the Department:

To Advance knowledge of computing and educate students in major paradigms of computer science and to create a distinctive culture of research and innovation among the budding engineers with collaboration of faculties, technocrats, funding agencies and experts from other premier institutes for generating a pool of professionals and eco-preneurs with the ability to address the Industry and social Problems.

PEOs of the Department

PEO 1: To gain adequate mathematical, computing and engineering principles in order to advance in professional career or obtain better response in higher studies platforms.

PEO 2: To foster the ability to analyze real life problems, perform required research and design computing systems, in accordance to its solutions that are technically sound, economically viable and socially admired and adaptable.

PEO 3: Will have ability to exhibit professionalism, technical skills, communication skills, team work and humanitarian skills in their profession and adapt to current changes by inculcating habit of lifelong learning.

From Guest's desk:

Dear Readers,

Greetings to Department of Computer Science & Engineering!

As a faculty in ITER, and being a computer professional, I regularly follow the different magazines published by different institutions. I first came in touch with DIGIT-ALL in 2013 in the college's website and it impressed me a lot in all the spheres in which facts and articles are published. I as the presenter of an article during this session feel privileged to have been asked to write a message.

It was pleasing to learn that the students of GIFT, CSE department have taken forward such an initiative and are eager and enthusiastic to collect facts and make themselves felt around the world through different articles and other contents. I would like them to continue this effort and try to bring laurels for their institution.

DIGIT-ALL has taken a lot of air even around GIFT and is continuing to spread its wing. I as a computer professional want this effort to multiply itself even more and spread the knowledge all around

Thanks & Regards,

Prof. Kaveri Das

Dept. of CA,

Institute of Technical Education and Research

FROM THE *Editor's Desk*

Dear Readers,

I greet you into the world of DIGIT-ALL with the second issue of the third volume. The stature of the magazine has ascended with each publication made possible by the efforts incorporated solely by all the faculty and student members of the department.

We have by far tried put forth to you the developments in the field of computing and after all these issues, I think we have done a good work. I say these words since this will be my last effort as an editor. The journey so covered has been enterprising and educating that metamorphosed my life and was made undemanding by the combined efforts of many brains that enriched DIGIT-ALL with facts about new technologies and even made it literarily ornamental.

The journey has been a most memorable experience. I can't express my gratitude to all the persons associated in and out who were involved in making DIGIT-ALL one of its kind.

Thanks and Regards

Prof. Sitanath Biswas

Dept. of CSE, G.I.F.T

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Articles

✳ Commercial Quantum Computer Actually Works, According To New Testing

By: Rashmi Rani Panda
Asst. Prof., Dept. of CSE

Spooky stuff is really happening in the world's first commercially available quantum processor.

Since the Canadian company D-Wave began selling so-called quantum processors, experts have debated whether they're truly quantum. Now, according to an analysis by academic physicists they really do show quantum effects, making them the world's first commercial quantum processors. In general, it's been difficult to confirm how D-Wave machines work because quantum states are so sensitive, measuring them may perturb them. Besides this new test, performed at the University of Southern California, a few different recent tests have gathered evidence that D-Wave processors work as advertised. Quantum processors have quantum bits instead of the usual binary bits that traditional processors have. You know normal bits store information by taking on one of two states, often named "0" and "1." Quantum bits, also called qubits, have another capability. They are able to take on both the 0 and 1 state at the same time. This and other properties of quantum states allow quantum computers to perform certain calculations much faster than traditional ones. Quantum processors are generally put to work on optimization problems, such as finding the lowest-energy shape for a protein. Working on a D-Wave processor Lockheed Martin bought, the USC researchers put eight of the D-Wave's 128 qubits to work on an optimization problem. They found that the procedure that the D-Wave used was consistent with quantum annealing--the process that D-Wave's creators say it uses--instead of classical annealing, one of the researchers, Daniel Lidar, said in a statement. Physicists and computational scientists still debate how practical a D-Wave could be.

Nevertheless, a few institutions have bought D-Wave machines, including Lockheed Martin, Google, NASA and the Universities Space Research Association. Lidar and his colleagues published their work in the journal Nature Communications.

up'date

✚ 4th of March celebrated as society day of Information Science and Application Society(ISAS).

❋ *The basic functionality of the Auto Computer Aided Design*

By: Subrat Sekhar Pattanaik
Asst. Prof, Dept. of CSE

AutoCAD or Auto computer aided design is one of the most significant is computer-aided design softwarewhich had been developed by Autodesk in 1982. Presently, the version of the cad software has been developed into the AutoCAD 2013, AutodeskAutoCAD 2011 and Autodesk AutoCAD 2012. Theses software is used for the two-dimensional graphics, detailed drawing, documents designation and three-dimensional design.

The cad software has become one of the most popular drawing tools in the international drawing tools industry. Today, the online cad software seller which name is autodesk-market would teach you the basic functions of cheap AutoCAD and Autodesk AutoCAD lt 2012 as obtained from the source www.autodeskmarket.com .

  The most vital efficiency of AutoCAD is that it has good user interface and it will be able to carry out various operations through an interactive menu or the command line. It has a Multiple Document design environment which could make the non-computer professionals learn to use it quickly. In the process of continuous practice to better grasp its various applications and development skills so as to continuously improve our work efficiency. AutoCAD has a wide range of adaptability. Auto cad can also run on a variety of micro-computers and workstations which have different operating systems.

The first introduction function of the autodesk market is to introduce you to its dimensional drawings. The autocad is efficient enough to use a variety of ways to create the line, circle, ellipse, polygon and other basic graphic objects. Autodesk autocad it 2013is one kind of drawing aids. AutoCAD provide with us the orthogonal, object snap, polar tracking, capture tracking and other drawing aids. The orthogonal feature could allow users to easily draw a horizontal and vertical straight line. The object snap could help us pick up the special geometric objects. The tracking hatched and anchor point in different directions easier.

The second point we want to tell you is about the graphics editing. AutoCAD has powerful editing functions. In the interface of the AutoCAD, you can move, copy, rotate, array, stretch, extend, trim and scale the object. You can create various types of size and the marked appearance can be set on your own idea. We could easily write a text in any position of the graph or along any direction. The character font, the inclination angle, the width of the scaling and other properties can be set. All of the graphic objects are located on one layer and you can set the layer color, line, line width and other characteristics. The last point is about the 3D graphics function of the AUTOCAD 2013 and 2011. We could use this software to create the 3D solid and surface models and we could also edit the entity itself.

The networking capabilities are also the big advantage of the software. The graphics can be posted on the network or network access to use the AutoCAD resources. The data exchanging is also the good factor of the AutoCAD 2013. AutoCAD provides with us a variety of graphics data exchange format and the corresponding command.

✳ *Access Password Recovery: Why Do User Need It?*

By: Pratyush Ranjan Mohapatra
Asst. Prof., Dept. of CSE

Microsoft Access password helps protect your data saved in .mdb file from the unwanted users. This kind of security measures are provisioned for Access because a lot of crucial data is stored in a database which can be misused. This .mdb file format is not that easy to work with only the ones who are familiar with its functionality can make use of it smoothly. Thus, it is need of a user to protect those files from the unwanted use. Thus these files are protected with the password protection. But forgetting password is a normal thing done unintentionally by humans, This is a common scenario of forgetting password of Access database. And it if happens, user might not able to access database saved in .mdb format he will be left with two option in such a situation one is to leave the file as it is and other is to prepare a new Access file with the same data and third option is performing Access password recovery.

Every time it is not possible to make a new Access file as one file contains important data is a matter of concern in such a situation user will go with the third option and search for a tool to Microsoft Access password recovery tool. Importance Of Microsoft Access: Microsoft Access can manage database very well. Database can be defined "it is a way to store important information about people, places and can be organized it well". Access is a productive application used for database management and makes it quick to Access them. With MS Access user can filter, perform calculation and summarize their data. Access saves data in vertical and horizontal row grid. This management application can efficiently be used to search, enter and sort information. Database saved in .mdb format can be customized and developed by using development tool such as Microsoft visual basic. Need for Access Password Recovery Tool: To safeguard important data user put up password protection but due to heavy burden of work user usually forgets it. If files contain less important database he or she may leave it but in most cases database is important he can't leave his files. In such a situation user can opt a password recovery application so that they can recover password and create an alternative password. User can go for the best solution which can remove password from the .mdb files and recover as it is data rather than manipulating with the integrity of the data. Access password recovery application can be installed by purchasing it with few clicks so that user can work with the Access database

Words of Wisdom

"I really didn't foresee the Internet. But then, neither did the computer industry. Not that it tells us very much of course—the computer industry didn't even foresee that the century was going to end."

— Douglas Adams

☀ Retail management solutions Essence of retail industry

By: Ms. Kaveri Das
Asst. Prof. Dept of CA, ITER

Running a business is an uphill task. There are manifolds of things that should be kept in mind starting from the initial stage of planning to the reaching for the product or the services to the users. Stages in-between also need to be taken care so as not to break the chain of actions. For the retail businesses, these stages have to be examining carefully as the business goes through a number of steps. Examining each step carefully is the essence of every business success and thus the cloud software solution has been brought into action. Retail Management Solutions are being provided by the cloud computing service provider who have retail business management software on clouds. The main advantage of retail management solution is their compatibility and accessibility. It can run on any computer with a net connection and its compatibility with any browser.

With the help of cloud software SME(s) can manage their Retail business without any glitches.

Retail sales software keeps a complete of sales that is done on day to day basis. This can be done effectively and accurately without even checking manually the number of sales as the data is automatically programmed to reach the cloud where the retail sales software stores it. With the assistance of accurate backup and security provisions, this data can not to be pilferaged or lost. Adequate power back up and network is to be provided for prompt and constant sales monitoring. Retail store POS software assists in numerous ways for keeping the data fixed in the cloud. With the help of point of sales software complete track of sales as well as you can handle multiple

transactions effectively. Number of people can be cleared as quickly and speedily, which indirectly leads to lack of queues and loss of time. Additionally the manual labor cost will diminished which further leads to cost cutting of the company and also decreasing the overhead charges. With the help of Retail Management Solution on Cloud, Retail Business Management Software will now be able to focus their attention toward product betterment instead of thinking about how to keep an eye on Jobs. With retail business growing on daily basis, the demand of retail business management software will be more and this will lead to enhanced development of the retail industry. In the coming time, a lot of IT companies are putting efforts to smooth their cloud software and providing better sociability and security into the system. Although retail industry is being benefited with the cloud computing solution, there are still endless options for growth and better functioning are possible with many other businesses.

Words of Wisdom

"… we have created a man with not one brain but two. … This new brain is intended to control the biological brain. … The patient's biological brain is the peripheral terminal —— the only peripheral terminal —— for the new computer. … And therefore the patient's biological brain, indeed his whole body, has become a terminal for the new computer. We have created a man who is one single, large, complex computer terminal. The patient is a read-out device for the new computer, and is helpless to control the readout as a TV screen is helpless to control the information presented on it."
— Michael Crichton, (*The Terminal Man*)

"Computers are heaven-sent when they work and hell-spawn when they don't.
There's just not much middle ground when it comes to technology."
— Dani Harper

Interesting Facts
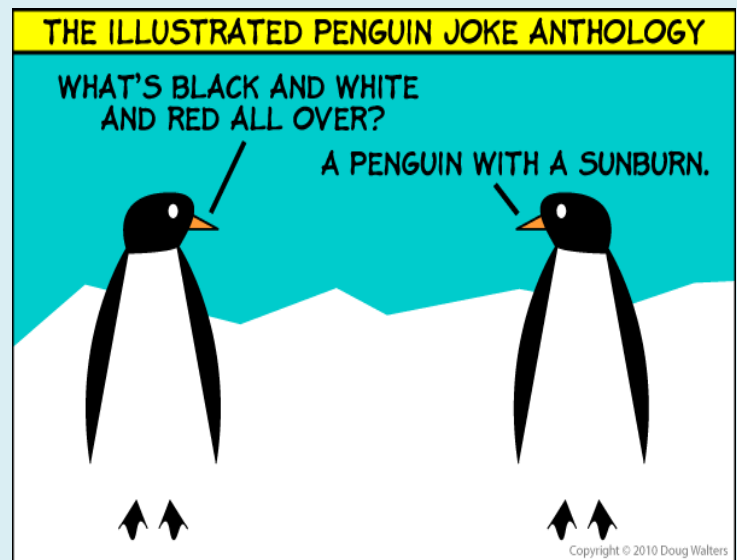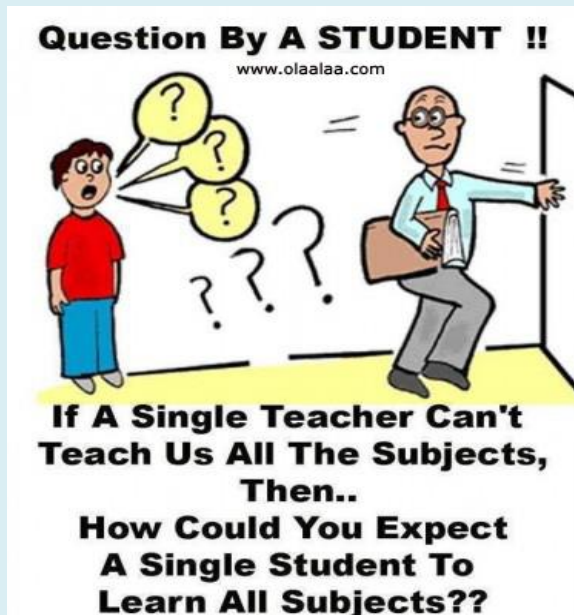
By: Ms. Deekshya Kar
Student, Dept. of CSE

➢ The 'Email' is older than the World Wide Web.

➢ One of the world's leading computer and computer peripheral manufacturer, Hewlett Packard, was first started in a garage at Palo Alto, in the year 1939.

➢ On one of the world's most popular shopping websites, eBay, there are transactions of approx. $680 per second.

➢ If you open up the case of the original Macintosh, you will find 47 signatures, which is of each member of Apple's Macintosh division of 1982.

➢ The group of 12 engineers who designed the IBM PC was called 'The Dirty Dozen'.

➢ Amazon is a printed book seller company that now sells more eBooks than printed books.

➢ HP, Google, Microsoft, and Apple have one thing in common. All of them were started in garages.

➢ The first hard drive was created in 1979 and could hold 5MB of data.

➢ Symbolics.com was the first ever domain name to be registered.

➢ SanDisk was earlier known as SunDisk.

➢ Until September 1995, domain registration was free.

➢ 'Electronic brains'! That's what computers were called in the 1950s.

➢ One can type 20 times faster using a Dvorak keyboard as compared to using a Qwerty keyboard.

proverbios

Between the devil and the sea: To choose between two equally bad alternatives and in a serious state of dilema

Cartoons

By: Ms. Juhi Agarwal
Student, Dept. of CSE

up'date

- Vikrant Rathaur and Rohandeep won 2nd prize in C-Quiz in "FESTONIX 2013".

- Inter-college competition on Robotics was organized where 16 technical papers were presented by students of other colleges and 8 posters were presented by students of other colleges.

- Prof.(Dr) Sujata Dash published a paper titled "Redundant Gene Selection based on Genetic and Quick-Reduct Algorithms" in International Journal on Data Mining and Intelligent Information Technology Application 15th Feb 2013. (in press)

Technical Quiz

BY: Mr. Gourav Senapati
Student, Dept. of CSE

❖ Which of the following is the 1's complement of 10?

A. 01   B. 110
C. 11   D. 10

❖ A section of code to which control is transferred when a processor is interrupted is known as

A. M   B. SVC
C. IP   D. MDR

❖ A hard disk is divided into tracks which are further subdivided into:

A. clusters   B. sectors
C. vectors   D. heads
E. None of the above

❖ A wrist grounding strap contains which of the following:

A. Surge protector   B. Capacitor
C. Voltmeter   D. Resistor
E. None of the above

❖ The strategy of allowing processes that are logically runnable to be temporarily suspended is called

A. preemptive scheduling   B. non preemptive scheduling
C. shortest job first   D. first come first served

❖ What are the most commonly used transmission speeds in BPS used in data communication?

A. 300   B. 1200
C. 2400   D. 9600
E. None of the above

❖ **What is the default subnet mask for a class C network?**

A. 127.0.0.1   B. 255.0.0.0
C. 255.255.0.0   D. 255.255.255.0

❖ **The Memory Buffer Register (MBR)**

A. is a hardware memory device which denotes the location of the current instruction being executed.
B. is a group of electrical circuits (hardware) that performs the intent of instructions fetched from memory.
C. contains the address of the memory location that is to be read from or stored into.
D. contains a copy of the designated memory location specified by the MAR after a "read" or the new contents of the memory prior to a "write".

❖ **What is the language used by most of the DBMSs for helping their users to access data?**

A. High level language   B. Query language
C. SQL   D. 4GL

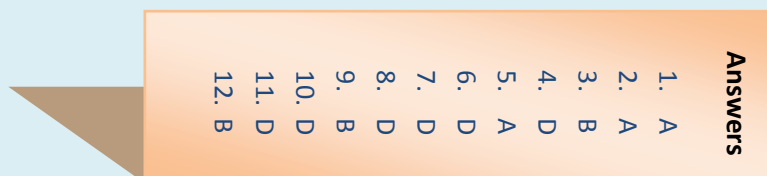❖ **Data item characteristics that are important in data management include**

A. punctuation   B. language
C. spelling   D. width

❖ **What TCP/IP protocol is used for remote terminal connection service?**

A. UDP   B. RARP
C. FTP   D. TELNET

❖ **How many networks and nodes per network, are allowed by the Class B network?**

A. 127 networks and 16,777,216 nodes per network
B. 16,384 networks and 65,534 nodes per network
C. 2,097,152 networks and 254 nodes per network
D. All of the above

Answers

1. A
2. A
3. B
4. D
5. A
6. D
7. D
8. D
9. B
10. D
11. D
12. B

POETRY

BY: Ms. Preeti Jana
Student, Dept. of CSE

Friend

**A friend is someone
You turn to.
A friend is someone
You confide in.
A friend is someone
Who stands by you.
A friend is someone
Who lifts your spirits.
A friend is someone
who encourages you.
A friend is someone
You treasure always.
A friend is someone
Who makes you smile.
A friend is someone
Who brightens your day.**

HAPPENINGS

- ❖ **Visit to Mancheswer industrial estate, Bhubaneswer to interact with Entrepreneurs on 23rd November 2010**

- ❖ **Entrepreneurship Development Programme for general category students by MSME Institute, Ministry of MSME, Govt. of India from 25th October to 5th November 2013**

- ❖ **Field Training Centre on Coir Scheme for Women Entrepreneurs of Gramadiha jointly by GIFT ED Cell and DIC , Bhubaneswar on26th August,2013.**

The End