Panipat Institute of Engineering & Technology

Approved by AICTE, New Delhi

Affiliated to Kurukshetra University, Kurukshetra

COMPUTECHIE

Half Yearly Technical Magazine

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Department of Computer Science and Engineering

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PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Kurukshetra University, Kurukshetra)

Department Vision

Department of Computer Science and Engineering aspires to become a center of excellence for quality technical education by keeping pace with new technologies to create competent professionals.

Department Mission

M1: To develop professionals with analytical and technical competency for productive career in industry, academia and as entrepreneurs.

M2: To build theoretical and applied skills of faculty and student in computer science and engineering through need based training, research and development on industrially and socially relevant issues.

M3: Continuously improve and provide state-of-the-art laboratories to keep up with the new developments in the area of computer science and engineering.

M4: Create nurturing environment through competitive events, industry interactions, global collaborations and creating concern for lifelong learning.

About Department

PIET-CSE aims to encourage research and innovation in Computer Science and allied areas. The objective of the BTech program in Computer Science and Engineering (CSE) is to prepare students to undertake careers involving innovation and problem solving using computational techniques and technologies, or to undertake advanced studies for research careers or to take up Entrepreneurship. In order to give due importance to applied as well as theoretical aspects of computing, the curriculum for the BTech (CSE) program covers most of the foundational aspects of computing sciences, and also develops in students the engineering skills for problem solving using computing sciences.

Most engineering programs start with general courses in Sciences, and then migrate to specialized courses for the disciplines. While these courses are indeed foundational for many engineering disciplines, they can be treated as application domains (as is evidenced from the fact that most sciences and Engineering disciplines heavily use computing now) Hence, the BTech (CSE) program at PIET starts with computing oriented courses first, and allows the possibility of doing science courses later. Besides being better suited for a CSE program, it also enables the possibility of students seeing newer applications and possibilities of using computing in these subjects.

PROGRAM EDUCATIONAL OUTCOMES (PEOS)

To impart an in-depth knowledge of science, mathematics, and computer science and engineering to create a foundation for building capacity and competence in using the fundamental and core knowledge

To facilitate and foster technical and analytical skills in students to develop innovative solutions to complex real life problems using existing and novel technologies.

To train students with the relevant soft skills and also with a concern for lifelong learning.

To expose them to various contemporary and social issues which will enable them become ethical and responsible citizens of the society.

DIRECTOR's MESSAGE

Professor (Dr) Krishan Paliwal
(Director)

A deep sense of appreciation and gratitude and joy surge through my heart as I greet you through the columns of this magazine.

Publishing a magazine today is indeed a tedious and herculean task.

In recent years when our students are concerned more about their academic excellence they have to be coaxed ,persuaded and encouraged to exhibit their writing talents.

The editorial board has done their responsibility neatly and systematically. I also send my warm congratulations to all our budding talents who have generously contributed to this annual magazine.

With every good wish ,loving greetings and blessings…

HOD's MESSAGE

Dr. Vikram Bali
(HOD)

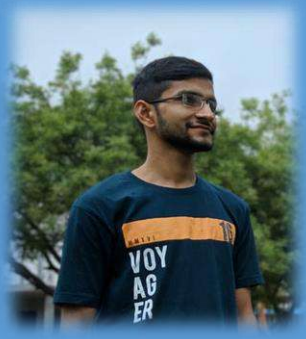
I am sure that the students of CSE department will be benefitted to a large extent from the informative and educative contents of this magazine.A word to those who have contributed to the magazine.They should continue their practice of writing articles ,research papers ..A habit they can develop to perfection with the passage of time.

As rightly quoted by Swami Vivekanand ,"Education is the manifestation of perfection already in man".

EDITORIAL TEAM

Ms. Aakanksha Mahajan
Assistant Professor, CSE

Pratham Kataria
B. Tech, 2nd Year



Harshit Duhan
B. Tech, 2nd Year

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Flexible Display

Flexible electronic paper (e-paper) based displays were the first flexible displays conceptua--lized and prototyped. Though this form of flexible displays has a long history and were attempted by many companies, it is only recently that this technology began to see commercial implementations slated for mass production to be used in consumer electronic devices. A flexible display is an electronic visual display which is flexible in nature; as opposed to the more prevalent traditional flat screen displays used in most electronics devices. In recent years there has been a growing interest from numerous consumer electronics manufacturers to apply this display technology in e-readers, mobile phones and other consumer electronics.

Shfali Singla
(Assistant Professor)

Data Security in Cloud Computing

Data privacy in cloud computing is a fundamental issue today. Fully homomorphic encryption schemes are highly recommended for data security in cloud computing. In fact, confidentiality of sensible data can be preserved even if a non-trusted cloud server processes it; the mystery behind this is that fully homomorphism encryption schemes allow processing encrypted data without the need of a prior decryption. In this paper we present a new fully homomorphic encryption scheme from integers. Our encryption scheme can be used essentially to secure sensible data in cloud computing. The proposed scheme uses a large integer ring as clear text space and one key for encryption and decryption, i.e. it is a symmetric encryption scheme.

Karun Handa
(Assistant Professor)

IMPORTANCE 0F CYBER SECURITY

Cyber Security is defined as technologies and processes constructed to protect computers, computer hardware, software, networks and data from unauthorized access, vulnerabilities supplied through Internet by cyber criminals, terrorist groups and hackers. Cyber security is related to protecting your internet and network based digital equipments and information from unauthorized access and alteration. Cyber Security is now considered as important part of individuals and families, as well as organizations, governments, educational institutions and our business. It is essential for families and parents to protect the children and family members from online fraud. In terms of financial security, it is crucial to secure our financial information that can affect our personal financial status. Internet is very important and beneficial for faculty, student, staff and educational institutions, has provided lots of learning opportunities with number of online risks . There is vital need for internet users to understand how to protect themselves from online fraud and identity theft. . Small and medium-sized organizations also experience various security related challenges because of limited resources and appropriate cyber security skills . The rapid expansion of technologies is also creating and making the cyber security more challenging However, better security understanding and appropriate strategies can help us to protect intellectual property and trade secrets and reduce financial and reputation loss . Central, state and local governments hold largeamount of data and confidential records online in digital form that becomes primary target for a cyber attack It is also used to protect from various Cyber Crime like **Cyber Stalking, Email Bombing, Sniffing ,Spoofing ,Packet Snipping& Intellectual Property Theft** It can also protect your Business,

Protects Personal Info ,Allows Employees to Work Safely ,Protects Productivity &Stop Your Website from Going Down

- Harshit jain

INTERNET OF THINGS

The Internet of Things is a network of physical objects – vehicles, machines, home appliances, and more – that use sensors and APIs to connect and exchange data over the Internet.

The IoT depends on a whole host of technologies – such as application programming interfaces (APIs) that connect devices to the Internet. Other key IoT technologies are Big Data management tools, predictive analytics, AI and machine learning, the cloud, and radio-frequency identification (RFID).

Cloud-based IoT platforms and architecture connect the real and virtual worlds. They help companies manage IoT device connectivity and security – as well as collect device data, link devices to backend systems, ensure IoT interoperability, and build and run IoT applications.

Smart devices generate a massive amount of IoT data that needs to be analysed and leveraged in real time. This is where predictive and Big Data analytics come into play. Machine learning is also used to add context to data – and trigger actions without human intervention.

In manufacturing, the IoT becomes the Industrial Internet of Things (IIoT) – also known as the Industrial Internet or Industry 4.0. The IIoT uses machine to machine (M2M) technology to support everything from remote monitoring and telemetry to predictive maintenance.

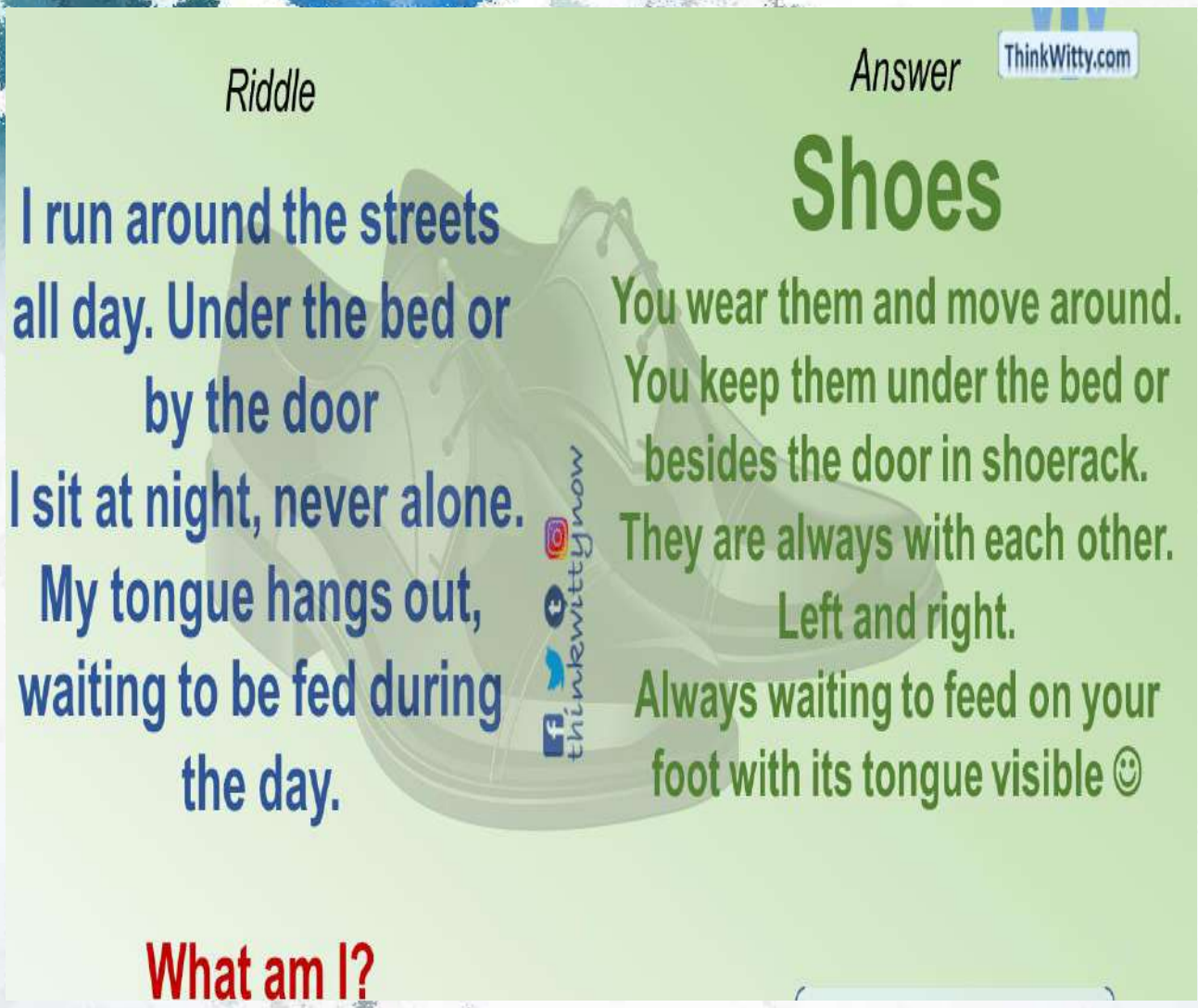
TECHNATION

As in PIET we believe in improvising quality and not in quantity, we believe in encouraging spirit of students and always finding ways to exhibit the same. So, we initiated an inter-department level event in our college in which all the departments participated and in which they proved their skills with their pro-jects . There was an immense support under the supervision of the H.O.D of computer science dept, Dr. Vikram Bali and also under the umbrella of knowledge of Chairperson Dr. S.C Gupta . Also the worthy mentors appreciated the efforts of students. Students participated with a great zest and idea of innovation in TECHNATION.

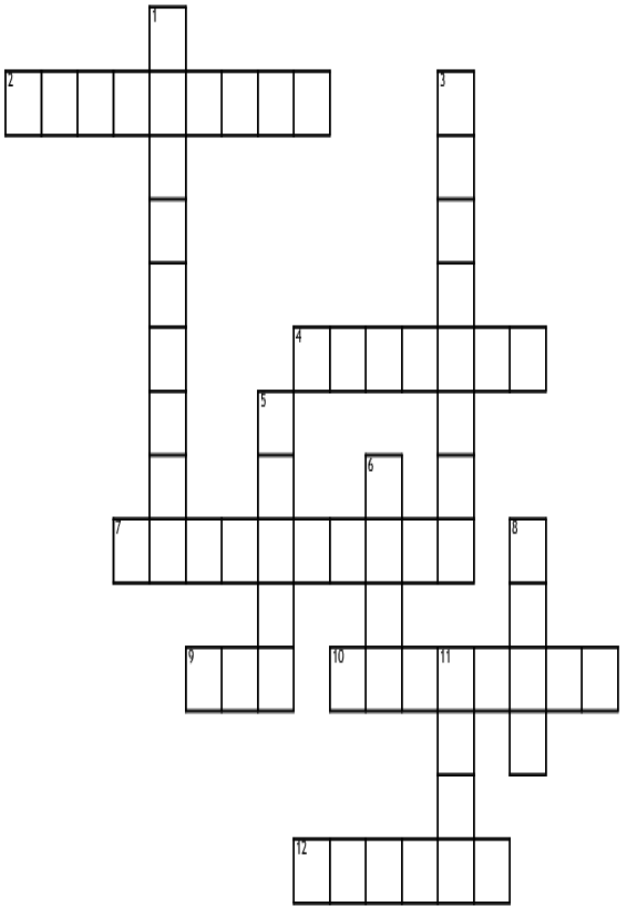
INDUSTRIAL VISIT

Industrial visit has been carried out at MCN Solutions Pvt Ltd. In Nov 2017. This visit has its own importance in a career of a student who is pursuing a professional degree. Objectives of industrial visit is to provide students an insight regarding internal working of companies. Theoretical knowledge is not enough for making a good professional career. With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work. It provides students with an opportunity to learn practically through working methods and employment practices. It gives them exposure to current work practices as opposed to possibly theoretical knowledge being taught at college. Industrial visits provide an excellent opportunity to interact with industries and know more about industrial environment.

RIDDLE


Riddle
I run around the streets all day. Under the bed or by the door
I sit at night, never alone.
My tongue hangs out, waiting to be fed during the day.
What am I?
thinkwittynow
Answer
ThinkWitty.com
Shoes
You wear them and move around.
You keep them under the bed or besides the door in shoerack.
They are always with each other.
Left and right.
Always waiting to feed on your foot with its tongue visible ☺

Computer Hardware



Across

2. A device which lets you interact with the computer.
4. Data expressed as a series of 1s and 0s electronically.
7. A flexible, removable, magnetic, memory disk.
9. Smallest unit a computer can work with.
10. Is an input device used on laptops and desktops.
12. A way to store free pieces of work

Down

1. Indicates the use of colours, pictures or icons.
3. An input device that is a column used for control.
5. The opposite of output.
6. To place documents in a particular order
8. To create an image.
11. A small unit of memory equivalent to 8 bits.