

# 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 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 Departmental Magazine is an eloquent expression of the progress and outstanding achievements that a department has to its credit. It is manual that highlight the quality of education and extra –curricular activities that a department undertakes to develops all round personality of the students. I am sure that the students of CSE department will be benefitted to a large extent by the contents of the magazine. The readers would be greatly benefitted as the contents are going to unfold for them new information on various scientific topics.



## HOD's MESSAGE

I am happy that CSE Department is publishing another issue of COMPUTECHIE. This magazine by the faculty and students .It aims at providing a platform to the students to explore their latent capabilities and talent to express their creativity and to develop their writing skills.

As you scan through the pages of the magazine,It will enlighten you with the important milestone that department has achieved this half year. Besides our budding talent have expressed their technical knowledge ,ideas and convictions in creative way.

I congratulate the editorial board for unleashing the hidden potential of the students and appreciate them for their efforts in bringing out their issue.

Wishing the magazine a latest Success.



**Dr. Vikram Bali**  
(HOD)

# EDITORIAL TEAM



**Ms. Aakanksha Mahajan**  
**Assistant Professor, CSE**



**Pratham Kataria**  
**B. Tech, 2nd Year**



**Harshit Duhan**  
**B. Tech, 2nd Year**

## Machine Learning



we are living in the world of humans and machines. The Humans have been evolving and learning from their past experience since millions of years. On the other hand, the era of machines and robots have just begun. You can consider it in a way that currently we are living in the primitive

age of machines, while the future of machine is enormous and is beyond our scope of imagination. these machines or the robots have to be programmed before they start following your instructions. But what if the machine started learning on their own from their experience, work like Gandhi us, feel like us, do things more accurately than us?

Ms. Deepti Dhingra  
(AssistantProfessor)

## MACHINE LEARNING

### ICONS



MACHINE LEARNING



DATA MINING



ALGORITHM



CLASSIFICATION



LEARNING



NEURAL NETWORKS



DEEP LEARNING



AI



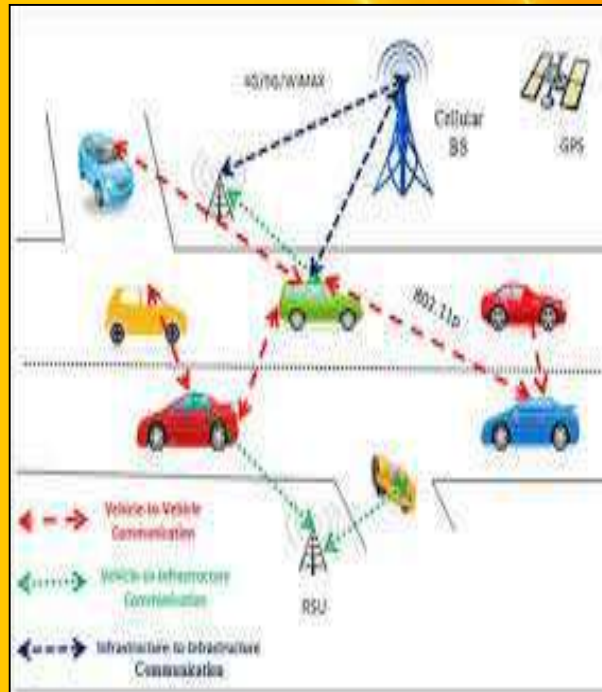
AUTONOMOUS



DATA CENTER



# Vehicular Ad hoc Network



Mobile Ad-hoc network (MANET) is emerging globally as a communication mechanism.. A MANET is generally defined as a network that has many free or autonomous nodes often composed of mobile devices or other mobile pieces that can arrange themselves in various ways and operate without strict top-down network administration[. Mobile Ad-Hoc Networks is integrated with wireless nodes that can communicate anywhere. MANET are categorised into three types: VANET, InVANET and iMANET.

Mr . Rajender Kumar  
(Assistant Professor)

# INTERNET OF THINGS(IOT)

Internet of Things is a new technological leap of the modern world. Its future scope is growing day by day. In the present world it has created lots of job opportunities. Artificial intelligence, Machine learning also comes under the concept of IOT. Many of the common tasks will be done by IOT application in the future. Being interconnected we have used the similar concept of IOT by integrating it to the present scenarios.

Internet of things is a booming technology of today's world. As the name suggests itself (internet of things) is the internet different connections of the things where things are basically devices. IOT is classification or categorization where the connected devices which we combined together and then we communicate and established protocol between them so they can communicate effectively with themselves and they can perform in a very good manner. We have one more term that is internet of everything (IOE) which include human being as well but in internet of things we consider only non-living things and devices. The basic concept beyond the internet of things is simply that when we interconnected or connected differently things or devices to the internet and extending the connectivity of internet apart from laptop, smartphone, personal computer.

The future of IOT industry is huge business insider intelligence estimates that 24 billion IOT devices will be installed by 2020. IDC also predict that IOT revenue will reach around 3 hundred and fifty -seven billion in 2020. resulting in a lot of job opportunities in the IT industry. We need of IOT for all devices to interact, collaborate and share experience's and reducing human intervention in machine cycle.

-Pawan Kumar saini  
(2817193)  
B. Tech, 3<sup>rd</sup> year

# CLOUD COMPUTING



If we are asking different peoples about cloud computing , different peoples have different views about cloud computing .someone says it is widely distributed, some says it is network based, some say it is used for storage purpose .But actually cloud computing means using someone's else server to host, to process and to store data.

**Cloud computing is the delivery of computing services—including servers, storage, databases, networking, software, analytics, and intelligence—over the Internet (“the cloud”) to offer faster innovation, flexible resources, and economies of scale.**

It is model for enabling on-demand network access to a shared pool of configurable computing resources that can be rapidly released.

Cloud computing is a big shift from the traditional way businesses think about IT resources. Here are seven common reasons organisations are turning to cloud computing services:

**Cost, speed, global scale, productivity, performance, reliability, security.**

- Mukul Goel  
(2817214)  
B. Tech, 3<sup>rd</sup> Year

# Project Based Learning

Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge. This approach uses real life problems to motivate students ,challenging them to think deeply about meaningful applicable solutions. The initiative to encourage our young scholars at PIET was taken by Dr. K.K Paliwal (Director, PIET). A panel headed by Dr. S.C Gupta (Chairperson, CSE/IT) and Dr. Vikram Bali (HOD,CSE) was constituted to make the students aware about this event. Various programmes, seminars and discussions were conducted to make students aware about various underlying problem areas.

The students were encouraged to discuss the problem areas and the proposed solution methodology. Various classes were conducted for the students to address their problems .The students appeared for the interview with various renowned foreign universities. We proudly announce that our 9 students of B. Tech (CSE) have successfully qualified the PBL interview process and are selected for internship at famous foreign universities. 9 students got selected in foreign universities.





## Hackathon 2018

Apart from curriculum, the college also pays equal concern over the practical implementation of the theoretical concepts, and in the zeal and enthusiasm the college organized: **Smart India Hackathon 2018**.



## Train your Brain

Train your Brain is an initiative by Department of Computer Science & Engineering to prepare the students for upcoming placement drives.





## Alumni Speech

I am honored to be selected to speak with you all on this most important occasion representing general nursing and midwifery students of 2012 batch to express our sincere gratitude to all and also to lovingly embrace those sweet memories which enabled us to make this day possible like this. We are very happy that you are all here to share in this celebration of the accomplishments and unique qualities of the fine members of our graduating class.

As a graduate d engineer who successfully completed 4 years of education, I feel a huge sense of pride and achievement right now and I would like all of my fellow graduates to cast your minds back to day one of PIET's adventure. At this juncture of achieving a major milestone In our life, we raise our hearts with gratitude to God almighty for all his blessings for the past 4yrs. "College is something you complete, life is something you experience. Success is defined in myriad ways and you will find that through so many people as you progress in your life journey. We are grateful to the management of PIET's college for giving us the opportunity to find this success through the experiences we gained from here. We feel proud and honored for having studied in this prestigious college, which equipped us and trained us as a professional engineers.



Anshul Chugh

B.Tech CSE (2012-16)

Working in Hitachi Consulting

## RIDDLE

A man locked his computer with a password and wrote a hint :

- 4 Grapes
- 1 Apple
- 7 Bananas
- 7 Mangoes
- 2 Pineapples
- 1 Orange
- 8 Pomegranates



**What is the password?**

**Answer:**

**4 Grapes = 4th Letter = P**

**1 Apple = 1st Letter = A**

**7 Bananas = 7th Letter = S**

**7 Mangoes = 7th Letter = S**

**2 Pineapples = 2nd Letter = I**

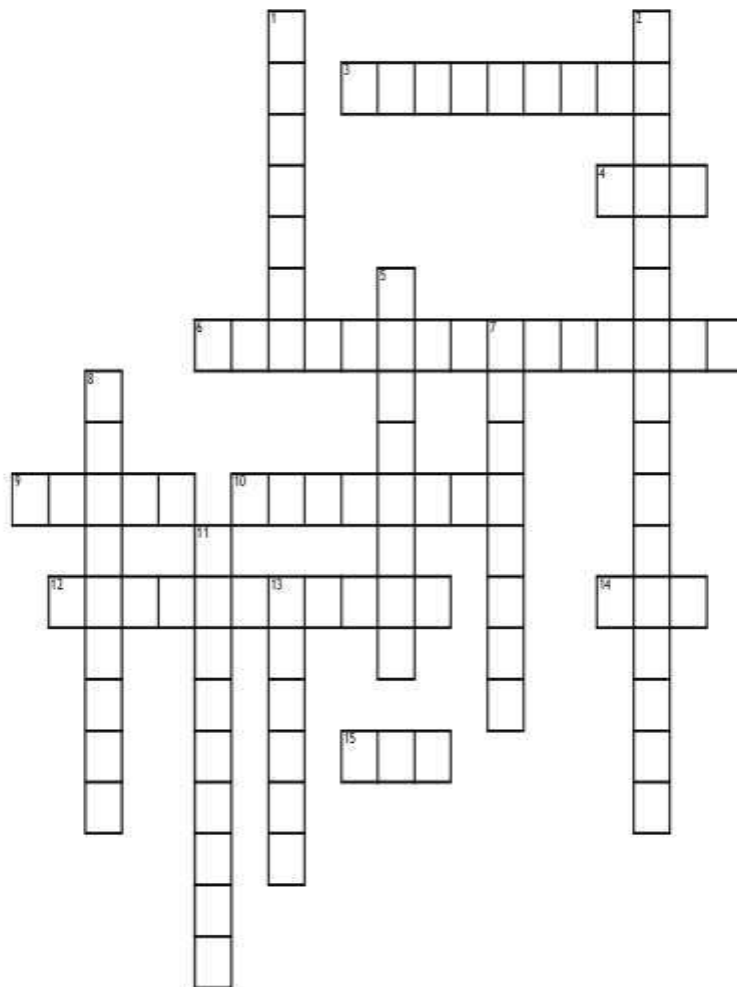
**1 Orange = 1st Letter = O**

**8 Pomegranates = N**

**Hence the password is Passion.**

# CROSS-WORD

## Computer Terms



### Across

3. The primary computer storage device, which spins, reads and writes one or more fixed disk platters.
4. Universal Serial Bus
6. is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills
9. a device or program that enables a computer to transmit data over
10. is a generic term for organized collections of computer data and instructions
12. one of the most essential parts of a computer system.
14. A central processing unit
15. Short for digital versatile disc or digital video disc

### Down

1. providing a common topic identifier in text and chat messages so they can be searched as a group. Commonly used in tweets
2. a computer designed for use by one person at a time.
5. is the collection of physical parts of a computer system.
7. The global communication network that allows almost all computers worldwide to connect and exchange information.
8. connects to the motherboard of a computer system and generates output images to display.
11. a widely used sans-serif typeface developed in 1957 by Swiss typeface designer Max Miedinger
13. refers to the copying and archiving of computer data so it may be used to restore the original after a data loss event.