

Government Polytechnic Nanded,
Information Technology

Technology and world



World will
now land
on your
door step



Our Vision

“Become premier center in Information Technology with value based education that will prepare students for ever changing technological challenges of 21st century”.

Our Mission

To train the students in the latest technologies.

Provide an environment that inculcates ethics and effective soft-skills.

Develop the skill sets among students that will benefit employer and society.

Program Outcomes

Basic and Discipline specific knowledge
: Apply knowledge of basic
mathematics,
science and engineering fundamentals
and engineering specialization to solve
the engineering problems

Problem analysis : Identify and analyse
well-defined engineering problems
using
codified standard methods

Project Management : Use engineering
management principles individually, as
team member or a leader to manage
projects and effectively communicate
about well-defined engineering
activities

Educational Outcomes

Become competent Information Technology engineer to work as a programmer or an administrator in a team or as an individual.

Pursue higher studies in relevant field of engineering with a desire for lifelong learning.

Become a successful professional with ethical and societal responsibilities.

Technology In Trend

Data Analysis

Machine Learning

Robotics

Recently Launched Laptops

Asus Rog Strix G

Lenovo ThinkPad T14 Gen2

Dell Inspiron 3511

Acer Swift 3

Data Analysis

Data analysis is a process of inspecting, cleansing, transforming, and modelling data with the goal of discovering useful information, informing conclusions, and supporting decision-making.

Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, and is used in different business, science, and social science domains.

In today's business world, data analysis plays a role in making decisions more scientific and helping businesses operate more effectively.

Data analysis is the practice of working with data to glean useful information, which can then be used to make informed decisions.

As the data companies have available to them continues to grow in both amount and complexity, so does the need for an effective and efficient process by which to harness the value of that data. The analysis method typically moves through several iterative phases. Let's take a closer look at each.

Identify the business question you'd like to answer. What problem is the company trying to solve? What do you need to measure, and how will you measure it?

Collect the raw data sets you'll need to help you answer the identified question. Data collection might come from internal sources, like a company's client relationship management (CRM) software, or from secondary sources, like government records or social media application programming interfaces (APIs).

Clean the data to prepare it for analysis. This often involves purging duplicate and anomalous data, reconciling inconsistencies, standardizing data structure and format, and dealing with white spaces and other syntax errors.

Analyze the data. By manipulating the data using various data analysis techniques and tools, you can begin to find trends, correlations, outliers, and variations that begin to tell a story. During this stage, you might use data mining to discover patterns within databases or data visualization software to help transform data into an easy-to-understand graphical format.

Interpret the results of your analysis to see how well the data answered your original question. What recommendations can you make based on the data? What are the limitations to your conclusions?

Machine Learning

Machine learning (ML) is a type of artificial intelligence (AI) that allows software applications to become more accurate at predicting outcomes without being explicitly programmed to do so. Machine learning algorithms use historical data as input to predict new output values.

Recommendation engines are a common use case for machine learning. Other popular uses include fraud detection, spam filtering, malware threat detection, business process automation (BPA) and predictive maintenance.

Why is machine learning important?

Machine learning is important because it gives enterprises a view of trends in customer behavior and business operational patterns, as well as supports the development of new products. Many of today's leading companies, such as Facebook, Google and Uber, make machine learning a central part of their operations. Machine learning has become a significant competitive differentiator for many companies.

What are the different types of machine learning?

Classical machine learning is often categorized by how an algorithm learns to become more accurate in its predictions. There are four basic approaches: supervised learning, unsupervised learning, semi-supervised learning and reinforcement learning. The type of algorithm data scientists choose to use depends on what type of data they want to predict.

Robotics

Robotics, design, construction, and use of machines (robots) to perform tasks done traditionally by human beings. Robots are widely used in such industries as automobile manufacture to perform simple repetitive tasks, and in industries where work must be performed in environments hazardous to humans.

Many aspects of robotics involve artificial intelligence; robots may be equipped with the equivalent of human senses such as vision, touch, and the ability to sense temperature.

Some are even capable of simple decision making, and current robotics research is geared toward devising robots with a degree of self-sufficiency that will permit mobility and decision-making in an unstructured environment. Today's industrial robots do not resemble human beings; a robot in human form is called an android.

What is a robotics engineer?
Robotics engineering is a field of engineering which centers on building machines that replicate human actions. A robotics engineer creates these applications or autonomous machines (aka robots) for industries such as mining, manufacturing, automotive, services and more. Often, the goal is to program machines to do repetitive, hazardous or unhealthy jobs.

What does a robotics engineer do?
A robotics engineer designs prototypes, builds and tests machines, and maintains the software that controls them. They also conduct research to find the most cost-efficient and safest process to manufacture their robotic systems.

Recently Launched Laptops

Asus Rog Strix G15

The ROG Strix G15/17 embodies streamlined design, offering a formidable core experience for serious gaming and multitasking on Windows 10 Pro. Featuring up to the latest 10th Gen Intel® Core™ i7 CPU and a GeForce RTX™ 2070 SUPER GPU, it offers high-FPS power that takes full advantage of up to a blazing fast 240Hz/3ms display.

Intelligent cooling innovations like liquid metal take performance to another level. Ultrafast Wi-Fi 6 connectivity and up to 2 SSDs running in RAID 0 accelerate work and play. Space for a third SSD means you can upgrade your storage to carry your complete games collection everywhere you go.

Specification

Operating System

Windows 10 Pro - ASUS

Processor

Intel® Core™ i7-10875H Processor

2.3 GHz (16M Cache, up to 5.1 GHz, 8 cores)

Graphics

NVIDIA® GeForce® RTX 2070

SUPER™

8GB GDDR6

Memory

16GB DDR4 SO-DIMM(3200MHz for i7-10870H/i7-10875H/i9-10980HK and 2933MHz for i5-10300H/i7-10750H) x

2

Max Capacity :

32GB

Display :-

15.6-inch
FHD (1920 x 1080) 16:9
anti-glare display

sRGB:

100%

Adobe:

75.35%

Refresh Rate:

240Hz

Response Time:

3ms

IPS-level

Optimus

Lenovo ThinkPad T14 Gen2

The work-life balance laptop

From powerful 11th Gen Intel® Core™ processors to life-like NVIDIA® graphics, the ThinkPad T14 Gen 2 (14, Intel) laptop delivers everything you need for work and fun. Blazing-fast WiFi 6E gets you online faster and more stable than ever. Plus, time-saving features like a touch fingerprint reader, Modern Standby, and Wake on Voice add convenience and simplicity to your workflow.

Specification

Processor

11th Generation Intel®
Core™ i5-1135G7 Processor
(4 Cores / 8 Threads, 2.40 GHz,
up to 4.20 GHz with Turbo
Boost, 8 MB Cache)

Operating System

DOS

Memory

8 GB DDR4 3200MHz

Hard Drive

256 GB M.2 2280 SSD

Display Type

35.56cms (14.0) FHD
(1920x1080) IPS 300nits Anti-
glare Non-Touch

Graphics

NVIDIA® GeForce® MX450
2GB GDDR6

Dell Inspiron 3511

High Speed RAM And Enormous Space 8GB high-bandwidth RAM to smoothly run multiple applications and browser tabs all at once; 1TB Hard Disk Drive allows to fast bootup and data transfer

Display 15.6-inch FHD (1920 x 1080) Anti-glare LED Backlight Non-Touch Narrow Border WVA Display

11th Gen i3 Processor 11th Generation Intel Core i3-1115G4 Dual-Core Processor (2 Cores, 4 Threads, 6MB Intel Smart Cache, Base Frequency at 3.00 GHz, Up to 4.10 Ghz at Maximum Turbo Speed)

Tech Specs 802.11ac 1x1 WiFi and Bluetooth, 1 x microSD Card Reader, 1 x USB 2.0, 1 x Power-adapter, 1 x HDMI 1.4 port, 2 x USB 3.2 Gen 1, 1 x Headphone & Microphone Audio Jack

Operating System Windows 11 Home-Beautiful, more consistent new design, Great window layout options, Better multi-monitor functionality, Improved performance features, New videogame selection and capabilities, Compatible with Android Apps

Acer Swift 3

Acer Swift 3 is a Windows 10 Home laptop with a 14.00-inch display that has a resolution of 1920x1080 pixels. It is powered by a Ryzen 5 processor and it comes with 8GB of RAM. The Acer Swift 3 packs 512GB of SSD storage.

Connectivity options include Bluetooth and it comes with HDMI Port ports.

As of 5th December 2021, Acer Swift 3 price in India starts at Rs. 59,999.

Processor: Intel Core i5-1035G1 processor, turbo up to 3.6 Ghz |

Display: 14" display with IPS technology, Full HD 1920 x 1080, high-brightness Acer ComfyView™ LED-backlit TFT LCD

Memory: 8 GB of onboard LPDDR4 system memory
Storage: 512 GB, PCIe Gen3 8 Gb/s up to 4 lanes, NVMe
Design: 1.19 kgs light, 1.59cm thin

Graphics: Intel UHD Integrated Graphics

Additional softwares: Pre-installed Windows 10 Home
Additional: Thin narrow, 4.37mm bezel ; 84% screen-to-body ratio; New Thunderbolt 3 supported port

Country of Origin: China

Respected Principal - Dr.G.V.Garje sir

HOD - S.N.Dhole sir

Mentor - B.K.Bokare sir

**Structured by - Taniya Vijaysing
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