

Android System

-Mr. Shingade Pratik (TYIF)

Mobile-device testing functions to assure the quality of **mobile devices**, like **mobile phones, PDAs**, etc. It is conducted on both hardware and software, and from the view of different procedures, the testing comprises R&D testing, factory testing and certificate testing. It involves a set of activities from monitoring and trouble shooting mobile application, content and services on real handsets. It includes verification and validation of hardware devices and software applications. Test must be conducted with multiple operating system versions, hardware configurations, device types, network capabilities, and notably with the Android operating system, with various hardware vendor interface layers. Certification testing is the check before a **mobile device** goes to market. Many institutes or governments require mobile devices to conform with their stated specifications and **protocols** to make sure the mobile device will not harm users' health and are compatible with devices from other manufacturers. Once the mobile device passes all checks, a **certification** will be issued for it. When users submit mobile apps to application stores/marketplaces, it goes through a certification process. Many of the



se vendors outsource the testing and certification to third party vendors, to increase coverage and lower the costs.^[1]

Cont. from page 1 Hacking

A **hacker** is a person skilled in **information technology** who uses their technical knowledge to achieve a goal or overcome an obstacle, within a computerized system by non-standard means. Though the term *hacker* has become associated in **popular culture** with a **security hacker** – someone who utilizes their technical know-how of **bugs** or **exploits** to break into computer systems and access data which would otherwise be inaccessible to them – hacking can also be utilized by legitimate figures

in legal situations. For example, **law enforcement agencies** sometimes use hacking techniques in order to collect evidence on criminals and other malicious actors. This could include using anonymity tools (such as a **VPN**, or the **dark web**) to mask their identities online, posing as criminals themselves.^[1] Likewise, covert world agencies can employ hacking techniques in the legal conduct of their work. On the other hand, hacking and cyber-attacks are used extra- and illegally by law enforcement

and security agencies (conducting warrantless activities), and employed by **state actors** as a weapon of both legal and ille-

Cont... Machine Learning

Reinforcement machine learning algorithms is a learning method that interacts with its environment by producing actions and discovers errors or rewards. Trial and error search and delayed reward are the most relevant characteristics of reinforcement learning.

WEB DEVELOPING

-Mr. Amar Kadam (SYIF)

Web development is the work involved in developing a **website** for the **Internet (World Wide Web)** or an **intranet** (a private network).^[1] Web development can range from developing a simple single **static page** of **plain text** to complex **web applications, electronic businesses, and social network services**. A more comprehensive list of tasks to which Web development commonly refers, may include **Web engineering, Web design, Web content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and e-commerce** development.



Among Web professionals, "Web development" usually refers to the main non-design aspects of building Web sites: writing **markup** and **coding**.^[2] Web development may use **content management systems** (CMS) to make content changes easier and available with basic technical skills. For larger organizations and businesses, Web development teams can consist of hundreds of people (**Web developers**) and follow standard methods like **Agile methodologies** while developing Web sites. Smaller organizations may only require a single permanent or contracting developer, or secondary assignment to related job positions such as a **graphic designer** or **information system**

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Message From HOD

It is our pleasure to present first issue of news letter "TANTRA" of our department to all student's. This news letter is one of the ways in which we can disseminate the information about department. It covers various technological articles, departmental activities, achievements of students and staff members.

I wish you all Happy Independence Day..!

Mrs. R.K Malgonde

SOFTWARE DEVELOPEMENT

-Mr. Digambar Shinde

Software development is the process of conceiving, specifying, designing, **programming, documenting, testing, and bug fixing** involved in creating and maintaining **applications, frameworks**, or other software components. **Software** development involves writing and **maintaining the source code**, but in a broader sense, it includes all processes from the conception of the desired software through to the final manifestation of the software, typically in a planned and **structured** process.^[1] Software development also includes research, new development, prototyping, modification, reuse, re-engineering, maintenance, or any other activities that result in software products. The sources of ideas



for software products are plentiful. These ideas can come from **market research** including the **demographics** of potential new customers, existing customers, sales prospects who rejected the product, other internal software development staff, or a creative third party. Ideas for software products are usually first evaluated by **marketing** personnel for economic feasibility, for fit with existing channels distribution, for possible effects on existing product lines, required **features**,

and for fit with the company's marketing objectives. In a marketing evaluation phase, the cost and time assumptions become evaluated. A decision is reached early in the first phase as to whether, based on the more detailed information generated by the marketing and development staff, the project should be pursued further.^[4] In the book "Great Software Debates", **Alan M. Davis** states in the chapter "Requirements", subchapter "The Missing Piece of Software Development" "Students of engineering learn engineering and are rarely exposed to finance or marketing. Students of marketing learn marketing and are rarely exposed to finance or engineering. Most of us become specialists in just one

Dark Web

- Ms Ankita Chopde, (SY-IF)

Machine learning (ML) is a field of inquiry devoted to understanding and building methods that 'learn', that is, methods that leverage data to improve performance on some set of tasks.^[1] It is seen as a part of **artificial intelligence**. Machine learning algorithms build a model based on sample data, known as **training data**, in order to make predictions or decisions without being explicitly programmed to do so.^[2] Machine learning al-


gorithms are used in a wide variety of applications, such as in medicine, **email filtering, speech recognition, and computer vision**, where it is difficult or unfeasible to develop conventional algorithms to perform the need-



ed tasks. A subset of machine learning is closely related to **computational statistics**, which focuses on making predictions using computers, but not all machine learning is statistical learning. The study of **mathematical optimization** delivers methods, theory and application domains to the field of machine learning. **Data mining** is a related field of study, focusing on **exploratory data analysis**



RECENT TRENDS IN IT

Ubuntu (*/uˈbʊntuː/*  *listen*) *uu-BUUN-too*^[1] is a **Linux distribution** based on **Debian** and composed mostly of **free and open-source software**.^{[8][9][10]} Ubuntu is officially released in three editions: **Desktop**,^[11] **Server**,^[12] and **Core**^[13] for **Internet of**

things devices^[14] and **robots**.^[15] All the editions can run on the computer alone, or in a **virtual machine**.^[17] Ubuntu is a popular **operating system** for **cloud computing**, with support for **OpenStack**.^[18] Ubuntu's default desktop has release

is **22.04** ("Jammy Jellyfish").



Sport Achievement's

MSBTE has organized Zonal Level Sport competition in the year of 2019. In that competition our students got prizes in various events.

1. Rohan Pawar (Wrestling)
2. Onkar Bhoase (Volleyball wining team member)
3. Makarand Khiste and Sudarshan Makar (Runner up -chess)

Training Attended

Faculty	Workshop
Mr.Misal G.S	Industry 4.0
Mr.Bhandar e P.S	Industry Consulting
Ms. Parkhe S.A	High Speed Digital System
Mrs. Malgonde R.K	R-Programming



Headphone's Bluetooth Connectivity

Adity Patil (SYIF)

Headphones are a pair of small **loudspeaker drivers** worn on or around the head over a user's ears. They are **electroacoustic transducers**, which convert an **electrical signal** to a corresponding **sound**. Headphones let a single user listen to an audio source privately, in contrast to a **loudspeaker**, which emits sound into the open air for anyone nearby to hear. Headphones are also known as **earspeakers**, **earphones**^[1] or, **colloquially**, **cans**.^[2]

that plug into the user's ear canal. A third type are **bone conduction** headphones, which typically wrap around the back of the head and rest in front of the ear canal, leaving the ear canal open. In the context of **telecommunication**, a **headset** is a combination of headphone and **microphone**. Headphon



es connect to a signal source such as an audio **amplifier**, **radio**, **CD player**, **portable media player**, **mobile phone**, **video game console**, or **electronic musical instrument**, either directly using a cord, or

using **wireless** technology such as **Bluetooth**, **DECT** or **FM radio**. The first headphones were developed in the late 19th century for use by **telephone operators**, to keep their hands free. Initially the audio quality was mediocre and a step forward was the invention of **high fidelity** headphones.^{[3][4]} Headphones exhibit a range of different audio reproduction quality capabilities. Headsets designed for telephone use typically cannot reproduce sound with the **high fidelity** of expensive units designed for music listening by **audiophiles**. Headphones that use cables typically have either a 1/4 inch (6.35mm) or 1/8 inch (3.5mm) **phone jack** for plugging the headphones into the audio source.

MSBTE Summer 2022 Examination: Our Ranker's

Sr. No.	Name of Student	Marks %	Class
1	Shivraj Yadav	90.13	FYIF
2	Snehal Kadam	88.49	FYIF
3	Pruthviraj Sarde	86.13	FYIF
4	Chavan Avdhoot	95.50	SYIF
5	Vasekar Gayatri	94.00	SYIF
6	Shingade Pratik	92.75	SYIF
7	Mali Akansha Rajendra	83.20	TYIF
8	Koli Rohit Shankar	82.40	TYIF
9	Ghadge Priya Sambhavi	82.13	TYIF

EDITORIAL

It gives us great pleasure to present the first issue of our Department newsletter "TANTRA"2019, which gives us the opportunity to focus the achievements in our department and new trends in Computer Engineering field.

We are thankful to all the students and faculties who have contributed during the preparation of this newsletter. We have tried our best and given positive efforts, expecting creative responses from everyone to continue the flow of knowledge through this

Editor –Mr. Digambar Shinde
Co-Editor– Mr. raviraj Waghmare

Workshop

Department has organized 40 days workshop on Python for third year students and 15 day workshop on PHP for second year students in the collaboration with TechnoWings International IT Solution. The main motive of such workshop is to bridge gap between Academics and Industry.



Wish you Happy 73rd Independence day

Our Vision

To Provide diploma education strengthened with basic knowledge and skills along with professional ethics enabling students to reach higher goals in the filed of Information Technology

Our Mission

1. To impart value based technical education in Information Technology
2. To support the students for technical knowledge in the field of Information Technology
3. To make students efficient in various skill sets in Information Technology
4. To encourage students for lifelong learning

LINUX OPRATING SYSTEM

- Ms. Rudrani Kore (SY IF)

Linux is a family of **open-source Unix-like operating systems** based on the **Linux kernel**,^[12] an **operating system kernel** first released on September 17, 1991, by **Linus Torvalds**.^{[13][14]} Linux is typical-

ly **packaged** in a **Linux distribution**.Distributions include the Linux kernel and supporting **system software** and **libraries**, many of which are provided by the **GNU Project**. Many Linux distributions use the

word "Linux" in their name, but the **Free Software Foundation** uses the name "**GNU/Linux**" to emphasize the importance of **GNU** software, **causing some controversy**.^{[16][17]} Popular Linux distributions^{[18][19]}

^[20] include **Debian**, **Fedora Linux**, and **Ubuntu**, which in itself has many different distributions and modifications, include ng **Lubuntu** and **Xubuntu**. Commercial distributions in-



Linux

Robotic Process Automation (RPA)

-Ms. Ankita Chopde (SY IF)

macOS (*/ˌmækoʊˈɛs/*;^[8] previously **Mac OS X** and later **OS X**) is a **Unix** operating system^[9] developed and marketed by **Apple Inc.** since 2001. It is the primary operating system for Apple's **Mac computers**. Within the market of desktop and laptop comput-

ers it is the **second most widely used desktop OS**, after **Microsoft Windows** and ahead of **ChromeOS**.macOS succeeded the **classic Mac OS**, a **Macintosh operating system** with nine releases from 1984 to 1999. During this time, Apple cofounder **Steve Jobs** had left Apple and started another company, **NeXT**, developing the **NeXTSTEP** platform that would later be acquired by Apple to form the basis of macOS.The first desktop version, **Mac OS X 10.0**, was released in March 2001, with its first update,

10.1, arriving later that year. All releases from **Mac OS X 10.5 Leopard**^[10] and after are **UNIX 03** certified,^[11] with an exception for **OS X 10.7 Lion**.^[12] Apple's mobile operating system, **iOS**, has been considered a variant of macOS.^[13]A prominent part of macOS's original **brand identity** was the use of **Roman numeral X**, pronounced "ten" as in Mac OS X and also the **iPhone X**, as well as **code naming** each release after species of **big cats**, or places within **California**.^[14] Apple shortened the name to "OS X" in 2012 then **PowerPC-**

