



Sandip Foundation's

Sandip Institute of Engineering and Management, Nasik

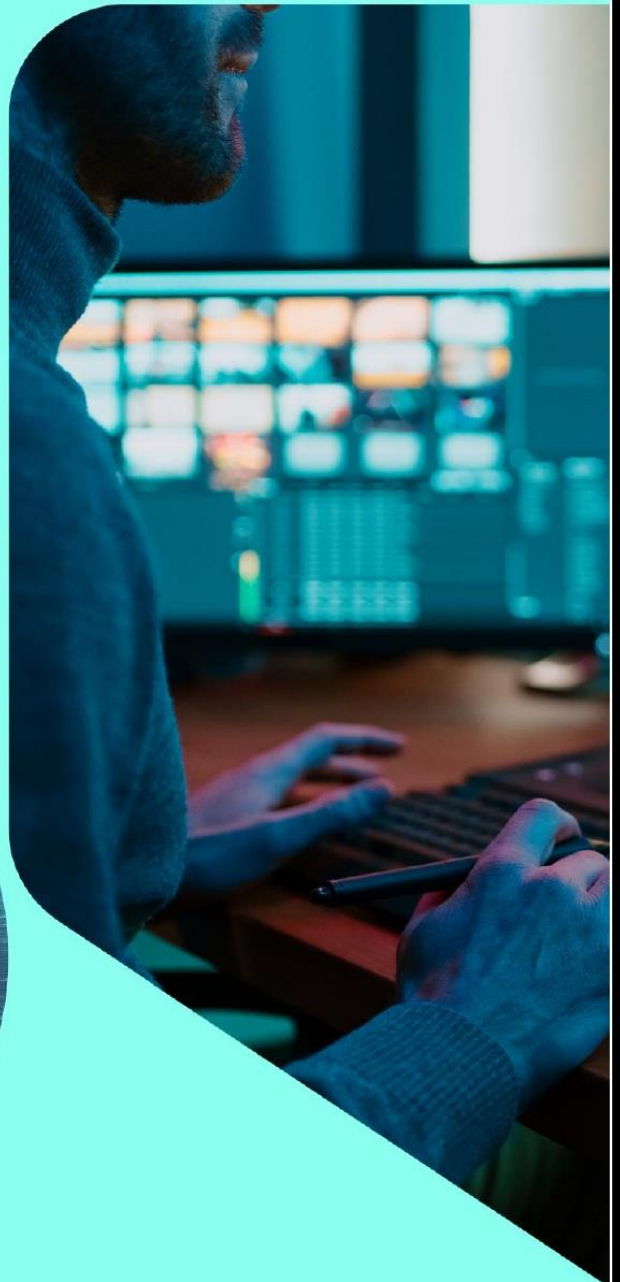


SANDIP
FOUNDATION

DEPARTMENT OF COMPUTER ENGINEERING

Presents

E-Insights



Volume 6

Issue 1

2024-25

About SIEM



Sandip Institute of Engineering and Management (SIEM) is located in the scenic, eco-friendly and conducive-to-study campus at an elevation off the Trimbak Road (Mahiravani, Nasik) leading to one of the twelve renowned pilgrimages of jyotirlingas known as Trimbakeshwar (abode of Lord Shiva) at the foot hills of Brahmagiri mountain ranges. SIEM is approved by All India Council for Technical Education, New Delhi Government of India and affiliated to Savitribai Phule University of Pune. SIEM is committed to imparting quality education in an atmosphere that will ensure that its students are confident, self motivated and industry-ready. Towards this goal, we are giving importance to qualified and experienced faculty for effective teaching-learning process, equipping our laboratories with best-in-class machines and instrument and developing overall personality of our students (with emphasis on strengthening the fundamentals of subjects, ability to work as a team and good communication skill). There is a well formulated regime with a blend of theoretical learning and practical experience. This enables the faculty to guide the students to learn tomorrow, today.

Sandip Foundation's

Sandip Institute of Engineering and Management, Nasik.

Department of Computer Engineering



July, 2024

E-Insights

Volume 6: Issue 1

About Department

Computer Engineering

The Department of Computer Engineering sustains and strengthens its teaching and learning program by adapting a comprehensive student centric approach designed to add significant value to the learner in an integrated manner through conceptual and interactive teaching, active lab sessions, seminars, projects, and independent study. As the continued up gradation of the knowledge and skills of faculty members is vital for continuous growth and development of the department, faculties are motivated to attend workshops, seminars, conferences and Training programs. Department has well equipped state-of-the-art laboratories with latest hardware and software configuration for conducting various practical's as well as highly qualified and experienced faculty to nurture the future technocrats of the nation.

Editor-in-chief

Mr.Nilesh B.Madke

Editor

Ms.Gayatri Ahire

Ms.Sakshi Girme

Vision and Mission of Institute

Vision of the Institute

We at SIEM aspire to be a globally recognized Institute that delivers a world class education to outstanding intellectuals by nurturing and grooming their interests, creative abilities and thrusts to acquire a life-long learning so as to imbibe values of their commitment towards society.

Mission of the Institute

We at SIEM shall strive continuously,

- To inculcate and imbibe knowledge of cutting-edge technologies and its implementation for solving real life problems in E conducive environment.
- To collaborate with national and international institutes/industries/universities of repute for sustainable growth through tearr work.
- To motivate and retain highly skilled and knowledgeable individuals, whose creativity and interest in teaching upholds to achieve desired goals.
- To provide a dedicated platform to cater the needs of individuals and inspire them for their intellectual growth and character building.
- To enable the students to achieve excellence in the chosen fields and to share the responsibilities of citizenship and service in E disciplined manner.

Vision and Mission of Department

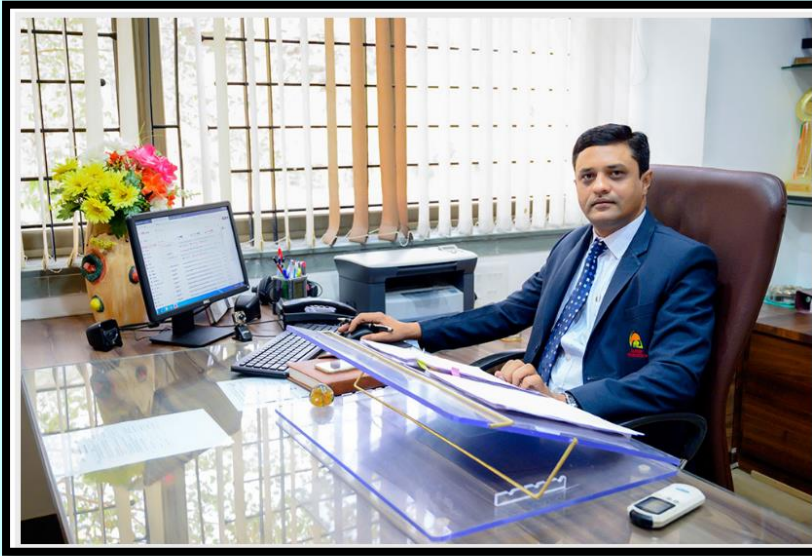
Vision of the Department

The department aims to be recognised in the field of quality education through excellence in teaching, learning, research and innovation for the betterment of society.

Mission of the Department

- To provide world class infrastructure with modern tools and technologies for better learning ambiance.
- To enhance problem-solving skills approaches by encouraging young and inspiring minds with innovative teaching & learning.
- To build competent professionals and entrepreneurs through collaborative learning with national and international institutes of repute.
- To contribute in the development of society & nation at large through excellence in research and innovation.

Golden Words from Principal



Welcome to Sandip Foundation's Sandip Institute of Engineering and Management.

Representing Sandip Institute of Engineering and

Management is a great matter of pride for me. In this marvelous campus of Sandip Foundation, we strive to inculcate values in students which nurture them in a way that makes them excel in academics, innovation and personal growth. The prime interest of the institute has always been to impart knowledge, values, skills and wisdom in students to empower them to become the torch bearers of their respective fields.

We support an all-encompassing approach to education that integrates academic concepts with real-world applications. We pledge to deliver each and every stakeholder top-notch facilities and services. In order to integrate academic understanding to real-world problems and applications, our laboratories and research facilities provide students with hands-on learning opportunities.

We encourage our students to engage in extracurricular and intellectual activities as a supplement to their academic endeavors.

These experiences aid in the development of critical life skills, the enhancement of communication abilities, and the formation of enduring

connections that will last a lifetime. The institutes additionally offer employability-enhancement programs, value-added programs, and credentials in addition to the primary academic curriculum. Furthermore, we furnish webinars, seminars, guest lectures, workshops, and skill-based training modules for advancing the level of bar of the knowledge of students' field of interest.

In my ability and as this prestigious institution's principal, I can confidently assure you that we are dedicated to creating an orderly and enriching campus environment. To ascertain everyone's success both academically and personally, we place a high priority on their well-being and provide the best assistance whenever required.

Let's change the world together and leave an enduring impression of being an integral part of the Sandip Group of Institutes.

Thank You. Best Regards.
Dr. Dipak P. Patil Principal

Valuable Words from Head of the Department

Greeting from the Department of Computer Engineering!!



The world is going through a tremendous positive transformation, and in education its effects are clearly visible. We in the Department of Computer Engineering wish to be part of this positive change utilizing our core strengths in Technical knowledge, Research, Data Analytics and world class Infrastructure. Department of Computer Engineering was established in the year 2010 with Bachelor of Computer Engineering (BE) Programme with Intake of 60. Being an integral part of an institution, Sandip Institute of Engineering and Management, Sandip Foundation, Nasik, naturally helps the department and its programmes imbibe all the values and ethos that have made the institute an epitome of excellence.

The rigorous education and training which students get, helps them to tackle the complexity of the engineering and corporate environment as they are able to unshackle themselves from the confines of mere technical competencies. With a carefully designed syllabus by SPPU, we keep up to the true Sandip Foundation tradition of sensitizing ourselves with the latest trends in the industry. The emphasis of the training, Value added Programs in the Department is on building technical as well as people skills, which is indispensable for each of our students to do well in their life.

The class being a heterogeneous mix of academically motivated students from diverse, yet related fields naturally enriches the learning environment, turning it into a fountainhead of vibrant ideas.

The response from both academic institutes as well as industry has been very enthusiastic and encouraging. This bears testimony to the fact that our alumni have made us proud by assuming various positions in reputed organizations like Persistent, Accenture, Amazon, Synel and many more. The placement of the students has been equally encouraging as they have joined many reputed organizations like Infosys, Persistent, Amazon, TCS, Accenture, etc

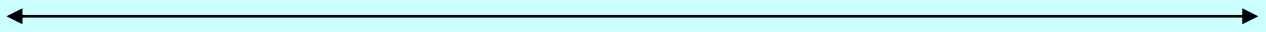
All these achievements of the department would not have been possible without the enthusiastic and dedicated work of our past and present faculty members. Department faculty members are exceptionally dedicated set of teachers and at the same time top notch researchers in their field of study publishing on regular intervals in reputed journals. They have also done the department extremely proud by writing various books, book chapters etc. Department has also been in the fore front of industry interaction.

We are supremely confident that in years to come Department with its rigorous and regularly updated syllabus, research, innovative teaching techniques and active participation with industry will enforce the reputation of as an enviable seat of higher learning.

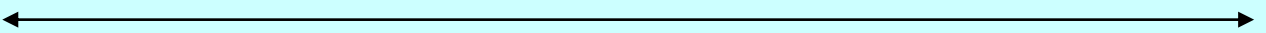
Dr. K. A. Shirsath (Nalavade)
Head, Department of Computer Engineering
Sandip Institute of Engineering and Management, Nasik

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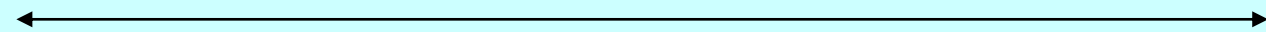
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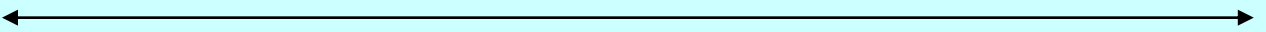
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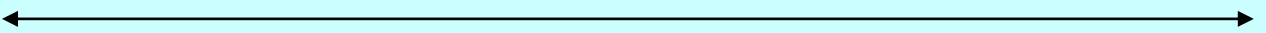
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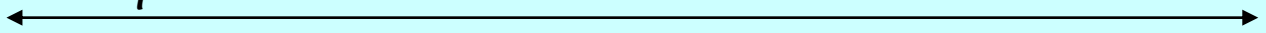
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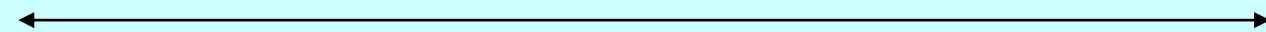
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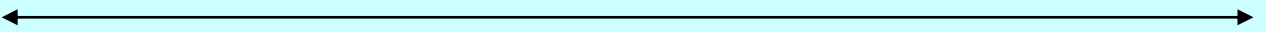
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01. Robotic Process Automation.



What is Robotic Process Automation (RPA)?

Robotic Process Automation (RPA) refers to software that helps companies automate repetitive tasks, improving operational efficiency, reducing costs, and increasing profit margins. RPA is designed to handle cognitive activities more quickly and accurately, enhancing and extending human capabilities. By automating time-consuming manual processes, RPA solutions reduce errors and make our clients' operations more intelligent. Additionally, they boost workforce productivity by automating not only mundane tasks but also complete end-to-end business processes.

The History of Robotic Process Automation (RPA)

According to Grand View Research, the U.S. robotic process automation market alone is projected to exceed \$12 billion by 2028, with a compound annual growth rate (CAGR) of 32.8% since 2020. Much of this growth is driven by RPA service models, where the RPA-as-a-service segment accounted for over 61% of the market share in 2020 and continues to grow at the fastest rate.

Modern end-to-end automation has evolved significantly, becoming a key technology in today's business landscape. In this section, we explore the history of RPA and how its adoption has progressed over time. By examining this journey, you'll discover why RPA is a powerful catalyst for accelerating the future of fully digitally transformed businesses.

We are now entering the fourth industrial revolution—an era defined by comprehensive automation. As a key driver of this revolution, RPA incorporates cloud deployment features and mimics human cognition through unattended automation mechanics. Thousands of enterprises worldwide have already embraced this technology. To understand why this happened, let's trace the key stages of RPA's development that have shaped it into what it is today.

What are the Business Benefits of Robotic Process Automation (RPA)?

Robotic Process Automation (RPA) offers significant business benefits by drastically reducing errors and the time required to complete repetitive tasks. This automation allows employees to focus on more strategic work, enhancing customer satisfaction by providing quick and accurate responses around the clock. RPA also improves data quality, expands data collection opportunities, strengthens brand presence, and helps reduce fraud by limiting human contact with private and sensitive data. Moreover, automation enhances compliance, boosts business outcomes, and cuts overhead costs.

How Does RPA Work?

How exactly does Robotic Process Automation work? What is the process for a business to evaluate, implement, and deploy new software robots? While the specifics may vary depending on the platform a business chooses, we can explore the general approach to RPA. This includes evaluating the business's needs, setting up the necessary infrastructure, and deploying software robots to automate tasks. Along the way, you'll encounter different types of RPA, each offering distinct functionalities to address specific business challenges.

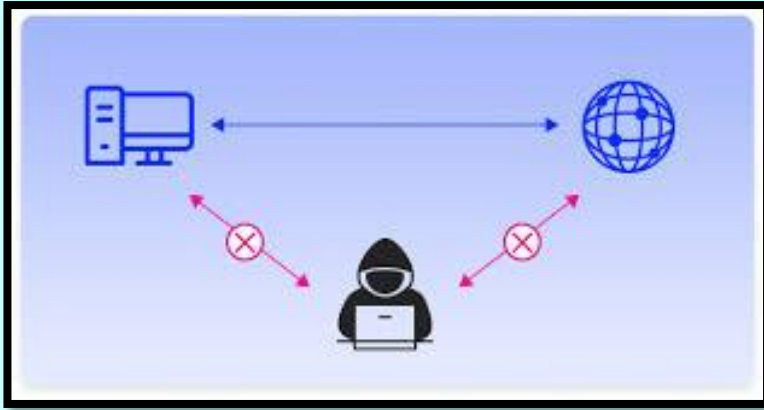
Benefits of Robotic Process Automation (RPA)

- 1. Increased Efficiency:** RPA can complete tasks much faster than humans and operates 24/7 without fatigue, resulting in a significant boost in productivity.
- 2. Cost Savings:** Automating routine tasks reduces labour costs and minimizes errors, leading to substantial cost savings for organizations.
- 3. Improved Accuracy:** RPA bots consistently follow predefined rules, reducing the risk of errors that often occur with manual processing.
- 4. Enhanced Compliance:** RPA ensures tasks are performed in alignment with regulatory requirements and standards, helping businesses maintain better compliance.
- 5. Scalability:** RPA can be easily scaled up or down to meet fluctuating workloads, making it highly adaptable to changing business needs.
- 6. Employee Satisfaction:** By delegating repetitive tasks to bots, employees can focus on more strategic, creative, and engaging work, resulting in higher job satisfaction.

Conclusion

Robotic Process Automation (RPA) represents a major advancement in how organizations manage and optimize their processes. By automating repetitive, rule-based tasks, RPA enhances efficiency, accuracy, and cost-effectiveness while also enabling scalability. As technology evolves, integrating RPA with advanced technologies like artificial intelligence (AI) and machine learning will further expand its capabilities and benefits. In today's fast-paced business environment, RPA provides organizations with a valuable tool to streamline operations, focus on strategic initiatives, and

02. WIFI Security Protocol WPA3.



WPA3, short for Wi-Fi Protected Access 3, is the third generation of a security certification standard developed by the Wi-Fi Alliance. It is an enhanced version of WPA2, which had been the standard since 2004. The Wi-Fi Alliance started certifying products with WPA3 security in 2018, offering stronger protection for wireless networks.



WPA3: Enhancing Wireless Network Security

WPA3 is designed to significantly improve the security of wireless networks, building upon the foundation set by WPA2. It offers enhanced protection for both personal and enterprise Wi-Fi networks by providing stronger safeguards for data transmission.

Key updates in WPA3 include better protection for simple passwords, encryption for personal and open networks, and more robust encryption for enterprise networks. Specifically, the WPA3 protocol introduces advanced features like the 256-bit Galois/Counter Mode Protocol (GCMP-256), 384-bit Hashed-based Message Authentication Code (HMAC), and 256-bit Broadcast/Multicast Integrity Protocol (BIP-GMAC-256). These improvements provide a much higher level of security.

Additionally, WPA3 supports security measures such as perfect forward secrecy, which generates a temporary private key for each session, ensuring that a unique session key is created for every connection between clients and servers.

However, WPA3 is not automatically supported on all devices. Users who want to benefit from WPA3's enhanced security features will need to purchase a router that supports WPA3 or check if their existing device is compatible with the new protocol.

Why You Need WPA3

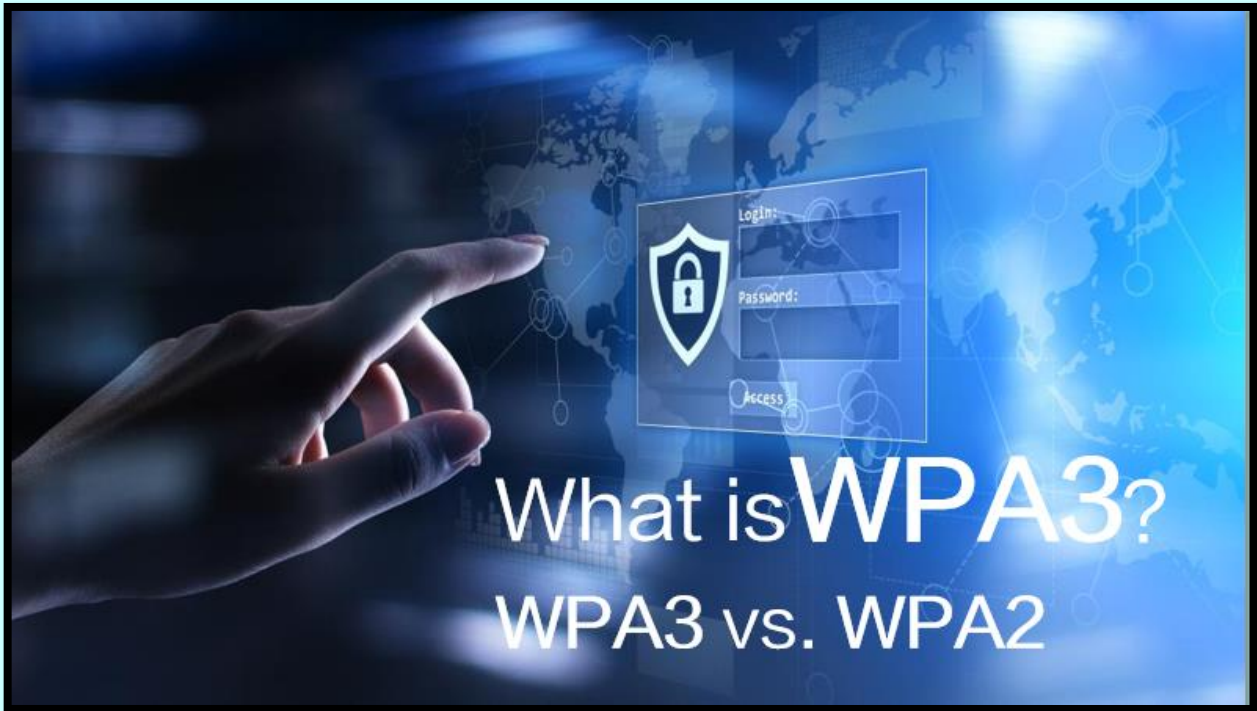
1. **Enhanced Security Features:** WPA3 provides significant improvements in security over WPA2, particularly with the introduction of Simultaneous Authentication of Equals (SAE). SAE strengthens password protection, making it much more difficult for attackers to execute brute-force attacks. Unlike WPA2, WPA3 prevents offline password guessing, which greatly reduces the risk of unauthorized access to your network.
2. **Forward Secrecy:** WPA3 supports forward secrecy, ensuring that even if a security key is compromised, previously intercepted data remains secure and cannot be decrypted. This is essential for protecting sensitive information, particularly in environments where personal, financial, or confidential data is transmitted over Wi-Fi networks.

With WPA3, your network is better equipped to withstand modern cyber threats, making it a crucial upgrade for safeguarding both personal and enterprise environments.

Organizational Challenges of Implementing WPA3

1. **Cost and Budget Constraints:** Upgrading to WPA3 often requires new hardware and network infrastructure, which can be a significant financial burden, particularly for small businesses and organizations with limited budgets.
2. **Staff Training:** IT personnel must be trained on how to implement, configure, and troubleshoot WPA3. This training requires time, effort, and resources, potentially stretching an organization's capabilities.
3. **User Acceptance:** End-users may resist changes to their familiar Wi-Fi networks. This makes it essential for organizations to effectively communicate the benefits of WPA3 to ensure a smooth transition and greater user acceptance.

WPA3 vs. WPA2



While WPA2 represented an improvement over its predecessors, WPA3 offers even more advanced security features and protections. Here's how WPA3 compares to WPA2:

SAE Protocol: WPA3 introduces the Simultaneous Authentication of Equals (SAE) protocol, which provides a more secure handshake during the connection process between a network device and a wireless access point. This enhances security even if a user's password is weak, offering a stronger handshake compared to WPA2.

Individualized Data Encryption: Unlike WPA2, which uses shared passwords for public networks, WPA3 employs the Device Provisioning Protocol for new device registrations. This allows users to add devices using near-field communication tags or QR codes, and WPA3 utilizes GCMP-256 encryption for added security, compared to the 128-bit encryption used in WPA2.

Stronger Brute-Force Attack Protection: WPA3 enhances protection against offline password guessing attacks by limiting users to a single guess attempt. This requires physical interaction with the Wi-Fi device for each password attempt, unlike WPA2, which does not provide built-in encryption for public open networks and is more vulnerable to brute-force attacks.

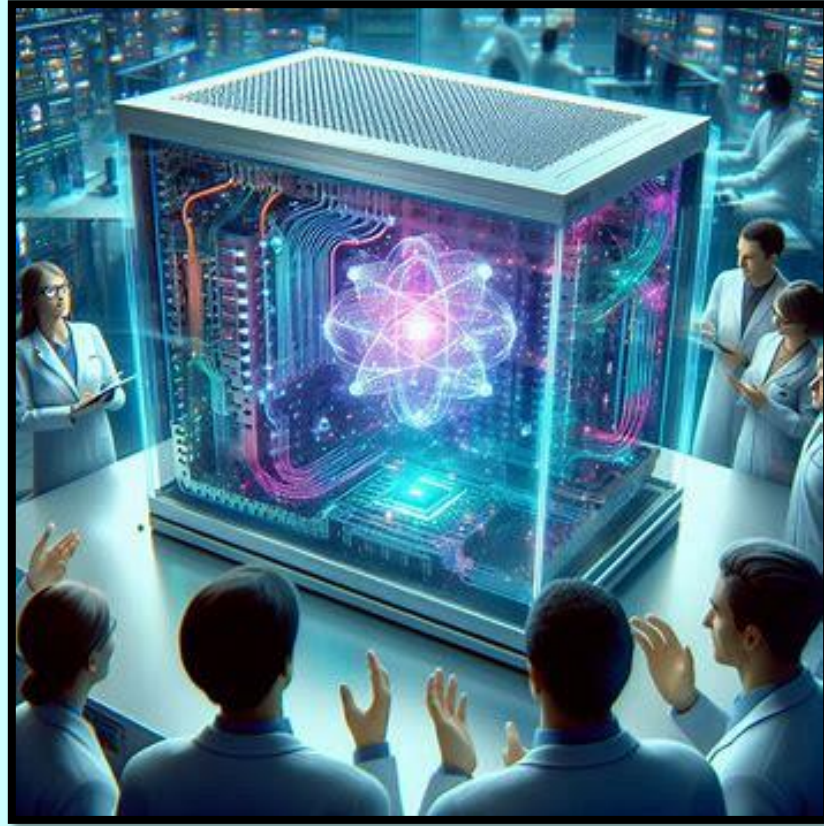
Larger Session Keys: WPA3 supports larger session key sizes, offering up to 192-bit security for enterprise environments, providing greater protection compared to WPA2.

Encryption: While WPA2 uses the Advanced Encryption Standard (AES) for encryption, WPA3 utilizes the more secure GCMP (Galois/Counter Mode Protocol) for enhanced data protection.

Conclusion

WPA3 represents a significant leap forward in Wi-Fi security, addressing many vulnerabilities present in WPA2 and offering enhanced protections for both personal and enterprise networks. With features such as SAE, individualized data encryption, stronger brute-force attack protection, and larger session keys, WPA3 provides a more secure wireless experience. As more devices and network operators adopt WPA3, the overall security of Wi-Fi networks will improve, making it a crucial upgrade for anyone concerned with online safety. This comprehensive overview highlights the advanced features and benefits of WPA3, underscoring its importance in modernizing Wi-Fi security.

03. Quantum Computing.



"Quantum computing is not just the next step in technology; it represents a fundamental shift in how we approach complex problems, harnessing the power of quantum mechanics to unlock possibilities far beyond the reach of classical computers."

What is Quantum Computing?

Quantum computing is an innovative approach to computation that leverages principles from fundamental physics to tackle highly complex problems at unprecedented speeds.

How does a Quantum Computer Work?

Classical computing, which powers devices like laptops and smartphones, is based on bits. Each bit represents a unit of information that can be either a zero or a one. In contrast, quantum computing utilizes quantum bits, or qubits. Qubits can represent zero, one, or any combination of both simultaneously, thanks to a property known as superposition. This allows quantum computers to handle a vast number of possible outcomes at once.

In classical computing, solving a problem with multiple variables requires sequential calculations, with each variable change necessitating a new computation. Each calculation follows a single path to one result. Quantum computers, however, exploit superposition to explore numerous paths in parallel, significantly enhancing their problem-solving capabilities.

Moreover, qubits can be entangled, a phenomenon where the state of one qubit is dependent on the state of another, regardless of the distance between them. This entanglement allows qubits to scale exponentially—two qubits can store and process four bits of information, three qubits can handle eight bits, and so forth. This exponential scaling provides quantum computers with a power far beyond that of classical computers.

What Are Quantum Computers Used For?

Classical computers, while effective for many tasks, operate with a limited set of inputs and generate a single output based on these inputs. They use algorithms to provide specific answers. Quantum computers, on the other hand, interact with multiple qubits, enabling them to perform numerous calculations simultaneously. This capability allows quantum computers to process data much faster and solve complex problems more efficiently.

For calculations within a narrow scope, classical computers remain the preferred choice. However, quantum computers shine when dealing with highly intricate problems. They excel at narrowing down a range of possible solutions, offering a spectrum of potential answers rather than a single definitive result. This makes them invaluable for solving problems in fields such as cryptography, optimization, and material science, where classical computers may struggle with the complexity or scale of the problem.

What Are Qubits?

Qubits: The basic units of quantum computing, created by manipulating quantum particles (e.g., photons, electrons) or engineered systems like superconducting circuits. Unlike classical bits, qubits can represent both 0 and 1 simultaneously, enabling powerful quantum computations.

The difference between Quantum and Classical Computing

Classical Computing: Utilizes bits (0 or 1) and processes data sequentially, one operation at a time. Used in everyday devices like laptops and smartphones.

Quantum Computing: Uses qubits, which can represent 0, 1, or both simultaneously (superposition). It processes data in parallel, leveraging quantum mechanics for complex problem-solving.

Industries that stand to benefit the most from Quantum Computing

Pharmaceuticals: Quantum computing has the potential to transform drug research and development in the biopharmaceutical industry. By enabling more precise simulations of molecular structures and chemical reactions, quantum technologies could reduce the reliance on trial-and-error methods, accelerating the development of new drugs and making R&D processes more efficient.

Mobility: Quantum computing could play a key role in creating a fully connected, intelligent, and environmentally friendly mobility ecosystem. This industry relies on the rapid and seamless exchange of vast amounts of data between in-vehicle computers and external systems. Quantum computers can process and analyse this data much faster than classical computers, making real-time decision-making and complex data exchanges a feasible reality, which is crucial for advancements in autonomous vehicles and smart transportation systems.

Finance: While quantum computing in finance is still in its early stages, it holds significant promise for the future. Quantum computing could revolutionize portfolio management, risk analysis, and optimization of financial strategies. For example, quantum-optimized loan portfolios could enhance collateral management, allowing lenders to offer more competitive products. Estimates suggest that, once fault-tolerant quantum computers become available, quantum computing in finance could create up to \$622 billion in value, especially in areas such as risk modelling, fraud detection, and complex financial simulations.

These industries, along with others like cybersecurity, logistics, and materials science, are expected to benefit significantly as quantum computing continues to evolve, offering new solutions to complex challenges that were previously unsolvable with classical computing.

Advantages of Quantum Computing

- **Speed:** Quantum computers process data exponentially faster than classical computers for complex tasks.
- **Complex Problem Solving:** They excel at handling problems like cryptography, climate modelling, and financial simulations.
- **Enhanced Security:** Quantum cryptography offers stronger encryption and data protection.
- **Drug Discovery:** They can simulate molecules precisely, accelerating breakthroughs in medicine and materials science.
- **Optimization:** Quantum computing can optimize systems like supply chains and logistics efficiently.
- **AI Advancements:** It enhances machine learning and data processing, boosting AI capabilities.

Conclusion

Quantum computing is rapidly advancing as many of today's leading computing groups, universities, and IT vendors dive into research. This momentum is expected to accelerate as more theoretical work evolves into practical applications. While fully functional quantum computers may still be years away, the once-fanciful idea of quantum computing is becoming increasingly plausible.

The current focus is not on building a complete quantum computer immediately, but on transitioning from experiments that observe quantum phenomena to those that control them. Systems governed by quantum mechanics have the potential to outperform any classical computer, presenting immense opportunities and rewards. However, significant technological and conceptual challenges remain.

04.Esports & Gaming.



"Esports and gaming have transformed from casual pastimes into a global phenomenon, where passion, skill, and competition collide, creating a new frontier for entertainment, community, and innovation."



Esports

History of Esports

Esports has rapidly evolved into a billion-dollar industry. What began as a casual gaming hobby in the 1990s transformed into an organized, professional sport. Today, esports championships are watched live by tens of millions of fans, with the industry's growth showing no signs of slowing down. In fact, esports is even being considered for future Olympic inclusion.

Major media networks like ESPN, TBS, SyFy, and Telemundo now broadcast esports events, and traditional sports leagues such as the NBA and NHL have launched their own esports tournaments. Some NBA and NFL team owners have also invested in esports teams.

In the U.S., over 600 colleges and universities have introduced varsity esports teams or scholarships. Additionally, PlayVS has partnered with 19,500 high schools to bring esports to students nationwide. With this kind of momentum, it's clear that esports is here to stay.

Why is Esports so popular?

Esports taps into gamers' innate desire for competition and the drive to be the best. From humble beginnings in 1972, when the first esports winner received a Rolling Stone magazine subscription, to today's massive prize pools worth millions, the competitive spirit is central to gaming culture.

Additionally, esports is highly accessible. Unlike traditional sports that require physical presence and organization, esports allows gamers to compete with people worldwide instantly, from the comfort of their own homes, as long as they have an internet connection. This accessibility has made esports a global phenomenon, attracting millions of participants and viewers.

How much do Esports Players make?

Esports players can earn significant sums, sometimes rivalling traditional sports figures. For example, in 2019, Tiger Woods won \$3 million for winning The Masters in golf, a sport with a long history.

In comparison, 16-year-old 'Bugha' earned the same amount—\$3 million—by winning the Fortnite World Championship, a game that was only created in 2017. This highlights how esports can offer impressive earnings to top players, reflecting its rapid growth and popularity.

Gaming

What is Gaming?

Gaming involves playing electronic video games on platforms like dedicated gaming consoles, PCs, or smartphones. Individuals who frequently play video games are known as gamers.

How popular is Gaming?

Gaming is immensely popular globally, with over 3 billion people estimated to play video games. In 2022, the worldwide gaming market was valued between \$180 billion and \$220 billion, approximately twice the size of the global film industry. The majority of this market is driven by people playing games on their smartphones.

Origins of Gaming

The term "gaming" originally referred to gambling with dice or card games in the 15th century. It was used in this context until the late 1900s, when it began to also refer to recreational board games and pen-and-paper role-playing games. With the advent of video games in the 1970s, "gaming" increasingly came to be associated with its modern usage, encompassing electronic and digital games.

Types of Gaming

Casual Gaming: Casual gamers play games irregularly or only engage in low-intensity games. Examples include playing word or puzzle games on a smartphone during downtime. Casual gaming is the largest segment of the market due to its accessibility and wide appeal. Casual gamers often do not identify strongly as gamers.

Hardcore Gaming: Hardcore gamers play video games regularly and typically own dedicated gaming devices like consoles or PCs. They may play multiple games but have a particular focus on one or more favourite types. Hardcore gamers usually self-identify as gamers and invest significant time in their hobby.

Professional Gaming: Professional gamers earn money through gaming. This includes eSports athletes who compete in tournaments, often as part of teams, and streamers who make income from live-streaming their gameplay on platforms like Twitch or YouTube. Professionals may earn through tournament prize pools, sponsorships, viewer donations, and ad revenue. They usually focus on a specific game or genre.

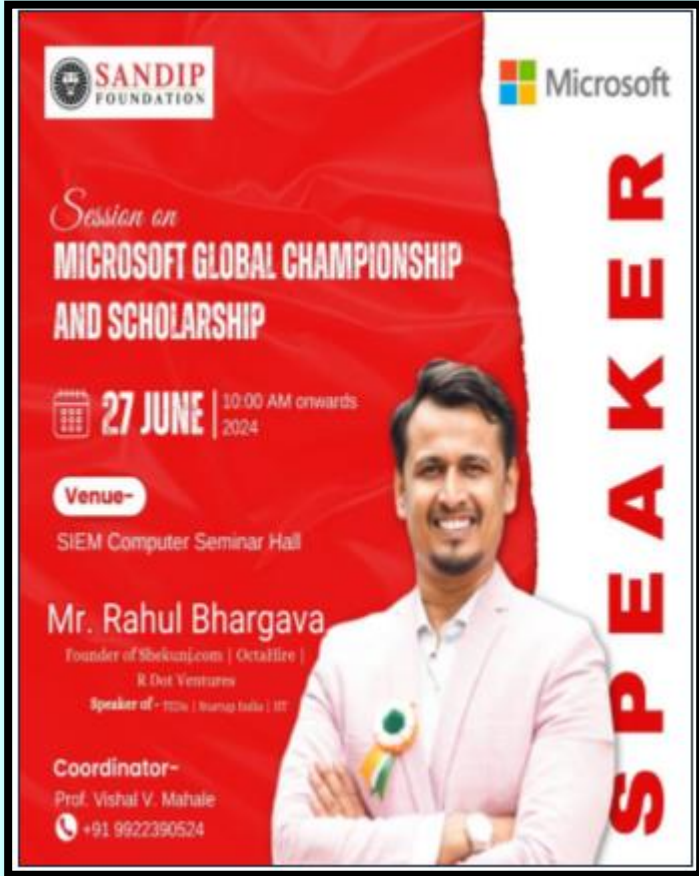
Conclusion

Institutions of all sizes can develop or expand esports programs, tailored to their unique needs and interests. Starting with just one or two games, schools can gauge student interest through streaming, community events, and tournaments. Establishing a communal gaming room or arena can attract students and foster a vibrant gaming community. Even small programs offer significant benefits, as students—from athletes to support staff—gain valuable skills and experiences by engaging with coaches, mentors, and peers in the esports world.

05. Seminar on “Microsoft Global Championship and Scholarship”.

- 1. Event Title:** Microsoft Global Championship and Scholarship
- 2. Event Date:** 27/06/2024
- 3. Event Conduction Duration:** 1 pm to 3 pm
- 4. Event Venue:** Third Year Classroom
- 5. Event Resource Person Details:** Mr Rahul Bhargava Founder of shekung.com|R Dot Ventures
- 6. Name of Event Coordinator:** Prof V. V. Mahale
- 7. Expected Audience:** TE, BE Students
- 8. Number of Participants:** 55
- 9. Course Content:** Championships and free certifications of Google and mircosoft.
- 10. Event Objectives & Outcomes:**
 - **Objectives:** To make students aware of the free championships and certification programs and assist them for participate in that.
 - **Outcome :** The seminar by Mr Rahul Bhargava helped students gain information about free certifications programs, championships and scholarships by companies like Google, Microsoft.

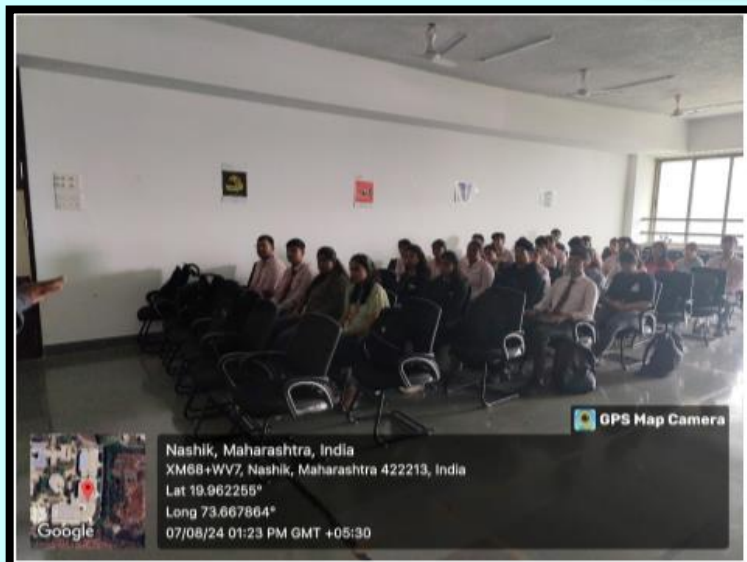
11. Photos:



06. Seminar on Placement Guidance for Winjit.

1. **Event Title:** Placement Guidance for Winjit.
2. **Event Date:** 07/08/2024
3. **Event Conduction Duration:** 1 PM to 2.30 PM
4. **Event Venue:** Computer Seminar Hall
5. **Event Resource Person Details:** Dr Prasad P. Kulkarni (Central TPO)
6. **Name of Event Coordinator:** Prof V. V. Mahale
7. **Expected Audience:** BE
8. **Number of Participants:** 28
9. **Event Objectives & Outcomes:**
 - **Objectives:** To make students aware of the placement drive of winjit and to guide the students regarding the drive.
 - **Outcome:** The seminar by Dr Prasad Kulkarni helped students gain information about winjit Company and the job roles at the company. Along with that students gain insights for placement drive of the company.

10. Photos:



07. Expert Session on Quantum Computing & Edge Computing.

1. **Event Title:** Quantum Computing & Edge Computing
2. **Event Date:** 14/08/2024
3. **Event Conduction Duration:** 10 AM to 12 AM
4. **Event Venue:** Third Year Classroom
5. **Event Resource Person Details:** Prof. Shital Bhandari
6. **Name of Event Coordinator:** Dr. K. C. Nalavade & Prof. Nilesh Madke
7. **Expected Audience:** TE
8. **Number of Participants:** 53
9. **Course Content:**
 - Superposition, Wave-Particle Duality, the Uncertainty Principle, and Entanglement.
 - Superposition, entanglement and interference.
 - Edge AI with Run.
 - Edge IoT Architecture.
10. **Event Objectives & Outcomes:**
 - **Objectives:** To make students aware of the Quantum computing & Edge Computing.

- **Outcome:** The seminar by Prof. Shital Bhandari helped students gain information about Quantum Computing & Edge Computing, Storage and computing resources from data centers are deployed as close as possible, ideally at the same location.

11. Photos:



o8.Report on Event “Teachers Day Celebration”.

1. **Event Title:** Teacher’s Day Celebration
2. **Event Date:** 5/09/2024
3. **Event Conduction Duration:** 1 day (Timings: 03 PM to 05 PM)
4. **Event Venue:** Computer Seminar Hall
5. **Name of Event Coordinator:** Prof. N. R. Hiray
6. **Expected Audience:** All the teachers and Students of Computer Engineering Department.
7. **Event Photos:**

