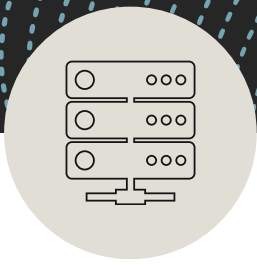


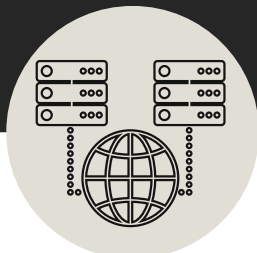
DIGITAL SYSTEM

Digital systems are the backbone of modern technology, found in everything from computers to control systems.



Data Representation in Digital Systems

Digital systems represent information using binary (0s and 1s). Data can also be expressed in decimal and hexadecimal formats, with binary being essential for processing in computers



Fundamental Logic Gates

Logic gates are the building blocks of digital systems. Each gate performs a basic logical function, such as AND, OR, or NOT. Gates receive input values and generate an output based on logical rules



Types of Digital Circuits

Digital circuits are categorized into combinational and sequential circuits. Combinational circuits depend solely on current inputs, while sequential circuits also depend on previous states, enabling memory functions



Applications of Digital Systems

Digital systems are integral to various applications, including computers, mobile devices, and automated control systems. They enable efficient processing, storage, and management of digital information



Conclusion

Digital systems are crucial to modern technology, forming the basis for devices we use daily. Understanding these basics opens the door to deeper knowledge in electronics and computing.