

**SEMESTER – 1<sup>st</sup> to 3<sup>rd</sup>**

**VALUE ADDED COURSE**

**DTS022V DIGITAL AND TECHNOLOGICAL SOLUTIONS**

**CREDITS: 02**

***Course Objectives:***

- *To gain familiarity with digital paradigms*
- *To sensitize about role & significance of digital technology*
- *To provide know how of communications & networks*
- *To bring awareness about the e-governance and Digital India initiatives*
- *To provide a flavour of emerging technologies - Cloud, Big Data, ai 3D printing*

***Course Outcome:***

1. *Knowledge about digital paradigm.*
2. *Realization of importance of digital technology, digital financial tools, e-commerce.*
3. *Know-how of communication and networks.*
4. *Familiarity with the e-governance and Digital India initiatives*
5. *An understanding of use & applications of digital technology.*
6. *Basic knowledge of all machine learning and big data*

**COURSE CONTENTS:**

**UNIT I**

Introduction & Evolution of Digital Systems. Role & Significance of Digital Technology. Information & Communication Technology & Tools. Computer System & it's working, Software and its types. Operating Systems: Types and Functions. Problem Solving: Algorithms and Flowcharts.

Communication Systems: Principles, Model & Transmission Media. Computer Networks & Internet: Concepts & Applications, WWW, Web Browsers, Search Engines, Messaging, Email, Social Networking. Computer Based Information System: Significance & Types. E-commerce & Digital Marketing: Basic Concepts, Benefits & Challenges.

**UNIT II**

Digital India & e-Governance: Initiatives, Infrastructure, Services and Empowerment. Digital Financial Tools: Unified Payment Interface, Aadhar Enabled Payment System, USSD, Credit / Debit Cards, e-Wallets,