**PROJECT SYNOPSIS**

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| DEPARTMENT | Computer Science and Engineering | | | |
| TITLE OF THE PROJECT | VPN tunnel using Cisco Packet Tracer | | | |
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| MINI - PROJECT TIMELINE  (Tentative Start date- End Date) | September 2019 to December 2019 | | | |
| PROJECT GUIDE DETAILS | Prof. Sarla | | | |
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| FIELD OF PROJECT | This project deals with Computer Networking. | | | |
| BACKGROUND OF PROJECT WITH REGARD TO THE DRAWBACK ASSOCIATED WITH EXISTING PRODUCT/PROJECT | Previously, data transfer lacked security. Accessing data from remote geographical networks were impossible. The primary benefit of a VPN is enhanced security and privacy. VPN tunnels encrypt the traffic sent to and from the user, making it all but impossible for would-be attackers to use any data they intercept. VPN tunnels are useful when you need to access something on a remote network. VPN tunnels also obscure user’s IP address, they also make it harder for third parties to track a user’s online activity. | | | |
| OBJECTIVE OF THE PROJECT | A VPN provides a means by which remote computers communicate securely across a public WAN such as the Internet. A VPN connection can link two LANs (site-to-site VPN) or a remote dial-up user and a LAN. The traffic that flows between these two points passes through shared resources such as routers, switches, and other network equipment that make up the public WAN. To secure VPN communication while passing through the WAN, the two participants create an IP Security (IPsec) tunnel. | | | |
| PROJECT STATEMENT | To create a VPN Tunnel using Cisco Packet Tracer. | | | |
| SUMMARY OF THE PROJECT | Now-a-days data security has become a major concern for people working at home, businesses, security companies and so on. In this highly vulnerable cyber world, we need ways to secure our data that is being transmitted over network. One way of securing it is provided by VPN tunneling. This project shows how to create a VPN tunnel between systems connected over a network by providing a pathway between two hosts without using the router. The data is secured using encryption and passed between the hosts thus decreasing the chances of the necessary data being acquired by the attackers at routers or other network inter-connections. | | | |
| MODE OF CARRYING OUT THE PROJECT  (Give details such as Lab/ /Innovation Lab details.) | The Computer Network project will be carried out in the Computer Science and Engineering Department of DSCE. | | | |
| INTENDED BENEFICIARIES OF THE PROJECT (industrial/commercial/R&D/social) | VPN provides a lot of benefits:   * VPNs Protect Private Data Over Public Wi-Fi * VPNs Can Circumvent Censorship * VPN can be used on any network or Hotspot * VPN allow access to geo-restricted contents. | | | |
| ABSTRACT | Providing data security is becoming a top priority for people as everything around us now connected over large interconnected networks that are vulnerable to attacks. VPN tunneling provides safer passage of this data over remote network to the users by setting up a connection between the host and encrypting the data. Hence a safer network is provided to be used by the hosts for their respective transcations/conversations. | | | |