17CS22P2- COMPUTER NETWORKS LAB

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| **Course Category:** | Core | **Credits:** | 2 |
| **Course Type:** | Laboratory | **Lecture – Tutorial – Practical:** | 0-0-3 |
| **Prerequisite:** | Knowledge in Computer Fundamentals and basic Network essentials. | **Sessional Evaluation:**  **Univ. Exam Evaluation:**  **Total Marks:** | 40  60  100 |
| **Objectives** | * To learn and practice the essentials of computer network layers, protocols and supporting applications. | | |

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| **Course Outcomes** | At the end of this lab session, the students will be able to understand the basics of computer Network layers and simulate some of the protocols & application |
| **Course Content** | 1. Create Sample Wired Network Using NS-2 Simulator 2. Create Routing Algorithms and Analyze them by using NS-2 Simulator 3. Create TCP Connection Between two Nodes and find Through put of it using NS-2 Simulator 4. Create UDP Connection Between two Nodes and find Through put of it using NS-2 Simulator 5. Create WebPages 6. Write a java Program for Framing techniques 7. Write a java Program for Error Detection Mechanism 8. Write a java Program for Error Correction Mechanism |
| **Text Books and References:** | **Reference Books:**   1. Computer Networks - Andrew S Tanenbaum, 4th Edition, Pearson Education 2. [Introduction to Network Simulator NS2](http://www.springer.com/in/book/9780387717593) by Teerawat Issariyakul, Ekram Hossain, 2nd Edition, Springer 3. Java™ : The Complete Reference by Herbert Schildt, Seventh Edition 4. HTML, XHTML and CSS Bible by Steven M. Schafer, 5th Edition, Wiley Publications |
| **E-Resources** | 1. [**https://google.com**](https://google.com) 2. [**http://iiti.ac.in/people/~tanimad/JavaTheCompleteReference.pdf**](http://iiti.ac.in/people/~tanimad/JavaTheCompleteReference.pdf) 3. [**https://bayanbox.ir/view/3697480237749666667/Introduction-to-Network-Simulator-NS2-2012.pdf**](https://bayanbox.ir/view/3697480237749666667/Introduction-to-Network-Simulator-NS2-2012.pdf) 4. [**ftp://ftp.micronet-rostov.ru/linux-support/books/programming/HTML-CSS/[Wiley]%20%20HTML,%20XHTML,%20and%20CSS%20Bible,%205th%20ed.%20-%20[Steven%20M.%20Schafer].pdf**](ftp://ftp.micronet-rostov.ru/linux-support/books/programming/HTML-CSS/%5bWiley%5d%20%20HTML,%20XHTML,%20and%20CSS%20Bible,%205th%20ed.%20-%20%5bSteven%20M.%20Schafer%5d.pdf) |