

<http://users.utcluj.ro/~bogdaniancu/rc.html>

sau

http://ftp.utcluj.ro/pub/users/dadarlat/retele_an4/

Prezentarile ppt de la 9 pana la 18

Reference books:

Vasile Teodor Dadarlat, Emil Cebuc: *Rețele Locale de Calculatoare - de la cablare la interconectare*, Editura Alabastra (MicroInformatica), 2005

A. Tanenbaum – *Computer Networks*, Prentice Hall, 2005 (Tradusa in limba romana: A. Tanenbaum – *Rețele de Calculatoare, editia a 4a*, Byblos, 2004)

W. Stallings – *Data and Computer Communications*, Prentice Hall (10th edition 2013)

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|-----|---|
| 1) | Flow Control Techniques: Stop and Wait Sliding Window |
| 2) | HDLC (High-level Data Link Control) protocol and frame structure; |
| 3) | CSMA/CD FDDI |
| 4) | FastEthernet, GigabitEthernet, 10 GigabitEthernet and 100 GigabitEthernet |
| 5) | Wireless LAN |
| 6) | Spanning-Tree protocol |
| 7) | Routing strategies |
| 8) | Nyquist theorem and Shannon's theorem Time Division Multiplexing TDM Frequency Division Multiplexing FDM Synchronous transmission vs Asynchronous transmission Switching techniques: packet switching |
| 9) | Transmission Media: twisted pair cables (TP) and fiber optics |
| 10) | ADSL (Asymmetric Digital Subscriber Line) |

Terms and concepts (short definitions):

Symmetric vs asymmetric communication

Analog vs Digital data

Role and examples of Data encoding

Hub, Switch, Router

Structured Cabling – necessity and elements

Bit stuffing role and necessity (example on HDLC protocol)