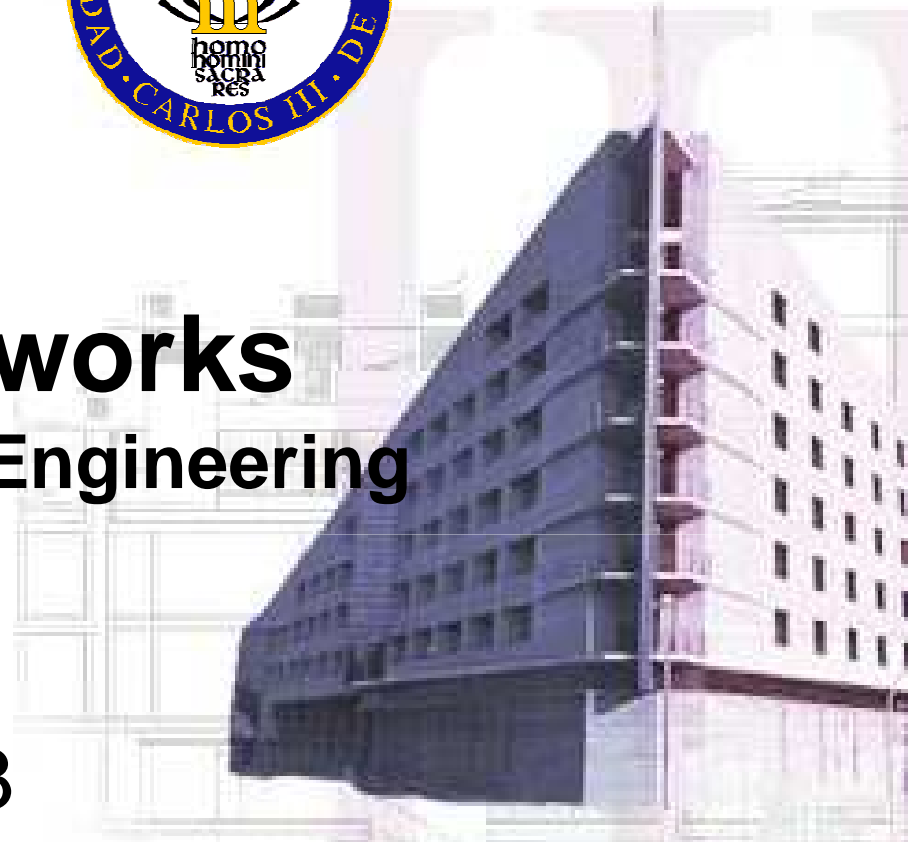




Broadband Networks

Master in Telematics Engineering

Course 2012/2013



Lecturers

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Office: **4.0F08**



Objectives

To study future **Broadband Technologies to be deployed by network operators:**

❖ **Optical Networks:**

- Switching in optical networks (WDM, OWS, OBS, OPS)
- Optical access networks (FTTx, PONs)
- Optical metro networks (TT-FR/FT-FR optical rings)
- Optical transport networks (SONET/SDH, OTN)

❖ **Evolution of Ethernet Networks:**

- Metro Ethernet networks (ME, PB, PBB-TE)
- Data Center Switching (DC arch, FCoE, TRILL/SPB)
- Energy Efficient Ethernet (EEE)

❖ **Multi-Protocol Label Switching (MPLS):**

- MPLS-TP & GMPLS
- Virtual Private Networks (L3VPN, L2VPN, VPLS, L1VPN)



Student Evaluation

- **Participation in class:**
 - ❖ Attendance & active participation (10%).
 - ❖ Read papers & comment them (10%).
- **Two partial tests:**
 - ❖ Test 1 covers Optical Networks part (25%).
 - ❖ Test 2 covers Ethernet & MPLS parts (25%).
- **Final exam:**
 - ❖ Final exam covers ALL topics (50%).



Course Programme

Mondays (16:15-17:45) and Wednesdays (18:00-19:30) at 4.0E01

Week	Date	Time	Room	Topics
1	Mon, Nov 26 2012	16:15-17:45	4.0E01	Welcome & Optical Networks Intro
	Wed, Nov 28 2012	18:00-19:30	4.0E01	Optical Access Networks
2	Mon, Dec 03 2012	16:15-17:45	-	Master's Seminar
	Mon, Dec 05 2012	18:00-19:30	-	Master's Seminar
3	Mon, Dec 10 2012	16:15-17:45	4.0E01	Optical Metro Networks
	Wed, Dec 12 2012	18:00-19:30	4.0E01	Optical Transport Networks
4	Mon, Dec 17 2012	16:15-17:45	4.0E01	Test 1 & Metro Ethernet
	Wed, Dec 19 2012	18:00-19:30	4.0E01	Energy Efficient Ethernet
5	Mon, Dec 24 2012	-	-	Holidays
	Wed, Dec 26 2012	-	-	Holidays
6	Mon, Dec 31 2012	-	-	Holidays
	Wed, Jan 02 2013	-	-	Holidays
7	Mon, Jan 07 2013	-	-	Holidays
	Wed, Jan 09 2013	18:00-19:30	4.0E01	Data Center Switching
8	Mon, Jan 14 2013	16:15-17:45	4.0E01	MPLS-TP & GMPLS
	Wed, Jan 16 2013	18:00-19:30	4.0E01	MPLS Protection Mechanisms
9	Mon, Jan 21 2010	16:15-17:45	4.0E01	Virtual Private Networks
	Wed, Jan 23 2010	18:00-19:30	4.0E01	Test 2



Course Resources

- ◆ **Course Web page:**
<http://www.it.uc3m.es/muruenya/bn/>
- ◆ **Restricted content (slides, papers)**
Login: bn
Password: bn201213
- ◆ **Check webpage for homework & news**

