



WiLab at the  
University of Bologna



# First NEWCOM++ Summer School

June 30 - July 4, 2008  
Bressanone, Italy

***“Wireless Sensor Networks”***

**Organisers:**

**Roberto Verdone (CNIT)**

**Carles Anton & Mischa Dohler (CTTC)**

**Local Organiser:**

**Silvano Pupolin (CNIT)**



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# Programme

	MON	TUE	WED	THU	FRI	Time Table
	Summer School					
Morning	1	3	4	5	6	<div style="background-color: #cccccc; width: 80px; height: 20px; margin-bottom: 5px;"></div> 9h00 <div style="background-color: #cccccc; width: 80px; height: 20px; margin-bottom: 5px;"></div> 10h30 <div style="background-color: #cccccc; width: 80px; height: 20px; margin-bottom: 5px;"></div> 11h00 <div style="background-color: #cccccc; width: 80px; height: 20px;"></div> 12h30
Afternoon	2	Emerging Topic Workshop				<div style="background-color: #cccccc; width: 80px; height: 20px; margin-bottom: 5px;"></div> 14h00 <div style="background-color: #cccccc; width: 80px; height: 20px; margin-bottom: 5px;"></div> 15h30 <div style="background-color: #cccccc; width: 80px; height: 20px; margin-bottom: 5px;"></div> 16h00 <div style="background-color: #cccccc; width: 80px; height: 20px;"></div> 17h30

Coffee breaks offered by CNIT and University of Padova.  
Lunch at own's expenses



# Programme

## *Monday 30th June*

1a	'Introduction and Applications'	(1h30min)	R. Verdone
1b	'Industrial Efforts & Standardization'	(1h30min)	M. Dohler
2a	'Hardware & Experimentations'	(1h30min)	R. Verdone & M. Dohler
2b	'Channel Modelling for WSNs'	(1h30min)	C. Oestges

## *Tuesday 1st July*

3a	'MAC, Routing and Data Aggregation'	(3h)	M. Dohler
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## *Wednesday 2nd July*

4a	'Network Coding'	(1h30min)	R. Koetter
4b	'Topology Control and Connectivity'	(1h30min)	R. Verdone

## *Thursday 3rd July*

5a	'UWB for WSNs'	(1h30min)	D. Dardari
5b	'Localisation Techniques'	(1h30min)	D. Dardari

## *Friday 4rd July*

6a	'Distributed Data Estim. Protocols'	(1h30min)	C. Anton
6b	'Final Discussion'	(1h30min)	D. Dardari



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**NEWCOM++**

**Network of Excellence in Wireless Communications**

**Funded by EC through FP7**

**Jan 2, 2008 - Dec 31, 2010**

**[www.newcom-project.eu:8080/Plone](http://www.newcom-project.eu:8080/Plone)**



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## NEWCOM++

- |                  |    |
|------------------|----|
| 1. ISMB          | IT |
| 2. BILKENT/KHAS  | TK |
| 3. TECHNION      | IL |
| 4. NKUA-IASA     | GR |
| 5. CNIT          | IT |
| 6. UPC           | ES |
| 7. CTTC          | ES |
| 8. IST-TUL       | PT |
| 9. CNRS          | FR |
| 10. CEA-LETI     | FR |
| 11. LNT-TUM      | DE |
| 12. RWTH         | DE |
| 13. UCL/UGENT    | BE |
| 14. FTW/TUW      | AT |
| 15. PUT          | PL |
| 16. CHALMERS/KAU | SE |
| 17. AAU          | DK |



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## Research WPs

## Leader

<b>WPR1</b>	<b>MIMO channel modeling</b>	<b>Bernard Fleury</b>
<b>WPR2</b>	<b>Effects of partial CSI and feedback</b>	<b>Raymond Knopp</b>
<b>WPR3</b>	<b>Adaptive coding/modulation for the wireless channel</b>	<b>Andreas Polydoros</b>
<b>WPR4</b>	<b>Iterative receivers for wireless communications</b>	<b>Jossy Sayir</b>
<b>WPR5</b>	<b>Coding for multi-hop wireless nets (inc. network coding)</b>	<b>Ralf Koetter</b>
<b>WPR6</b>	<b>Relaying and cooperation in networks</b>	<b>Luc Vandendorpe</b>
<b>WPR7</b>	<b>Joint source and channel co-decoding</b>	<b>Pierre Duhamel</b>
<b>WPR8</b>	<b>Scheduling and adaptive radio resource assignment</b>	<b>Roberto Verdone</b>
<b>WPR9</b>	<b>Joint RRM and Flexible use of radio spectrum</b>	<b>Ramon Agustí</b>
<b>WPR10</b>	<b>Scaling laws in wireless networks (network inf theory)</b>	<b>Leandros Tassiulas</b>
<b>WPR11</b>	<b>Opportunistic networks</b>	<b>Sergio Palazzo</b>
<b>WPA</b>	<b>Security in wireless networks</b>	<b>Merouane Debbah</b>
<b>WPB</b>	<b>Localization and positioning</b>	<b>Marco Luise</b>
<b>WPC</b>	<b>Flexibility issues</b>	<b>Dominique Noguét</b>

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**WPI2 - Higher education in wireless communications**

**Silvano Pupolin**