## MASTER IN SATELLITE SYSTEMS AND SERVICES



SCUOLA DI INGEGNERIA AEROSPAZIALE



MASTER IN SATELLITI E

# "Next door to space"

services of the University of Rome La Sapienza has the purpose to develop high level competences in the space sector, namely in the field of space missions, space systems and services delivered by space like telecom. Earth systems observation, navigation, science. The operative and industrial aspect of the activity is especially considered.

The Master in Satellite systems and

English is the official language of the course. The first five months of the course are devoted to lectures in class. The international teaching community is made by a team of experts with different affiliations (academy, industry. space agencies and other public institutions). The system view on the space vehicle characterizes with the the course along operative and management aspects.





The participants develop a one month teamwork activity in the frame of the Concurrent Engineering Lab developed by La Sapienza. The six months stages are designed with the host companies and agreed with the students. The course, at its thirteenth edition, aims at developing competences, experiences and relationships that can be immediately used in real world practice in an international frame of reference.

A CONTRACTOR

SAPIENZA Università di Roma With the contribution of

ThalesAlenia

Telespazio A Finmeccanica/Thale

FACOLTA' DI INGEGNRIA CIVILE E INDUSTRIALE DIPARTIMENTO DI INGEGNERIA MECCANICA E AEROSPAZIALE VIA EUDOSSIANA, 18 ROMA

#### The industrial partners and a European network of Universities

The Master is developed by a partnership that links Sapienza with other European Universities involved in the space field as Delft Technical University, SupAero, space agencies like ESA and ASI, Brown University (Providence-United States), Skolkovo University (Russia), the Italian Defense Ministry by means of Aeronautica Militare and Marina Militare Italiana, large companies like Thales Alenia Space Italia and Telespazio The partnership is open to new institutional and private partners in Europe and outside.

#### Organization of the course

The course covers one year of study (60 credits), organized in 5 months of classes (beginning on January, 2015), one month of teamwork activity and six months of stages in companies, space agencies or other institutions. The companies share with the academia the responsibilities of lecturing, offering stages and logistic support. In addition, this year, during the XII edition of the Master, was organized for the masters a trip in the U.S.A. (from 30 May to 08 June 2014) to give them the opportunity to visit some of the most important centers of Aerospace Research of California, like SpaceX, JPL, NASA Ames and Loral. See www.mastersatelliti.tt.

#### Admission, fee, deadlines

The access to the master is regulated by a public competition and is open to all the candidates with a five years degree in Engineering or in Science. The attendance fee amounts to 7500 euro. Scholarships are available for the entire amount of the attendance fee, offered by space companies or public institutions that can also cover the expenses of their personnel, in case of admission to the course. An interview will be made to the candidate participants. The deadline for submitting the request for participation and all the details will be published on the site www.mastersatelliti.it and http://www.uniroma1.it/didattica/master/satelliti-e-piattaforme-orbitanti. Information will be also available from the secretariat of the master (+0039-06-44585738) segreteriamastersatelliti@uniroma1.it or from the Director Prof. Paolo Gaudenzi paolo.gaudenzi@uniroma1.it. The secretariat of the master supports all the formalities for European and for the non EU candidate students.

### Placement of the participants of previous editions

From the annual enquiry about job placement and carreers of former students very positive results we e obtained both in Italy and abroad (e.g. ESA).

#### MASTERSAT 13 Calendar of the Academic year 2014/2015 (Tbc)

	Modules	Dates	Days (hours)	Credits	
	70 days of class (350hrs) + Teamwork	- AS MA - A	6 9 9		
space	systems applications and services	Total credits for th	ne 30 days of the macromo	dulus: 18	
	Introduction to space missions and systems	19-23/01	5 (25)	3	
	TLC	26-30/01	5 (25)	3	
	EO RADAR	02-06/02	5 (25)	3	
	Space environment and science missions	09-13/02	5 (25)	3	
	NAV and Optical EO	16-20/02	5 (25)	3	
	Space Services: TLC, EO, NAV	23-27/02	5 (25)	3	
lanage	ement of space systems and services	Total credits for th	ne 5 days of the macromod	ulus: 3	
	Management of space companies and programmes	02-06/03	5 (30)	3	
pace	systems concurrent design	Total credits for th	ne 30 days of the macromo	dulus: 18	
	Conceptual design of space missions and systems	09-13/03	5 (25)	3	
	Concurrent Engineering and Design Technique	16-20/03	5 (25)	3	
0	System Engineering & System Architecture	23-27/03	5 (25)	3	
1	Data Handling & Modeling	30/03-03/04	5 (25)	3	
2	AOCS, Thermal, Power, Propulsion, TLC, Structures	06-10/04	5 (25)	3	
13	Space Mission Architecture (Ground, Launch, Space Segment, Satellite Configuration) - Technology Development	13-17/04	5 (25)	3	
Human Space Flight		Total credits for th	Total credits for the 5days of the macromodulus: 3		
14	Human Space Flight	20-24/04	5 (30)	3	
Fechnical visits (TBC)		Total credits for th	Total credits for the visits: 1		
	1. TASI Rome 2. Telespazio (Fucino) 3. Italian	n Defense space center	rs (SICRAL; CITS)		

#### Teamwork activity (May 2015)

Total credits for 30 days, including report: 2

International teaching community: Prof. Laurence Young (MIT-USA), Prof. Jeff Hoffmann (MIT-USA), Prof. Yamine Ait Ameur (INP-ENSEEIHT-FRANCE), Prof. Richard Fleeter (BROWN UNIVERSITY-USA), Prof. Alessandro Golkar (SKOLTECH-RUSSIA). On going discussion for cooperation with NASA AMES.

The course grants 60 credits (45 for the above scheduled activities and 15 for the six months stage, including the final report).





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