



SATELLITE DATA ANALYSIS	
Enrollment year	2014/2015
Academic year	2015/2016
Regulations	DM270
Academic discipline	ING-INF/03 (TELECOMMUNICATIONS)
Department	DEPARTMENT OF ELECTRICAL, COMPUTER AND BIOMEDICAL ENGINEERING
Course	ELECTRONIC ENGINEERING
Curriculum	SPACE COMMUNICATION AND SENSING
Year of study	2°
Period	1st semester (28/09/2015 - 15/01/2016)
ECTS	6
Lesson hours	45 lesson hours
Language	ENGLISH
Activity type	WRITTEN AND ORAL TEST
Teacher	DELL'ACQUA FABIO (titolare) - 6 ECTS
Prerequisites	It is advisable to attend a basic remote sensing course before taking this course.=
Learning outcomes	<p>This course has been conceived to teach the students a range of processing and analysis techniques commonly applied to remotely sensed data in various contexts. The students will learn how the different types of data can be handled and processed to reach the goal of extracting the information sought. The first two sections of the course will be devoted to optical and radar data analysis respectively, while the third section will be devoted to data fusion and to other advanced techniques.</p>
Course contents	<p>Processing and analysis of Optical Remotely Sensed Data</p> <p>Types of Optical Remotely Sensed Data and their characteristics</p>

	<p>Statistical analysis Spatial analysis Spectral analysis</p> <p>Processing and analysis of Radar Remotely Sensed Data</p> <p>Types of Radar Remotely Sensed Data and their characteristics Statistical analysis Spatial analysis Polarimetric data and H / A / α analysis Multi-band analysis</p> <p>Data fusion, information fusion, other techniques</p> <p>Data fusion and information fusion concepts Different types of data and information fusion Fusion with ancillary data / metadata integration Distributed collection of information / citizen sensor / crowdsourcing Big Data from Space</p>
Teaching methods	<p>Lectures (hours/year in lecture theatre): 45 Practical class (hours/year in lecture theatre): 0 Practicals / Workshops (hours/year in lecture theatre): 0</p>
Reccomended or required readings	<p>Various authors. Land Applications of Radar Remote Sensing. InTech. Edited by Francesco Holecz, Paolo Pasquali, Nada Milisavljevic and Damien Closson, ISBN 978-953-51-1589-2, 318 pages. Chapters published June 11, 2014 under CC BY 3.0 license. DOI: 10.5772/55833 .</p>
Assessment methods	<p>Oral examination.</p>
Further information	<p>Oral examination.</p>
Sustainable development goals - Agenda 2030	<p>\$lbl legenda sviluppo sostenibile</p>