



SATELLITE DATA ANALYSIS

Anno immatricolazione	2014/2015
Anno offerta	2015/2016
Normativa	DM270
SSD	ING-INF/03 (TELECOMUNICAZIONI)
Dipartimento	DIPARTIMENTO DI INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE
Corso di studio	ELECTRONIC ENGINEERING
Curriculum	SPACE COMMUNICATION AND SENSING
Anno di corso	2°
Periodo didattico	Primo Semestre (28/09/2015 - 15/01/2016)
Crediti	6
Ore	45 ore di attività frontale
Lingua insegnamento	ENGLISH
Tipo esame	SCRITTO E ORALE CONGIUNTI
Docente	DELL'ACQUA FABIO (titolare) - 6 CFU
Prerequisiti	It is advisable to attend a basic remote sensing course before taking this course.=
Obiettivi formativi	<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>
Programma e contenuti	<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 / alfa 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>
Metodi didattici	<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>
Testi di riferimento	<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>
Modalità verifica apprendimento	<p>Oral examination.</p>
Altre informazioni	<p>Oral examination.</p>
Obiettivi Agenda 2030 per lo sviluppo sostenibile	<p>SBI legenda sviluppo sostenibile</p>