



RIVER TRAINING AND FLOODPLAIN PROTECTION

Enrollment year	2018/2019
Academic year	2019/2020
Regulations	DM270
Academic discipline	ICAR/01 (HYDRAULICS)
Department	DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE
Course	ENVIRONMENTAL ENGINEERING
Curriculum	Energie rinnovabili
Year of study	2°
Period	2nd semester (02/03/2020 - 12/06/2020)
ECTS	6
Lesson hours	47 lesson hours
Language	Italian, English
Activity type	WRITTEN AND ORAL TEST
Teacher	GHILARDI PAOLO (titolare) - 6 ECTS
Prerequisites	Basic knowledge of free surface hydraulics and sediment transport mechanics. A knowledge of the main concepts of slope stability, hydrological processes and groundwater flow is warmly suggested.
Learning outcomes	To learn the main methods for river flow and sediment transport control, including interaction between river flow and structures.
Course contents	• flood control: detention basins, spillways, levees • solid transport control: . Bank protection and stabilization, river training techniques • Interaction between structures and water and sediment flow, e.g., bridges, culverts • vulnerability reduction • main regulations: PAI, PGRA, reference agencies and organizations

Lectures with slides and multimedia projection, numerical exercises on typical practical cases.

**Reccomended or required
readings**

Da Deppo L., Datei C., Salandin P.. Sistemazione dei corsi d'acqua. Libreria Cortina, Padova.

Przedwojski B. et al.. River Training Techniques. Balkema.

Course lecture notes available on Kiro

Oral exam

