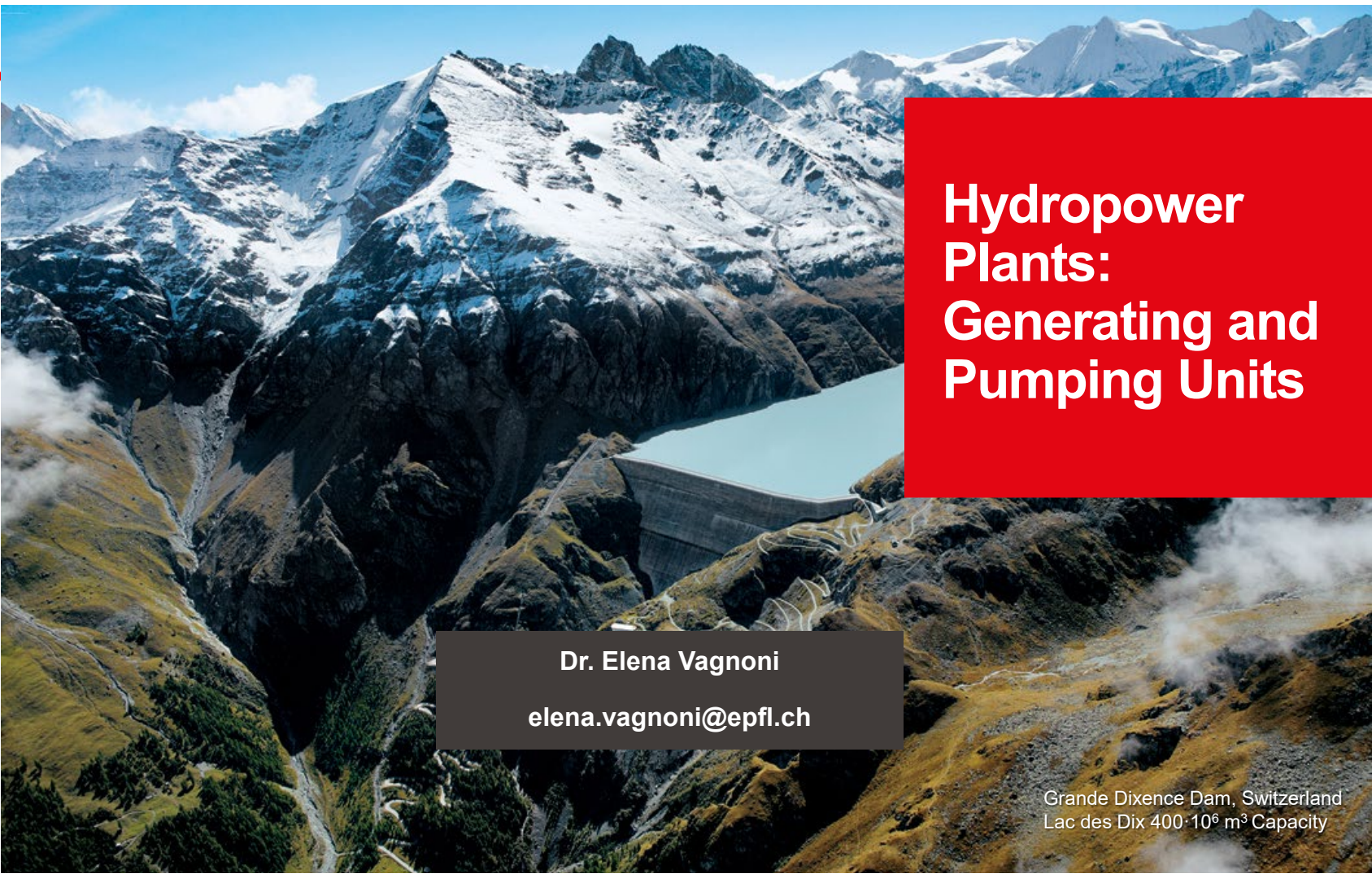


The background of the slide is a high-angle photograph of the Grande Dixence Dam in Switzerland. The dam is a large concrete structure situated in a deep, rocky valley. Above the dam, a massive, jagged mountain peak is covered in snow and partially shrouded in mist. The surrounding slopes are steep and rocky, with some patches of green vegetation and small streams visible. The sky is clear and blue.

Hydropower Plants: Generating and Pumping Units

Dr. Elena Vagnoni
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Grande Dixence Dam, Switzerland
Lac des Dix $400 \cdot 10^6 \text{ m}^3$ Capacity

Teaching Assistants

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Syllabus

- 11 Sept.: L1 – Fundamentals of hydropower
- 18 Sept.: L2 – Hydraulic energy conversion
- 25 Sept.: E1 – Exercises 1
- 02 Oct.: L3 – Impulse turbines
- 09 Oct.: E2 – Exercises 2
- 16 Oct.: L4 – Reaction turbines
- 30 Oct.: E3 – Exercise 3
- 06 Nov.: L5 – Pumping units
- 13 Nov.: E4 – Exercise 4

Syllabus

- 20 Nov.: L6 – Sustainability standards for hydropower plants
- 27 Nov.: E5 – Exercises 5
- 04 Dec.: L7 – Model testing & experimental techniques + lab visit
- 11 Dec.: E6 – Exercises 6
- 18 Dec.: E7 – Q&A and Mock Exam

Exam

- Divided in 2 parts:
 - First part: multiple-choice questions
 - Second part: problems to solve (similar to what we solve during the exercise sessions)
- 3 hours in total:
 - 45 minutes first part
 - 15 minutes break
 - 2 hours second part
- First part is close book
- Second part is open book – all the material can be used, printed or on the laptop offline
- Score:
 - 40% first part
 - 60% second part

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THANK YOU

**For your kind
attention**