Vice Presidency for Research
Research Centers
Technology Platform for Hydraulic Machines

Hydraulic Machinery Engineering
2023 Short Course
Time Schedule

Week 36	Monday 04.09.2023	Tuesday 05.09.2023	Wednesday 06.09.2023	Thursday 07.09.2023	Friday 08.09.2023
07:30				**Departure Visits**	
08:00 08:15	**Participants welcome**				
08:30 09:15	**Introduction to Hydraulic Turbomachines** F. AVELLAN EPFL PTMH	**Pelton Turbine Engineering**	**Hydraulic Turbine Engineering Design**		**Hydraulic Turbine Engineering CFD Analysis**
09:15 10:15	**Cavitation** M. FARHAT EPFL STI SCI MF	N. GERVAIS ANDRITZ HYDRO	Y. LAURANT GE HYDRO FR	**Bieudron Power Plant**	C. SEGOUFIN GE HYDRO FR
10:15 10:45	**Coffee Break** (30 min)	**Coffee Break** (30 min)	**Coffee Break** (30 min)		**Coffee Break** (30 min)
10:45 12:45	**Cavitation in Hydraulic Machines** A. JUNG VOITH HYDRO	**Advanced measuring and Signal process. Techniques (PIV, LDV, Pres., Wall Friction…)** M. FAHRAT & Phd Students EPFL SCI STI MF	**Hydraulic Turbine Engineering Dynamic Phenomena** F. DUPARCHY GE HYDRO FR		**Hydro Energy Market** M. MURET CITY WORKS OF LAUSANNE
12:45 13:30	**Lunch** (45 min)	**Lunch** (45 min)	**Lunch** (45 min)	**Grande Dixence Dam**	**Lunch** (45 min)
13:30 15:00	**Model Testing & On Site Measurements** M. SUAREZ EPFL PTMH	**Pump Design & Selection Criteria** S. BERTEN SULZER PUMPS	**Transient Phenomena In Hydroelectric Power Plant** C. NICOLET POWER VISION		**Conclusion** End of the Short Course
15:00	Break (30 min)	Break (30 min)	Break (30 min)		
15:30 17:15	**Model Tests and Cavitation Tunnel Demonstrations** EPFL PTMH EPFL SCI STI MF	**R&D with Numerical Simulations for Hydraulic Machines** C.MÜNCH & colleagues (HES-SO)	**Variable Speed Pumped Storage and Electric Power Systems** C. MOREIRA INESCTEC		
17:15	**Welcome Party**				
19:00				**Dinner**	

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