Program

IHS/MPA Hydro Power Workshop
November 16 - 17, 2022

November 16, 2022

Day 1 - Wednesday		
	12:30	Arrival and lunch
		Reception
	14:00	S. Weihe, MPA University of Stuttgart, Germany S. Riedelbauch, IHS University of Stuttgart, Germany
		Start of Workshop
1	14:15	**Industrial experience and challenges associated with low & medium head hydro-power machines in a new energy landscape** **Carl-Maikel Högström**, Vattenfall R&D, Sweden
2	15:00	**Leitzachwerk 2 - Identification of cavitation damage in the pump by flow field simulation** **A. Motzet**, M. Zorn, S. Fraas, Stadtwerke München and Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
	15:45	Communication break
3	16:15	**Unsteady flow field simulation of pump-turbines: Lessons learned for low flow conditions** **M. Zorn**, Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
4	16:45	**Dynamic structural behavior of pump-turbine runners: Lessons learned for low flow conditions** **K. Khalfaoui**, Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
5	17:15	**Exploration of Additive Manufacturing Opportunities in Hydropower** **F. Kuljevan**, Electric Power Research Institute (EPRI), Charlotte, NC, USA
6	17:45	**Non-Destructive Testing in hydro power plants** **A. Jüngert**, Materials Testing Institute University of Stuttgart, Germany
	18:20	Dinner

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Day 2 - Thursday		
	08:45	Arrival
		Start of Workshop
7	09:15	**Managing Aging Assets in Changing Times** **G. Hobbs**, Greg Hobbs Engineering (ghEng), Australia
8	09:45	**Quality assurance and damage tolerant design for new components** **Tom Hollerich**, SEO – Société Électrique de l'Our, Vianden, Luxemburg F. Silber, Materials Testing Institute University of Stuttgart, Germany
9	10:15	**Predictive Maintenance with MPA in house code - CPS (Contrôle, Perspective, Stratégy)** **Robert Lammert**, Materials Testing Institute University of Stuttgart, Germany
	10:45	Communication break
10	11:15	**Impact of cavitation on the simulation predicted pressure fluctuations in a Francis turbine at deep part load conditions** **S. Riedelbauch**, Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
11	11:45	**Monitoring pumping units by Convolutional Neural Networks for operating point estimations** **H. Ma**, Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
12	12:15	**Fully automated geometry optimization based on numerical flow field simulation** **A. Tismer**, Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
	13:00	Lunch
13	14:30	Tour at IHS
		Snacks and beverages
14	15:30	Tour at MPA
	16:30	End of Workshop