Program

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

November 16, 2022

Day 1 - Wednesday		
	12:30 pm	Arrival and lunch
		Reception
	2:00 pm	**S. Weihe**, MPA University of Stuttgart, Germany **S. Riedelbauch**, IHS University of Stuttgart, Germany
		Start of Workshop
1	2:15 pm	**Industrial experience and challenges associated with low & medium head hydro-power machines in a new energy landscape** **C.-M. Högström**, J. Österud, Vattenfall R&D, Sweden
2	3:00 pm	**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
	3:45 pm	Communication break
3	4:15 pm	**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	4:45 pm	**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	5:15 pm	**Exploration of Additive Manufacturing Opportunities in Hydropower** **F. Kuljevan**, Electric Power Research Institute (EPRI), Charlotte, NC, USA
6	5:45 pm	**Non-Destructive Testing in hydro power plants** **A. Jüngert**, MPA University of Stuttgart, Germany
	6:20 pm	Dinner

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Day 2 - Thursday		
	8:45 am	Arrival
		Start of Workshop
7	9:15 am	**Managing Aging Assets in Changing Times** **G. Hobbs**, Greg Hobbs Engineering (ghEng), Australia
8	9:45 am	**Quality assurance and damage tolerant design for new components** **T. Hollerich**, SEO – Société Électrique de l'Our, Vianden, Luxemburg, F. Silber, MPA University of Stuttgart, Germany
9	10:15 am	**Predictive Maintenance with MPA in house code - CPS (Contrôle, Perspective, Stratégy)** **R. Lammert**, MPA University of Stuttgart, Germany
	10:45 am	Communication break
10	11:15 am	**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 am	**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 pm	**Fully automated geometry optimization based on numerical flow field simulation** **A. Tismer**, Institute of Fluid Mechanics and Hydraulic Machinery, University of Stuttgart, Germany
	1:00 pm	Lunch
13	2:30 pm	Tour at IHS
		Snacks and beverages
14	3:30 pm	Tour at MPA
	4:30 pm	End of Workshop