As a reliable partner for 150 years, Voith Hydro offers everything needed for the efficient and future-oriented creation of hydropower. The portfolio includes all components for large and small hydropower plants as well as for pumped storage power plants - from generators, turbines, pumps and automation systems to spare parts, maintenance and training services as well as digital solutions for the entire life cycle of the plants.

Your Context

Voith hydropower machinery such as Pelton, Kaplan, Francis or pump turbines are core components within the Voith Hydro product portfolio. Nowadays, new hydraulic machinery is developed by applying Computational Fluid Dynamics (CFD) in the hydraulic design process. CFD, High Performance Computing, process automation and applied numerical optimization accelerated by AI are the essential methods employed in the development phase. Finally, an in-house hydraulic laboratory enables the realization of measurements for the purpose of validation and for the realization of customer acceptance tests.

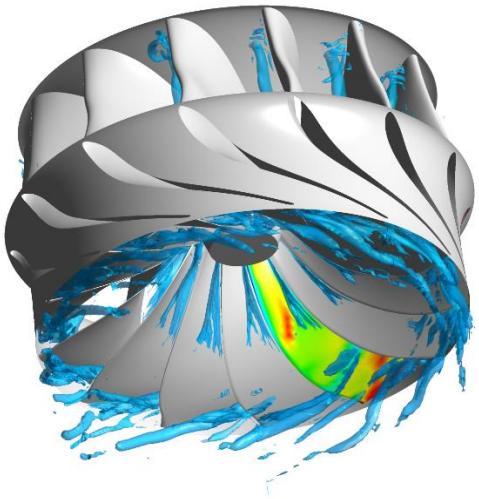

Figure 1: Vortex visualization downstream of Francis turbine runner [1]

Figure 2: Voith Hydro Francis turbine during manufacturing [2]

Your Contribution & Gain

In the department “Fluid Mechanics” within the Central Technology development of Voith Hydro methods and tools are developed that enable our product designers to create new state-of-the-art pumps and turbines. As an intern or graduand (Bachelor or Master) you develop and validate these methods & tools together with our experts. One of them will be your dedicated point of contact, mentor and partner for personal development in an industrial environment.

Your Profile

Are you interested in turbomachinery design, CFD, method development, High-Performance-Computing, optimization, AI and / or code development? You want to gain an internal view into the everyday life of industrial method development? This is your opportunity!

What you can expect

- Support from your mentor and team to help you get started.
- Job counseling and regular feedback for your professional and personal development.
- Exciting work opportunities and individual projects that provide you with insights into the operation of an international company.
- Flexible working hours and attractive compensation.
- Being part of our trainee network and staying in contact with other trainees through regular meetings.

In case of additional questions, feel free to reach out to

Dr.-Ing. Thilo Dauch
Head of Fluid Mechanics
thilo.dauch@voith.com

[1] Excellence in R&D – Voith Hydro Engineering Center – VH3430, en, vvk, 2021-.06
[2] Voith Hydro internal