

# Institute for High Integrity Mechatronic Systems (ZMS)

# Cyber-physical systems for marine technology

Systems for use in extreme environmental conditions are often characterized by the fact that maintenance is very costly or not possible. Examples of this can be found in the deep sea or in space travel. One way to avoid unexpected system failures is to use advanced system diagnostics concepts that we develop and verify.

#### We offer:

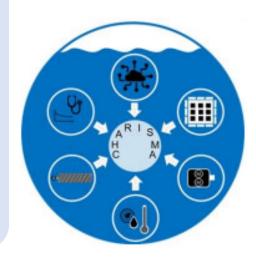
- Theses (Bachelor or Master) and research masters (MSD) with subject-specific supervision
- Flexible working hours and independent work
- Practical experience in the field of applied Research
- Young and motivated team

## Your profile:

- Degree in mechatronics, electrical engineering, computer science or similar degree programs / relevant work experience
- Passionate to learn, highly motivated, responsible, independent

### Your tasks:

- Research into innovative cyber-physical drive and sensor modules for Industry 4.0 in marine technology
- Evaluation of possible digital interfaces to increase reliability
- Development of digital twins and PHM methods based on the empirically determined data
- The PHM strategy includes additional sensors for reliability-relevant variables such as water in the compensation medium, humidity in the electronics, hydrostatic pressure, torque and speed





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**Cooperation partners:** 



