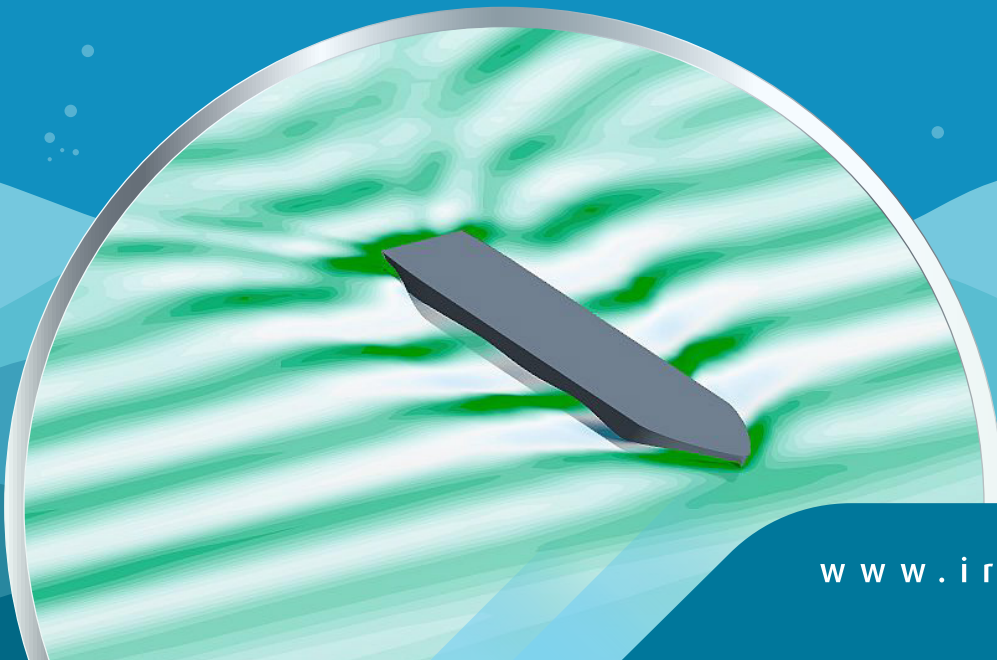
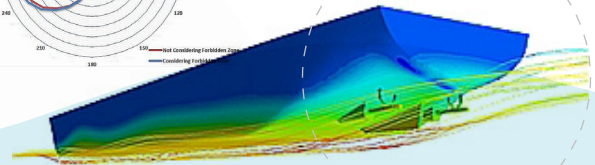
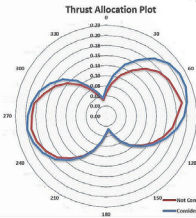
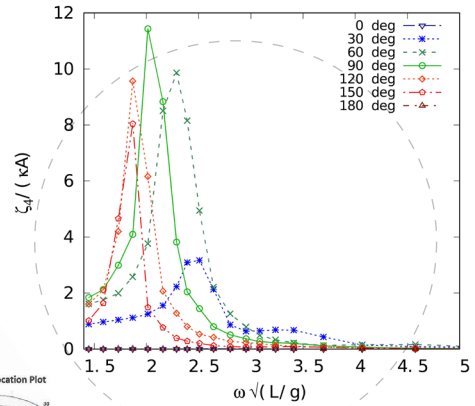
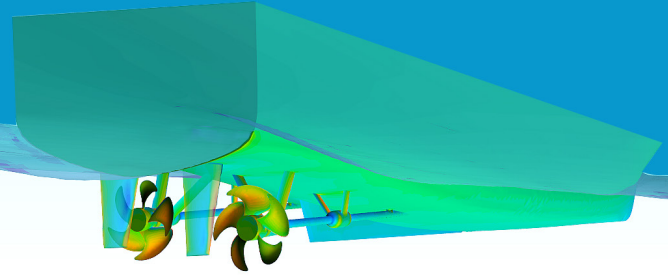




HYDRODYNAMIC ANALYSIS

Ship motions and the loads on ship due to ocean waves is always a concern for ship design as well as safe ship operations. Hydrodynamic analyses involves prediction of ship motions and loads including the detailed studies associated with flow. These analyses are intended towards optimizing the ship design as well as investigation and solution to operational issues such as excessive vibrations, speed loss, etc.

IRClass is committed to provide design solutions on hydrodynamic problems to clients through core research. IRClass has decades of experience in developing numerical tools and using the advanced state-of-the-art engineering tools. Numerical tools for hydrodynamic analysis developed by IRClass are continuously improved through continuous research and development.

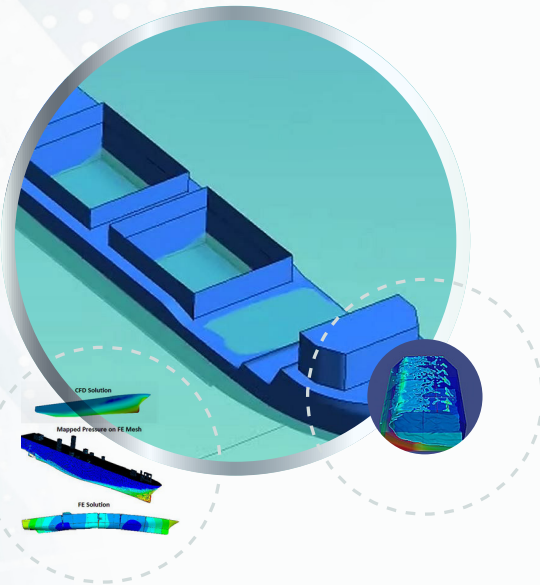
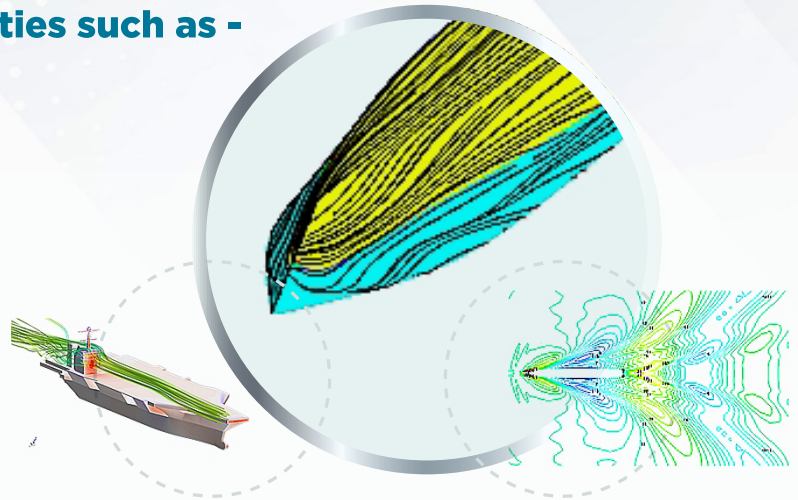




IRClass ship hydrodynamic analysis services cover a wide spectrum of activities such as -

Flow related studies

- Resistance prediction
- Stream lines along the hull - flow investigation
- Air wake
- Propeller wake
- Hull Propeller interaction
- Sedimentation studies in ballast tanks

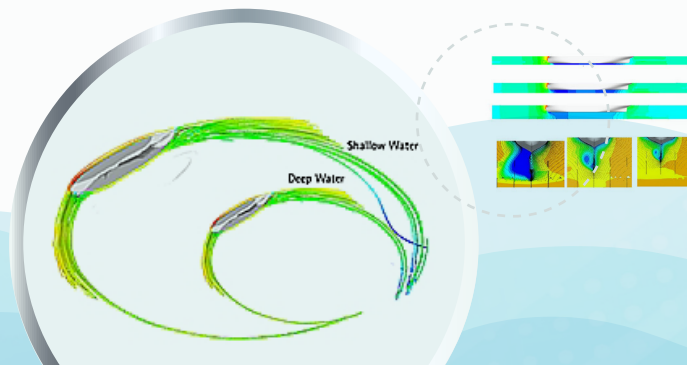


Seakeeping analysis

- **Potential flow solvers**
 - In-house codes for ship motion & load computations
 - Seaworthiness studies
 - Speed effects
- **Impact load assessment**
 - Slamming loads
 - Sloshing loads
 - Deck wetness/Green water load
- **Dynamic positioning**
 - DP capability plots
 - Performance capability rating (PCR)

Manoeuvring analysis

- Turning circle
- Banking effects
- Water depth effects



Head Office