Table of Contents

Volume I

Preface

| Table | e of Contents Volume I e of Contents Volume II mittees of the 25th ITTC | |
|--------------------------|--|------------------|
| The A 1. 2. 3. | Advisory Council Membership and Meetings Activities and Recommendation of the Advisory Council Officers for the 26th ITTC Advisory Council | 7 7 7 9 |
| The I | Executive Committee | 11 |
| 1. | Introduction | 11 |
| 2. | Obituaries | 11 |
| 3. | Committee Membership | 16 |
| 4. | Committee Meetings | 16 |
| 5. | Committee Decisions | 18 |
| The Resistance Committee | | 21 |
| 1. | Introduction | 21 |
| 2. | Resistance Committee Questionnaire | 22 |
| 3. | Trends in Experimental Fluid Dynamics | 26 |
| 4. | Scaling and Extrapolation Methods | 32 |
| 5. | Trends in Computational Fluid Dynamics | 39 |
| 6. | Validation of Prediction Techniques | 45 |
| 7. | Facility Bias World Wide Campaign | 50 |
| 8. | Design References and Optimization | 58 |
| 9. | Far Field Waves and Wash | 60 |
| 10. | Airwakes | 63 |
| 11. | Recommendations References | 68 |
| | | 68 |
| | Propulsion Committee | 83 |
| | Introduction | 83 |
| 2. | Update the State-of-the-Art for Propulsion Systems Emphasising Developments Since the 2005 ITTC Conference | 85 |
| 3. | Review ITTC Recommended Procedures | 98 |
| 4. | Critically Review Examples of Validation of Prediction Techniques | 109 |
| | Identify and Specify Requirements for New Benchmark Data | |
| 5. | Review the Development and Progress in Unconventional Propulsors | 112 |
| | Such as Tip-rake, Trans-cavitating and Composite Propellers (Hydroelasticity and | |
| - | Cavitation Erosion Susceptibility Taken into Account | |
| 6. | Review Propulsion Issues in Shallow Water and Formulate Recommendations for Research | 117 |

| 7. | Review the Methods for Predicting the Performance of Secondary Thrusters and | 120 |
|-----------|--|------------|
| 0 | Compare with Operational Experience Finalize the Penalty Tasts for Weteriets and Analysis of the Peta | 105 |
| 8. | Finalise the Benchmark Tests for Waterjets and Analysis of the Data | 125 |
| 9. 10. | Conclusion References | 131 134 |
| | | |
| 1 ne 1 | Manoeuvring Committee Introduction | 143 143 |
| 2. | Overview of Manoeuvring Prediction Methods | 143 |
| 3. | Progress in System Based Simulations | 150 |
| 4. | Progress in CFD Based Manoeuvring Simulation Methods | 154 |
| 5. | Validation of Simulations & Benchmark Data: SIMMAN 2008 | 161 |
| 6. | Manoeuvring and Course Keeping in Waves | 171 |
| 7. | New Experimental Techniques | 176 |
| 8. | Shallow and Confined Waters and Ship-Ship Interactions | 180 |
| 9. | Standards and Safety | 184 |
| 10. | Procedures | 191 |
| 11. | Conclusions | 195 |
| 12. | Recommendations to the ITTC | 197 |
| The S | Seakeeping Committee | 209 |
| 1. | General | 209 |
| 2. | Review of State-of-the-Art | 211 |
| 3. | ITTC Recommended Procedures | 244 |
| 4. | Conclusions and Recommendations | 245 |
| 5. | References and Nomenclature | 251 |
| | Ocean Engineering Committee | 263 |
| 1. | General | 263 |
| 2. | Bottom-Founded Structures | 265 |
| 3. | Predicting the Behaviour of Stationary Floating Structures and Ships | 269 |
| 4. | Dynamically Positioned Ships, Mobs | 276 |
| 5. | Wind, Waves and Current | 278 |
| 6. | Hydroelasticity and Impact | 280 |
| 7. | Renewable Energy Systems | 283 |
| 8. | New Experimental Techniques | 286 |
| 9. | Progress in CFD | 290 |
| 10. | Existing Procedures Paralyments Data for Validation of CED Codes | 292 |
| 11. | Benchmark Data for Validation of CFD Codes Validation of Saftware for Predicting Ways Loads and Pagnanges of | 293 |
| 12. | Validation of Software for Predicting Wave Loads and Responses of Offshore Structures | 294 |
| 13. | | 294 |
| 14. | Multiple-Scale Model Testing Modelling Wind in Model Regins | 294 298 |
| 15. | Modelling Wind in Model Basins Conclusions | 301 |
| 16. | Recommendations | 301 |
| 17. | Appendix: Benchmark Data for Validating CFD Codes | 304 |
| 18. | References | 308 |
| | Quality Systems Group | 325 |
| 1. | General | 325 |
| 2 | Tasks Performed | 325 |

Proceedings of 25th ITTC - Volume II