Publications:

Enhancing damping of gas bearings using linear parameter-varying control
Publication: Research - peer-review › Journal article – Annual report year: 2017

Low-complexity Behavioral Model for Predictive Maintenance of Railway Turnouts
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Self-reconfiguration of Modular Underwater Robots using an Energy Heuristic
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Advanced Control of Active Bearings - Modelling, Design and Experiments
Publication: Research › Ph.D. thesis – Annual report year: 2016

Evaluation of Shipboard Wave Estimation Techniques through Model-scale Experiments
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Fault diagnosis of active magnetic bearings based on Gaussian GLRT detector
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Adaptive Backstepping Control of Lightweight Tower Wind Turbine
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Collective Modular Underwater Robotic System for Long-Term Autonomous Operation
Publication: Research - peer-review › Paper – Annual report year: 2015

Experimental Investigations of Decentralised Control Design for The Stabilisation ofRotor-Gas Bearings
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Experimental Verification of a Global Exponentially Stable Nonlinear Wave Encounter Frequency Estimator
Publication: Research - peer-review › Journal article – Annual report year: 2015

Gas Bearing Control for Safe Operation in Critical Speed Regions - Experimental Verification: Paper
Publication: Research - peer-review › Conference article – Annual report year: 2015

Line-of-Sight Path Following for Dubins Paths with Adaptive Sideslip Compensation of Drift Forces
Publication: Research - peer-review › Journal article – Annual report year: 2014
Modelling and Identification for Control of Gas Bearings
Publication: Research - peer-review › Journal article – Annual report year: 2015

New Concepts for Shipboard Sea State Estimation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Parametric roll resonance monitoring using signal-based detection
Publication: Research - peer-review › Journal article – Annual report year: 2015

Reconfigurable Control of Input Affine Nonlinear Systems under Actuator Fault
Publication: Research - peer-review › Conference article – Annual report year: 2015

Smart Sensor Based Obstacle Detection for High-Speed Unmanned Surface Vehicle
Publication: Research - peer-review › Conference article – Annual report year: 2015

Adaptive Passivity Based Individual Pitch Control for Wind Turbines in the Full Load Region
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Parametric Roll - Risk Reduction through Real-time Detection
Publication: Research › Journal article – Annual report year: 2014

Early Detection of Parametric Roll Resonance on Container Ships
Publication: Research - peer-review › Journal article – Annual report year: 2012

Observer Backstepping Control for Variable Speed Wind Turbine
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Unmanned Water Craft Identification and Adaptive Control in Low-Speed and Reversing Regions
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Controlling Parametric Resonance: Induction and Stabilization of Unstable Motions
Publication: Research - peer-review › Book chapter – Annual report year: 2012

Detection of Parametric Roll on Ships
Publication: Research - peer-review › Book chapter – Annual report year: 2012

L1 Adaptive Manoeuvring Control of Unmanned High-speed Water Craft
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Statistical Change Detection for Diagnosis of Buoyancy Element Defects on Moored Floating Vessels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

A Nonlinear Observer for Estimating Transverse Stability Parameters of Marine Surface Vessels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Prediction of Parametric Roll Resonance by MultiLayer Perceptron Neural Network
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Autonomous Supervision and Control of Parametric Roll Resonance
Publication: Research › Ph.D. thesis – Annual report year: 2010
Prediction of resonant oscillation  
Publication: Research › Patent - Annual report year: 2010

Detection of Parametric Roll Resonance on Ships from Indication of Nonlinear Energy Flow  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Parametric Roll Resonance Detection using Phase Correlation and Log-likelihood Testing Techniques  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Stabilisation of Parametric Roll Resonance by Combined Speed and Fin Stabiliser Control  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Stabilization of Parametric Roll Resonance with Active U-Tanks via Lyapunov Control Design  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Stability Analysis of the Parametric Roll Resonance under Non-constant Ship Speed  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Nonlinear Container Ship Model for the Study of Parametric Roll Resonance  
Publication: Research - peer-review › Journal article – Annual report year: 2007

On the Feasibility of Stabilizing Parametric Roll with Active Bifurcation Control  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Pitch Motion Stabilization by Propeller Speed Control Using Statistical Controller Design  
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Projects:

Data-driven Condition Monitoring of Switches and Crossings  
Project: PhD

Reconfigurable Modular Robotic System for Aquatic Environment  
Project

Dynamic Propeller Shaft Speed Control  
Project

Intelligent Quality Assessment of Railway Switches and Crossings  
Project

Fault Diagnosis and Optimal Control of Electro - Mechanical systems  
Project: PhD

Exhaust Recirculation Control for Reduction of NOx from Large Two-stroke Diesel Engines  
Project: PhD

Advanced Control of Smart Materials Applied to Sustainable Technology  
Project: PhD
Model-Based Control Design for Flexible Rotors Supported by Active Tilting Pad Bearings
Project: PhD

Autonomous Supervision and Control to Prevent Parametric Resonance
Project: PhD