FLORIDA STATE UNIVERSITY FAMU-FSU COLLEGE OF ENGINEERING

DETAILED FLOW FIELD STUDY OF AN UPSWEPT CYLINDER WAKE AND EXPERIMENTAL OPTIMIZATION USING ACTIVE FLOW CONTROL

By

FERNANDO ZIGUNOV

A Dissertation submitted to the Department of Mechanical Engineering in partial fulfillment of the requirements for the degree of Doctor of Philosophy

2020

Fernando	Zigunov	${\it defended}$	this	dissertation	on	November	06,	2020.
The mem	bers of the	ne supervi	sory	committee v	vere	e:		

Farrukh Alvi

Professor Directing Dissertation

Kevin Speer

University Representative

Lou Cattafesta

Committee Member

Rajan Kumar

Committee Member

Kunihiko Taira

Committee Member

Christian Hubicki

Committee Member

The Graduate School has verified and approved the above-named committee members, and certifies that the dissertation has been approved in accordance with university requirements.