

Virginia Center for Wind Energy Researcher Expertise Guide

Akyurtle, Ates- Hampton University



Atkinson, Larry- Old Dominion University
Eminent Professor
Samuel L. and Fay M. Slover Professor of Oceanography

Ph.D. Physical Oceanography

Expertise:

Dr. Atkinson is recognized for his work on nutrient supplies and hydrographic variability in the southeastern United States continental shelf waters. He has also done field studies off Japan, southern California, and northwest Spain. These studies were all part of large, interdisciplinary research programs that are of particular interest to Dr. Atkinson. Also, these studies have led to new understandings of how nutrients are supplied to continental shelves and how water column stability is controlled by advection of buoyancy. His current research includes studies of the climatology of coastal waters, interdisciplinary research in the coastal waters of southern Chile, and high resolution observations of the coastal ocean.

General Contact Phone Number: 757.683.4926

E-mail Address: atkinson@ccpo.odu.edu

Web Page URL: <http://www.ccpo.odu.edu/Facstaff/faculty/atkinson.html>



Basco David- Old Dominion University
Director, Coastal Engineering Center
Professor

Ph. D-Engineering

Expertise:

Coastal engineering as practiced by civil engineers. Coastal hydrodynamics and water wave mechanics; the physical and numerical modeling of wave breaking phenomena. The stochastic design of coastal structures. Factual understanding of how seawalls and beaches interact. Alternatives for increasing the effective fill life of renourished beaches. Dredging engineering and siltation of harbors and marinas. Computational fluid dynamics: the numerical simulation of free surface, long and short wave phenomena in rivers, estuaries and near shore coastal regions.

General Contact Phone Number: 757.683.3223

E-mail Address: dbasco@odu.edu

Web Page URL: <http://eng.odu.edu/cee/directory/basco.shtml>

Belhadjali, Moncef- Norfolk State University



Blanco, Jose- Old Dominion University
Research Scientist

Ph.D.- Physical Oceanography

Expertise:

Research has been the generation, coordination and/or implementation of multi-disciplinary, multi-institutional and, in some cases, multinational projects. During his career he has participated in extensive and intensive studies of the physical processes and their variability (ENSO and decadal) in oceanic and coastal water, along the Chilean coast, the South East Pacific Ocean and the Southern Ocean. He has also been working on coastal processes in bays, fjords and estuaries in the central and southern part of Chile and in the Chesapeake Bay. His current research is focused on the Offshore Wind, Wave and Current Environment Characterization as source of energy.

General Contact Phone Number: 757.683.5556

E-mail Address: jlblanco@ccpo.odu.edu

Web Page URL: <http://www.ccpo.odu.edu/Facstaff/faculty/jlblanco.html>

Bronk, Debbie- VIMS- William & Mary



Bukaveckas, Paul- Virginia Commonwealth University
Associate Professor, Center for Environmental Studies

PhD -Ecology and Evolutionary Biology

Expertise:

Dr. Paul Bukaveckas is an Associate Professor in the Department of Biology at Virginia Commonwealth University and holds a joint appointment with the Center for Environmental Studies. He received his PhD from Indiana University in 1989 and a Bachelor of Science degree from DePaul University in 1981. His area of expertise is Aquatic Ecology with a focus on factors controlling algal production in rivers, impoundments, lakes and estuaries. Publications arising from this work include 35 peer-reviewed journal articles and two book chapters. He is the recent author of the chapter on Rivers for the Encyclopedia of Inland Waters. Current work focuses on studies of the James River and its tributary streams.

General Contact Phone Number: 804.828.0168

E-mail Address: pabukaveckas@vcu.edu

Web Page URL: <http://www.people.vcu.edu/~pabukaveckas>

Canuel, Elizabeth- VIMS- William & Mary



Lisa M. Colosi- University of Virginia
Assistant Professor

Ph.D.- Civil & Environmental Engineering

Expertise:

I am currently interested in evaluating the sustainability of large-scale algae cultivation systems and low cost conversion into energy carriers. I am especially interested in the intersection of algae cultivation and wastewater treatment as it relates to nutrient procurement and water quality. At present, we are exploring the use of stochastic life cycle assessment models to evaluate various options for algae cultivation and conversion; this is with the objective of eventually optimizing these systems to make them environmentally and economically preferable other bioenergy feedstocks.

General Contact Phone Number: 434.924.7961

E-mail Address: lmcolosi@gmail.com

Web Page URL: <http://ce.virginia.edu/people/colosi.htm>



Robert J. Davis- University of Virginia
Earnest Jackson Oglesby Professor and Chair of Chemical Engineering

Ph. D. Chemical Engineering

Expertise:

Professor Davis is an expert in the field of heterogeneous catalysis applied to the production fuels and chemicals. His current research interests are in the area of catalytic conversion of renewable carbon sources to useful molecules.

General Contact Phone Number: 434.924.6284

E-mail Address: rjd4f@virginia.edu

Web Page URL: <http://www.che.virginia.edu/people/faculty/davis.php>



Dhali, Shirshak- Old Dominion University
Chair, Department of Electrical and Computer Engineering
Professor

Ph.D.-Atmospheric Pressure Plasma, Gas Discharge, Analog VLSI.

Expertise:

Received his BTech degree in electronics and electrical communication from the Indian Institute of Technology at Kharagpur in 1978, the MS and PhD degree in electrical engineering from TexasTech University in 1981 and 1984, respectively. His research interests include generation and application of atmospheric pressure plasmas for surface treatment of metals and polymers, pollution prevention, thin film deposition, and microbial sterilization. He is also working on developing design automation tools for analog VLSI circuits. He has worked as an avionics design engineer at Hindustan Aeronautics, India, and was a Summer Fellow at Wright Patterson Air Force Base in Dayton, Ohio. From 1984 to 2005 he was a faculty member in the Department of Electrical and Computer Engineering, Southern Illinois University at Carbondale. He joined the Department of Electrical and Computer Engineering at Old Dominion University in the Spring of 2006 and is currently Professor and Chair of this department.

General Contact Phone Number: 757.683.3744

E-mail Address: sdhali@odu.edu

Web Page URL: <http://eng.odu.edu/ece/directory/dhali.shtml>



Jim Durand- University of Virginia
Research Associate and Co-Director of the Jefferson Wind
Energy Institute

Ph.D. in Mechanical & Aerospace Engineering

Expertise:

Dr. Durand has expertise in fluid dynamics, heat transfer, thermodynamics, alternative energy, analysis of thermal systems, system simulation and optimization, energy use in buildings, and electric vehicles and is currently involved in a variety of projects at the UVA involved with improving the performance of wind turbine systems, and sustainable transportation. Dr. Durand is the Co-Director of the Jefferson Wind Energy Institute, which undertakes research in improving current wind technologies, and in investigating next generation wind systems. Dr. Durand also directs the RideForward program which involves a group of students that converts a car to electric drive every year, and installs a photovoltaic array to offset the car's electrical usage.

General Contact Phone Number: 434.426.3110

E-mail Address: jhd6n@virginia.edu

Web Page URL:



Ezer, Tal- Old Dominion University
Professor of Ocean Earth & Atmospheric Sciences (OEAS)
Affiliated Faculty, Virginia Modeling Analysis & Simulation Center
(VMASC)

Ph.D. Physical Oceanography

Expertise:

My research interests cover a wide range of physical oceanographic topics that are being studied with the help of numerical ocean models. Recent studies include for example, mixing processes in the overflow waters that spill from the Arctic into the Atlantic Ocean, inundation processes in Cook Inlet, Alaska, physical-biological interactions near Caribbean coral reefs, and hurricane impacts in the Gulf of Mexico. These studies are often interdisciplinary and in collaboration with other research groups. At ODU I am also an affiliated faculty at the Virginia Modeling, Analysis and Simulation Center ([VMASC](#)) which conducts interdisciplinary research in various modeling and simulation areas.

General Contact Phone Number: 757.683.5631

E-mail Address: tezer@ccpo.odu.edu

Web Page URL: <http://www.ccpo.odu.edu/Facstaff/faculty/tezer/ezer.html>

Friedersdorf, Lisa-University of Virginia



Gordon, Andrew- Old Dominion University
Professor

Ph.D. Microbiology

Expertise:

Gordon's training is in microbiology with emphasis on microbial ecology and marine microbiology. His research experience includes biofouling, metal/microbe interactions, algal toxins, and scale-up of algal culture. His work has been funded by agencies including ONR, NSF, NIH, CDC, and NOAA.

General Contact Phone Number: 757.683.3604

E-mail Address: agordon@odu.edu

Web Page URL: <http://sci.odu.edu/biology/directory/andrew.shtml>

Hagerman, George- Virginia Tech- ARI



Hatcher, Patrick- Old Dominion University
Executive Director, VCERC
Batten Chair in Physical Sciences
Professor, Department of Chemistry and Biochemistry

Ph.D. Chemistry

Expertise:

Dr. Hatcher's contributions in research led to advancements in our understanding of techniques such as NMR, and to knowledge of various natural materials like coal, kerogen, petroleum, jet fuels,

humic materials, dissolved organic matter, resistant biogeopolymers, and more recently algal-derived biofuels.

General Contact Phone Number: 757.683.6537

E-mail Address: phatcher@odu.edu

Web Page URL: <http://sci.odu.edu/chemistry/directory/hatcher.shtml>



Klinck, John- Old Dominion University
Director of the Center for Coastal Physical Oceanography
Professor

Ph.D. – Physical Oceanography

Expertise:

Dr. Klinck has considered the dynamics of a variety of oceanographic systems including the continental shelf, fjords, submarine canyons, and the Antarctic Circumpolar Current, using both analytical and numerical dynamical models. His analysis of the eddy resolving model for the North Atlantic flow considers the most realistic numerical simulation calculation to date. Many scientists will be analyzing this massive calculation as part of the WOCE experiment. He is also interested in numerical models of bivalves which include environmental variation, as well as predation and disease.

He is currently conducting research on the effects of submarine canyons on coastal circulation. Results show that water can be forced through the canyons by cross-shelf pressure gradients giving rise to shelf-ocean exchanges. Other projects include a study of hydrography and circulation of the Antarctic Peninsula and study of circulation and krill drift in the Scotia Sea.

General Contact Phone Number: 757.683.6005

E-mail Address: klinck@ccpo.odu.edu

Web Page URL: <http://www.ccpo.odu.edu/Facstaff/faculty/klinck.html>

Luerssen, Remy- James Madison University
GIS Mapping and Education

M.S.- Oceanography

Expertise:

Ms. Luerssen joined VCERC in 2007 as the Mapping and Education Specialist. She has led the mapping efforts at JMU for understanding the most feasible locations for wind energy development off the coast of Virginia. Ms. Luerssen has also compiled many wind and ocean energy related curricula and activities and has shared them with teachers and students around the state through workshops and museum and classroom visits.

General Contact Phone Number: 540.568.8768

E-mail Address: luerssrm@jmu.edu

Web Page URL: <http://aeer.cisat.jmu.edu>



Marshall, Harry- Old Dominion University
Morgan Professor Emeritus and Eminent Scholar

Ph.D. Biology

Expertise:

Specialist in freshwater and marine phytoplankton ecology, distribution, and composition; with extensive research experience in phytoplankton studies in the Atlantic coastal waters of the United States, Chesapeake Bay, plus rivers and lakes in Virginia. He has over 160 journal publications regarding phytoplankton dynamics in these various habitats, with additional studies concerning potentially harmful and bloom producing phytoplankton species within Virginia waters and the Chesapeake Bay.

General Contact Phone Number: 757.683.4204

E-mail Address: hmarshal@odu.edu

Web Page URL: <http://sci.odu.edu/biology/directory/marshall.shtml>



Martinat, Guillaume- Old Dominion University
Post Doctoral Fellow

Ph.D- Fluid Dynamics

Expertise:

Dr. Martinat's research interest is focused on large-eddy simulation of free-surface turbulent flows in shallow water, especially Langmuir circulations in a wind and wave-driven flow.

General Contact Phone Number: 757.683.5558

E-mail Address: martinat@ccpo.odu.edu

Web Page URL: <http://www.ccpo.odu.edu/Facstaff/postdocs/martinat.html>

Miles, Jonathan- James Madison University

Ph.D., Mechanical Engineering

Expertise:

Professor Miles has engaged in wind-related efforts of various sorts since 1998. He established the Virginia State-Based Anemometer Loan Program in 2002 that has served over 30 locations throughout the Commonwealth and was a founder member of the Virginia Wind Energy Collaborative and the Virginia Coastal Energy Research Consortium. His expertise is in wind measurements and data analysis, siting assessments, sensor development and applications, and education/outreach/training.

General Contact Phone Number: 540.568.3044

E-mail Address: milesjj@jmu.edu

Web Page URL: <http://www.isat.jmu.edu/people/miles.html>



Mulholland, Margie- Old Dominion University
Associate Professor

Ph.D.-Biological Oceanography

Expertise:

Dr. Mulholland works on various aspects of carbon (C) and nitrogen (N) cycling in aquatic systems. The biogeochemical cycling of these elements affects the ecology of microbes in marine and estuarine systems. Particular aspects of these cycles being investigated in her laboratory include the uptake and regeneration of specific N and C compounds by a variety of pathways involving phytoplankton and bacteria. Currently studies are being undertaken to investigate marine N₂ fixation and the trophic transfer of recently fixed N₂; dissolved organic material cycling in estuarine systems differentially affected by algal blooms; H₂S production by oceanic phytoplankton and bacteria; and nutrient competition among planktonic mixotrophs in estuaries.

General Contact Phone Number: 757.683.3972

E-mail Address: mmulholl@odu.edu

Web Page URL: <http://sci.odu.edu/oceanography/directory/faculty/mulholland/index.shtml>



Newbold, Kenneth- James Madison University
Director of Research Development

M.S.- Public Administration

Expertise:

Building collaborative interdisciplinary teams to pursue a variety of externally sponsored opportunities, facilitate research and development opportunities for faculty, staff and student researchers. Identifying and responding to strategic initiatives.

General Contact Phone Number: 540.568.1739

E-mail Address: newbolkf@jmu.edu

Web Page URL: www.jmu.edu/research



Rondorf, Neil- SAIC- Founding Industry Partner
Vice President, Maritime

BS – Oceanography U.S. Naval Academy; Masters Equivalent – Nuclear
Engineering, US Navy Nuclear Power Program

Master's equivalent – International Relations, US Naval War College

Expertise:

Leader of Industry Engagement on ocean renewable energy for VCERC / SAIC corporate lead on ocean renewable energy development / Technical Advisor, US Technical Advisory Group (USTAG) for the International Electrotechnical Commission TC-114 for international standards development / Program Manager for PG&E Wave Connect project to design and permit a wave demonstration project in California / Executive Committee member for the International Cable Protection Committee / Board of Directors, Ocean Renewable Energy Coalition (OREC).

General Contact Phone Number: 757.390.4956

E-mail Address: rondorfn@saic.com

Web Page URL:



Salmon, Elodie- Old Dominion University
Research Assistant Professor

Ph.D- Petroleum Geochemistry

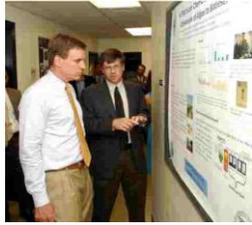
Expertise:

Current research with the Hatcher Group includes examining the molecular structural relationships between immature kerogen and the products obtained from low-level of maturation using NMR and FT-ICR-MS in order to test the possible pathways for petroleum formation.

General Contact Phone Number: 757.683.5251

E-mail Address: salmon@odu.edu

Web Page URL:



Schafran, Gary- Old Dominion University
Chair, Department of Civil and Environmental Engineering
Professor

Ph.D.- Civil Engineering

Expertise:

Environmental engineering, water quality, aquatic chemistry, physicochemical treatment processes, lake oxygenation

General Contact Phone Number: 757.683.4673

E-mail Address: gschafra@odu.edu

Web Page URL: <http://eng.odu.edu/cee/directory/schafran.shtml>

Sissoki, Macki- Norfolk State University- Industry
Associate Professor of Economics
Acting Director of the Hodge Center for Entrepreneurship

Ph.D.- Economics

Expertise:

My areas of expertise include: microeconomic theory and Applications; Macroeconomic Theory and Applications; International Trade; Resource Economics; Agricultural Economics; Research and Methods, particularly Econometric modeling and linear programming.

General Contact Phone Number: 757.823.8739

E-mail Address: msissoko@nsu.edu

Web Page URL:



Stubbins, Aron- Old Dominion University
Assistant Director of VCERC
Research Assistant Professor

Ph.D. –Marine Biogeochemistry

Expertise:

Over 10 years experience as a biogeochemist studying the energy and material fluxes through ecosystems. Algal biodiesel research includes the selection of favorable species; the farming of algae at large scales and combined with wastewater remediation and carbon sequestration; algal harvest; the conversion of algae to fuel; and economic and energy assessments of the above. Broader biogeochemical work spans the following: detailing the chemical character of organic matter; relating organic matter reactivity, structure, source and history; assessing how carbon-stores will respond to perturbation; improved quantification of carbon fluxes.

General Contact Phone Number: 757.515.8778

E-mail Address: astubbin@odu.edu

Web Page URL: <http://sci.odu.edu/chemistry/directory/stubbins.shtml>

Wells, John- William and Mary- VIMS

Whaley, Gary- Norfolk State University



Mark A. White- University of Virginia
Professor

Ph.D.- Finance

Expertise:

I'm interested in "putting a price on the planet," i.e., valuing the benefits nature provides to humans. With my UVA engineering colleagues, I'm developing analytical models to measure the environmental and economic impacts of biofuel production from various feedstocks, with an especial focus on algae.

General Contact Phone Number: 434.924.7365

E-mail Address: mwhite@virginia.edu

Web Page URL:

http://www.commerce.virginia.edu/faculty_research/facultydirectory/Pages/White.aspx

Wilkins, Tim- Paliria