

Name	Department(s)	Centers and Research Units	Description	Website
Alagona, Peter	Environmental Studies; History		Professor Alagona's research focuses on biological diversity and endangered species. His recently published book, titled "After the Grizzly: Endangered Species and the Politics of Place in California," explores the history of endangered species conservation in California and beyond. Professor Alagona is also involved in studying the history of the UC Natural Reserve System and its contributions to environmental science and management in a project titled "A Sanctuary for Science."	http://www.history.ucsb.edu/people/person.php?account_id=284
Alam, Md Ershadul			Dr. Alam has conducted research on lightweight structural materials that, if used, will cost less in terms of fuel and emit less CO2.	
Anderson, Sarah	Political Science; Bren		Along with her other policy studies, Dr. Anderson has done research on environmental politics, environmental representation, and post-fire treatment in the Western US. Her research speaks to the environmental policy realm. Her current projects include work on the framing of environmental politics and how ecological, political, and economic factors affect forest management.	http://fiesta.bren.ucsb.edu/~sanderson/
Auston, David		Center for Energy Efficient Materials; Institute for Energy Efficiency	Dr. Auston's research is in the field of picosecond and femtosecond optics and their applications to nonlinear optics and solid-state materials. He helped establish the field of ultrafast optoelectronics, which uses picosecond and femtosecond lasers to measure, with very high time precision, the dynamic electronic properties of materials.	
Bamieh, Bassam	Mechanical Engineering	Center for Interdisciplinary Research in Fluids; Institute for Energy Efficiency; Center for Middle East Studies	Dr. Bamieh's research is in the area of controls engineering, which underlies most automation technologies that make machines and processes smart and adaptive. He is currently working on the design of smart Thermoacoustic energy conversion devices in which mechanical work is done by powerful pressure waves rather than pistons or turbines. These devices convert heat to acoustic power with relatively high efficiencies and almost no moving parts, and they are particularly suited to small-scale solar thermal power applications.	http://engineering.ucsb.edu/~bamieh/
Banerjee, Kaustav	Electrical & Computer Engineering	California NanoSystems Institute; Nanoelectronics Research Lab	Dr. Banerjee is currently researching the physics, technology, and applications of low-dimensional nanomaterials for next-generation green electronics, photonics, and bioelectronics. The application of these nanomaterials can be used to design low-power, low-loss, and ultra-energy efficient active and passive nanoelectronic devices. This research can be applied to solar cell design when improving the efficiency of photovoltaic devices.	http://nrl.ece.ucsb.edu/
Barandiarán, Javiera	Global and International Studies		Dr. Barandiarán's research is focused on environmental politics. It aims to understand how states come to know about the environment in order to regulate it. Currently, Dr. Barandiarán is working on a book that explores four environmental conflicts in Chile. This research focuses on the ways in which the Chilean state organizes, accesses, and believes in environmental information since the end of the Pinochet regime. The environmental conflicts include a toxic waste spill by a paper and pulp mill in Valdivia, the mine at Pascua Lama, the virus ISA in salmon farming, and the hydroelectric dams of HidroAysén.	http://www.global.ucsb.edu/people/academic/javiera-barandiar%C3%A1n
Bazan, Guillermo	Chemistry and Biochemistry	Institute for Energy Efficiency; Center for Polymers and Organic Solids; Institute for Collaborative Biotechnologies; Mitsubishi Chemical Center for Advanced Materials; Center for Energy Efficient Materials; California NanoSystems Institute	As winner of the Grand Challenges Explorations grant, Dr. Bazan has investigated semiconducting molecules that penetrate organism membranes. This research is used to convert wastewater into energy, a piece of technology which can help alleviate world sanitation problems. He has also done research to improve the efficiency of solar cells, using metal nanoparticles with organic devices.	http://www.chem.ucsb.edu/~bazangroup/
Bazerman, Charles	Education		Dr. Bazerman is interested in the practice and teaching of writing, understood in a socio-historic context. Using socially based theories of genre, activity system, interaction, intertextuality, and cognitive development, he investigates the history of scientific writing, other forms of writing used in advancing technological projects, and the relation of writing to the development of disciplines of knowledge. Some of his studies involve the history and organization of environmental knowledge and communication.	http://education.ucsb.edu/bazerman/
Bergstrom, Ted	Economics		Dr. Bergstrom's research includes work in resource economics. He has studied such areas as using the market to control pollution, the externalities of pollution, and the effect of finite resources on the market.	http://www.econ.ucsb.edu/~tedb/

Bhavnani, Kum Kum	Sociology; Women, Culture, and Development Studies	Center for Middle East Studies	Dr. Bhavnani's documentary film "Nothing like Chocolate," offers a glimpse into the global chocolate industry, where there are allegations that enslaved children are used to harvest beans in Ivory Coast, which produces 40% of the world's cacao. "Nothing Like Chocolate" focuses on the Grenada Chocolate Company founded by Mott Green, as well as on an independent farmer, Nelice Stewart, who grows organic cocoa beans. Green (deceased June 2013) created a worker-owned cooperative which brings profits back to the working shareholders, who include the farmers and all factory workers at the company. The film discusses how solar power and ethical technology can create a sustainable, community-based business, and, therefore, can undermine global unethical practices.	http://www.soc.ucsb.edu/faculty/kum-kum-bhavnani
Blanchette, Carol		Marine Science Institute	Dr. Blanchette's research focuses mainly on marine ecology. Her main areas of study include an examination of how certain species adapt to ocean acidification as CO2 emissions increase, the ecological responses to climate change, and sustainable fisheries management.	
Blumenthal, Daniel	Electrical & Computer Engineering	California NanoSystems Institute	Dr. Blumenthal directs the Label-Switched Optical Router Project. The project aims to save power by shifting more network router processing into the optical domain. He also has done research into energy-efficient photonics used for communication.	http://engineering.ucsb.edu/faculty/profile/138
Boles, Jim	Earth Science		One of Professor Boles' current research projects is studying the effect of rapid carbonate crystallization on isotopic signatures of carbonate. As part of this project, he is investigating the fractionation of stable isotopes between CO2 gas, aqueous CO2 species, and carbonate. This research is relevant to interpreting isotopic signatures from carbonate precipitates associated with CO2 sequestration, as well as leakage and degassing associated with hydrocarbon systems when the isotopic systems of CO2 may be out of equilibrium due to rapid crystallization.	http://www.geol.ucsb.edu/faculty/boles/
Bookhagen, Bodo	Geography	Center for Interdisciplinary Research in Fluids	Dr. Bookhagen's research is involved with mass transport on the Earth Surface and includes phenomena such as erosion, landslides, floods, and glaciers. He focuses on identifying spatial and temporal patterns that are often linked to climate changes. For example, heavy rainfall events after intense wildfires can increase erosion and the removal of the fertile soil layer. Dr. Bookhagen uses spatial technology (lidar, satellite data) to map and predict erosion and rainfall. A large component of his work includes measurements and sample collection in the field.	http://geog.ucsb.edu/~bodo/
Bowers, John	Electrical & Computer Engineering	Institute for Energy Efficiency; Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Center for Energy Efficient Materials; California NanoSystems Institute	Dr. Bowers' research team created an LED lamp that is solar-powered, cost-effective, and highly efficient. The circuit of the lamp is designed so as to provide triple the output of a normal AA battery. This design was transferred to a nonprofit, Unite to Light. Manufactured lamps were shipped to Ghana in 2010 at a cost of \$7 per lamp, roughly the amount a family in Ghana would spend on kerosene for 2 months. Unite to Light has sent 56,000 such lights to people in need of a sustainable light source. The research group has since worked on solar powered lights that can also charge cell phones, as well as solar powered cell phone charger lights that can operate as a pay-as-you-go model. (Dr. Bowers' research also includes work on more efficient thermoelectric materials for waste heat recovery and on concentrated photovoltaic devices for more efficient solar power.)	http://optoelectronics.ece.ucsb.edu/profile/john-bowers
Brenner, Mary E.	Education		Professor Brenner has recently applied for an NSF grant to bring climate and marine science classes to Santa Barbara County schools. For seven years, she was previously involved in running and researching a summer educational program for local students that taught environmental stewardship.	
Brewer, Forrest	Electrical & Computer Engineering	California NanoSystems Institute; Institute for Energy Efficiency	Dr. Brewer's recent work is in the development of a family of specialized microprocessors for low-power/high-performance embedded closed loop control. The application may substantially reduce power and improve performance of microprocessors.	http://engineering.ucsb.edu/faculty/profile/91
Brooks, Andrew		Marine Science Institute; Carpinteria Salt Marsh Reserve		
Browne, Mark Anthony		National Center for Ecological Analysis & Synthesis	Dr. Browne's research focuses on understanding the impacts of human activities (pollution, climatic change, and urbanization) on biodiversity and rehabilitating affected habitats. Currently, much of this research deals with the sources and fate of litter across ecosystems and its effects, from the subcellular to whole ecosystems.	

Brzezinski, Mark	Ecology, Evolution & Marine Biology	Marine Science Institute; Center for Interdisciplinary Research in Fluids	Dr. Brzezinski's research focuses on marine phytoplankton, oceanography, and climate change science. He is currently working on projects related to effects of high CO2 conditions on organic matter, the effect of wave energy on kelp forest ecosystems, and the maintenance of species diversity.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/brzezinski/
Bullo, Francesco	Mechanical Engineering	Center for Control, Dynamical Systems and Computation; Institute for Collaborative Biotechnologies	Dr. Bullo has investigated efficient methods to improve the functioning of our power grid. His work involves how to suppress energy-consuming inter-area oscillations and how to integrate increasing percentages of renewable energy into the current grid.	
Buratto, Steven	Chemistry and Biochemistry	Institute for Terahertz Science and Technology; Institute for Energy Efficiency; California NanoSystems Institute	Dr. Buratto has conducted research which looks at the polymer films present in LEDs by using near-field optical spectroscopy and near-field scanning microscopy. Looking at these films provides direct insight into the functioning/performance of these devices. The films affect such factors as carrier generation, transport, and device lifetime. He has additionally researched proton-exchange membrane fuel cells. These fuel cells provide efficient power with a low environmental impact by generating electricity from chemical energy.	http://www.chem.ucsb.edu/~buratto_group/
Burbank, Doug	Earth Science	Earth Resource Institute	Professor Burbank studies tectonic geomorphology and surface processes. Working with the Earth Research Institute, Burbank's research areas include earth evolution, earth systems science, and natural hazards. His current research projects include analyzing the climate and tectonic controls on growth of the Puna Plateau, NW Argentina, and the interactions of tectonics, erosion, and climate in shaping the Himalayas.	http://www.geol.ucsb.edu/faculty/burbank
Callander, Davon	Molecular, Cellular, and Developmental Biology		Dr. Callander studies how environmental stress affects organismal physiology. Understanding stressors and how animals respond to them can inform policy, conservation, and sustainability.	
Carlson, Craig	Ecology, Evolution & Marine Biology	Marine Science Institute; Bermuda Institute of Ocean Science; Marine Biotechnology Center	Dr. Carlson's research focuses on microbial oceanography. More specifically, his research focuses on the role marine microbes play in the cycling of elements through oceanic dissolved organic matter. The applications of this research will help to understand how microbial processes affect the production and consumption of organic matter within the oceanic carbon cycle.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/carlson/
Carvalho, Leila	Geography	Earth Resource Institute	Dr. Carvalho's research interests are in regional and large-scale climate variability and modeling, global climate change, and scaling processes in geophysics. More specifically, she researches the characteristics of the South American Monsoon System and how these characteristics will be modified in future scenarios of climate change. Dr. Carvalho also looks at the pattern of increased precipitation rates in various regions around the world.	http://www.icess.ucsb.edu/clivac/
Caselle, Jennifer		Marine Science Institute	Dr. Caselle's research is broadly focused on marine conservation and reef ecology. She currently works in both coral reef and kelp forest ecosystems, studying community dynamics, recruitment and larval dispersal, and movement patterns of fishes. She also manages a large-scale field-based monitoring program of kelp forests in the California ecosystem with the goal of assessing long-term changes due to climate and anthropogenic impacts.	
Chabinyk, Michael	Materials	Institute for Energy Efficiency; Center for Polymers and Organic Solids; Mitsubishi Chemical Center for Advanced Materials; Center for Energy Efficient Materials; Materials Research Laboratory; California NanoSystems Institute; Carsey-Wolf Center	Dr. Chabinyk studies energy storage and conversion. Some of his specific focuses include organic semiconductors and hybrid organic devices that can store energy. He has also researched photovoltaics, which use semiconductors to generate electrical power from solar radiation.	http://www.materials.ucsb.edu/recruitment/Faculty/chabinyk/chabinyk.php
Chadwick, Oliver	Geography	Cheadle Center for Biodiversity & Ecological Restoration	Dr. Chadwick's research relates soils to ecology and earth system science. He has studied how humans prior to the Industrial Revolution and development of industrial nitrogen fixation managed their natural ecosystems and agricultural systems sustainably. He also looks at how humans impact the environment through extracting nutrients from it for agriculture and industry and then, in some cases, concentrating them or spreading them to return them to the natural environment.	http://geog.ucsb.edu/pedology/
Cheng, Tim	Electrical & Computer Engineering	Institute for Energy Efficiency; Greenscale Center for Energy-Efficient Computing	Dr. Cheng manages two research labs: SoC Design and Test Lab and Learning-based Multimedia Lab. The latter laboratory is currently doing research which focuses on Mobile Computer Vision. Computer vision looks at how real world data, in particular images, are processed into symbols/numbers and understood by computers. The research focuses on developing designs that improve the energy efficiency of tasks involved in computer vision.	http://engineering.ucsb.edu/faculty/profile/94

Chmelka, Bradley	Chemical Engineering	Institute for Energy Efficiency; Institute for Collaborative Biotechnologies	Dr. Chmelka works with nanotechnology. He studies, at a molecular level, some of the important materials involved in nanotechnological processes and how these materials are linked to one another. This new technology is used in energy conversion materials such as batteries and fuel cells.	http://www.chemengr.ucsb.edu/people/faculty_d.php?id=16
Chong, Fred	Computer Science	Institute for Energy Efficiency; Director, the Greenscale Center for Energy-Efficient Computing	As the Director of the Greenscale Center for Energy-Efficient Computing, Dr. Chong's research includes Life Cycle Analysis (LCA) of information technologies. This method of analysis can be applied to computing strategies in order to gauge their environmental impact and energy efficiency. He also studies emerging technologies for energy-proportional computation. Energy-proportional computation saves computer server energy as well as increasing real-time use efficiency as computing workload varies.	http://www.cs.ucsb.edu/~chong/
Clark, Jordan	Earth Science; Environmental Studies		Professor Clark's research focuses on topics in the field of aqueous geochemistry. By analyzing anthropogenic and natural tracers in bodies of water, Professor Clark is able to study how flow patterns affect the quality of water, the transfer of water, and gas exchange across the air-water interface. His current research projects include the chemical evolution of shallow groundwater, groundwater flow near managed aquifer recharge sites, and stream/ground water interactions in alpine watershed. In the past, he has also examined the fate of methane near shallow hydrocarbon seeps.	http://www.geol.ucsb.edu/faculty/jfclark/
Clarke, Keith	Geography	National Center for Geographic Information and Analysis; Institute for Energy Efficiency; Ocean and Coastal Policy Center	Dr. Clarke is the author of the SLEUTH land use change model and has overseen a large number of applications and led adaptations and improvements of the model. The model is increasingly used in sustainability planning, in Iran, Turkey, India, Brazil, China, and elsewhere. The model is open source and supported via online discussion forums.	http://geog.ucsb.edu/~kclarke/
Clemencon, Raymond	Bren; Global and International Studies; Sociology	Orfalea Center for Global and International Studies	Dr. Clemencon's policy research has focused on international environmental institutions, sustainable development, and globalization. Currently, he is examining how different countries define and try to operationalize the concept of sustainable development. He examines the political processes that determine the allocation of funds for climate change in different countries (for both multilateral mechanisms like the Green Climate Fund and the GEF, as well as for bilateral efforts). Dr. Clemencon also researches the domestic sources that determine a country's ability to provide leadership in the climate negotiations.	http://www.soc.ucsb.edu/faculty/raymond-clemencon
Cleveland, David	Environmental Studies		David Cleveland's research and teaching focus on small-scale, sustainable agriculture and its role in responding to climate change, resource scarcities, new technologies, and demands for social justice. His current focus is the potential contributions of agrifood system localization to climate change mitigation, improved nutrition, and food sovereignty in Santa Barbara County and California. His 2013 book, "Balancing on a Planet: The future of food and agriculture," is an interdisciplinary primer on critical thinking and effective action for the future of our global agrifood systems, based on an understanding of their biological and sociocultural roots.	http://es.ucsb.edu/faculty/cleveland/
Coldren, Larry	Electrical & Computer Engineering	Institute for Energy Efficiency; Optoelectronics Technology Center; Solid-State Energy & Lighting Center; Interdisciplinary Center for Wide Bandgap Semiconductors; California NanoSystems Institute	Dr. Coldren has worked to develop new photonic integrated circuit (PIC), as well as vertical-cavity surface-emitting laser (VCSEL) technology. This technology has many applications. It can be used in laser printers and biological tissue analysis, and it is widely used in fiber optics. Fiber optics is a field that focuses on transmitting information by sending light pulses through an optical fiber. As a member of the Electronics and Photonics Solutions Group at the Institute for Energy Efficiency, Dr. Coldren has worked to make these devices high-speed and efficient.	http://www.ece.ucsb.edu/Faculty/Coldren/
Collins, Peter	Ecology, Evolution & Marine Biology		Professor Collins' research emphasis is the study of mechanisms regulating the reproduction and development in vertebrate animal models, comparative reproductive endocrinology and fertility, reproductive physiology in teleosts, endocrine regulation of viviparity, evaluation of candidate species for mariculture, marine teleost larval rearing technology, and the development of novel microparticulate diets for marine larvae.	

Cook, Elizabeth	English		Professor Cook's current research explores early modern writing about forests and trees, considering the shifting and sometimes colliding concepts of value and the history of environmental ethics. In her current project, "Talking Trees in Long 18th-Century British Literature," she examines the simultaneous development of silviculture and silviphilia -- often radically opposed ways of valuing trees that are still with us today -- during the eighteenth century. Her work argues that this history of contradictory attitudes toward the environment can help us understand how we respond to and address critical environmental issues today.	http://www.english.ucsb.edu/people/cook-e-heckendorn
Cooper, Scott	Ecology, Evolution & Marine Biology	Santa Barbara Channel Long-term Ecological Restoration Program	Dr. Cooper's research has been centered on the factors that determine the abundances and distributions of aquatic organisms. Past research foci have included the impacts of acid deposition, livestock grazing, pollution, climate change, exotic species, and native species loss on freshwater ecosystems. Currently, much of his work revolves around the effects of land use changes, fire, and forestry practices on streams in California.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/cooper/
Costello, Christopher	Bren	Sustainable Fisheries Group; Earth Resource Institute;	Dr. Costello's research focuses on natural resource management and property rights under uncertainty, with a particular emphasis on information, its value, and its effect on management decisions. He studies how to design and evaluate the performance of markets for environmental goods; specifically, he concentrates on sustainable fisheries and environmental markets.	http://fiesta.bren.ucsb.edu/~costello/
Culver,Carolynn		Marine Science Institute	Dr. Culver's research interests include understanding the life history characteristics and population dynamics of aquatic organisms and applying this information to improve management of non-native invasive species and fisheries resources and to enhance culture technologies of marine species. She also is evaluating ways to assist the state with management of fisheries resources, through collaborative fisheries research to collect field data and promote its integration into the management process.	
D'Antonio, Carla	Ecology, Evolution & Marine Biology; Environmental Studies	Cheadle Center for Biodiversity & Ecological Restoration	Dr. D'Antonio's research is primarily focused on factors driving changes in ecosystem structure and functioning. She evaluates how species, communities, and ecosystem processes are responding to human-altered fire regimes, species invasions, nitrogen deposition, and climatic fluctuations, including drought. Through her research, she seeks to provide a scientific basis for the management and restoration of ecosystems and for predicting how species composition will change under current and future stressors.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/dantonio/
Davis, Frank	Bren	Marine Science Institute; Sedgwick Reserve	Dr. Davis brings conservation science and geographical analysis to bear in land use planning and the conservation of wild species. His research focuses on the landscape ecology of California plant communities, the design of protected-area networks, rangeland and farmland conservation, and the biological implications of regional climate change.	http://www.biogeog.ucsb.edu/
Dawson, Daniel		Marine Science Institute; Valentine Eastern Sierra Reserve	Daniel Dawson is currently working on the construction of a "net zero energy" classroom/lecture hall. In 2012, he received a grand grant of State bond funds (Prop 84) from the CA Wildlife Conservation Board for the project. The grant is providing partial funding for three large infrastructure projects. The classroom is 2700 sq. ft., with 1700 of that in the main room, the remainder restrooms, and the lobby. For heating and cooling the classroom, he will employ ground source heat pump technology. The electric load from the heat pumps will be covered by roof mounted photovoltaic cells, resulting in a building that is a net zero consumer of fossil fuel for operation.	
Deacon, Robert	Economics; Bren		Dr. Deacon's research focuses on natural resource economics, environmental economics, and the political economy. He examines of the effects that different political systems have on the use of natural resources, environmental quality and the provision of public goods. More specifically, he has focused on the use of property rights systems to manage fisheries and marine habitat protection.	http://www.econ.ucsb.edu/people/faculty_directory.html?f=robert_t._deacon
Den Baars, Steven	Materials	Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Center for Energy Efficient Materials; Institute for Energy Efficiency	Dr. Denbaars' research interests include growth of wide-bandgap semiconductors and their application to Blue LEDs, lasers, and high power electronic devices. His research is used for the fabrication of new semiconductor devices. This research is important to the development of more energy efficient lighting.	http://www.materials.ucsb.edu/LINKS/PROFdenbaars/hp.denbaars.html

Deschênes, Olivier	Economics	National Bureau of Economic Research; Institute for the Study of Labor; Broom Center for Demography;	Dr. Deschênes' research focuses on economic and health impacts of global climate change, adaptation to climate change, and the relationship between energy markets and labor markets. More specifically, his current projects include the impacts of climate change in India and the effect of electricity prices on the labor market. He also is currently studying the role of the diffusion of residential air conditioning in reducing heat-related mortality in the United States.	http://www.econ.ucsb.edu/~olivier/
Dickey, Tommy	Geography		Dr. Dickey studies interdisciplinary oceanographic and environmental problems. He has researched air-sea interactions, coastal processes, pollution, and ocean technology, among other things. He recently analyzed ocean eddies in southern California, as well as creating an overview of sea state conditions and air-sea fluxes associated with the Office of Naval Research's Radiance in a Dynamic Ocean (RaDyO) field program. Through his research, Dr. Dickey has helped to launch key multi-platform observational networks to model and monitor global climate change and coastal pollution.	http://www.opl.ucsb.edu/tommy/
Donelan, James	English		Dr. Donelan conducts research into pedagogical issues related to sustainability, including remote teaching.	
Dozier, Jeff	Bren		Dr. Dozier's research interests are in the fields of snow hydrology, earth system science, remote sensing, and information systems. His current research projects include analyzing snow-climate interactions and snow runoff. He is researching snowmelt runoff estimates in High Asia, where a billion people depend on snow and ice melt for their water resources.	http://www.bren.ucsb.edu/people/Faculty/jeff_dozier.htm
Dudley, Tom		Marine Science Institute; Cheadle Center for Biodiversity and Ecological Restoration	Dr. Dudley examines the effects of non-native, invasive species in aquatic and riparian ecosystems, the mechanisms underlying invasion success and plant-herbivore interactions, and the restoration of invaded ecosystems for biodiversity enhancement and improved ecosystem function.	http://rivrlab.msi.ucsb.edu/peoplepages/dudley.php
Dugan, Jenifer		Marine Science Institute	Jenifer Dugan's research as a coastal marine ecologist involves studying basic questions concerning the influence of environmental and anthropogenic drivers on community and population dynamics of marine animals across a diversity of shorelines, latitudes, and time scales. She investigates ecological connectivity, marine conservation and restoration, responses to and recovery from disturbance, species interactions, historical ecology, and the physical and biological drivers of community structure and function in coastal ecosystems. Her collaborations with coastal managers to conduct more applied studies have increased our understanding of the ecological impacts and implications of widespread human alterations of the coast, including urban development, shoreline armoring, beach grooming, oil spills, and climate change, and have provided new insights into intertidal recovery dynamics, restoration approaches, and adaptation strategies.	
Dunne, Thomas	Computer Science		Dr. Dunne's research has focused on issues related to natural hazards and resource management. His current research interests include hydrology, sediment transport, and river channel change in lowland floodplains in California and the Amazon basin. Related activities include studies of how physical and biological processes interact to create and maintain habitat for fish and their food sources in the Merced River, CA, and how flow regulation in the San Joaquin River, CA, interacts with natural environmental conditions to affect water temperatures and spawning habitat.	http://www.bren.ucsb.edu/people/Faculty/thomas_dunne.htm
Eisenhower, Bryan	Mechanical Engineering	Center for Energy Efficient Design	Dr. Eisenhower's research has two main thrusts: 1) tools for data analysis, aggregation, and visualization of building performance data, and 2) methodologies to enhance design and operations of buildings, using model-based engineering. Buildings generate enormous amounts of data that are rarely studied. By creating algorithms that can precipitate key features of their performance, faulty equipment and suboptimal performance can be identified and addressed. Similarly, by improving models used for building design, optimized design and operational strategies can be identified. Dr. Eisenhower's research is creating new ways to analyze building data and use engineering models leading to high performance building designs.	http://engineering.ucsb.edu/~bryane/ind ex.html

El Abbadi, Amr	Computer Science	Institute for Energy Efficiency	Dr. El Abbadi researches ways to create more energy-efficient computing. He recently helped design a data management infrastructure for location-based applications and services such as those commonly used on smartphones and tablets. The goal of the design is to effectively deal with the growing number of location-based applications and services, which sometimes overwhelm database systems, without sacrificing the system's availability or ability to tolerate faults occurring in its internal components. Dr. El Abbadi's work has helped to reoptimize database techniques which both improves performance and boosts fault-tolerance.	http://www.cs.ucsb.edu/~amr/
Engle, John		Marine Science Institute	John Engle is a research biologist that works with the Multi-Agency Rocky Interstitial Network (MARINe). As a MARINe Coordinator, John helps to conduct long-term marine life monitoring at over 200 West Coast rocky intertidal sites to evaluate environmental health and establish dynamic baselines with relation to climate change, disease, human impacts, and Marine Protected Areas, while also facilitating communications, websites, and data exchange; overseeing sites and protocols; and coordinating the management of databases.	
Falasca-Zamponi, Simonetta	Sociology; French and Italian	Institute for Energy Efficiency	Dr. Falasca-Zamponi's book "Waste and Consumption: Capitalism, the Environment, and the Life of Things" examines the link between waste and consumption through a cultural approach that integrates environmental concerns with reflections on the role that consumption has come to occupy in our contemporary capitalist societies.	
Fleishman, Erica	Bren	Earth Resource Institute;	Dr. Fleishman's research focuses on applications of environmental science to management of public and private lands in the western United States. Her research explains and projects the responses of animals to changes in land cover, land use, and climate. By using predictive modeling and geospatial analysis, her research aims to develop scientifically reliable, cost-effective approaches for understanding the distribution of assemblages and species and underlying mechanisms.	http://www.eri.ucsb.edu/people/erica-fleishman
Florsheim, Joan		Earth Resource Institute	Dr. Florsheim's research focuses on sediment dynamics in fluvial systems and emphasizes interactions between geomorphic processes, climate, humans, and ecosystems. Current investigations include a field study to understand long and short-term recovery of chaparral environments in southern California following wildfire and quantification of a sediment budget in a coastal watershed in central California. Recent work focuses on channel incision and bank erosion (northern California), travertine morphology (China), and effects of climate variation and change (Central Valley).	http://www.eri.ucsb.edu/people/joan-florsheim
Foran, John	Sociology		John Foran is a professor of sociology. His current areas of interest include the comparative study of 20th-century revolutions and 21st-century radical social change, development, climate, globalization, and the global justice and climate justice movements. Foran is currently the UCSB Sustainability Champion and is engaged in a long-term research project on the global climate justice movement with Richard Widick. The project, the International Institute of Climate Action & Theory (IICAT) Climate Justice Project, will try to improve our understanding of global warming and climate change.	
Ford, Anabel	Latin American and Iberian Studies	MesoAmerican Research Center; Institute for Social, Behavioral and Economic Research	Dr. Anabel Ford works with the MesoAmerican Research center and combines archaeological research with traditional Maya knowledge. Her work involves studying patterns of settlement and environment by examining the common human aspects of the ancient Maya civilization that shed light on sustainable farming practices. Much of Dr. Ford's work takes place at the ancient Maya city center of El Pilar, which she has transformed into a living museum and laboratory. Using the landscape as a tool of conservation, Dr. Ford has turned El Pilar into a model of synergy between nature and culture, and her focus on cultural ecology is being applied to benefit of contemporary populations while simultaneously studying the co-evolution of human societies and the environment.	

Ford, Peter	Chemistry and Biochemistry	Center for the Sustainable Use of Renewable Feedstocks; Earth Research Institute	Dr. Ford is the Director of the Center for the Sustainable Use of Renewable Feedstocks (CenSURF). CenSURF has helped facilitate projects at UCSB and three other universities that aim to promote sustainable practices in the chemical sciences. These research projects include new ways to synthesize organic compounds like ethylene from fixed sources of carbon dioxide and the conversion of biomass solids like agricultural and forest waste products to industrial chemicals and fuels. Preparing chemicals and fuels from these renewable feedstocks will reduce the use of nonrenewable fossil carbon resources and the carbon footprint on the environment.	http://www.chem.ucsb.edu/fordgroup
Fredrickson, Glenn	Chemical Engineering	Mitsubishi Chemical Center for Advanced Materials; Complex Fluids Design Consortium; Institute for Collaborative Biotechnologies; Materials Research Laboratory; California NanoSystems Institute;	Dr. Fredrickson conducts research that involves designing specialty block copolymers used to advance lithography strategies to shrink the dimensions of microelectronic devices. He works to make these devices faster and more energy-efficient.	http://www.chemengr.ucsb.edu/people/faculty_d.php?id=25
Frew, James	Bren	Earth Resource Institute	Dr. Frew's research interests lie in the field of environmental informatics, a synthesis of computer, information, and Earth sciences. His current research is focused on geospatial information provenance, remote sensing data products, and environmental information management.	http://eil.bren.ucsb.edu/~frew/
Funk, Chris	Geography	UCSB Climate Hazard Group	As a founding member of the UCSB Climate Hazard Group, Dr. Funk's research has focused on drought monitoring, drought prediction, and the evaluation of long-term trends in climate and food security. Recently, Dr. Funk has worked to implement improved methods of monitoring trends and predicting droughts, primarily in Sub-Saharan African communities. This monitoring and predicting is done by using satellites to track precipitation patterns that can be linked to long-term trends. Dr. Funk's research allows African officials to make sustainable decisions concerning community development and future food security.	http://chg.geog.ucsb.edu/people/chris-funk/
Gaines, Steve	Ecology, Evolution & Marine Biology; Bren		Dr. Gaines' research addresses a broad range of issues in ecology, sustainable fisheries, conservation biology, and climate change. More specifically, he focuses on how different populations respond to climate variation, as well as on the design elements that enhance both conservation and fisheries management. Gaines also studies exotic species patterns and biodiversity.	http://www.lifesci.ucsb.edu/EcologyEvolution&MarineBiology/faculty/gaines/index.html
Gardner, Colin	History of Art and Architecture		Dr. Colin Gardner's current research explores the ways in which dissolving the Kantian dialectic structure between man, art, and world in favor of an anti-speciesist structure of assemblage, connectivity, and relationality between aesthetics, creativity, and machinic subjectivity can produce a new vision for a more ethical and ecologically sustainable world. His work brings together issues of accountability, effect, and ecosophy as revolutions through all media, focusing specifically on art, film, installation, and text, thereby opening the human to more ethical relations with the world.	
Gautier, Catherine	Geography	The Institute for Computational Earth System Sciences	Dr. Gautier's research interests include global radiation and water, El Niño, and earth system science education. She looks at the science of climate change and earth system sciences using computer science. Dr. Gautier has examined global warming from different perspectives and has considered how the debate surrounding this concern has played a role in education.	http://www.geog.ucsb.edu/~gautier
Geyer, Roland	Bren	Institute for Energy Efficiency	Dr. Geyer's research focuses on industrial ecology. His research interests include the life cycle of manufactured goods and the environmental and economic potential of reuse and recycling activities. His overarching research goal is to help develop the science and knowledge necessary to reduce the environmental impact from industrial production and consumption.	http://www.esm.ucsb.edu/people/Faculty/roland_geyer.htm
Gibou, Frederic	Mechanical Engineering; Computer Science; Mathematics	Institute for Energy Efficiency; Center for Control, Dynamical Systems and Computation, Center for Energy Efficiency Design; Greenscale Center for Energy-Efficient Computing	Dr. Gibou's research focuses on the design and applications of high resolution computational methods. These are used in materials science in the study of solidification processes used in the energy sector, as well as in the study of fluid motion applied to flows at the micro and the nanoscale levels. Applications include the study of flows in porous media, including those in oil reservoirs or in porous electrodes of supercapacitors. Dr. Gibou's work has helped develop models enabling the understanding of the charging of supercapacitors.	http://www.engr.ucsb.edu/~fgibou/Home.html

Gilbert, John	Computer Science	Greenscale Center for Energy Efficient Computing; Institute for Energy Efficiency	Professor Gilbert works with the Greenscale Center for Energy-Efficient Cooling to develop solutions to the rapidly increasing cost of powering data centers around the world. His research in high-performance computing and engineering is applied to cooling technologies for energy-efficient computational facilities by developing efficient numerical algorithms for computationally modeling airflows on supercomputers.	http://www.cs.ucsb.edu/~gilbert/
Goddard, Jeff		Marine Science Institute	Jeff Goddard's research is centered on the natural history and systematics of intertidal invertebrates. He has recently been using historical data sets of abundance, combined with new sampling, to examine long-term changes in the fauna of the northeast Pacific Ocean, including those related to climate change and the explosive human population growth of southern California in the last half of the 20th century.	
Gordon, Michael	Chemical Engineering	Institute for Collaborative Biotechnologies	Professor Gordon's research focuses on the synthesis and characterization of nanoscale materials, as well as the development of scanning probe microscopy (SPM) methods for optical, electrical, and mechanical interrogation of nanoscale systems found in different venues, such as material science, microelectronics, catalysis, and biology. His work with various materials in nanoscale materials involves spectroscopy of organic semiconductors for organic light emitting diode and photovoltaic applications.	
Gossard, Arthur	Materials	California NanoSystems Institute	A member of the Center for Energy Efficient Materials (CEEM), Professor Gossard contributes to research on metal/semiconductor nanocomposites that will allow the modification of intrinsic material properties that are important for high efficiency thermoelectrics.	http://engineering.ucsb.edu/faculty/profile/169
Goulias, Kostas	Geography		Dr. Goulias' research interests include sustainable and green transportation, as well as human-environment relations. His models and simulations track fuel consumption and pollutants emitted (greenhouse emissions). He has also studied non-motorized transportation, hybrid-electric vehicles, and air pollution control program evaluation.	http://mysite.verizon.net/resocp1k/
Graves, Greg	History; Environmental Studies		Dr. Graves' research interests include public history, California history, environmental history, and U.S. history. He specializes in federal water resources development and resource allocation. He also conducts environmental and historical investigations of industrial sites in the partnership Graves & Neushul Historical Consultants.	http://www.history.ucsb.edu/people/person.php?account_id=88
Gurven, Michael	Anthropology	Neuroscience Research Institute	Professor Gurven's research focuses on the effect of ecological and social factors on the development of behavior, psychology, and physiology. In a recent publication, "Successful hunting increases testosterone and cortisol in a subsistence population," Professor Gurven explores how successful hunting spikes testosterone levels and increases reproductive success in humans.	http://www.anth.ucsb.edu/faculty/gurven/
Hampton, Stephanie		Marine Science Institute	Stephanie Hampton's research interests range from basic research in aquatic science using statistical analysis of large databases to broader applications of empirical evidence in environmental issues and policy. Currently, her research is largely focused on understanding the effects of climate dynamics on the planktonic base of the food web in Lake Baikal, Siberia.	
Hannah, Lee	Bren	Earth Resource Institute; Center for Applied Biodiversity Science; Institute for Energy Efficiency	As Senior Fellow in Climate Change Biology at Conservation International's (CI) Center for Applied Biodiversity Science, Dr. Hannah examines the role of climate change in conservation planning. His research models climate impacts on species in California and, with the National Botanical Institute in Cape Town, South Africa, models biotic change resulting from global warming in biodiversity hot spots.	http://www.bren.ucsb.edu/people/Faculty/lee_hannah.htm
Harthorn, Barbara	Anthropology; Feminist Studies	UC Center for Environmental Implications of Nanotechnology Center for Nanotechnology in Society;	Professor Harthorn works with the UCSB Center for Nanotechnology in Society. Her recent publications explore the implications that nanotechnology has for society and the environment, including public perception of nanotech applications for energy and the environment and the impact that nanotechnology has on environmental health.	http://www.cns.ucsb.edu/people/barbara-herr-harthorn-0

Hawker, Craig	Chemistry and Biochemistry	Institute for Multi-scale Materials Studies; Institute for Collaborative Biotechnologies; Mitsubishi Chemical Center for Advanced Materials; International Center for Materials Research; Materials Research Laboratory; Center for Nanomedicine; California NanoSystems Institute; Center for Nanotechnology in Society	As director of the Material Research Lab at UCSB, Dr. Hawker has overseen research that unlocks the valuable polymers held in plastic food packages so as to use them to benefit society. His lab is working to transform polyactide plastics into specialty chemicals commonly used by industrial and food manufacturers. Dr. Hawker's team hopes to recycle plastics into a material equally as valuable and useful.	http://hawkergroup.mrl.ucsb.edu/
Hayton, Trveor	Chemistry and Biochemistry		Dr. Hayton works with a research group on projects involving the synthesis and characterization of new inorganic and organometallic complexes and materials. In 2010, he was awarded a Sloan Fellowship. Dr. Hayton has plans to use the fellowship to further research into uranium mediated catalysis. This research is a part of his exploration into actinide organometallics that will help improve the nuclear fuel cycle and the treatment of nuclear waste.	http://www.chem.ucsb.edu/people/faculty/hayton/
Heeger, Alan	Chemistry and Biochemistry; Physics; Materials	Center for Nanomedicine; California NanoSystems Institute	Dr. Heeger, a Nobel Prize Laureate, researches the technology of semiconducting and metallic polymers. Part of his research has focused on low cost, thin, flexible solar cells. Dr. Heeger has discovered a way to make solar cell materials soluble. This solar cell "liquid-ink" can be printed like a newspaper at very low cost, revolutionizing the solar cell manufacturing process.	http://www.mrl.ucsb.edu/mrl/faculty/heeger.html
Herbst, David		Marine Science Institute	David Herbst's research involves studies of salt lake ecosystems and the ecology and physiology of aquatic invertebrates and algae. In addition, his research extends to spring ecosystems and streams. David Herbst's past projects include studies of sediment deposition and its effects on benthic invertebrates, establishing a monitoring network to detect the effects of climate change on mountain stream hydrobiology, and investigations of the impacts of a variety of disturbance stressors on stream community ecology, including livestock grazing and management, forest use practices, acid mine drainage, introduced invasive species (Trout, New Zealand Mud Snails), roads and erosion, and restoration of degraded habitats. The focus of many of these studies has been to provide a scientific foundation to inform management decisions by state and federal environmental and regulatory agencies.	
Hess, Laura		Earth Research Institute	Dr. Hess' research focuses on remote sensing, field, and modeling studies in order to quantify key drivers of land cover and land use change on the lower Amazon floodplain.	http://www.eri.ucsb.edu/people/laura-hess
Hiltner, Ken	English; Environmental Studies		Ken Hiltner is a professor of English literature and Environmental Studies. He explores the history of literature and the relationship between literary history and our Earth in order to better understand how we arrived at our current environmental beliefs. Hiltner is active in examining environmental issues from various perspectives. He hosts a weekly podcast, the Environmental Humanities Podcast, where he conducts interviews with scholars and artists to discuss how environmental issues are taken up across the humanities. He also has given various talks, such as "Nature: How Much Does it Matter," "The Role of Our Past In Our Environmental Future," and "Environmental Criticism: What is at Stake?"	http://www.english.ucsb.edu/people-detail.asp?PersonID=266
Hofmann, Gretchen	Ecology, Evolution & Marine Biology	Center for the Study of Ocean Acidification and Ocean Change	Dr. Gretchen Hofmann is an eco-physiologist that studies ocean acidification as a result of the absorption of carbon dioxide into the oceans. Hofmann's work investigates whether or not organisms can adapt to ocean acidification. Her work involves studying Antarctic ecosystems which absorb more carbon dioxide due to freezing water temperatures. By studying the response of the Antarctic pteropod, Hofmann hopes to understand how future decreases in the pH of the oceans around the world will affect marine organisms.	http://www.lifesci.ucsb.edu/eemb/faculty/hofmann/
Holbrook, Sally	Ecology, Evolution & Marine Biology	Marine Science Institute; Long Term Ecological Research Network	Dr. Holbrook's research focuses on population dynamics, marine species interactions, and impacts on coral reef ecology. She is currently doing research on temporal patterns in reef communities by analyzing long-term trends in population abundance and species richness. This research is especially vital when looking at the adverse effects of climate change on marine ecosystems.	http://www.lifesci.ucsb.edu/EcologyEvolution&MarineBiology/faculty/holbrook/

Holden, Patricia	Bren	UCSB Natural Reserve System	Dr. Holden's research blends environmental engineering with soil microbiology. Her current research projects deal with the interactive effects of soil, water, and nutrients on bacterial processes, as well as coastal water quality in urban environments. She focuses on bacteria as both an agent of environmental restoration and of environmental degradation.	http://www.bren.ucsb.edu/people/Faculty/patricia_holden.htm
Homyak, Peter	Ecology, Evolution & Marine Biology	Marine Science Institute	Dr. Homyak's research focuses on how humans have altered biogeochemical cycles and its effects on the environment. More specifically, his research examines the production of gaseous N emissions from soils and how they are influenced by dry-season processes. Because N emissions influence the chemistry of the lower atmosphere, he is interested in developing an understanding of important links between soil and atmospheric processes.	https://labs.eemb.ucsb.edu/schimmel/josh/Pete.html
Israelachvili, Jacob	Chemical Engineering	Institute for Collaborative Biotechnologies; Materials Research Laboratory; California NanoSystems Institute	Dr. Israelachvili researches intermolecular and intersurface forces in systems. He has also worked to develop new experimental techniques for studying different materials and surfaces. This research has technological applications, such as the development of biocompatible surfaces, and can also be used to diagnose and treat patients. Recently, Dr. Israelachvili has researched the adhesion potential in the mussel foot protein which helps advance the development of artificial wet adhesives. He has also recently worked to understand the energetics of ionic liquids which could lead to the creation of cleaner, more sustainable batteries and energy storage devices.	http://www.mrl.ucsb.edu/mrl/faculty/israelachvili.html
Jacobs, Robert	Molecular, Cellular, and Developmental Biology	Marine Biotechnology Center; Marine Science Institute	Dr. Jacobs' research is oriented toward the study of cellular and molecular mechanisms of drug action. More specifically, one of his projects examines the harvest of marine organisms that are useful for medical and industrial purposes. This project looks at several oil and gas platforms in the Santa Barbara Channel to assess the issue of over-harvesting natural products. The research may reduce or eliminate the ecological impacts of harvesting marine organisms.	https://www.mcdb.ucsb.edu/people/faculty/jacobs
Jevbratt, Lisa	Art		Lisa Jevbratt a professor in the art department and an artist who has focused her research and art on investigating human/animal relationships for several years. She is developing software that simulates how animals see, and she is teaches a yearly class in interspecies collaboration in the art department. Her work and teaching is continuously engaged with questions about sustainability though examining the relationships we create with other species and our shared environment.	http://artsite.arts.ucsb.edu/people/faculty/jevbratt.html
Jones, Charles	Geography	Earth Research Institute	Dr. Charles Jones co-heads the Climate Variations and Change research group. His work is dedicated to achieving a better understanding of the Earth's present and future climates on different temporal and spatial scales. His research interests are in Dynamic Meteorology and Climate Sciences, and his research topics include the Madden-Julian Oscillation (MJO), predictability of extreme events (especially precipitation), monsoon systems, climate change, WRF regional modeling, and wildfires.	http://www.eri.ucsb.edu/people/charles-jones
Jones, Matthew		Marine Science Institute; National Center for Ecological Analysis and Synthesis	Matthew Jones' research focuses on environmental informatics, including the management, integration, analysis, and modeling of heterogeneous environmental data. Recent projects have produced effective new techniques for information management and analysis, including metadata standards, data management software, and data analysis software, such as scientific workflow systems. Recent projects focus on Kepler, an open-source scientific workflow system that Jones co-founded with other researchers; DataONE, a global data repository aimed to promote access to data about life on earth and the environment; and SONet, an effort to achieve environmental data interoperability through semantic modeling of scientific observations.	
Kappel, Carrie		National Center for Ecological Analysis and Synthesis; Center for Marine Assessment and Planning	Carrie Kappel is a conservation biologist and community ecologist. Major themes of her work include quantifying the ways humans depend upon and impact marine species, habitats, and ecosystems; understanding the spatial distribution of ecological and human components of ecosystems in order to inform conservation and management; and developing ways to integrate biophysical and socioeconomic data to support environmental decision making in coastal ecosystems. Her research has been aimed at informing marine protected area design, ecosystem based management, and marine spatial planning.	

Keller, Arturo	Bren; Mechanical Engineering	American Chemical Society; American Geophysical Union; Association of Environmental Engineering and Science Professors; Society for Environmental Toxicology and Chemistry; Institute for Multi-scale Materials Studies	Dr. Keller's research focuses on the sustainable use of chemicals and materials in our modern society by understanding and quantifying their potential impacts and by seeking ways to minimize impacts while achieving the benefits. He is particularly interested in emerging materials such as nanoparticles and biochemicals, for which little information is available. He also does work at large scales to design better management strategies for common chemicals such as fertilizers and pesticides.	http://www.bren.ucsb.edu/~keller
Keller, Edward	Earth Science; Environmental Studies	Geological Society of America	Dr. Keller's research is divided into the study of stream processes and tectonic activities. More specifically, he focuses on river restoration management, environmental effects of channelization, and the impact of large debris on river systems. Dr. Keller recently started a long-term research project that looks at the hydrology and ecology of small coastal lagoons in southern California.	http://www.geol.ucsb.edu/faculty/keller/
Kendall, Bruce	Bren	Marine Science Institute; Institute for Computational Earth Systems Science	Dr. Kendall applies the science of population ecology to the conservation of rare species and to the management of harvested populations. His research focuses on the causes of population fluctuation, the prediction of the extinction of rare species, and the effects of current-driven dispersal on marine fish species. He also studies the design of protected areas for biodiversity conservation and fisheries management and how to manage tradeoffs among multiple ecosystem services.	http://www.bren.ucsb.edu/people/Faculty/bruce_kendall.htm
King, Jennifer	Geography		Dr. King studies the interactions between soils, plants, and the atmosphere. Her research focuses on biogeochemical processes, which are those processes that cycle elements on Earth, and examines how these processes are influenced by natural and human-induced environmental changes. She recently investigated biogeochemical cycling of carbon, nitrogen, and phosphorus in urban households and how human decisions impact the fluxes of these elements. Current projects include examination of biotic and abiotic factors affecting the carbon cycle in California grasslands.	http://geog.ucsb.edu/~jyking/
Krintz, Chandra	Electrical & Computer Engineering; Computer Science		Professor Krintz is a member of the Greenscale Center for Energy Efficient Computing, and her research interests include automatic and adaptive compilers, programming language, virtual runtime, and operating system techniques that improve performance (for high-end systems) and that increase battery life (for mobile, resource-constrained devices). She contributes to the field of energy-aware computing through her research in virtualization technology, a powerful tool with which to migrate and consolidate computations when used in conjunction with models and the control of cooling technologies.	http://www.cs.ucsb.edu/~ckrintz/
Kryder, LeeAnne	Environmental Studies	Writing Program	Professor Kryder's research involves sharing and refining the pedagogy of developing awareness and proposing remedies for environmental problems. Her students regularly study and conduct research in order to learn about environmental issues and concerns and work in teams to propose solutions for these issues or methods to expand awareness of problems and practices that could address the problems.	
Kuczenski, Brandon	Bren	Institute for Energy Efficiency; Institute for Social, Behavioral and Economic Research	Dr. Kuczenski's research focuses on how researchers, firms, and policy makers manage information about processes and products for sustainability reporting and life cycle assessment and how they communicate their findings to the public. With funding from various California state agencies (including CalRecycle and the Department of Toxic Substances Control), Dr. Kuczenski studies the environmental implications of waste management policy, notably plastic packaging and use of lubricating (motor) oil.	http://iee.ucsb.edu/faculty/kuczenski
Kuris, Armand	Ecology, Evolution & Marine Biology	Marine Science Institute	Dr. Kuris' research goal is to reveal the role of infectious diseases in ecosystems. It examines how disease contributes substantially to the energetics of the ecosystem and substantially alters trophic relationships and the structure of food webs. His research looks at the biological control of exotic marine pests and biological control of human tropical diseases. This information about parasites is useful for assessing ecosystem function in wetlands.	https://www.msi.ucsb.edu/people/faculty/armand-kuris
Lafferty, Kevin		Marine Science Institute; Coal Oil Point Reserve	Dr. Lafferty's research mainly focuses on the ecology of parasites; however, his work also deals with conservation biology issues. Such research includes ways to further the protection and recovery of the endangered tidewater goby, black abalone, southern sea otter, and western snowy plover. In addition, Dr. Lafferty studies the effect of fishing on marine ecosystems (local estuaries, beaches, and kelp forests).	http://homes.msi.ucsb.edu/~lafferty/Kevin_Lafferty/About%20Me.html

Lavallee, Daniel		Earth Research Institute	Daniel Lavallee's research has been focused on the study of nonlinear effects in seismology: first in the study of nonlinear soil dynamics and earthquake strong ground motion and second in the study of spatial complexity of earthquake slip or pre-stress distribution over the fault surface. A better understanding of earthquakes and tsunamis will help mitigating damage to the environment. A recent example is the situation in Japan after the 2011 Tohoku earthquake, especially regarding nuclear accidents.	http://www.eri.ucsb.edu/people/daniel-lavall%C3%A9e
Lea, David	Earth Science		Professor Lea's research with the UCSB Earth Science Department and Marine Science Institute involves the study of climate change, paleoclimatology and paleoceanography, and the global carbon cycle. His research focus involves the study of past climate change in order to establish a context for future global warming.	http://www.geol.ucsb.edu/faculty/lea/
Lenihan, Hunter	Bren	Ecological Society of America; International Coral Reef Society; Western Society of Naturalists; Marine Science Institute	Dr. Lenihan's primary research interests lie in the fields of applied population and community ecology, especially in connection with fisheries management and restoration, as well as resource management. He is currently working on a project that aims to develop new techniques for coral restoration in French Polynesia. He is also examining impacts of marine reserves on populations of target species, fishery yields, and fishing communities.	http://fiesta.bren.ucsb.edu/~lenihan/
Lester, Sarah		Sustainable Fisheries Group	Sarah Lester has been the Research and Program Manager of the Sustainable Fisheries Group at UCSB for the last three years. She also helps SFG with science communications and works with on-the-ground partners to connect science and research with the implementation of conservation and sustainable fisheries projects. Her recent research has focused on the ecological effects of marine protected areas, applying tradeoff analysis to marine resource management and spatial planning, sustainable fisheries management, and ecosystem-based management. She has also worked recently as scientific staff for the Ocean Health Index project, which aims to establish a new world standard for measuring ocean health and to improve ocean governance and health.	
Levi, Carlos	Materials	Materials Research Laboratory	Professor Levi's research involves the fundamental understanding of microstructure evolution, with an emphasis on structural alloys and ceramics, and the application of this understanding to the chemical and microstructural design of coatings, composites, and monolithic systems. Much of his current research focuses on materials which would enable more efficient and environmentally cleaner energy and transportation technologies. Current research areas include high performance coatings and materials for hypersonic flight.	
Lewallen, Anne Elise	East Asian and Cultural Studies		Ann-Elise Lewallen's research areas include indigenous and social movements, environmental concerns, and gender and ethnicity in contemporary Japan and Asia. Lewallen's current research focuses on how discourses about national development impact indigenous communities and may foment environmental injustice. Specifically, she is investigating the relationship between Japanese international aid, earmarked for nuclear power development in India, and the displacement of indigenous Adivasi communities from their ancestral lands.	http://www.eastasian.ucsb.edu/home/faculty/ann-elise-lewallen/
Libecap, Gary	Economics; Bren	Institute for Energy Efficiency	Dr. Libecap's research interests include common pool resource problems and how property rights institutions (private, group) can or cannot address them. Current research addresses the demarcation of land, water rights, and water markets for water allocation and management, as well as the use of rights-based arrangements in fisheries.	
Lipshutz, Bruce	Chemistry and Biochemistry	Institute for Terahertz Science and Technology	The Lipshutz Research Group at UCSB is committed to developing new green technologies that will transform the way in which organic synthesis is traditionally performed. Their use of chemistry provides an alternative to the use of toxic and flammable organic solvents that constitute the vast majority of the organic waste created by the chemical enterprise today. Through the use of newly engineered "designer" surfactants, which are environmentally benign, many of the most commonly used organic reactions can now be run in water at room temperature. (Original. Dr. Lipshutz conducts research in the field of green chemistry. His research team recently discovered a safer, more cost-effective chemistry lab approach which eliminates the need to use toxic organic solvents and allows labs to use water as a medium for dissolving reactants and catalysts. This change reduces pollution and lessens the quantity of waste generated by chemistry labs.)	http://www.chem.ucsb.edu/people/faculty/lipshutz/index.shtml

Lisiecki, Lorraine	Earth Science	Marine Science Institute	Professor Lisiecki's research focuses on computational approaches to analyzing paleoclimate records. Through the analysis of climate system interactions such as glacial cycles, Professor Lisiecki's work contributes to models that further understanding of how man-made changes may affect future climate cycles.	http://lorraine-lisiecki.com/
Loaiciga, Hugo	Geography; Environmental Studies		Professor Loaiciga's research focuses on planning, designing, and analyzing water resource systems, as well as on the computational aspects of surface and groundwater hydrology. He is currently looking at groundwater and earthquake hazards, as well as sea level rise and its effect on coastal freshwater aquifers. He is also working on the development of sustainable water and energy use through seawater desalination with solar energy.	http://geog.ucsb.edu/~hugo/
Lopez-Carr, David	Geography; Latin American and Iberian Studies	Marine Science Institute	Dr. Lopez-Carr's research interests include land use, deforestation, rural poverty, and health. He recently conducted a project to try to understand what was causing rapid land change and urban transition in Ghana. Dr. Lopez-Carr analyzed population and health surveys conducted in the region as part of the project. He has additionally researched agricultural intensification in Guatemala and implications for food security in Latin America.	http://geog.ucsb.edu/~carr/
Love, Milton		Coastal Research Center	Dr. Love's research interests include restoration ecology of coastal marine environments, as well as evaluating the interface between environmental biology and resource management policy. Much of his recent research has focused on the impact of offshore oil and gas platforms on local ocean ecosystems.	http://www.msi.ucsb.edu/research/research-labs-msi/love-lab
Luyendyk, Bruce	Earth Science	Coastal Research Center	Dr. Luyendyk has studied the marine seep systems offshore of the UCSB campus. Other research interests include Antarctic climate evolution in which he participated in projects that aim to capture a record of some of the earth's global climate transitions.	http://www.geol.ucsb.edu/faculty/luyendyk
MacIntyre, Sally	Ecology, Evolution & Marine Biology	Earth Research Institute; Marine Science Institute	Dr. MacIntyre's research focuses primarily on the physical processes in lakes and coastal zones and their biogeochemical and ecological consequences. She is developing new models of the gas transfer coefficient as needed for accurate estimates of regional and global carbon fluxes. Her studies are ongoing in Arctic and Subarctic lakes; Mono Lake, CA; tropical lakes in East Africa and the Amazon Basin; and the waters of coastal California.	http://www.crseo.ucsb.edu/~sally/
Mackie, Diane	Psychological & Brain Sciences; Communication		Professor Mackie's research spans two distinctly different domains: intergroup relations (focusing on the affective, cognitive, and motivational processes by which group memberships influence people's thoughts, feelings, and behavior) and social influence (focusing on the affective, cognitive, and motivational processes by which peoples' attitudes and behavior are changed). Her study of the antecedents and consequences of attitudes and norms can be applied to sustainability relevant behaviors.	
Madhow, Upamanyu	Electrical & Computer Engineering	Institute for Energy Efficiency; Institute for Collaborative Biotechnologies	Dr. Madhow's ongoing research investigates the architecture of next generation wireless communication and sensor networks, with the goal of obtaining order of magnitude gains in energy efficiency.	http://www.ece.ucsb.edu/Faculty/Madhow/
Manalis, Melvyn	Environmental Studies	Institute of Energy Efficiency	Professor Manalis's research interests surround the development of quantifiable sustainability measures, as well as integrated energy planning, industrial ecology, and green nuclear energy. He is also a member of the Economics and Policy Solutions Group that strives to understand the environmental and economic impact of energy efficiency advancements and investigate the range of ways that research, economics, and the environment interact to find policy solutions that proactively shape the market for the benefit of society.	http://www.es.ucsb.edu/people/academic/melvyn-s-manalis
Matthys, Eric	Mechanical Engineering	Institute for Energy Efficiency	Dr. Matthys conducts Sustainability research, mostly in the Energy area. He is leading efforts in Solar Energy, especially on new Concentrated Solar Thermal approaches, as well as in Energy Efficiency projects, such as developing new technologies for HVAC systems for buildings and for ship propulsion .	http://www.me.ucsb.edu/~matthys/

Mazer, Susan	Ecology, Evolution & Marine Biology	National Phenology Network; California Phenology Project	Dr. Mazer's research involves detecting the mechanisms by which plants adapt to the ecological risks and opportunities that they encounter and exploring the genetic constraints that may limit the rate or degree of adaptation. Her central research goals are to determine genetic and environmental sources of variation in traits that affect individual fitness. Since 2011, as field director of the California Phenology Project (www.usanpn.org/cpp), she has designed and implemented phenological monitoring programs throughout the state, engaging students, national park staff, UC Natural Reserves, and citizen scientists in the study of how climate change is affecting the seasonal cycles of 30 California native plant species.	http://www.eemb.ucsb.edu/people/faculty/mazer
McClintock, Will		Marine Science Institute	Dr. McClintock has developed the "next-generation" MarineMap, called SeaSketch (www.seasketch.org). Designed in a way that anyone - regardless of their technical or scientific background - can participate in marine spatial planning, SeaSketch brings the power of collaborative, spatial decision support systems to everyone with a web browser and internet connection. The McClintock lab was also involved from 2004-2011 in the development of MarineMap, a web-based application used by stakeholders in California's Marine Life Protection Act (LMPA) Initiative for marine protected area planning.	
McFadden, Joe	Geography	Earth Research Institute	Professor McFadden studies how changes in land cover and land use modify the two-way flows of water, energy, and carbon between ecosystems and the atmosphere. His current work is focused on understanding and modeling these processes in cities and suburbs, with the aim of using that knowledge to inform sustainable urban design and planning.	http://www.geog.ucsb.edu/people/faculty/joe-mcfadden.html
McFarland, Eric	Chemical Engineering	Institute for Energy Efficiency; Materials Research Laboratory; California NanoSystems Institute; Carsey-Wolf Center	Professor McFarland's research focuses on facilitating cost-effective and environmentally sustainable production of chemicals and fuels. He helps to investigate new conversion processes and issues related to technoeconomics and sustainability.	http://www.chemengr.ucsb.edu/people/faculty_d.php?id=9
McMeeking, Robert	Material; Mechanical Engineering	Institute for Energy Efficiency; Institute for Multi-scale Materials Studies; Center for Multifunctional Materials & Structures; California NanoSystems Institute	Dr. McMeeking undertakes research on lithium-ion batteries and solid oxide fuel cells with the aim of improving their energy capacity, increasing their ability to deliver high power, and, in the case of batteries, enabling them to be recharged rapidly. Both lithium-ion batteries and solid oxide fuel cells are important elements in the strategy to reduce carbon emissions, as energy generated by low carbon emission methods can be stored and transported in the batteries, and solid oxide fuel cells can use hydrogen as the fuel, thereby avoiding the production of carbon dioxide. McMeeking uses computational modeling of both system to identify improved microstructures and designs.	http://engineering.ucsb.edu/faculty/profile/204
Meiburg, Eckart	Mechanical Engineering	Institute of Energy Efficiency	Dr. Eckart Meiburg investigates fluid flow problems in the atmosphere and the oceans, by means of large-scale computer simulations. In recent years, he has studied such problems as mixing of warm and cold water in the ocean, as well as the transport of sediment and biogenic particulate matter by oceanic currents. Understanding these processes is important for predicting the oceans' ability to absorb atmospheric carbon dioxide, which, in turn, represents a critical element in all climate models. Dr. Meiburg's research finds additional application in the development of energy-efficient heating and cooling strategies for buildings.	http://me.ucsb.edu/faculty/profile/205
Meinhart, Carl	Mechanical Engineering	Institute for Energy Efficiency; Institute for Collaborative Biotechnologies; California NanoSystems Institute	Professor Meinhart's research group investigates fundamental fluid mechanics problems at the micro-scale and nano-scale, with special emphasis on transport issues in MEMS-based sensors for detection of specific biological molecules. His research allows the detection of highly sensitive and specific detection of trace chemicals through the combination of surface-enhanced Raman Spectroscopy with microfluidics.	
Melack, John	Ecology, Evolution & Marine Biology	Marine Science Institute	Dr. Melack researches ecological processes in lakes, wetlands, and streams, as well as the hydrological and biogeochemical aspects of catchments. His research combines state-of-the-art measurements, modeling, experiments, and remote sensing, and it examines ecological processes from the population to ecosystem levels. He has applied results of his research to assess impacts of atmospheric deposition on aquatic ecosystems, to evaluate ecological restoration efforts in California's Bay-Delta and in Mono Lake, and to determine greenhouse gas emissions from tropical reservoirs.	http://www.lifesci.ucsb.edu/EcologyEvolution&MarineBiology/faculty/melack/index.html

Metiu, Horia	Chemistry and Biochemistry	Institute for Terahertz Science and Technology; California NanoSystems Institute	Dr. Metiu's research involves searching for new catalysts in order to convert CO ₂ and natural gas into useful chemicals. He is also involved with work that uses electrochemistry to find a good system for energy storage.	http://www.chem.ucsb.edu/people/faculty/metiui/
Mezic, Igor	Mechanical Engineering	California NanoSystems Institute	Dr. Mezic's current research is centered on an operator-theoretic approach to analysis of nonlinear dynamical systems, applications in microfluidics and (bio)-nanotechnology. The research topics can be grouped as follows: 1) mixing and separation in fluids across the scales with applications ranging from microfluidic phenomena to oceanographic flows; 2) nano and micro-scale particle dynamics induced by dielectrophoresis and other electrokinetic phenomena, with applications to biotechnology; 3) multiscale dynamics of the Atomic Force Microscope, including interactions with biomolecules; and 4) dynamical systems theory of complex systems, including large-scale networked systems. In each of these topics, the research is characterized by pursuit of the key physical phenomena in a device or system, followed by the abstraction of the mathematical problem (or problems) associated with it. The loop is closed by applying the solution of the mathematical problem to explain the physical phenomena or design new concepts based on which devices can be built or improved.	http://industry.ucsb.edu/faculty/profile/175
Michaelsen, Joel	Geography	Climate Hazards Group	Dr. Michaelsen's research focuses on analyzing climate variability and climate change using statistical modeling techniques. Along with the members of the Climate Hazards Group (CHG), he has worked on implementing improved methods of monitoring and predicting rainfall variations in Sub-Saharan Africa and Central America on seasonal and longer time scales. This monitoring and prediction is done by blending data from satellites, weather stations, and models. The primary objectives of the research are to: 1) provide African officials and relief agencies with early warning of developing drought conditions on seasonal time scales that could increase food insecurity; and 2) determine relationships between rainfall and larger atmospheric circulation and ocean temperature patterns that may help officials adapt rainfed agricultural systems to longer term changes in rainfall regimes associated with global warming.	http://geog.ucsb.edu/~joel/
Miller, Robert		Marine Science Institute	Robert Miller's research involves benthic subtidal ecology, particularly community ecology and the role of primary producers in marine ecosystems. He is also currently involved in in the UC Center for Environmental Implications of Nanomaterials (CEIN). He is measuring impacts of nanomaterials as emerging contaminants to marine ecosystems, using phytoplankton and suspension feeders as model organisms.	
Mishra, Umesh	Electrical & Computer Engineering	Institute for Energy Efficiency; Center for Advanced Nitride Electronics; Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; California NanoSystems Institute	Dr. Mishra researches electronics and photonics. He recently led a project to develop a new semiconductor technology that enables highly efficient power conversion at low cost in motor drives, electric vehicles, and power grid applications.	http://my.ece.ucsb.edu/mishra/biography.htm
Moehlis, Jeffrey	Mechanical Engineering	Institute for Collaborative Biotechnologies	Dr. Moehlis has an ongoing research project on energy harvesting, which involves converting vibrational energy into electrical energy. His other research areas include biological dynamics, control of neurons, networks, and dynamical systems.	http://www.me.ucsb.edu/~moehlis/
Morse, Daniel	Molecular, Cellular, and Developmental Biology	Institute for Collaborative Biotechnologies; Center for Nanomedicine; California NanoSystems Institute; Institute for Energy Efficiency	Professor Morse does research involving nanofabrication of semiconductors to improve solar energy, lightweight batteries, infrared detectors, and information storage. The method used to accomplish this is bio-inspired, based on advantageous mechanisms he and his team discover in biological systems and translate into practical new materials and engineering.	http://www.mcdb.ucsb.edu/people/faculty/morse
Moskovits, Martin	Chemistry and Biochemistry	Institute for Collaborative Biotechnologies	Professor Moskovits' research interests falls into two broad categories: (i) plasmonics and surface-enhanced Raman spectroscopy (SERS) and (ii) nanowire synthesis and nanowire-based sensing. In plasmonics, he has two major goals: the first is to create plasmonic analogs of photovoltaics and photosynthetic systems. Recently, his research group produced the first device ever reported which uses the electrons resulting from the decay of plasmons in gold nanorods to reduce hydrogen ions in water and uses the positive charges left behind to oxidize water to oxygen gas. The device is a free running cell floating in water, with light as its sole energy source.	

Mulfinger, Jane	Art		Jane Mulfinger's art project at the Pasadena YWCA building exemplifies how art and sustainability go hand in hand. Mulfinger's installation, "Autonomy Is No Longer Possible or Interesting," features repurposed exercise bicycles that power LED lights in the buildings when used by visitors. By repurposing materials for her artwork, Mulfinger uses sustainable methods to create metaphors that enhance cultural/community awareness.	http://www.arts.ucsb.edu/faculty/mulfinger/
Myers, Monique	Communication		Dr. Myers research interests include impacts to, benefits from, and conservation of coastal ecosystems. She has explored anthropogenic contaminants in coastal wetlands, remote sensing and community monitoring of coral reefs and impacts of marine protected areas. She is currently investigating wetland carbon sequestration in southern California. (Info: Educating students about the efforts to restore Ormond Beach and the importance of clean sites like this; heard about this from a RESTOR Project Evaluation Research assistant.) During the past four years, Myers has been working on sustainable coastal community topics, K-12 student/teacher watershed education and climate change outreach. She performs applied research on coastal wetlands and coral reefs. To accomplish a diverse array of projects, Myers collaborates with a variety of government, nonprofit groups, university professors, and other stakeholders. She also participates on advisory boards and committees and produces publications for her peers and the public. To address the challenges climate change poses to coastal communities and ecosystems, Myers is working on several projects that involve university researchers and coastal decision makers. Her work is aimed at providing tools and information to reduce impacts to our coasts and help plan for adaptation to inevitable changes. Two of her recent projects are the Santa Barbara Area Coastal Ecosystem Vulnerability Assessment (SBA CEVA) and the Explore Beach Ecosystems website.	http://ca-sgep.ucsd.edu/biographies/monique-myers
Nakamura, Shuji	Materials	Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Center for Energy Efficient Materials; California NanoSystems Institute	Dr. Nakamura's research interests include high efficiency, high power light emitting diodes (LEDs) for lighting. His discovery of p-type doping in Gallium Nitride (GaN) and development of blue, green, and white LEDs and blue laser diodes (LDs) has enabled energy efficient lighting and displays.	http://www.materials.ucsb.edu/recruitment/Faculty/nakamura/nakamura.php
Nelson, Craig		Marine Science Institute	Craig Nelson's research includes projects studying the microbiomes of humans and other animals and studying bacterial pathogens in natural water in the context of water quality.	
Nguyen, Thuc-Quyen	Chemistry and Biochemistry	Institute for Multi-scale Materials Studies; Center for Polymers and Organic Solids; Institute for Collaborative Biotechnologies; Institute for Terahertz Science and Technology; Mitsubishi Chemical Center for Advanced Materials; Center for Energy Efficient Materials; California NanoSystems Institute	Prof. Nguyen studies new materials for organic solar cell applications with an emphasis on nanoscale characterization and structure-property-performance relationships. Organic solar cells have the potential to be a low cost, light-weight, and clean energy technology because they can be made from abundant materials and manufactured at room temperature from solution. Dr. Nguyen's lab aims to develop higher-efficiency and more stable organic solar cell devices.	http://www.chem.ucsb.edu/people/faculty/nguyen/
Nisbet, Roger	Ecology, Evolution & Marine Biology	Marine Science Institute; Coastal Marine Institute	Dr. Nisbet's research covers many areas of theoretical ecology. Much of his work is based on Dynamic Energy Budget (DEB) theory to describe the rates at which individual organisms assimilate and utilize energy. His research group develops new fundamental theory and applies it to environmental problems. Applications include ecotoxicology, coral biology, zooplankton ecology, and fish bioenergetics.	http://www.lifesci.ucsb.edu/EcologyEvolution&MarineBiology/faculty/nisbet/index.html
Nkuiya, Bruno		Sustainable Fisheries Group	In his research, Dr. Nkuiya addresses the regulation of pollution with various pollution control instruments, including pollution taxes, mitigation, and adaptation.	http://sfg.msi.ucsb.edu/about-us/people/sfgteam/Bruno_Nkuiya
O'Malley, Michelle	Chemical Engineering	Institute for Collaborative Biotechnologies; California NanoSystems Institute	Dr. O'Malley directs a group that is working to develop renewable biofuels from lignocellulose (plant waste).	
Odette, George	Materials; Chemical Engineering	Center for Multifunctional Materials & Structures; Institute for Energy Efficiency	Dr. Odette's research interests focus on developing materials for future fusion and fission energy systems that will improve safety and reduce waste issues. He also looks at materials issues related to the safety of the current fleet of light water nuclear reactors.	http://me.ucsb.edu/faculty/profile/168
Oliva, Paulina	Economics	Center for Effective Global Action;	Dr. Oliva's research blends environmental economics with labor and development economics. Her research has focused on the effects of air pollution on infant mortality in Mexico City, as well as the effects of pollution on labor supply. She is currently researching environmental regulations with regards to automobile emissions in Mexico City.	http://www.econ.ucsb.edu/~oliva/

Osherenko, Gail		Marine Science Institute	Osherenko's research focuses on coastal and ocean law and policy, including property rights and sea tenure, the public trust doctrine, marine spatial planning, and the California coastal management regime. She was a principal investigator in the NCEAS working group on Ocean Ecosystem-Based Management: the role of zoning. She has published extensively on co-management of natural resources and indigenous peoples in Siberia, the Northern Sea Route, Canada, and Alaska. She is currently exploring the use of film and media in environmental education and has had two films in the Santa Barbara International Film Festival, including "Dark Side of the Loon" (www.darksideoftheloon.com) and "Arctic Expedition" (www.FilmsfromtheNorth.com).	
Passow, Uta		Marine Science Institute	Dr. Passow's research seeks to answer the question of "How does the response of organisms and ecosystems change the functioning of the biological pump in a changing world?" Her research tries to achieve a mechanistic understanding of organisms and processes which determine sedimentation rates in marine systems, now and in the future. Currently, Passow specifically investigates how the input of fossil carbon impacts the growth of autotrophic and heterotrophic microbes, aggregation rates, and the production and microbial degradation of organic carbon. Her research also explores the effects of ocean acidification on microbial degradation and on aggregation and the drivers of the large fluctuations in normal pH off coastal California.	
Peljhan, Marko	Art; Media Arts & Technology		Professor Peljhan's research focuses on art and technology. His recent projects involve the Makrolab, a project that focuses on telecommunications, migrations, and weather systems research in an intersection of art and science from 1997-2007, and he is currently coordinating the Arctic Perspective Initiative art/science/tactical media project which is focused on the global significance of the Arctic geopolitical, natural, and cultural spheres.	http://artsite.arts.ucsb.edu/people/faculty/peljhan.html
Pennathur, Sumita	Mechanical Engineering	Institute for Collaborative Biotechnologies Institute for Energy Efficiency; Center for Nanomedicine; California NanoSystems Institute;	Dr. Pennathur studies nanofluidics. Her research involves developing a form of technology that could eliminate the need for batteries - by pushing fluid through tiny nanometric channels, an electric current is generated. A broader goal of Dr. Pennathur's project is to place this nanotechnology on a chip as a practical and sustainable approach to generating power for day to day use.	http://enr.ucsb.edu/~nanolab/index.html
Peterson, Seth	Geography		Dr. Seth Peterson is currently doing research on the effect of and response to the deepwater horizon oil spill in the marshes of Louisiana.	
Plaxco, Kevin W.	Chemistry and Biochemistry	Institute for Collaborative Biotechnologies Center for Bioengineering;	Professor Plaxco's research primarily involves the study of biomolecular recognition. In recent years, researchers have developed folding-based sensors that are selective enough to be employed directly in blood, soil, cell lysates, and other grossly contaminated clinical and environmental samples. Because of their sensitivity, substantial background suppression, and operational convenience, these folding-based biosensors appear potentially well-suited for electronic, on-chip applications in pathogen detection, proteomics, metabolomics, and drug discovery.	
Pollock, Tresa	Materials	International Center for Materials Research; Center for Multifunctional Materials & Structures; Materials Research Laboratory; Marine Science Institute	Professor Pollock's research interests include the mechanical and environmental performance of materials in extreme environments, unique high temperature materials processing paths, ultrafast laser-material interactions, alloy design, and 3-D materials characterization. Recent research has focused on thermal barrier coatings systems and platinum group metal-containing bond coats, new intermetallic containing cobalt- base materials, and vapor phase processing of sheet materials for hypersonic flight systems.	
Pulver, Simone	Ecology, Evolution & Marine Biology; Sociology	Orfalea Center for Global and International Studies	Professor Pulver's research focuses broadly on the engagement of non-state actors, i.e., firms, non-governmental organizations, and scientific experts, in climate change politics at multiple scales and in industrialized and developing country settings. Her first research project analyzed the roles played by transnational oil corporations and transnational environmental advocacy NGOs in the UN climate negotiations. She is currently directing an NSF funded project that investigates clean energy investments by developing-country firms in India and Brazil under the Kyoto Protocol's Clean Development Mechanism. She also is also engaged in a project that maps climate policy networks in Mexico.	http://www.science.ucsb.edu/faculty/profile/989

Pye, Lori	Environmental Studies	Viridis Institute	Professor Pye is an adjunct faculty member of UCSB's Environmental Studies Department and teaches ecopsychology. Ecopsychology recognizes that the psychology of the individual is reflected in the psychology of the culture, of our nations, and in our world's complex issues. It utilizes ecological, biological, and depth psychological principles essential to sustainability to examine and transform deeply rooted unconscious narratives that drive human practices, civic illiteracy, policies, and decisions about how we design and craft our world in both creative and destructive ways.	http://www.es.ucsb.edu/people/lecturer/lori-pye
Rassweiler, Andrew		Marine Science Institute; Sustainable Fisheries Group	Dr. Andrew Rassweiler is a marine ecologist who combines field experiments, data analysis, and mathematical modeling to address both basic and applied questions, mainly regarding temperate reef ecosystems. His work has been applied toward answering fishery management and marine conservation questions, using spatially explicit models to explore optimal fisheries management strategies and tradeoffs between achieving fishery and conservation goals. His models have been used in practical contexts as well, most notably in guiding the placement of marine protected areas as part of California's Marine Life Protection Act process. Although his expertise is in community ecology, he works closely with oceanographers, geographers, and economists to better understand the many abiotic factors influencing ecological dynamics.	
Reed, Dan			Dan Reed is currently working on a mitigation project with The San Onofre Nuclear Generating Station (SONGS) Mitigation Monitoring Program designed to compensate for the adverse effects of a nuclear generation station on coastal resources.	
Rice, Ronald	Communication	Marine Science Institute	Professor Rice studies, among other topics, public communication campaigns, with some emphasis on environmental communication. In his most recent edition of "Public Communication Campaigns," he co-authored a chapter that applies principles of social marketing to communicating about ocean sustainability. That chapter focused on developing a strategic approach to designing and implementing messages about ocean sustainability issues, such as ocean pollution, warming, acidification, overfishing, and low oxygen levels. He has also published research on college campus water bottle usage, ocean sustainability literacy, and news images about climate change.	http://www.comm.ucsb.edu/faculty/rrice/ricelink.htm
Roberts, Dar	Geography	Southern California Wildfire Hazard Center	Dr. Roberts' research interests include urban ecology and energy balance. He has studied sustainable land use through investigating the impacts of deforestation and pasture degradation and has mapped methane emissions across landscapes. His primary research tool is remote sensing.	https://sites.google.com/site/ucsbviperlab/
Rodoplu, Volkan	Electrical & Computer Engineering	Institute for Energy Efficiency; Greenscale Center for Energy-Efficient Computing	Dr. Rodoplu's research focuses on wireless communications and networking. As a member of the Greenscale Center for Energy-Efficient Computing at the Institute for Energy Efficiency, one of the goals of his research is to curb the energy consumption of wireless networks through the development of energy-efficient protocols.	http://www.ece.ucsb.edu/rodoplu/
Rodwell, Mark	Electrical & Computer Engineering	Institute for Energy Efficiency	Dr. Rodwell's research interests include extending the operations of electronics to the highest feasible frequencies. He also looks at communication systems and energy efficient semiconductor devices. His research group works to extend the operation of electronics to the highest feasible frequencies. Their research thus includes semiconductor devices (diodes and transistors), semiconductor fabrication process, circuit design, interconnects, instruments, and communications systems. Mark Rodwell's research focuses on extending the operation of electronics to the highest feasible frequencies. His research interests include energy efficient semiconductor devices (diodes, transistors, photodiodes), semiconductor fabrication process, circuit design, interconnects, instruments, and communications systems. Particular interests include THz InP (indium phosphide) bipolar transistors, nm III-V MOSFETs (metal-oxide-semiconductor field-effect transistors) for both VLSI (very large scale integration) and THz (terahertz) applications, and IC (integrated circuit) design above 50 GHz (gigahertz) in both III-V and Silicon VLSI technologies.	http://www.ece.ucsb.edu/Faculty/rodwell/

Roehrdanz, Patrick		Earth Research Institute; Marine Science Institute	Roehrdanz's research focuses on the global analysis of climate change impacts on wine production and conservation. More specifically, his research examines how climate change will impact the areas where wine grapes can be grown in the future. And as viticulture moves to cooler areas –by going north or to higher altitudes– it could intrude on habitat favored by caribou, grizzly bears and other mountain species and have far-reaching implications for conservation. This research is a good test case for measuring the impacts of climate change refracted through agriculture.	
Schimel, Josh	Ecology, Evolution & Marine Biology; Environmental Studies	UC Center for Environmental Implications of Nanotechnology; Earth Research Institute	Dr. Schimel's research focuses on ecosystem and microbial ecology and their feedback on global climate. Specifically, his research looks at the role of soil microbes in controlling ecosystem scale processes through the linkages between plant and soil processes. Schimel's research is particularly important when analyzing the effects of increased temperature and altered rainfall patterns and CO2 emissions on global climate. A major focus of Schimel's research is on Arctic ecosystems, which store huge pools of organic carbon and which are warming rapidly.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/schimel/index.html
Schmitt, Russell	Ecology, Evolution & Marine Biology	Marine Science Institute; Coastal Research Center	Dr. Schmitt's research interests include population and community ecology, applied ecology, consumer-resource interactions, marine invertebrates, and reef fishes. His current research in particular attempts to understand the processes that influence population size and species diversity. In addition, Schmitt looks at the application of ecological principles to the resolution of coastal marine environmental problems.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/schmitt/index.html
Schuller, Jon	Electrical & Computer Engineering	Center for Polymers and Organic Solids; Marine Science Institute Center for Energy Efficient Materials Materials Research Laboratory California NanoSystems Institute	The Schuller Lab conducts research that concerns novel physical phenomena that occur when light interacts with objects of subwavelength dimensions. The goal of the research is to create smaller, faster, and more efficient photonics technologies and ultimately lead to a future where optical properties are controlled and engineered at the atomic or molecular level. In a recent publication in Optics Press, the researchers in the Schuller Lab discussed the application of their research into morphology dependent light trapping in thin-film organic solar cells. Their research in this area can be used in the future in low-cost lightning and energy harvesting devices.	
Scott, Susannah	Chemical Engineering	Mitsubishi Chemical Center for Advanced Materials	As co-principal investigator of the Center for the Sustainable Use of Renewable Feedstocks (CenSURF), Dr. Scott has participated in projects that aim to promote sustainable practices in the chemical sciences. She has researched ways to synthesize organic compounds like ethylene from fixed sources of carbon dioxide. These synthesized products can be used as alternatives to nonrenewable fossil fuels.	http://www.chemengr.ucsb.edu/~ceweb/faculty/scott/
Segalman, Rachel	Chemical Engineering		Professor Segalman's research interests include investigating structure control over soft matter on a molecular scale through nanoscopic lengthscale for use in optimizing properties for applications ranging from energy (solar and thermal) to biomaterials. She works to understand the effects of structure on properties and function and to gain pattern control in these multidimensional problems. Segalman's research can be applied in developing materials for energy applications such as photovoltaics, fuel cells, and thermoelectrics.	
Selkoe, Kim		National Center for Ecological Analysis and Synthesis; Marine Science Institute	Kim Selkoe's primary research interests are split between three diverse topics: advancing scientific tools for ecosystem based management and marine spatial planning, multi-species approaches to understanding marine population connectivity with 'seascape' genetic techniques, and both studying and improving consumer access to local and sustainable seafood. She is currently a P.I. on three projects: Ecosystem Thresholds and Indicators for Marine Spatial Planning (Moore Foundation, 2012-16), Multispecies Connectivity of Hawaii Coral Reefs (National Marine Sanctuaries, 2012-13), and Direct Marketing Approaches for West Coast Fishing Communities (Sea Grant, 2012-14). Selkoe has also conducted underwater fieldwork in nearshore reef environments of Morocco, Sardinia, and the Solomon Islands as part of a continuing research project to understand how community structure changes along gradients of human impact. In addition, she is a founder and advisor of two local outreach programs, the Santa Barbara Sustainable Seafood Program and a community supported fishery program serving Santa Barbara County called Community Seafood.	

Seshadri, Ram	Chemistry and Biochemistry; Materials	Institute for Energy Efficiency; Institute for Multi-scale Materials Studies; Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Mitsubishi Chemical Center for Advanced Materials; Materials Research Laboratory	Professor Seshadri researches functional inorganic materials with applications in energy conversion, energy storage, and information technology. A primary goal of the research is greater efficiency in energy conversion and storage and the recovery of waste heat. In and of themselves, these are expected to significantly minimize the impact of energy technologies on the environment. In addition, his research addresses resource availability and life-cycle issues, in attempts to ensure that future energy technologies are not based on scarce or polluting elements. (Original: Ram Seshadri's research encompasses a number of areas in the chemistry of inorganic materials, including new ways of preparing materials, seeking clues from nature on how to make new high-performance materials, magnetism in inorganic solids, chemical patterning of inorganic materials on large (micrometer) length scales, and using first principles electronic structure calculations to predict new material properties. In addition to his focus on magnetism, polar materials, and porosity, Seshadri is increasingly investigating materials for heterogeneous catalysis and for applications in solid-state lighting (semiconductors, phosphors, etc.). He also extensively researches functional (particularly oxide) nanomaterials.)	http://www.chem.ucsb.edu/people/faculty/seshadri/index.shtml
Sherman, David	Psychological & Brain Sciences	Institute for Energy Efficiency	Professor Sherman's research primarily centers on how people respond to and cope with threatening events. His research extends to understanding the psychological and social barriers to sustainability and how to overcome them.	
Sherwood, Timothy	Computer Science	Institute for Energy Efficiency; Greenscale Center for Energy-Efficient Computing; Institute for Energy Efficiency	Dr. Sherwood's research is in the area of computer architecture. He has worked to develop techniques that provide a powerful new way to inspect and control the digital world and shed light on energy efficiency. (From IEE website: Timothy Sherwood's research is in the area of computer architecture, specifically in the development of novel high throughput hardware and software methods by which systems can be monitored and analyzed. Such techniques provide a powerful new way to inspect and control the digital world: they shed light on energy efficiency and performance anomalies, uncover software bugs, and help secure critical systems against attack.)	http://www.cs.ucsb.edu/~sherwood/
Shewry, Teresa	English		Professor Shewry's research interests include pacific rim cultures, environmental studies, and oceans and water. She is the director of Literature and the Environment at UCSB. Her recent publications include "Possible Ecologies: Literature, Nature, and Hope in the Pacific" and "Environmental Criticism for the Twenty-First Century." Professor Shewry is currently co-organizing a Mellon Sawyer Seminar on "Sea Change: Integrating the Study of Human Cultures and Marine Environments in Three Pacific Regions."	http://www.english.ucsb.edu/people/shewry-teresa
Siegel, David	Geography	Marine Science Institute; Institute for Computational Earth System Science	Dr. Siegel studies interdisciplinary marine science which couples physical, biological, optical, and biogeochemical processes. He has recently worked on collecting large scale ocean data by using ocean color variability from satellites. Differences in color can indicate distinguishing characteristics such as temperature and the overall biochemistry of the water. This data allows scientists to observe long-term trends and better understand the role oceans play in climate change as well as ascertain what marine ecosystems might look like in the future.	http://www.icess.ucsb.edu/~davey/
Simms, Alex	Earth Science	Coastal and Sedimentary Research	Professor Simms' research focuses primarily on coastal systems. His studies use a wide variety of tools to study past depositional systems, including coring, high-resolution seismic data, GPR, and outcrop analysis to understand how past depositional systems have responded to sealevel, climate, and tectonic changes. Modeling and investing the depositional systems allow us to further understand the environmental impact of climate change and tectonic forces.	http://www.geol.ucsb.edu/faculty/simms/
Smith, Eric	Political Science	Coastal Research Center	Professor Smith's work focuses on U.S. public opinion and political behavior regarding energy and environmental issues. He investigates, for example, public support for or opposition to renewable energy production facilities and offshore oil drilling. He is also working on the problem of how much people know about energy and environmental issues and why people accept or reject factual claims about energy and environmental issues by scientists.	http://www.polsci.ucsb.edu/faculty/smith/

Smith, Ray	Geography	Earth Research Institute; Institute for Computational Earth System Science	Professor Smith's research includes remote sensing of oceans, physical and biological oceanography, primary production and bio-optical modeling in aquatic environments with emphasis on Antarctic ecosystems, marine resources, and Earth system sciences. He continues to work with UCSB's Institute for Computational Earth System Sciences.	http://www.geog.ucsb.edu/people/faculty/ray-smith.html
Soh, Hyongsok (Tom)	Materials; Mechanical Engineering	Institute for Collaborative Biotechnologies; California Nanosystems Institute; Center for Stem Cell Biology and Engineering	Professor Soh's lab develops advanced biosensors that are highly sensitive and specific with rapid results. Recently, his laboratory pioneered the development of real-time biosensors that can continuously measure specific biomolecules directly in living animals. Their study of integrated biosensors have many applications in medicine, defense, food safety, and environmental monitoring. (font and size of font difference)	
Sokolow, Susanne		Marine Science Institute	Dr. Sokolow's research is focused on infectious disease ecology. She is currently studying the potential for restoration of a native freshwater prawn species to act as a biological control agent for schistosomiasis, a human parasite. Her research focuses on the environmental and animal components of infectious disease. This research provides a multidisciplinary approach to infectious disease by combining fundamentals in biological science, experimental design, epidemiology, disease modeling, and global public health principles.	https://www.msi.ucsb.edu/people/research-scientists/susanne-sokolow
Speck, James	Materials	Institute for Energy Efficiency; Interdisciplinary Center for Wide Band-Gap Semiconductors; Solid State Lighting & Energy Center; International Center for Materials Research; Center for Energy Efficient Materials; Materials Research Laboratory; California NanoSystems Institute	Professor Speck's research focuses on high efficiency solid state lighting. This lighting is expected to be 10-20 times more efficient than conventional incandescent and halogen lighting and 2-3 times more efficient than fluorescent lighting.	http://www.materials.ucsb.edu/recruitment/Faculty/speck/speck.php
Steigerwald, Douglas	Economics	Econometrics Research Group	Dr. Steigerwald's research focuses on frontier econometric methods at the intersection of economics, environmental science, computer science, geography, and statistics. Currently, he is researching regional price behavior in Mexican maize markets. This research discusses the interplay of changes to production and consumption and the associated changes in livelihood risk, food security, and political security.	http://www.econ.ucsb.edu/~doug/
Still, Christopher	Geography		Dr. Still's current research projects include studies of global biogeography and biogeochemistry of carbon-4 vegetation and climate change and the hydrological cycle in the Colorado Rockies. His study of carbon-4 photosynthesis in the global carbon cycle will lead to better understanding of inversion studies that solve for surface carbon fluxes from atmospheric measurements of ¹³ CO ₂ and CO ₂ . Dr. Still's study of climate change and the hydrological cycle in the Colorado Rockies aims to understand how vegetation in the East River Valley relies on summer precipitation during the growing season.	
Stohl, Michael	Communication		Professor Stohl is currently involved in a project entitled: Sustainability at the Crossroads: Examining the Vulnerability of New Zealand's Global Environmental Positioning. The research project aims to understand how interested parties, including NZ policy makers, media, and business leaders think about, frame, and prioritize environmental, social and economic sustainability issues and with what consequences.	http://www.comm.ucsb.edu/people/academic/michael-stohl
Stonich, Susan	Anthropology; Environmental Studies; Latin American and Iberian Studies		Dr. Stonich currently co-directs a research project in the Mesoamerican Reef System funded by the National Oceanic and Atmospheric Administration (NOAA) Climate Program and is working with the National Shellfisheries Association, the World Wildlife Fund Mollusc Dialogue, and the NOAA Aquaculture and Habitat Conservation Program on a project to help determine standards on North American shellfish farming that are socially, economically, and environmentally sustainable. Her other research interests focus on the conflicts between economic development and environmental conservation efforts in coastal zones, environmental justice, and vulnerability and resilience to climate-related hazards and disasters.	http://www.anth.ucsb.edu/faculty/stonich/

Stratton, Elisa (Lisa)		Earth Resource Institute; Cheadle Center for Biodiversity and Ecological Restoration	Lisa Stratton has been the Director of Ecosystem Management for UCSB's Cheadle Center for Biodiversity and Ecological Restoration (CCBER) since 2005. As the manager of the campus lagoon and other open space areas on campus, she has been active in pursuing opportunities to improve water quality and provide habitat through bioswales and treatment wetlands. In conjunction with students, Lisa and CCBER conduct research on water quality, hydrology, and biological diversity which provide evidence for the benefits of these features. Interpretive signs throughout campus and web site material make their work available to a broader audience.	
Stucky, Galen	Chemistry and Biochemistry	Institute for Energy Efficiency; Institute for Multi-scale Materials Studies; Mitsubishi Chemical Center for Advanced Materials; Center for Energy Efficient Materials; Materials Research Laboratory; Center for Nanomedicine; California NanoSystems Institute; UC Center for Environmental Implications of Nanotechnology	Dr. Stucky's research interests include biosystem processes (e.g., blood clotting, cascade chemistry, and hemostasis) and the chemistry associated with the efficient use of energy resources. He has done research that furthers the development of energy storage systems, including the use of solar photocatalytic synthesis to make high energy density useful chemicals, and he has studied the conversion of methane to chemicals and fuels.	http://www.mrl.ucsb.edu/mrl/faculty/stucky.html
Suh, Sangwon	Bren	Institute for Energy Efficiency; International Resources Panel of UNEP; World Resources Institute; World Business Council for Sustainable Development; UC Center for Environmental Implications of Nanotechnology	Dr. Suh's research focuses on sustainability through understanding materials and energy exchanges between nature and humans. His work has involved carbon footprinting, understanding drivers of greenhouse gas emissions, climate change, and industrial ecology.	http://www.bren.ucsb.edu/people/Faculty/sangwon_suh.htm
Sweeney, Stuart	Geography	Social, Behavioral, and Economic Research; Institute for Energy Efficiency	Dr. Sweeney's research interests include applied statistics and spatial analysis, research methodology, demography, economic geography, and development studies. He recently conducted a study that looked at maize, one of the most economically and culturally important crops produced in Mexico. Dr. Sweeney discovered that changes in the production of this crop, caused by increased market integration and changes in irrigated land use, can impact consumption, livelihood, and food security.	http://www.geog.ucsb.edu/~sweeney/Sweeney/UCSB_GEOGRAPHY.html and http://geog.ucsb.edu/~sweeney/
Sweet, Samuel	Ecology, Evolution & Marine Biology; Earth Science	Cheadle Center for Biodiversity and Ecological Restoration; Institute for Energy Efficiency; Earth Resource Institute	Dr. Sweet's current research is based on conservation biology, distributional ecology, and systematics of western North American and Australasian amphibians and reptiles; the ecology and systematics of monitor lizards; functional and evolutionary morphology; and ethnozoology.	http://www.lifesci.ucsb.edu/EcologyEvolution & MarineBiology/faculty/sweet/
Tague, Christina	Bren	Association of American Geographers; American Geophysical Union; Ecological Society of America; Institute for Energy Efficiency	Dr. Tague studies ecohydrology. Her work examines climate and land use change impacts in the terrestrial environment by combining observed data with computer-based spatial models. She is currently investigating the impacts of climate change on ecosystem services and water resources in mountain regions, including the Western US, the European Alps, the Pyrenees, and select locations in China. Her work also examines how forest management practices and land development or urbanization alters biogeochemical cycling and water availability for watersheds throughout the US.	http://www.bren.ucsb.edu/people/Faculty/more_tague.htm
Theogarajan, Luke	Electrical & Computer Engineering	Institute for Collaborative Biotechnologies Center for Nanomedicine; California NanoSystems Institute; Institute for Energy Efficiency	Dr. Theogarajan does research related to the neural system and particularly to neural prosthetic devices. Neural prosthetic devices offer a way to restore functions lost due to neural damage. He is currently investigating the use of potassium ions rather than electrons to communicate with neural tissue as part of this new technology. This method has already proved to be safer and require lower power to function than the approach currently used.	http://engineering.ucsb.edu/faculty/profile/545
Thorsch, Jennifer		Meso- American Research Center; Earth Research Institute; Cheadle Center for Biodiversity and Ecological Restoration	As Director of the Cheadle Center for Biodiversity and Ecological Restoration, Jennifer Thorsch focuses on our three main programmatic areas—collections management, education, and restoration. Through the work at the CCBER, we support campus sustainability efforts by managing over 260 acres of campus lands which are planted with native species and therefore require little or no watering.	

Tilman, David	Bren	Institute of Energy Efficiency	Professor Tilman's research focuses on the causes, consequences, and conservation of Earth's biodiversity, and on how managed and natural ecosystems can sustainably meet human needs for food, energy, and ecosystem services. His current research explores ways to use biodiversity as a tool for biofuel production and climate stabilization through carbon sequestration. His work on sustainable agriculture and renewable energy has critically examined the full environmental, energetic and economic costs and benefits of grain crops, of current food-based biofuels, and of biofuels made from diverse mixtures of prairie grasses and other native plants growing on already-degraded lands.	
Turner, Kimberly	Mechanical Engineering	Institute for Collaborative Biotechnologies; California NanoSystems Institute; Marine Science Institute	Dr. Turner's research interests include the development of synthetic adhesives that make use of large arrays of micrometer and submicron hierarchical polymer fibers for climbing robots by mimicking the fibers on gecko feet.	http://engineering.ucsb.edu/~tmems/
Valentine, Dave		Marine Science Institute	Professor Valentine's current research projects include the study of the microbial weathering of aromatic compounds released into marine environments. His research aims to achieve a better understanding of the distribution of relevant microbial communities, rates of oxidation, and the extent to which various hydrocarbons are broken down or consumed.	http://www.coastalresearchcenter.ucsb.edu/cmi/Valentine.html
Van De Walle, Chris	Materials	Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Center for Energy Efficient Materials; Materials Research Laboratory; California NanoSystems Institute; Nanoelectronics; Institute for Energy Efficiency	Dr. Van de Walle's research covers a broad range of issues related to renewable energy and energy efficiency. He is engaged in fundamental studies of group-III nitride semiconductors, which are the key materials for solid-state lighting and also enable a new generation of high-efficiency solar cells. In addition, he investigates hydrogen storage materials and materials for fuel cells and coatings for smart energy-saving windows.	http://www.mrl.ucsb.edu/~vandewalle/
Waite, Herb	Molecular, Cellular, and Developmental Biology	Marine Science Institute; Materials Research Laboratory; Institute for Collaborative Biotechnologies; National Center for Ecological Analysis & Synthesis	Dr. Waite's research centers around formulating a practical wet adhesive through understanding and implementing the fundamental design principles at multiple length scales of the bio-adhesive strategy practiced by marine mussels.	
Walker, Barbara		National Center for Ecological Analysis & Synthesis; Marine Science Institute	Barbara Endemaño Walker's research focuses on political ecology and human-environment relationships related to marine and coastal resources in California, French Polynesia, and Ghana. In Ghana, her research explores the historical social and environmental antecedents of contemporary patterns of marine environmental conservation and use. In French Polynesia, her research addresses disparities among stakeholder perceptions of environmental and climate change and the challenges associated with translating multiple and often opposing perceptions into effective marine management and climate change adaptation policies. In California, Walker studies new alternative seafood marketing arrangements to understand why and how direct marketing programs are adopted by fishermen and whether these marketing arrangements might increase the sustainability of fisheries and coastal communities.	http://www.msi.ucsb.edu/people/research-scientists/barbara-l-e-walker
Walker, Janet	Film and Media Studies	Environmental Media Initiative Research Group	Dr. Walker's research specializations include documentary film and media, trauma and memory studies, and media and the environment. As co-convenor of the Environmental Media Initiative Research Group of UCSB's Carsey-Wolf Center, she co-organized "Figuring Sea Level Rise," an interdisciplinary research collaboration and public programming series selected and mounted as the 2012-13 theme of the campus's Critical Issues in America series. Walker is currently co-editing a volume entitled "Sustainable media" and engaging in site-specific research around the world from post-Katrina New Orleans to Israel-Palestine for a book about media and geography.	http://www.filmandmedia.ucsb.edu/people/faculty/walker/walker.html
Walsh Casey	Anthropology		Professor Walsh researches the anthropological political economy of the Mexico-US borderlands. During the last decade, he has studied the ways in which water, land, and labor have been organized to produce commodities in areas marked by aridity, especially northern Mexico and the southwestern United States. His work in this field has been documented in his publication, "Building the Borderlands." Professor Walsh is currently writing a book about mineral springs and water cultures in Mexico.	http://www.anth.ucsb.edu/faculty/Walsh/Walsh.php

Wang, Yongqiang	Chemical Engineering	Institute for Collaborative Biotechnologies	Dr. Wang works with Professor Frank Doyle on systems and control, wireless sensor networks, systems biology, and complex networks, among other interests. In October of 2012, he published a paper titled "Energy-efficient pulse-coupled synchronization strategy design for wireless sensor networks through reduced idle listening," that discusses significantly reducing the total energy consumption in a synchronization process by reducing idle listening by introducing a large refractory period in each oscillation period of the sensor. (font and font size)	
Warner, Robert	Ecology, Evolution & Marine Biology	Marine Science Institute; Carsey-Wolf Institute	Dr. Warner's research includes behavioral and evolutionary ecology, as well as population biology. Most of his work focuses on coral reef fishes and the historical ecology of coastal marine populations. His current research is on conservation biology and the science of marine reserves.	http://www.lifesci.ucsb.edu/Ecology Evolution & Marine Biology/faculty/warner/index.html
Washburn, Libe	Geography	Marine Science Institute	Dr. Washburn's research focuses on oceanographic studies to understand how ocean circulation processes affect marine communities in ocean environments. He is currently researching surface circulation patterns in the Santa Barbara Channel and investigating the importance of these flows for delivering larvae to nearshore habitats.	http://www.geog.ucsb.edu/~washburn/
Weisbuch, Claude	Materials	Center for Energy Efficient Materials; Solid State Lighting & Energy Center; Interdisciplinary Center for Wide Bandgap Semiconductors; Institute for Energy Efficiency	Dr. Weisbuch's research involves semiconductors, physics, and LEDs. He and his team of researchers recently collaborated with scientists from other universities to identify what causes light emitting diodes (LEDs) to be less efficient at high drive currents, a phenomenon known as LED 'droop.' They showed that 'droop' is caused by Auger recombination, a process by which energetic electrons, instead of emitting light, collide with other electrons and lose their energy in the form of heat. Understanding the origin of droop will lead to more efficient and cheaper LEDs. They provide long-lasting, highly efficient light sources and could lessen the US' total electricity use by 10% if they were to replace less efficient incandescent and fluorescent lights.	http://industry.ucsb.edu/faculty/profile/187
Weldeab, Syee	Earth Science		Professor Weldeab's research focuses on the reconstruction and understanding of past monsoon rainfall variability; thermal, salinity, and productivity history of the oceans; and linkages between tropical oceans and high latitude climate and their interaction with and effect on the monsoon systems. One of Professor Weldeab's recent projects involved assessing seawater Nd isotope signatures. His research uses marine sediment cores and the application of stable and radiogenic isotopes and trace element to study climate evolution in the past.	http://www.geol.ucsb.edu/directory/faculty/weldeab.php
Welter, Volker	History of Art and Architecture		Professor Welter's research includes the theory and history of sustainable architecture and how the environment and architecture are related. He studies the history and culture surrounding the development of techniques used in sustainable architecture, such as passive heating and cooling in buildings.	http://www.arthistory.ucsb.edu/index.php?option=com_content&task=view&id=113
White, Mia Charlene	Black Studies		Professor White's research involves researching the intersection of "the city" as a domain and as a generative site for justice in social, economic, ecological, and environmental realms. One of her current courses examines these elements and how, together, they produce the "Just City."	
Wilkinson, Robert	Environmental Studies; Bren		Dr. Wilkinson's research is focused on water and energy policy with regards to climate change. He has analyzed US freshwater management policies, California water supply management, and climate change adaptation strategies.	http://www.esm.ucsb.edu/people/Faculty/robert_wilkinson.htm
Wolski, Richard	Computer Science	Institute for Energy Efficiency; Center for Energy Efficiency Design; Greenscale Center for Energy-Efficient Computing; California NanoSystems Institute	Dr. Wolski's research interests include cloud computing and large-scale high-performance distributed systems. His research includes the study of new power-aware resource management algorithms for data centers using private cloud technologies. He also makes his work available as open source through the Eucalyptus private cloud project. Eucalyptus has been used worldwide to optimize data centers through the adoption of a private cloud based IT.	http://www.youtube.com/watch?v=q3JXRiHlm9g
Wudl, Fred	Chemistry and Biochemistry; Materials	Center for Polymers and Organic Solids; Mitsubishi Chemical Center for Advanced Materials; Center for Energy Efficient Materials; California NanoSystems Institute	Dr. Wudl performs research on plastic solar cells. The goal of his work is to develop new materials and consider new concepts that improve the efficiency of solar cells.	http://www.chem.ucsb.edu/people/faculty/wudl/

Yang, Henry	Mechanical Engineering	Institute for Energy Efficiency; Center for Energy Efficiency Design; Center for Multifunctional Materials & Structures	Dr. Yang's research interests include the development of a passive actuation device for structural vibration control. This device mimics a highly efficient, fracture resistant, energy dissipation mechanism found in abalone shell and bone. Passive actuator devices operate without external power or control input. This technology serves to protect structures while saving the environment by not requiring an external energy source.	http://me.ucsb.edu/faculty/profile/89
Yasuda, Kim	Art		Professor Yasuda's teaching and art practice focus on the creative repurposing of materials and technologies. Her past projects, in collaboration with her spatial art students, have undertaken the repurposing of used shipping containers into 'mobile art spaces,' as well as a storefront redesign of the former Isla Vista Bakery. More recently, she has initiated partnerships with social design non-profits, Architect for Humanity and Bamboo DNA, in order to develop and test alternative uses for construction. Studying the traditional methods of local indigenous populations, her students explore bamboo, clay, and straw bale building techniques as both art and architecture. Professor Yasuda continues to develop innovative curricula in the spatial studies area of the Department of Art and was recently awarded a UCSB Leaf Grant for her classroom teaching experiments.	http://artsite.arts.ucsb.edu/people/faculty/yasuda.html
Young, Oran	Political Science; Bren	Institute of Arctic Studies; International Human Dimensions Programme on Global Environmental Change; Writing Program	Dr. Young specializes in institutional and international governance and environmental institutions. His research encompasses basic research, focusing on collective choice and social institutions, and applied research dealing with issues pertaining to international environmental governance and to the Arctic as an international region.	http://www.bren.ucsb.edu/people/Faculty/oran_young.htm
Yue, Patrick	Electrical & Computer Engineering	Institute for Energy Efficiency	Current and past projects: (1) Cell-Based RF Design in Scaled CMOS Technologies (2) Very Low Power, Adaptive Equalizer for High-Speed I/O's (3) On-wafer Wireless Testing (4) Low-power Wireless Bio-sensors (5) Fast-settling PLL's. On-wafer wireless testing with on-chip antenna. Ultra-low-power adaptive passive equalizer for >10 Gbps. Sub-circuit standard cell library for predictive analog design. Wireless power delivery interface circuits for bio-implants.	http://engineering.ucsb.edu/faculty/profile/174
Zheng, Haito	Computer Science	Institute for Energy Efficiency	Dr. Zheng's research focuses on harnessing the fundamental concepts of the human cognitive cycle and applying them to device networks. This allows the networks to manage themselves in a self-aware and adaptive manner.	http://industry.ucsb.edu/faculty/profile/135
Zok, Francis	Materials	Institute for Multi-scale Materials Studies; Center for Multifunctional Materials & Structures; Institute for Collaborative Biotechnologies	Dr. Zok's research interests include advanced cooling concepts for hypersonic space vehicles and nanomechanics of biological materials. He has also conducted research which focuses on energy efficient production and storage as part of the Institute for Energy Efficiency Production & Storage Solutions Group.	http://industry.ucsb.edu/faculty/profile/188