Name	Department	Keywords	Primary Research Category	Sub Research Category	Research Area	Department Website	Research Website
Ando, Amy	Agricultural and Consumer Economics	storm water management and wetlands conservation	Water Resources, Environment & Ecology, Infrastructure,	**Surface water, Restoration, naturalization, conservation, Economics and Storm water management**	Works on problems of species and habitat conservation, including the optimal reserve-site selection problem and understanding the relationship between private and public conservation activity. That work has produced publications in outlets such as Water Resources Research, Science, the Journal of Law and Economics, the Journal of Environmental Economics and Management, Land Economics, Ecological Economics, and Resource and Energy Economics. Has also studied the determinants of household rain-barrel adoption, the values people place on aquatic habitat improvements from LID storm water management, and features of water-quality trading programs stacked with habitat credits.	http://ace.illinois.edu/directory/amy-w-ando	
Angel, Jim	Illinois State Water Survey	drought, Great Lakes water levels, Extreme rainfall events, Rainfall frequency study, Water-handling structures in Illinois	Climate, Water Resources	**Variability & Change, Weather extremes, Precipitation and Lakes**	Interests include climate change and variability in the 19th and 20th centuries, extreme rainfall events, floods, droughts, heat waves and cold waves, Great Lakes storms, as well as climate services. Along with Floyd Huff, Dr. Angel co-authored the rainfall frequency study that is the standard for designing water-handling structures in Illinois. And has written several Water Survey publications and articles in scientific journals such as Monthly Weather Review, Journal of Climate, and Journal of Applied Meteorology.	http://www.isws.illinois.edu/atmos/statecli/about-us.htm	
Bernacchi, Carl	Plant Biology	Water quantity issues associated with bioenergy crops	Water & Energy	Bioenergy (water use, water quality, environmental impact)	Overall focus of research is to understand the impacts of atmospheric and climatic change on crop species important to the Midwestern U.S. Included in these analyses are global change scenarios as well as natural variations in growth conditions over a wide range of temporal scales.	http://www.life.illinois.edu/plantbio/People/Faculty/Bernacchi.htm	http://www.life.illinois.edu/bernacchi/
Best, Jim	Geology	Fluvial sediment transport mechanics, Fluid-sediment interactions	Water Resources, Transport Processes, Climate,	**Rivers, Surface Water, Geological Fluid Transport and Landscape Evolution**	Earth surface processes, and specifically process sedimentology. Research focuses on fluvial sediment transport mechanics, the structure and dynamics of modern sedimentary environments, the analysis of ancient alluvium, the understanding of controls on subsurface sedimentary architecture, fluid-sediment interactions in turbulent boundary layers, and the interaction between channel morphology and flow at river confluences.	http://www.geology.illinois.edu/people/jimbest/index.html	
Bethke, Craig	Geology	Hydrogeology, groundwater, geochemistry of rock-water interaction, and geomicrobiology	Water Resources	**Groundwater and Environmental Chemistry**	Studies groundwater hydrology, including groundwater flow, mass and heat transfer, chemical reaction analysis, and reactive transport modeling. Interested in fluid migration in sedimentary basins; environmental aspects of groundwater geochemistry and microbiology, including acid drainage from mine tailings, mobility of radioactive species near waste repositories; and the roles of microbes in controlling the chemical composition of groundwater.	http://www.geology.illinois.edu/people/bethke/index.html	
Bhowmik, Nani	Illinois State Water Survey	hydrology, floodplains	Environment & Ecology, Systems,	Wetlands Management and Floodplain Mapping, Watersheds/River basin management.	Hydrology and carrying capacity of floodplains, sediment control, suspended Sediment Concentration, Bed Load, and particle Size Sampling	http://www.isws.illinois.edu/	

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Braden, John	Agricultural and Consumer Economics	Water resources policies, Water Observing, Stormwater management	Water Resources, Social Science	Surface Water and Economics	Environmental policies, management, and valuation with particular reference to water resources and agriculture. Social Science in a Water Observing System and Stormwater management	http://ace.illinois.edu/directory/john-b-braden	
Brawn, Jeff	Natural Resources and Environmental Sciences	Restoration Ecology, Fish and Wildlife	Environment & Ecology	Aquatic & Terrestrial Ecosystems	Fish and Wildlife, Ecology, Quantitative and Spatial Methods, Restoration Ecology. Effects of ecological disturbance on conservation of avian populations and communities; comparative demography of temperate and tropical birds; evolution of life history traits - especially dispersal; temporal variation and historical effects on community structure; demography and conservation of small populations; ecology of edges; ecology of urbanization, eco-epidemiology.	http://nres.illinois.edu/directory/Jeffrey_D_Brawn	http://brawn.nres.uiuc.edu/
Brozovic, Nicholas	Agricultural and Consumer Economics	Water resources and watersheds management policies, Impacts of catastrophic water-supply disruption	Water Resources, Social Science	**Economics, Groundwater, Watersheds/River Basin management**	Improve economic analysis and understanding of spatial, dynamic natural resource systems, and of water resources in particular. Design spatially targeted policies for natural resource management that are cost-effective and maintain or improve environmental conditions.	http://ace.illinois.edu/directory/nicholas-brozovi%C4%87	
Cai, Ximing	Civil and Environmental Engineering	River basin planning and management, drought management, water resources economics	Water & Food, Social Science, Systems, International Engagement	**Integration & optimization, Risk management, Human Impact, Agricultural Water Use/Mgmt and China**	Research interests include large-scale system optimization, river basin planning and management, drought management, water resources, economics and policy, geographic information system and spatial statistics, and international water resources development.	http://cee.illinois.edu/faculty/ximingcai	
Cao, Yong	Illinois Natural History Survey	stream ecology, aquatic ecology, multivariate analysis, freshwater monitoring & bioassessment, biodiversity evaluation, ecological data quality and comparability, long-term ecological changes, species-occurrence distribution modeling	Water Resources, Environment & Ecology, Modeling, Simulation & Prediction, Systems	**Monitoring, Assessment, Aquatic Habitats & Invasive Species, Ecological impacts and modeling, Watersheds/River basin management**	Aquatic ecology, multivariate analysis, freshwater monitoring & bioassessment, biodiversity evaluation, ecological data quality and comparability, long-term ecological changes, species-occurrence distribution modeling and climate-change impacts.	http://www.inhs.uiuc.edu/staff/index.php?action=list&user_name=yongcao	
Chick, John	Illinois Natural History Survey	Large rivers, Mississippi rivers, Illinois rivers	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Focus on the ecology of large rivers, particularly the Mississippi and Illinois rivers. Also interested in population dynamics and community level interactions of freshwater fishes, early life history stages of fishes, and general aquatic ecology. Especially interested in questions related to how spatial variability in aquatic ecosystems affects population and community level processes	http://www.inhs.uiuc.edu/staff/index.php?action=list&user_name=chick	
Cooke, Richard	Agricultural and Biological Engineering	Water quality and management, Drainage system optimizing	Environment & Ecology	Water Quality	Water quality and management. Current research includes, preferential flow paths in sludge amended soils; optimizing subsurface drainage system design.	http://abe.illinois.edu/faculty/R_Cooke	
Cutts, Bethany	Natural Resources and Environmental Sciences	Urban water supply, networked water governance	Social Science, Infrastructure	**Policy**	Focuses on environmental justice, environmental policy, and the science-policy nexus. Has experience in thinking about sustainability and ecosystem service delivery in urban systems. Uses participatory mapping, social surveys, and social network analysis methods.	http://nres.illinois.edu/Bethany_B_Cutts	

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Czapar, George	Illinois State Water Survey	Watershed science, Water quality, agriculture management practices, agricultural best management practices, nutrient standards	Social Science, International Engagement	**Stakeholder Interaction, China, Europe and Argentina**	Water quality and water management; agronomy, agricultural impacts on water resources, best management practices to reduce nutrient and pesticide loss, farmer adoption of BMPs, nutrient standards.	http://www.isws.illinois.edu/wss/	
David, Mark	Natural Resources and Environmental Sciences	Environmental impacts of water quality, Wetlands	Water & Energy, Water & Food	Bioenergy (water use, water quality, environmental impact), Agricultural Water Use and Management	Water/Biogeochemistry, Agronomy/Agroecology, Ecosystem Science, Forest Resources and Management, Soil Science and Conservation, Current lab research includes, environmental impacts of biofuels, water quality, nitrogen and phosphorus biogeochemistry in agricultural landscapes, wetlands to remove nutrients.	http://nres.illinois.edu/directory/Mark_B_David	http://www.uiuc.edu/goto/biogeochemistry
Demissie, Mike	Illinois State Water Survey	watershed processes, stream and river restoration, watershed monitoring	Transport Processes	Monitoring, Assessment and Watershed	Focus on problem-solving of issues related to watershed processes and stream and river restoration. Watershed monitoring and land use evaluation of Lake Decatur and Vermilion River watersheds and an investigation on the impacts of the Great Mississippi Flood of 1993.	http://www.isws.illinois.edu/	
Ellsworth, Timothy	Natural Resources and Environmental Sciences	Soil Science and Conservation, Water and Biogeochemistry	Systems	Watersheds/River basin management	Fundamental areas of research are geostatistics, with special focus on sample design and decision support systems that exploit uncertainty estimation to optimize resource management, and soil physics (primarily water flow and chemical fate). The past several years has also been working as a team member to increase the sustainability of agricultural production systems by improved cropping practices and nutrient management.	http://nres.illinois.edu/directory/Timothy_R_Ellsworth	
Endres, Jody	Natural Resources and Environmental Sciences	Law and Regulation at the nexus of the environment, energy, and agriculture, Water quantity and quality standard-setting, integrated, system-level thinking in policy design	Social Science	**Law, Regulation and other Standard Settings, Governance, Systems Thinking in Law and Regulation, Brazil and Europe**	Regulatory and other policy strategies to address water quality and quantity issues in agriculture and energy production, both domestically and internationally.	http://nres.illinois.edu/directory/Jody_M_Endres	
Flint, Courtney	Natural Resources and Environmental Sciences	Water quality risks, Reducing agricultural nitrate runoff, Watershed Partnerships, Stakeholder perspectives	Environment & Ecology, Systems	**Restoration, Naturalization, Conservation, Water Quality, Governance, Stakeholder Interaction and Europe**	Focuses on the decision making implications of rural stakeholders for community and regional well-being. Examines how perceptions of ecosystem services, water quality risks, and climate change influence resource management decisions. Lab has a variety of transdisciplinary, mixed methods projects underway including being engaged in a large project with biogeochemists and agricultural engineers to explore socio-economic dimensions of innovations to reduce agricultural nitrate runoff. Also examining risk perceptions and local knowledge within watershed partnerships in Southern Illinois and exploring how human-nature relationship concepts influence engagement in river revitalization efforts in the US and Austria. Is co-PI in an emerging effort on systems ecology in Montana to integrate field based social science with aquatic systems ecology to understand alpine river/lake systems.	http://nres.illinois.edu/directory/Courtney_G_Flint	http://communitynatres.nres.uiuc.edu

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Fouke, Bruce	Geology	Geomicrobiology, carbonate cementation, rock porosity	Environment & Ecology	Aquatic & Terrestrial Ecosystems	Latest research includes determination of how organic macromolecules produced by bacteria and corals affect the precipitation of carbonate biominerals during rapid environmental changes in temperature and oxygen concentration. The natural laboratories for this work are travertine hot springs in Yellowstone and coral reef ecosystems of the Netherlands Antilles. Results are providing fundamental new knowledge of the extent to which feedbacks between minerals, metazoans (coral) and thermophilic bacteria control the carbonate biomineralization process. This in turn will permit us to establish more precise predictive models of how coral reef ecosystems will respond over the next 100 years to global warming, and improve our search for and interpretation of microbial life on the early earth and other planets.	http://www.geology.illinois.edu/people/fouke/index.htm	http://www.geology.illinois.edu/people/fouke/Sites/index.html
Garcia, Marcello	Civil and Environmental Engineering	Sediment entrainment, Oceanic turbidity currents mechanics, Dynamics of mudflows in mountain areas	Water Resources, Transport Processes, Infrastructure	**Rivers, Surface Water, Storm water management, Fluvial Transport and Landscape Evolution**	River mechanics, sediment transport, sedimentation engineering and environmental hydraulics. Best known for research in sediment entrainment from riverbeds, flow and transport in vegetated channels, the mechanics of oceanic turbidity currents, and the dynamics of mudflows in mountain areas.	http://cee.illinois.edu/faculty/marcelogarcia	http://vtchl.uiuc.edu/
Gay, David	Illinois State Water Survey	Precipitation chemistry	Water Resources	Precipitation	Monitors precipitation chemistry. The program is a cooperative effort between many different groups, including federal, state, tribal and local governmental agencies, educational institutions, private companies, and non-governmental agencies.	http://nadp.isws.illinois.edu	
Georgiadis, John	Mechanical Science and Engineering	Pattern-forming fluid systems of complex microstructure	Technology	Complex microstructures	Engineered or natural pattern-forming fluid systems of complex microstructure, which are important in the fields of energy utilization, environmental science, biotechnology and bioengineering	http://mechanical.illinois.edu/directory/faculty/georgia	
Holm, Thomas	Illinois State Water Survey	arsenic, trace metals, groundwater, sediment, nutrients, geochemical modeling, biochar, PAHs	Water Resources	Ground Water	Groundwater geochemistry, Arsenic geochemistry, Water treatment for arsenic removal, Metal speciation, Chemical equilibrium modeling, Sediment geochemistry, Biochar, Polycyclic aromatic hydrocarbons, Nitrogen and phosphorus in groundwater and sediment	http://www.isws.illinois.edu/	
Hudson, Robert	Natural Resources and Environmental Sciences	Mercury biogeochemistry of aquatic systems, methylmercury analysis,	Environment & Ecology,	Biogeochemistry, Trace Elements & Remediation and Aquatic & Terrestrial Ecosystems	Aquatic biogeochemical cycling of mercury, field and modeling research; Methylmercury analytical method development; Simulation modeling of mercury biogeochemistry in aquatic systems.	http://nres.illinois.edu/directory/Robert_JM_Hudson	
Johnson, Tom	Geology	hydrogeology and water contamination, isotope geochemistry in groundwater	Water Resources, Transport Processes	**Groundwater and Environmental Chemistry**	Environmental geochemistry. Isotope geochemistry. Fate of redox-sensitive contaminants in ground water and surface water systems. Redox history of the oceans and atmosphere.	http://www.geology.illinois.edu/people/tmjohnsn/index.html	http://www.geology.illinois.edu/people/tmjohnsn/Sites/index.html
Kalita, Prasanta	Agricultural & Biological Engineering	Water management, Irrigation, water quality, watershed modeling, erosion and sedimentation	Water & Food	Agricultural Water Use and Management	Agricultural water management, water productivity, water quality, irrigation and salinity control from agricultural lands, re-use of industrial and domestic wastewater for crop production, soil conservation, development of best management practices for crop production and environmental sustainability, and microbial pathogen control from drinking water sources.	http://abe.illinois.edu/faculty/P_Kalita	

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Keefer, Don	Illinois State Geological Survey	Glacial Sediments Simulation and characterization	Transport Processes	Erosion, sedimentation & transport	Major research interests include, Characterization of Multi-scale Heterogeneities in Geologic Systems; Contaminant Fate and Transport through Glacial Sediments, Characterization and Visualization of Uncertainty in Geologic Data and Maps; Simulation Techniques for Predicting the Distribution and Character of Glacial Sediments; Visualization and Analysis of Multi-dimensional Geologic Data.	http://www.isgs.illinois.edu/	
Kelly, Walt	Illinois State Water Survey	Urban Water quality	Water Resources, Environment & Ecology	**Groundwater; Monitoring; Surface Water; Contaminant and Water Quality**	Water quality and geochemical research, primarily in groundwater but also surface water. Research topics include nitrate, arsenic, urban water quality, and geochemical processes in aquifers	http://www.isws.illinois.edu/	
Kent, Angela	Natural Resources & Environmental Sciences	microbial ecology, environmental microbiology, ecosystems, aquatic environment, biofuels, sustainability, nitrogen cycle	Environment & Ecology	Aquatic & Terrestrial Ecosystems	Interest in studying the ecology of microbial communities in order to ultimately improve the ability to predict the impact of anthropogenic influences on processes mediated by microbial communities. Also interested in applying understanding of microbial ecology to improve the health and sustainability of natural and managed ecosystems. Current projects include, Illinois Wetland Restoration; Biofuels and Sustainability; Microbial Ecology and Global Change; Aquatic Food Web Interactions; Microbial Aspects of a "Healthy Environment"; Microbial ecology of aquatic ecosystems.	http://nres.illinois.edu/directory/Angela_D_Kent	http://microbes.nres.uiuc.edu/research.htm#2
Khanna, Madhu	Agricultural and Consumer Economics	Water conservation measures	Social Science	Economics	Technology adoption and voluntary approaches to pollution control; welfare analysis of alternative policy instruments for environmental protection; economic, land use and environmental implications of biofuels; policies for carbon sequestration.	http://ace.illinois.edu/directory/madhu-khanna	
Kieffer, Susan	Geology	Geological Fluid Dynamics	Transport Processes	**Fluvial Transport**	Geological physics, nonlinear processes and nonlinear data analysis, stability and sustainability. Geological physics interests include planetary sciences; geological fluid dynamics including geothermal, epithermal, and volcanic environments; solid-state geophysics and mineral thermodynamics; shock wave physics; river hydraulics and river environments; theoretical modeling of processes with supercomputers.	http://www.geology.illinois.edu/people/skieffer/index.html	
Kristovich, David	Illinois State Water Survey	Lake-Effect Precipitation, Great Lakes Region, Lake Breezes, Mesoscale Storms	Water Resources	Lakes	Boundary Layer and Mesoscale Meteorology; Multi-Scale Study of Lake Breezes and the Impact of Marine Boundary Layers on Convection in the Great Lakes Region. Effects of Non-Uniform Surface Conditions on Lake-Effect Systems; Climatic changes in Great Lakes precipitation.	http://www.isws.illinois.edu/atmos/	

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Kumar, Praveen	Civil and Environmental Engineering	Complexity of hydrologic processes	Hydrology, Water & Energy, Modeling, Simulation & Prediction, International Engagement	**Complex systems, Bioenergy (water use, water quality, environmental impact), Virtual observatories, Informatics & data mining, Sensing, system & cyber infrastructure, Environmental sensing, Variability & Change and India**	Study of complexity in hydrologic processes including hydroclimatology, ecohydrology, geomorphology, and hydroinformatics.	http://cee.illinois.edu/faculty/praveenkumar	http://www.hydrocomplexity.net/HydroComplexity/HydroComplexity.html
Larson, David	Illinois State Geological Survey	Groundwater	Water Resources	Ground Water	Research includes, Aquifer characterization and groundwater flow; Groundwater/surface-water interactions; Groundwater resource investigations; Hydraulic properties of glacial-drift aquifers and confining units; Natural quality of groundwater; Hydrostratigraphy	http://www.isgs.illinois.edu/about-isgs/staff-dir/l/dlarson.shtml	
Lin,Yu-Feng	Illinois State Geological Survey	Groundwater modeling, recharge, GIS, carbon sequestration	Hydrology, Water & Energy, International Engagement	**Carbon Capture and Geologic Sequestration, Groundwater and surface water interaction, Computational technologies, Geospatial computation, Planning & management, China and Taiwan**	Illinois water supply planning, geologic carbon sequestration in saline aquifer, surface water / groundwater interaction, parallel computing and parameter estimation, GIS application development.	http://www.isgs.illinois.edu/about-isgs/staff-dir/l/lin.shtml	http://www.isws.illinois.edu/gws/sware/
Liu, Wen-Tso	Civil and Environmental Engineering	Wastewater treatment, water purification failure, occurrence of infectious diseases	Water & Energy, Public Health, Technology, International Engagement	**Bioenergy (water use, water quality, environmental impact), Sanitation and human health, Wastewater treatment, Nano-, micro- and bio-sensing, Waste water treatment & recovery (water, energy) and China**	Main research interests focus on the microbial ecology and molecular microbiology aspects of water and wastewater treatment processes. This is based on the facts that the microorganisms are the key catalyst for wastewater treatment, and the primary causative agents for the failure of water purification systems and the occurrences of infectious diseases.	http://cee.illinois.edu/faculty/wentsoliu	
Mariñas, Benito	Civil and Environmental Engineering	Water contaminants, Health concern in drinking water	Public Health,	Water borne diseases, Sanitation and human health and Disinfection	Research interests in various mechanistic aspects of chemical and ultraviolet light disinfection processes and membrane technologies for the particular application of controlling waterborne pathogens. Is currently a member of the Center for Zoonoses Research at the University of Illinois. Is also developing hybrid adsorption/membrane processes for the control of pesticides, taste-and-odor-causing compounds and other water contaminants, and working on research projects aimed at elucidating the mechanisms responsible for the formation of disinfection by-products of health concern in drinking water.	http://cee.illinois.edu/faculty/benitomarinas	
Markus, Momcilo	Illinois State Water Survey	Hydrologic systems, Midwest hydrologic systems, Climate modeling of extreme rainfall, floods and draughts, Water contaminants	Hydrology, Systems, Climate	**Statistical and Stochastic Hydrology, Flood forecasting and prediction, Informatics & data mining and Risk analysis and management**	Current research includes the effects of climate change on hydrologic systems in urban and agricultural areas of the Midwest, and the Great Lakes region. Is interested in statistical downscaling of global climate modeling outputs, extreme rainfall, extreme floods and droughts under the future climate scenarios. Other interests include the past and future trends in water contaminants, riverine nutrient load estimation methods, as well as real-time water quantity and quality forecasting in the streams and rivers in the Midwest and the Great Lakes region.	http://www.isws.illinois.edu/	
McConkey, Sally	Illinois State Water Survey	Floodplain Mapping	Environment & Ecology	Wetlands Management and Floodplain Mapping	Flood plain mapping.	http://www.isws.illinois.edu/	

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McKay, Don	Illinois State Geological Survey	Glacial and fluvial sediments, Loesses and paleosols of the Mississippi River valley	Hydrology	Aquifers	Geological setting, characteristics, and history of major glacial-fluvial aquifer systems of the Quaternary of central North America; implications for resource and land-use decision making; Quaternary and glacial geology; Loesses and paleosols of the Mississippi River valley; Illinoian glacial landforms and sediments; Geologic mapping and three-dimensional modeling; Stratigraphy and sedimentology of continental glacial and fluvial sediments of the last 200,000 years.	http://www.isgs.illinois.edu	
Miller, Brian	Illinois Water Resources Center	water policies, water programs	Systems	Planning & Management	Focuses on how officials make decisions related to water and natural resources and develops engagement programs, products and decision support systems necessary to help communities use science to make informed water and resource decisions and policies.	http://web.extension.illinois.edu/state/index.html (U of I Extension); http://web.extension.illinois.edu/iwrc/ (IWF	
Minsker, Barbara	Civil and Environmental Engineering	Environmental informatics, hydroinformatics, water management and decision support, real-time observation and anomaly detection	Environment & Ecology, Technology, Modeling, Simulation & Prediction, International Engagement	**Virtual observatories, Environmental sensing and China**	Environmental systems analysis, investigating improved methods for modeling complex environmental systems, uncertainty in environmental and water resources decision making, and optimization methods for engineering design. Recent applications: Real-time combined sewers overflow management and hypoxia observation and adaptive watershed monitoring and management.	http://cee.illinois.edu/faculty/barbaraminsker	http://emsa.ncsa.illinois.edu/
Nguyen, Helen	Civil and Environmental Engineering	Water treatment systems, waterborne pathogen removal for water and wastewater treatment	Public Health	Wastewater Treatment	Research goal is to develop conceptual models that aid in assessing the human and ecological risks associated with biological contaminants in subsurface environments and water treatment systems. Specific areas of interest are waterborne pathogen removal for water and wastewater treatment, and fate and transport of antibiotic resistant bacteria in subsurface environment.	http://cee.illinois.edu/faculty/thanhnguyen	http://publish.illinois.edu/helennguyen/
Parker, Gary	Civil and Environmental Engineering	River mechanics and morphology, sediment transport, two-phase solid fluid flow	Water Resources, Transport Processes,	**Rivers, Surface Water, Geological Fluid Transport and Landscape Evolution**	River mechanics and morphology, sediment transport and two-phase solid fluid flow. Morphodynamics associated with rivers, debris flows and turbidity currents	http://cee.illinois.edu/people/parkerg	http://vtchl.uiuc.edu/people/parkerg/default.asp
Pianfetti, Brian	Center of Advanced Materials for Purification of Water with Systems (WaterCAMPWS)	learning and human computer intelligent interaction, water purification, clean water	Technology	**Water Purification**	Focus on using multimodal human computer intelligent interaction to observe and interact with people in real world learning situations. Has authored and co-authored articles and book chapters on learning in complex and computer mediated environments from cognitive anthropological perspectives. Most recently published a chapter in Nanotechnology Applications for Clean Water (William Andrew/Elsevier, 2009).	http://www.watercampws.uiuc.edu/	http://www.brianpianfetti.com
Plewa, Michael	Crop Sciences	disinfection byproduct, disinfection processes, genotoxicity, insecticides	Public Health	Disinfection	Assessment of genotoxicity of disinfection byproducts (DBPs) in drinking water generated from different disinfection processes Isolation of novel antimutagens and anticarcinogens from agricultural products and byproducts; analysis of the repression of growth rates of human tumor cell lines by agronomic processing waste fractions. Genotoxic synergy between organophosphorus ester insecticides and environmental and dietary aromatic amines; Isolation and characterization of plant-activated arylamines.	http://cropsci.illinois.edu/directory/mplewa	

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Ranganathan, Malini	Beckman Institute	Water related political economy, Politics of flood vulnerability	Public Policy, International Engagement	Economics	Urban political ecology: the political economy of infrastructure reforms, particularly water; collective action, the state, and the commons; and the politics of flood vulnerability. Has investigated the political ecology of water in peripheral Bangalore of India	http://beckman.illinois.edu/directory/person/malini79	http://maliniranga.com/
Rhoads, Bruce	Geography and Geographic Information Science	complexity of water, water-related processes in environmental systems	Environment & Ecology, Water Resources, Transport Processes, Systems	**Rivers, Surface Water, Watershed Systems and Landscape Evolution**	To facilitate original, interdisciplinary research on the complexity of water and water-related processes in environmental systems and on the interconnections between these processes and human society.	http://www.geog.illinois.edu/people/brhoads	http://www.geog.illinois.edu/~brhoads/index.html
Roadcap, George	Illinois State Water Survey	Groundwater modeling	Hydrology, Modeling, Simuation & Prediction	**Groundwater and Environmental Chemistry**	Regional modeling of the Mahomet Aquifer across east-central Illinois; study of extremophile bacteria in the groundwaters of the Lake Calumet region (south Chicago).	http://www.isws.illinois.edu/	http://www.isws.illinois.edu/gws/gwflowmodl.asp
Sass, Gregg	Illinois Natural History Survey	Endangered and invasive fish species, aquatic ecosystems,	Environment & Ecology	Fish species monitoring and aquatic ecosystems	Monitoring of several species of endangered fishes. Sampling fish and aquatic invertebrates for stable isotope analysis to trace the flow of carbon through aquatic ecosystem; largemouth bass.	http://www.inhs.illinois.edu/staff/index.php?action=list&user_name=ggsass	
Schideman, Lance	Agricultural and Biological Engineering	water treatment, membrane, membrane bioreator technologies, contaminants, bio-energy recovery	Public Health, Technology	Wastewater Treatment, Wastewater Treatment & Rocevery (water, energy), Water Purification	Water and wastewater treatment processes focusing on: Adsorption, membrane, and membrane bioreator technologies; Emerging micropollutants including pharmaceuticals, endocrine disruptors, and homeland security contaminants; Bio-energy recovery from human, animal and food waste streams; New materials for water purification and other aqueous phase separations- adsorbents, membranes, catalysts, etc.; Integrated water reuse systems; Environmental occurrence, transport and effects of nanomaterials and pharmaceuticals; Intelligent infrastructure for self-optimizing water systems.	http://abe.illinois.edu/faculty/L_Schideman	http://algae.illinois.edu/
Schneider, Daniel	Urban and Regional Planning	Freshwater ecology, ecology of sewage treatment, watershed ecology, environmental history	Water Resources	Large River Basins	Ecology and restoration of floodplain rivers; Science and citizen participation in environmental planning; Environmental history of Illinois River; Ecology and management of invasive species; Wetland ecology; Environmental planning in Mexico	http://www.urban.uiuc.edu/faculty/schneider/	

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Shilts, William	Prairie Research Institute	Glacial sedimentology	Transport Processes	Erosion, sedimentation & transport	Research Interests include configuration, dynamics, and geological constraints of the North American continental ice sheet; environmental geochemistry; glacial sedimentology and stratigraphy; neotectonic methods for detecting prehistoric seismic events, particularly in lakes; high Arctic glacier sedimentation; sedimentation and genesis of eskers; arctic and temperate limnology, especially geophysical methods of studying physical limnology, subbottom and sidescan acoustic profiles, and geochemical profiles of cores as indicators of the relative importance of anthropogenic and natural sources of elements; stratigraphy and glacial sedimentation of the Hudson Bay Lowlands and Québec Appalachians; drift mineralogy chemistry for correlation, drift genesis, and applied studies; terrestrial and sublacustrine periglacial features, notably the patterned ground of Canadian Shield; mineral prospecting in glaciated terrain.	http://www.inrs.illinois.edu/execdirect.shtml	
Sivapalan, Murugesu	Geography and Geographic Information Science	Runoff processes, Water quantity and quality in ungaged basins	Hydrology, Trasnport Processes	**Watershed Systems, Hydrologic processes, Contaminant, Variability & Change**	Hydrological Modelling and Predictive Uncertainty; Hydro-climatology: Climate Change and Variability; Human Impacts on Water Quantity and Quality; Biogeochemical Cycling and Riverine Water Quality	http://www.geog.illinois.edu/people/sivapala	
Smothers, Kent	Midwest Technology Assistance Center	Water treatment, Serves small public water systems and Indian Tribes in the Midwest	Technology	**Water purification, Potable and industrial water treatment**	Midwest technology Assistance Center (MTAC) serves small public water systems and public systems serving Indian Tribes. This Center cooperates closely with other regional technology assistance centers established by the USEPA, and with other partner agencies and organizations in order to ensure efficient response to the highest priority needs of small public water systems and Indian Tribal systems in the Midwest	http://mtac.isws.illinois.edu	
Strathmann, Timothy	Civil and Environmental Engineering	Treatment and fate of emerging aquatic micropollutants, technologies for waste-to-energy and biomass-to-energy conversion, subsurface redox processes	Environment & Ecology, Water & Energy, Technology, Infrastructure	**Water purification, wastewater treatment & recovery; water quality, biogeochemistry, trace elements & remediation and bioenergy**	Research focuses on mechanisms controlling the fate of aquatic pollutants in both engineered treatment processes and natural systems, with a special emphasis on reduction-oxidation (redox) processes that are mediated by metal species (e.g., nanophase metal catalysts, dissolved metal complexes, soil minerals). Current research includes the development of advanced water treatment technologies for emerging micropollutants (e.g., pharmaceuticals, hormones, nitrogenous disinfection byproducts) and conversion of wastes and biomass to energy.	http://cee.illinois.edu/faculty/timothystrathmann	http://strathmann.cee.illinois.edu/
Suski, Cory	Natural Resources & Environmental Sciences	Climate change, fisheries, land-use disturbances, restoration and invasive species; sewage impacts and urbanization	Environment & Ecology	**Aquatic and terrestrial ecosystems; aquatic habitats and invasive species, and restoration**	Interface between basic ecology/physiology and applied conservation solutions. Team examines how aquatic organisms respond to environmental stressors, and how this information can be used to generate novel conservation solutions. Current work includes projects involving invasive Asian carp, impacts of sewage outflows on fish in Chicago, how climate change will impact marine ecosystems, and how angling impacts fish populations.	http://nres.illinois.edu/directory/Cory_Suski	http://fishlab.nres.uiuc.edu/

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Valocchi, Albert	Civil and Environmental Engineering	Groundwater contamination and remediation	Water Resources, Water and Energy, Transport Processes	**Ground Water, Aquifers, Contaminant, Carbon Capture and Geologic Sequestration and Computational technologies**	Research focuses upon mathematical modeling of pollutant fate and transport in porous media, with applications to groundwater contamination and remediation. Specializes in the development and application of models that couple physical, geochemical, and microbiological processes over a wide range of spatial scales ranging from the pore scale (micrometers) to the field scale (kilometers).	http://cee.illinois.edu/faculty/albertvalocchi	
Werth, Charles	Civil and Environmental Engineering	fate of legacy/emerging pollutants in natural systems and engineered watersheds.	Water & Energy, Transport Processes, Infrastructure, Technology	**Biogeochemistry, Trace Elements & Remediation, Carbon Capture and Geologic Sequestration, Urban water supply, Storm water management, Water purification and Nano-, micro- and bio-sensing**	Focuses on the transport and fate organic chemicals in the environment, and on the development of sustainable technologies for pollution abatement. Specific areas of interest include the study of reactive transport mechanisms of pollutants in porous media (with an emphasis on partitioning and mass transfer), development of catalytic reduction technologies for oxyanions and halogenated organics, and the fate of legacy/emerging pollutants in natural systems and engineered watersheds.	http://cee.illinois.edu/faculty/charleswerth	http://werthresearch.org/
Westcott, Nancy	Illinois State Water Survey	Rainfall measurements, crop yield, urban climates, near-lake climates	Water Resources	Precipitation	Manages the Cook County Precipitation Network and has conducted numerous studies using radar observations, including rainfall estimates, urban influences on weather, storm-cell interactions, potential effects of cloud seeding.	http://www.isws.illinois.edu/	http://www.isws.illinois.edu/gws/raingagenet.asp
Wilson, Steve	Illinois State Water Survey	Groundwater, Rain Gauge, Observation Well	Water Resources	Monitoring	Surveys conduct state-of-the-art research and collect, analyze, archive, and disseminate high-quality, objective data and technical information. The information, services, and products provide a sound technical basis for the citizens and policymakers of Illinois and the nation to make wise social, economic, and environmental decisions. The purpose of the rain gauge and groundwater observation well networks is to collect long-term data to determine the impact of groundwater withdrawals during dry periods and during the growing season, and the rate at which the aquifer recharges.	http://www.isws.illinois.edu/	http://www.isws.illinois.edu/gws/raingagenet.asp
Wuebbles, Don	Atmospheric Sciences	Climate change, Ozone layer protection, Global warming	Climate, Modeling, Simulation & Prediction	**Stream flow, Water resources, Virtual observatories and Weather& climate prediction**	Interactions of atmospheric chemistry and physical processes affecting atmospheric composition. Climate change/ Ozone layer protection/ Global Warming	http://www.atmos.illinois.edu/people/wuebbles.html	
Zilles, Julie	Civil and Environmental Engineering	Biological wastewater treatment	Public Health, Technology	Wastewater Treatment and Waste water treatment & recovery (water, energy)	Research areas include the effects of agricultural antibiotic use on antibiotic resistance levels in swine waste treatment systems and manure-amended soils, the microbial ecology of denitrification in tile drainage bioreactors, the development of biomimetic membranes for desalination, the microbial physiology of enhanced biological phosphorus removal, and gene expression and genetic adaptation for herbicide degradation in a model dynamic soil system.	http://cee.illinois.edu/faculty/juliezilles	http://publish.illinois.edu/jzilles/

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Anderson, Brian	Illinois Natural History Survey	Water law, Aquatic conservation	Systems, International Engagement	**Planning & Management; Brazil**	Water law and aquatic conservation planning.	http://www.inhs.illinois.edu/	
Muturi, Ephantus	Illinois Natural History Survey	Aquatic arthropod Vectors	Public Health	**Vector borne diseases**	Conducts research on ecological interactions among container mosquitoes, including mosquito-virus interactions. Competitive interactions between mosquito species, assessing the interactive effects of temperature and sublethal doses of insecticides on adult mosquito fitness and evaluating how larval environment influences vector competence for arboviruses	http://www.inhs.illinois.edu/	http://www.inhs.illinois.edu/research/MedEnt/research.html
Wahl, Dave	Illinois Natural History Survey	Fish Ecology, Fish Behavior	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Behavioral fish ecology, fish population dynamics. Research interests are in the broad areas of aquatic ecology and the use of ecological theory in solving problems in applied fisheries management.	http://www.inhs.illinois.edu/	http://www.inhs.uiuc.edu/fieldstations/kbs/KBS_research.html
Czesny, Sergiusz	Illinois Natural History Survey	Molecular Ecology of Fishes	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Lake Michigan fisheries, yellow perch, food webs.	http://www.inhs.illinois.edu/	http://www.inhs.illinois.edu/fieldstations/lmbs/index.html
Charlebois, Patrice	Illinois Natural History Survey	Aquatic Invasive Species	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Aquatic Nuisance Species Outreach	http://www.inhs.illinois.edu/	
Taylor, Chris	Illinois Natural History Survey	Non-game fishes, Crayfish	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Stream ecology and identification of crustaceans.	http://www.inhs.illinois.edu/	http://www.inhs.illinois.edu/staff/index.php?action=list&user_name=cataylor
Taylor, Steve	Illinois Natural History Survey	aquatic habitats, aquatic invasive species, Biospeleology, Heteroptera, Karst, Pseudoscorpiones, Gerromorpha, Aradidae	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Biospeleology, Heteroptera, Karst, Pseudoscorpiones, Gerromorpha, Aradidae	http://www.inhs.illinois.edu/	http://wwx.inhs.illinois.edu/research/pi/sjtaylor
Cummings, Kevin	Illinois Natural History Survey	Mussels	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Freshwater mollusks and Aquatic Conservation	http://www.inhs.illinois.edu/staff/index.php?action=list&user_name=kscummin	

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Stein, Jeff	Illinois Natural History Survey	sport fish population, Creel Surveys	Environment & Ecology	**Aquatic Habitats & Invasive Species**	Bass recruitment & reproductive ecology; creel surveys; ecology of bonefish.	http://www.inhs.illinois.edu/staff/index.php?action=list&user_name=jastein	
Hinz, Leon	Illinois Natural History Survey	Fluvial Geomorphology, Stream Classification	Environment & Ecology	**Aquatic & Floodplain Ecosystems**	Aquatic Ecology, Conservation Biology, Fisheries Management, Lotic Habitat.	http://www.inhs.illinois.edu/programs/pi/index.php?action=list&user_name=leonhinz	
Riecks-Soucek, Dave	Illinois Natural History Survey	Aquatic Contaminants	Environment & Ecology	**Biogeochemistry, Trace Elements & Remediation**	Ecotoxicology of freshwater invertebrates; Impacts of contaminants on aquatic invertebrates.	http://www.inhs.illinois.edu/programs/pi/index.php?action=list&user_name=soucek	
Guest, Jeremy	Civil and Environmental Engineering	Bioenergy, Waste water treatment and product recovery	Public Health, Technology	**Sanitation and human health, Waste water treatment and recovery, and Bioenergy (water use, water quality, environmental impact)**	Research interests in the development of biotechnologies and decision-making tools that enable the design of more sustainable environmental infrastructure systems. Primary focus is on sanitation and the development of bioprocesses that reduce life cycle environmental impacts, reduce costs, and increase performance reliability by achieving energy, nutrient, and product recovery from wastewaters.	http://cee.illinois.edu/faculty/jeremyguest	http://engineeringforsustainability.com/
Anders, Alison	Geology	orographic precipitation and landscape evolution	Water Resources, Transport Processes, Modeling, Simulation & Prediction	**Rivers, Surface Water, and Landscape Evolution**	Studies interactions between climate, erosion and tectonics with a focus on orographic precipitation and landscape evolution. Active areas of research include: 1) measurement and modeling of climatological precipitation patterns at scales from 1km – 100km, 2) characterization of erosion rates in areas of spatially variable precipitation, and, 3) numerical landscape evolution modeling. Field areas include the Olympic Mountains of Washington State, the Western Ghats of India, the Swiss Alps, and the Colorado Plateau.	http://www.geology.illinois.edu/people/amanders/index.html	
Tomkin, Jonathan	Geology	Glacial erosion, Landscape evolution and modeling study	Water Resources, Transport Processes, Climate,	**Rivers, Surface Water, and Landscape Evolution**	Researches how changing climates, surface processes, and tectonic forcings determine the landscapes we see around us, by testing theoretical models of landscape evolution and geodynamics against geomorphological, thermochronological and sedimentalogical observations. Recently, this research has involved fieldwork in the Olympic Mountains, the Patagonian Andes, and the Ross Sea.	http://www.geology.illinois.edu/people/tomkin/index.ht	http://www.geology.illinois.edu/people/tomkin/Sites/research.html
Sanford, Rob	Geology	Biogeochemical processes, respiratory anaerobic microorganisms	Environment & Ecology	**Groundwater and Environmental Chemistry**	Focuses on the Microbial Ecology of biogeochemical processes, particularly those that occur in the subsurface. Of particular interest are studies involving respiratory anaerobic microorganisms, such as those that reduce halogenated compounds and metals, in polluted ecosystems.	http://www.geology.illinois.edu/people/rsanford/index.html	http://publish.illinois.edu/rsanford/

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Nesbitt, Steve	Atmospheric Sciences	Cloud systems, Surface-atmosphere interaction, Tropical cyclones and Remote sensing	Water Resources, Transport Processes, Climate, Modeling, Simulation & Prediction	**Rivers, Surface Water, and Landscape Evolution**	Uses the latest in satellite, ground-based, and airborne platforms to study the dynamics, microphysics, and climatic impacts of precipitating cloud systems. Specific research foci of group includes, Cloud systems: morphology, dynamics, and microphysics; Remote sensing of precipitation using radar and passive microwave techniques; Tropical cyclones; Surface-atmosphere interaction.	http://www.atmos.illinois.edu/people/nesbitt.html	http://www.atmos.illinois.edu/~snesbitt/
Hu, Feng Sheng	Plant Biology	Ecosystem ecology, Quaternary paleoecology, climatic change and biotic response, soil and sediment biogeochemistry	Transport Processes, Environment & Ecology	**Rivers, Surface Water, and Landscape Evolution**	Broadly trained ecologist working at the interfaces of biological, geological and climatological sciences. Uses "the natural experiments of the past" that are archived in geological deposits. These deposits offer a long-term holistic perspective into past environmental conditions, some of which do not exist today but may be analogs of different climatic conditions in the future. In pursuing research interests, has integrated traditional paleoecological techniques (e.g., pollen analysis) and state-of-the-art analytical tools (e.g., biomarker, stable-isotope, and chloroplast-DNA techniques).	http://www.life.illinois.edu/plantbio/People/Faculty/Hu.htm	http://www.life.illinois.edu/hu/
Greenberg, Jonathan	Geography and Geographic Information Science	Remote sensing, landscape ecology, vegetation-climate interactions and microclimate modeling	Environment & Ecology, Modeling, Simulation & Prediction	**Rivers, Surface Water, Remote sensing, Watershed Systems and Landscape Evolution**	Research centers on addressing questions of the impacts of climate change and land use/land cover change on vegetated ecosystems using remote sensing data. Towards this goal, research aims to 1) develop life history characteristics and their microclimate conditions for all plants across a landscape using a combination of Lidar, hyperspatial, and hyperspectral remote sensing fused with cutting-edge approaches to mechanistic and empirical microclimate modeling, and 2) employ these data to answer basic and applied ecological questions about climate impacts on terrestrial and aquatic plant dynamics.	http://www.geog.illinois.edu/people/jgrn	http://publish.illinois.edu/jgrn/
Mehnert, Edward	Illinois State Geological Survey	Geologic Carbon Sequestration in Saline aquifer	Water Resources, Modeling, Simulation & Prediction	**Groundwater**	Geologic carbon sequestration, groundwater modeling, groundwater monitoring, recharge estimation & groundwater-surface water interactions	http://www.isgs.uiuc.edu/about-isgs/staff-dir/m/mehnert.shtml	