



Evidence Document

for Higher Learning Commission Reaccreditation

Document Title: Arkansas Catalyst

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Document Summary:

Arkansas Catalyst is the monthly newsletter from the Office of Research and Economic Development. It highlights exciting research and economic development activities at the university.



Coleman Selected as Next Executive Vice Chancellor and Provost



James Scott "Jim" Coleman will start as executive vice chancellor for academic affairs and provost on Jan. 1.

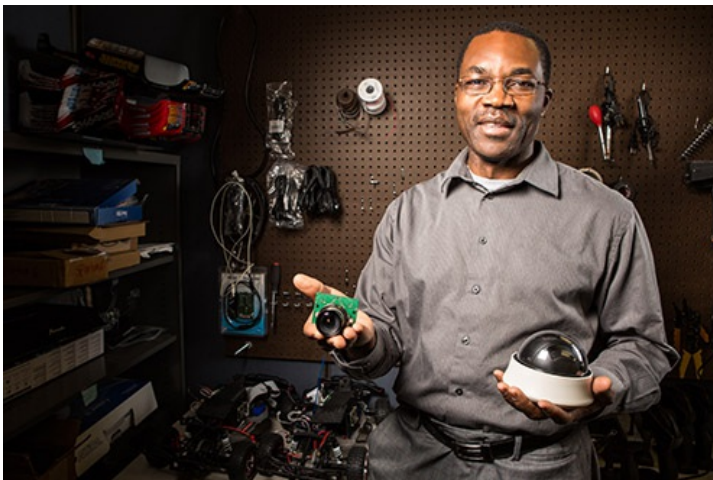
James Scott "Jim" Coleman, provost and vice president for academic affairs and professor of biology at Northern Arizona University, has been appointed as executive vice chancellor for academic affairs and provost at the University of Arkansas, starting Jan. 1.

Coleman will succeed Ashok Saxena, who has filled the role since summer 2015. In addition to serving as the chief academic officer for the state's flagship university in Fayetteville, Coleman also will hold a faculty appointment as professor of biological sciences in the J. William Fulbright College of Arts and Sciences, pending approval of the university's board of trustees.

"We are looking forward to welcoming a seasoned administrator to help us enter the new year, and implement the campus planning work we've spent the past year actively engaged in," said U of A Chancellor Joseph E. Steinmetz. "Also, I'd like to thank Ashok Saxena for dutifully and effectively serving as provost and providing me with so much support during my first year on the job."

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Computer Engineer's 'Smart Camera' Research Draws NSF Funding



Computer engineer Christophe Bobda in his lab at the U of A. Photo by University Relations

Christophe Bobda, professor in the Department of Computer Science and Computer Engineering, is adapting existing algorithms to craft forms of "intelligence" in a new wave of smart cameras.

"Current camera surveillance systems cannot provide the bandwidth required to transport increasingly higher amounts of data," Bobda said. "And analyzing terabytes of data in real-time requires computer architectures with capability far beyond the currently available systems."

Smart cameras address these shortcomings, Bobda said, because they can analyze video data within the camera, which in turn significantly decreases the amount of data that need to be transported.

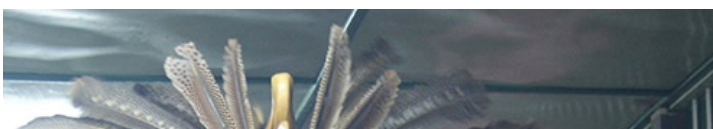
In one National Science Foundation-funded project, Bobda is working with industry partner R-Dex Systems, which specializes in artificial intelligence and machine learning, to design a wireless smart camera network for mobile robots in large indoor environments. The robots, known as automated guided vehicles, follow markers or wires in the floor and are most often used in industrial applications to move materials around a manufacturing facility or warehouse.

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U of A Leads Effort to Nurture Research Collaborations in Southeast Asia

The U of A is helping lead an effort to develop a bioscience network of scientists in the United States and Southeast Asia.

The National Science Foundation recently awarded a \$500,000 grant to establish the Food, Energy, Water and Ecosystems Resources Research Coordination Network, to build a team of minority and minority-serving faculty to strengthen research collaborations in the U.S. and enhance ties between U.S. faculty scientists and researchers working at institutions in Vietnam, Thailand and Malaysia.



"Dams that were built over the last 30 years on the upper and lower Mekong River have altered sediment flow, fisheries and tributaries of the river, resulting in a host of issues," said Ruben Michael Ceballos, an assistant professor in the Department of Biological Sciences and the principal investigator on the NSF-funded project.



U of A biologist Ruben Michael Ceballos visited Malaysia in 2015. Photo courtesy Ruben Michael Ceballos

research project.

The project will focus on four central research topics: aquatic biology and ecosystems science; traditional-use plants and natural products development; biofuel feedstocks and enzyme systems; and impacts of climate change on biodiversity in the lower Mekong basin.

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Fay Jones School, Arkansas Forest Resources Center Awarded 'Wood Innovations' Grant



Innovative wood building materials and wood energy promote healthier forested landscapes for future generations in a socially, economically and environmentally sound manner. Photo courtesy U.S. Forest Service




The Fay Jones School of Architecture and Design at the U of A and the Arkansas Forest Resources Center in the UA System Division of Agriculture have received a nearly \$250,000 grant from the U.S. Forest Service for a collaborative project.

The project, titled "From Forest to Campus: The Innovative Timber University," stems from the Forest Service's national **"Wood Innovations" program**, and it is expected to take about two years to complete.

The project uses the timber products harvested from an ongoing collaborative forest landscape restoration project in the Ozark National Forest in Northwest Arkansas to design a prototype for a new, sustainable residence hall at the University of Arkansas.

The plan is for a design that simultaneously has environmental, economic and aesthetic benefits, which will involve using a cross-laminated timber (CLT) or nail-laminated timber (NTL) based system. It also will evaluate the sawmill residues from related timber processing for the manufacture of wood pellets for heating multi-story residential housing.

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Connect	News	Awards
<p>Vice Provost for Research and Economic Development 205 Administration Building 1 University of Arkansas Fayetteville, AR 72701 479-575-2470 vpred.uark.edu</p> <p>  </p> <p>The Office of Vice Provost for Research and Economic Development has added several electronic distribution lists relating to subjects of interest to the University of Arkansas research community. More information about the types of lists and registering for them can be found here.</p>	<p>U of A Libraries to Host Research Data Management Workshop</p> <p>Field Notes: Chasing Woodcock</p> <p>Researchers Examine How Arkansas.gov Can Better Serve State's Businesses</p> <p>Animal Science Professor Identifies Gut Microbiota Signatures of Healthy Aging</p> <p>Wolfspeed, NCREPT Make R&D Magazine's Top 100 for Third Time</p> <p>U of A Professor to Study Middle School Mathematics Teaching</p> <p>University Museum Awarded Grant to Rehouse Mollusk Collection</p>	<p>The following is a sampling of the top grants awarded to faculty and staff in October, with the principal investigator, the award amount and the sponsor. An asterisk (*) indicates the continuation of a previous award.</p> <ul style="list-style-type: none"> • Raj Raghavendra Rao, \$273,545, National Science Foundation • Shilpa Iyer, \$236,946, National Institutes of Health • Jackson Cothren, \$220,000, BASF Corp. • Sarah Vavrik Hernandez, \$185,680, Arkansas Highway and Transportation Department • Lynn Harris Hehr, \$173,000, Arkansas Department of Education