Five UI scholars receive Innovations in Teaching with Technology Awards

Academic Technologies Advisory Council (ATAC) awards $85,000 in funding

BY: LES FINKEN | 2014.01.22 | 07:00 AM

Five University of Iowa scholars were awarded a total of $85,330 in support of their innovative approaches to teaching with technology. Sponsored by the Academic Technologies Advisory Council (ATAC), this year's Innovations in Teaching with Technology Awards winners are:

H.S. Udaykumar
Mechanical and Industrial Engineering
Award: $25,000
Proposal Title: Enhancing Student Learning in Transport Phenomena Related Engineering Courses Through Web-accessed Computational Thermal-Fluid Modeling Tools

Udaykumar was awarded $25,000 to develop a software interface to an existing world-class thermal and fluid flow solver called pELAFINT3D that will enable its integration into formal and informal teaching activities. It is expected that this will have a major impact on student learning and exploration of modern pedagogies along with expanding undergraduate students' ability to conduct and learn from independent research and open-ended course projects. More details…

Alberto Segre
Computer Science
Award: $10,000
Proposal Title: Making Algorithmic Thinking Concrete via Collaboration with the Performing Arts — Year 2

Segre was awarded $10,000 for continued support of his funded FY13 proposal that called for the purchase of five programmable Aldeberan NAOH25 robots to support interdisciplinary collaborative learning among computer science and dance students. Students will learn core computational concepts by designing, choreographing, directing, and producing a robotic dance performance. More details…

Ibrahim Demir
IIHR Hydroscience and Engineering
Award: $12,000
Proposal Title: Web-based Augmented and Virtual Reality Flood Simulation Platform for Game-based Learning of Hydrological Concepts

Demir was awarded $12,000 to develop a web-based interactive simulation environment for introducing hydrological concepts in engineering and science curriculum. Students will receive hands-on experience in hydrological concepts, management actions, and effects of flooding in actual communities in Iowa. More details…

Marc Linderman
Geographical and Sustainability Sciences
Award: $5,230
Proposal Title: The Acquisition and Integration of Unpiloted Aerial Vehicles in Spatial Analyses Courses

Linderman was awarded $5,320 to design a summer course that engages students in novel methods of spatial analysis through the use of Unpiloted Aerial Vehicle technology and a set of related research opportunities. More details…

Renee Cole
Chemistry
Award: $33,100
Proposal Title: Transforming Content Delivery in Advanced Chemistry Laboratory Courses

Cole was awarded $33,100 to develop self-paced instructional modules that will allow students enrolled in advanced laboratory classes to access and review key information for laboratory experiments prior to conducting the experiments. The result will be more class time for instructors to focus on higher order learning objectives. More details…

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The Academic Technologies Advisory Council assists the Provost's Office and Chief Information Officer in setting directions and priorities for developing, implementing, and evaluating instructional technology directions for the university. Proposals for the Innovations in Teaching with Technology Awards are accepted in the fall. Applicants are encouraged to get started on them now. ATAC provides feedback and assist in development of proposals. For more information, contact maggie-jesse@uiowa.edu or les-finken@uiowa.edu, or visit the award program's website.

The Innovations in Teaching with Technology Awards help fund innovative applications of instructional technologies that impact student success and retention. Applicants are encourage to use emerging instructional technologies such as augmented reality, crowd-sourcing, electronic books (ePub/eText), game-based learning, geo-everything, gesture-based computing, learning analytics, mobile computing, personal web, open content, semantic-aware applications, simulation/simulators for instruction, smart objects, social networking, visual data analysis, and video (e.g., "grassroots video"). For a description on each of these and other technologies used for instruction see " 2013 NMC Horizon Report: Six Technologies to Watch."

Contacts:
Les Finken, Information Technology Services, 319-335-5467
Maggie Jesse, Information Technology Services, 319-335-6335

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News About: CAMPUS   RESEARCH   ACHIEVEMENTS   FACULTY
Keywords:
ATAC   ACADEMIC TECHNOLOGIES ADVISORY COUNCIL
INNOVATIONS IN TEACHING WITH TECHNOLOGY AWARDS   TECHNOLOGY   AWARDS   FUNDING