

UMass Dartmouth faculty to participate in 2021 STEM for All Video Showcase: COVID, Equity & Social Justice

Faculty members Chandra Orrill, Shakhnoza Kayumova, and Ramprasad Balasubramanian to present "Computational Thinking Counts in Elementary Grades."

UMass Dartmouth Professor Chandra Orrill (STEM Education & Teacher Development), Associate Professor Shakhnoza Kayumova (STEM Education & Teacher Development), and Vice Provost for Research & Academic Affairs Ramprasad Balasubramanian will be featured in the 2021 STEM for All Video Showcase funded by the National Science Foundation. The event will be held online between May 11 and May 18 and will be live-streamed.

The faculty members will be present "Computational Thinking Counts in Elementary Grades" which explains how their current STEM education research project aims to develop a professional development model for bringing computation thinking into the formal mathematics and science curriculum in elementary classrooms. The project was funded by the National Science Foundation.

"This is a unique and critical endeavor that allows elementary teachers, who are considered generalists in the field, to work with content and pedagogy experts to develop their professional knowledge and skills," said Dr. Orrill. "Students prepared with computational thinking skills will be better equipped to persist when faced with any challenging problem. They will learn to deal with ambiguity and use creativity to solve problems, and they will learn to communicate and collaborate with others in their problem-solving."

Now in its seventh year, the annual showcase will feature more than 280 innovative projects aimed at improving Science, Math, Engineering, and Computer Science education, which have been funded by the National Science Foundation and other federal agencies. During the 8-day event, researchers, practitioners, policymakers, and members of the public are invited to view the short videos, discuss them with the presenters online, and vote for their favorites.

The theme for this year's event is "COVID, Equity & Social Justice." Video presentations address broadening participation, impacts of COVID on STEM teaching and learning, design implementation on STEM and CS programs, research informing STEM and Computer Science teaching and learning, and measuring the impact of innovative programs. Collectively the presentations cover a broad range of topics including science, mathematics, computer science, engineering, cyberlearning, citizen science, maker spaces, broadening participation, research experiences, mentoring, professional development, NGSS, and the Common Core.

Last year's STEM for All Video Showcase is still being accessed, and to date has had over 86,000 unique visitors from 180 countries.

The STEM for All Video Showcase is hosted by TERC, in partnership with: STEMTLnet, CADRE, CAISE, CIRCLS, STELAR, CS for All Teachers, NARST, NCTM, NSTA, NSF INCLUDES, and QEM. The Showcase is funded by a grant from the National Science Foundation (#1922641).