Campus Viviente in STEM Education

Campus Viviente is an international research project that gives place to an organic and dynamic educational system, where schools become more than the place where teaching occurs, and become places where students, teachers, researchers and the community can interact in natural and constructed contexts. Our objective is to support a new educational vision for STEM education by generating interdisciplinary experiences that can take place in the schools, universities, or nearby areas, and utilizing technologies that are easily available and low cost (e.g., a protractor, a compass, open-source software) to prepare the next generation of STEM students for the needs of the 21st Century.

In a time when Hispanic students are the fastest-growing population in the U.S., providing support for these STEM education resources that are also bilingual/bi-culturally sensitive in Spanish and English, and strengthening ties with STEM researchers in Mexico and Latin America is a fundamental piece to achieve these needed changes. Campus Viviente has been strategically engineered to build and sustain the infrastructure to support an international network of scholars, research, and resources, through which we have been able to receive funding to support our efforts and shared vision. In this talk, I will provide an overview of Campus Viviente in STEM Education as a partnership with the Ministry of Education in the state of Coahuila, Mexico, and share project’s results after the second year of the 3-year planned implementation.

Guadalupe Carmona is an Associate Professor in STEM Education at The University of Texas at San Antonio. A native from Mexico, Dr. Carmona earned her doctoral degree in Mathematics Education at Purdue University. Dr. Carmona’s research focuses on technology-supported educational reform in STEM education in national and international settings, formative assessment in classroom and large-scale implementations to be more amenable to instruction, and research design to assess innovative educational interventions through multivariate methods. She is the principal investigator for the multi-national Campus Viviente in STEM Education Project and co-principal investigator for the Project “Sustainable Support System for Student Success (S5)” funded by the U.S. Department of Education. She is leading authority on the use of modeling activities in assessment and serves in the Educational Testing Service’s (ETS) Advisory Board to support assessment of the Common Core Mathematics State Standards.