
NASA STEM EPDC Teams Up with ATE on STEM Education in the Future Commission

Leslie Huling, Professor, Texas State University, and
Brandon Rodriguez, EPDC Specialist at NASA Jet Propulsion Laboratory



Leslie Huling, chair of the STEM Education in the Future Commission, introduces NASA keynote speaker David Seidel, Deputy Education Director at NASA Jet Propulsion Laboratory, at the 2018 ATE Annual Meeting in Las Vegas.

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The Association of Teacher Educators (ATE) have joined forces with the NASA STEM Educator Professional Development (EPDC) to launch a joint ATE/NASA EPDC Commission on STEM Education in the Future. The three-year Commission was appointed by ATE national president, Dr. Karen Embry-Jenlink of Stephen F. Austin State University, and is chaired by Dr. Leslie Huling, senior advisor of the LBJ Institute for STEM Education and Research at Texas State University and project director of the NASA STEM EPDC. The Commission was launched at the 2018 ATE Annual Meeting in Las Vegas and was one of three major STEM initiatives featured at the ATE Annual Meeting. NASA EPDC also sponsored a two-day NASA Learning Lab in conjunction with the 2018 ATE Annual Meeting and helped to sponsor the speaker for the Robert J. Stevenson Memorial Lecture. The Stevenson lecture was delivered by David Seidel, Deputy Education Director at NASA Jet Propulsion Laboratory, and was titled “Dreaming and Decision Making: Giving Learners the Best Prospects for Success.”

The partnership between ATE and NASA STEM EPDC that led to the formation of the Commission on STEM Education in the Future was a natural extension of ongoing work due to the overlapping missions of the two entities. ATE as an organization is dedicated to the improvement of teacher education and has a mission to provide leadership related to 1) the development of quality programs to prepare teachers, 2) the analysis of issues and practices related to the preparation and career-long professional development of teachers, and 3) the provision of opportunities for the professional and personal growth of Association members. ATE members represent over 700 colleges and universities, over 500 major school systems, and the majority of state departments of education. Similarly, EPDC is a national educator professional development system comprised of and designed to serve STEM Educators at all levels including university pre-service educators, pre-service teachers, K-12 teachers, and informal educators. EPDC provides professional learning

ATE President Karen Embry-Jenlink Appoints Joint ATE/NASA EPDC Commission on STEM Education in the Future



Teacher education fulfills a critical link in ensuring all P-12 learners receive the quality of STEM education experiences that will attract and prepare them to pursue STEM degrees and careers in the future. ATE President Dr. Karen Embry-Jenlink is appointing a 3-year ATE / NASA Education Joint Commission on *STEM Education in the Future*.

The purpose of the Commission is to explore and frame issues related to STEM Education in which ATE has a stake and has the potential to impact positive change. The Commission will commence at the 2018 ATE Annual Meeting and will conclude its work during the 2020 ATE Annual Meeting.

Anticipated outcomes of this Commission will include advocacy and policy work with legislators, professional associations related to educator preparation, state agencies, and industry. White papers and/or contributions to blogs, podcasts, radio and televised / live streamed interviews, and national / international conference symposia will be generated through the collaborative inquiry and discourse of the Commission.

The ATE / NASA Education Joint Commission on *STEM Education in the Future* will be chaired by Dr. Leslie Huling, senior advisor of the LBJ Institute for STEM Education and Research Project Director in the NASA STEM Educator Professional Development Collaborative project.

experiences and NASA learning resources to thousands of formal and informal educators per year through face-to-face and online PD offerings. In 2017, more than 65,000 educators from all 50 states, the District of Columbia, Puerto Rico and the US Virgin Islands participated in PD sponsored by the NASA STEM EPDC.

Meet the Authors



*Dr. Leslie Huling,
Commission Chair*



*Brandon Rodriguez,
Commission Member*

ATE has launched this Commission because of the critical link that teacher education fulfills in ensuring all P-12 learners receive the quality of STEM education experiences that will attract and prepare them to pursue STEM degrees and careers in the future. The purpose of the Commission is to explore and frame issues related to STEM Education in which ATE has a stake and has the potential to impact positive change. Scholarly topics to be explored by the Commission will include, but are not limited to the following:

- Ways in which teacher education can promote equity of STEM education for all students, and especially those who are economically disadvantaged and from groups that have been traditionally under-represented in STEM fields.
- Ways in which teacher education can promote collaboration among Colleges of Education and Science and Engineering to advance the preparation of teachers, to promote scholarly inquiry in STEM Education, to attract and retain more university students in STEM and STEM Education, and to improve the quality of STEM and STEM Education instruction at the university.
- Ways in which all teacher candidates at all levels can be prepared to be active partners in school-wide STEM Education initiatives and to engage in and implement interdisciplinary approaches that advance excellence in STEM Education.
- Ways in which ATE can join the national conversation to advocate for the importance of funding for STEM Education in a political climate that is advancing deep cuts to STEM Education.

- Ways in which ATE can advance the national conversation to regarding the dangers of political efforts to censure certain areas of scientific inquiry and/or to ignore or deny scientific realities upon which there is broad scientific consensus.

Including the chair Dr. Huling, EPDC has four representatives on the Commission. Additional EPDC representatives include Dr. Araceli Ortiz, principal investigator of NASA STEM EPDC; Dr. Barbie Buckner, EPDC specialists from NASA Armstrong Flight Research Center; and Brandon Rodriguez, EPDC specialist from NASA Jet Propulsion Laboratory. ATE representatives on the Commission include Dr. Lori Fulton, associate professor at the University of Hawaii at Mānoa; Dr. Harvey, director of the STEM Education Center at Southern Illinois University, Dr. Romena Garrett Holbert, Associate professor at Wright State University, Dr. Laveria Hutchison, associate Professor at the University of Houston; Dr. Ute Kaden, Associate Professor at the University of Alaska; Dr. Deborah Koolbeck, director of Legislative and Governmental Relations at the American Association of Colleges of Teacher Education (AACTE); and Dr. John McConnell, III, associate dean of accreditation and assessment at Austin Peay University.



Meet the Rest of the Commission Members



Dr. Araceli Ortiz



Dr. Harvey Henson



Dr. Ute Kaden



Dr. Barbie Buckner



Dr. John R.
McConnell, III



Dr. Lori Fulton



Deborah Koolbeck



Dr. Laveria Hutchison



Dr. Romena Garrett
Holbert

“Commission members will identify leverage points where we can focus our energies and resources to make a positive impact on the STEM preparation and professional development of educators,” Dr. Huling said. “We want all students to develop the strong academic skills needed for success in whatever fields they choose to pursue, and we see teacher preparation and professional development as key components in bringing this vision to fruition.”

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In its first year of operation, the Commission is undertaking a number of initiatives. During the 2018 ATE Summer meeting, Commission members collaborated on presenting and publicizing several STEM sessions and engaged in planning activities for the 2019 ATE Annual Meeting set for February 15-19 in Atlanta. At the Atlanta Conference, the Commission will sponsor a two-day STEM Learning Lab that will feature 11 sessions of “hands-on” STEM learning for conference attendees and Atlanta-area educators. In addition, the Commission will also conduct a Featured Forum that will engage conference attendees in conversations about current practices in STEM Education and the preparation of STEM teachers and ways to expand the candidate pool and to enhance the preparation of STEM educators.

The Commission is also looking ahead to the 2020 ATE Annual Meeting that will be the organization’s centennial celebration. Avenues are being explored to acquire funding to conduct a STEM Partners Conference in conjunction with the 2020 ATE Conference.

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ATE President, Dr. Embry-Jenlink, reports she is very pleased with the progress of the Commission thus far. “STEM education is the future, and every educator needs to be prepared and understand how these disciplines can affect our society,” Dr. Embry-Jenlink said. “We have to think of the society we have in

mind for our future and create education to cultivate that society and I envision the work of the Commission as one step toward advancing this goal.”

For more information about NASA EPDC visit <https://www.txstate-epdc.net/>. For additional information contact: Dr. Araceli Martinez Ortiz, LBJ Institute Executive Director: araceli@txstate.edu

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