

ASEE NSF Poster Session
Monday, June 15, 2015, 10:30 am–12:00 pm

Board	Side	Paper ID	Title	Division	Author	Organization
1	A	12988	A Cross-institutional Study of the Case Study Teaching in the Sciences Method	NSF Grantees Poster Session	Stephanie Luster-Teasley	North Carolina A&T State University
1	B	12192	A group-level framework for emergent properties of interactive learning	NSF Grantees Poster Session	Jonathan C. Hilpert	Georgia Southern University
2	A	13216	A Knowledge-Delivery Gravity Model to Improve Game-Aided Pedagogy	NSF Grantees Poster Session	Montasir Abbas	Virginia Tech
2	B	12686	A Multidisciplinary Undergraduate Nanotechnology Education Program with Integrated Laboratory Experience	NSF Grantees Poster Session	Priscilla J Hill	Mississippi State University
3	A	11802	A Plan to Diffuse Mobile Hands-On Teaching and Learning in Puerto Rico	NSF Grantees Poster Session	Juan C Morales	Universidad del Turabo
3	B	11221	A REU-Site Program for Engineering Education Research on Self-Regulated Learning	NSF Grantees Poster Session	Ning Fang	Utah State University
4	A	13798	A Sustainability Toolbox for Engineers: Exploring how Students are likely to Engage in Sustainability Education	NSF Grantees Poster Session	Rachel Roberts	University of Washington
4	B	11637	Active Engineering Education Modules: A Summary of Recent Research Findings	NSF Grantees Poster Session	Ashland O. Brown	University of the Pacific
5	A	11971	Adaptive Expertise and its Manifestation in CAD Modeling: A Comparison of Practitioners and Students	NSF Grantees Poster Session	Michael Johnson	Texas A&M University
5	B	12367	An Assessment of Student Learning, Perceptions, and Social Capital Development in Undergraduate, Lower-division STEM Courses Employing a Flipped Classroom Pedagogy	NSF Grantees Poster Session	Lori Sowa	University of Alaska, Fairbanks
6	A	13126	An Automated Object-Task Mining Model for Providing Students with Real Time Performance Feedback	NSF Grantees Poster Session	Conrad Tucker	Pennsylvania State University, University Park
6	B	12682	Applying Second Language Acquisition to Facilitate a Blended Learning of Programming Languages	NSF Grantees Poster Session	Lulu Sun	Embry-Riddle Aeronautical Univ., Daytona Beach
7	A	12145	Assessing Effects of Challenge-Based Instruction on Conceptual Understanding In Heat Transfer	NSF Grantees Poster Session	Christopher Cirenza	
7	B	12170	Assessing the Learning Gains of Manufacturing Students in an Integrated Hands-on Curriculum	NSF Grantees Poster Session	Mukasa E. Ssemakula	Wayne State University
8	A	11746	Assessing the Spectrum of International Undergraduate Engineering Educational Experiences	NSF Grantees Poster Session	Mary E. Besterfield-Sacre	University of Pittsburgh
8	B	12087	Assessment of Communication Skills during an NSF REU Program Related to Sustainable Management of Wastes and Byproducts	NSF Grantees Poster Session	Gregg L. Fiegel	California Polytechnic State University
9	A	12991	Building capacity and social capital around interpretive research quality	NSF Grantees Poster Session	Joachim Walther	University of Georgia
9	B	13199	Building Sustainability into Control Systems: A New Facilities-Based and Hands-On Teaching Approach	NSF Grantees Poster Session	Melody Baglione	Cooper Union
10	A	11411	Can the Spacing Effect Improve the Effectiveness of a Math Intervention Course for Engineering Students?	NSF Grantees Poster Session	Patricia A Ralston	University of Louisville
10	B	11910	CAREER: Engineering Design Across Navajo Culture, Community, and Society	NSF Grantees Poster Session	Shawn S Jordan	Arizona State University, Polytechnic campus
11	A	11543	CAREER: Students' Perceptions of Problem Solving Driven by Motivations Across Time Scales	NSF Grantees Poster Session	Lisa Benson	Clemson University
11	B	11874	Changing Creativity through Engineering Education and Bio-Inspired Design	NSF Grantees Poster Session	Fabien R Durand	Georgia Institute of Technology
12	A	12876	Characterizing and Modeling the Experience of Transfer Students in Engineering—Progress on NSF Award 0969474	NSF Grantees Poster Session	Matthew W. Ohland	Purdue University, West Lafayette
12	B	11975	Closing Achievement Gaps using the Green-BIM Teaching Method in Construction Education Curriculum	NSF Grantees Poster Session	Jin-Lee Kim	California State University, Long Beach

13	A	13519	Collaborative Interdisciplinary Research Community (S-STEM) after Ten Years	NSF Grantees Poster Session	Mary R. Anderson-Rowland	Arizona State University
13	B	13794	Collaborative Research: Center for Mobile Hands-on STEM	NSF Grantees Poster Session	Kenneth A Connor	Rensselaer Polytechnic Institute
14	A	11524	Collaborative Research: Integration of Conceptual Learning throughout the Core Chemical Engineering Curriculum â€” Year 4	NSF Grantees Poster Session	Milo Koretsky	Oregon State University
14	B	11806	Constructionist Learning for Environmentally Responsible Product Design	NSF Grantees Poster Session	Kyoung-Yun Kim	Wayne State University
15	A	12786	Continuous Improvement in an NSF S-STEM Program	NSF Grantees Poster Session	Rebecca A Bates	Minnesota State University, Mankato
15	B	12500	Creating institution-level change in instructional practices through faculty communities of practice	NSF Grantees Poster Session	Geoffrey L Herman	University of Illinois, Urbana-Champaign
16	A	13733	CREST Bioenergy Center	NSF Grantees Poster Session	Keith A. Schimmel	North Carolina A&T State University
16	B	11108	Defining a Successful Undergraduate Research Experience in Engineering	NSF Grantees Poster Session	John R. Reisel	University of Wisconsin, Milwaukee
17	A	11564	Deploying Adaptive Learning Environments to Overcome Background Deficiencies and Facilitate Mastery of Computer Engineering Content	NSF Grantees Poster Session	Brock J. LaMeres	Montana State University
17	B	11469	Design and Evaluation of a Web-based Virtual Open Laboratory Teaching Assistant (VOLTA) for Circuits Laboratory	NSF Grantees Poster Session	Chang-Hee Won	Temple University
18	A	11737	Design and Fabrication of a Planetary Gearset as Part of a Hybrid Powertrain	NSF Grantees Poster Session	Eric Constans	Rowan University
18	B	11459	Design and Performance Evaluation of a Biometric Iris Verification System	NSF Grantees Poster Session	Kevin D. Dahm	Rowan University
19	A	13103	Design and Preliminary Evaluation of Portable Kit for Programmable Logic Controller Education	NSF Grantees Poster Session	Sheng-Jen Hsieh	Texas A&M University
19	B	11587	Design for Impact: Reimagining Inquiry-Based Activities in Heat Transfer for Effectiveness and Ease of Faculty Adoption	NSF Grantees Poster Session	Margot A Vigeant	Bucknell University
20	A	13987	Design, Development, and Implementation of Instructional Module Development System (IMODS)	NSF Grantees Poster Session	Srividya Kona Bansal	Arizona State University
20	B	11660	Designing Effective Project-based Learning Experience using Participatory Design Approach	NSF Grantees Poster Session	Jianyu Dong	California State University, Los Angeles
21	A	11769	Developing and Advancing a Cyberinfrastructure to Gain Insights into Research Investments: An Organizing Research Framework	NSF Grantees Poster Session	Ann F. McKenna	Arizona State University, Polytechnic campus
21	B	11568	Development and Implementation of a Pathway Assessment Model for the ASPIRE Program	NSF Grantees Poster Session	Maria-Isabel Carnasciali	University of New Haven
22	A	11521	Development and Implementation of Interactive Virtual Laboratories to Help Students Learn Threshold Concepts in Thermodynamics â€” Year 2	NSF Grantees Poster Session	Milo Koretsky	Oregon State University
22	B	13892	Development of 3D-Virtual Facility Tutorial Implemented in Mobile Environment to Enhance Additive Manufacturing Education	NSF Grantees Poster Session	Tzu-Liang Bill Tseng	University of Texas, El Paso
23	A	11594	Digital Technology Education Collaborative Second Year Progress Report	NSF Grantees Poster Session	Nasser Alaraje	Michigan Technological University
23	B	12742	Dispelling Student Myths about Writing in Civil Engineering	NSF Grantees Poster Session	Susan Conrad	Portland State University
24	A	11775	Does Motivation Matter for Conceptual Change: Developing Effective Qualitative Research Approaches	NSF Grantees Poster Session	Holly M Matusovich	Virginia Tech
24	B	12319	Effect of Implementation of JTF Engagement and Feedback Pedagogy On Faculty Beliefs and Practice and on Student Performance	NSF Grantees Poster Session	Stephen J Krause	Arizona State University
25	A	11652	Efficacy of a metacognitive writing-to-learn exercise in improving student understanding and performance in an engineering Statics course	NSF Grantees Poster Session	Saryn Goldberg	Hofstra University
25	B	12083	Enacting Video-Annotated Peer Review (VAPR) of Faculty in a First-Year Engineering Department	NSF Grantees Poster Session	James J. Pembridge	Embry-Riddle Aeronautical Univ., Daytona Beach
26	A	11719	ENFUSE: Engaging Fundamentals and Systems Engineering in Introductory Circuits	NSF Grantees Poster Session	Sylvia W. Thomas	University of South Florida

26	B	12567	Engaged in Thermodynamics – Bringing it to Industry and the Classroom	NSF Grantees Poster Session	Patrick A. Tebbe	Minnesota State University, Mankato
27	A	12411	Engineering Ambassadors Network: Progress in 2014 on Creating a National Network of Ambassadors	NSF Grantees Poster Session	Michael Alley	Pennsylvania State University, University Park
27	B	12867	Engineering Pathways of Nontraditional Students—an Update on NSF Award 1361058	NSF Grantees Poster Session	Jacqueline McNeil	Purdue University, West Lafayette
28	A	11998	Enhancing Retention and Academic Success of Undergraduate Engineering Students	NSF Grantees Poster Session	Anant R. Kukreti	University of Cincinnati
28	B	11525	Enhancing STEM Education at Oregon State University – Year 1	NSF Grantees Poster Session	Milo Koretsky	Oregon State University
29	A	13595	Enhancing Undergraduate Students' Learning and Research Experiences through Hands on Experiments on Bio-nanoengineering	NSF Grantees Poster Session	Courtney Lambeth	North Carolina A&T State University
29	B	13195	Evidence of Students' Engineering Learning in an Elementary Classroom	NSF Grantees Poster Session	Tamara J Moore	Purdue University, West Lafayette
30	A	13388	Examining the Integration and Motivational Impact of Hands on Made4Me: Hands-on Machining, Analysis and Design Experiences for Mechanical Engineers	NSF Grantees Poster Session	David Willis	University of Massachusetts, Lowell
30	B	11336	Expanding evidence-based pedagogy with Design Heuristics	NSF Grantees Poster Session	Seda Yilmaz	Iowa State University
31	A	12169	Expanding Perception: How Students "See" Fluids	NSF Grantees Poster Session	Katherine Goodman	University of Colorado, Boulder
31	B	11342	Expanding Photonics Education in the International Year of Light	NSF Grantees Poster Session	Anca L. Sala	Baker College, Flint
32	A	12674	Exploring Implicit Understanding of Engineering Ethics in Student Teams	NSF Grantees Poster Session	Eun Ah Lee	
32	B	11309	Exploring Military Veteran Students' Pathways in Engineering Education	NSF Grantees Poster Session	Joyce B. Main	Purdue University, West Lafayette
33	A	11481	Facilitating Problem-Based Learning with an Inverted Classroom	NSF Grantees Poster Session	Gregory Mason	Seattle University
33	B	11321	Factors Associated with Student Participation in Cooperative Education Programs (Co-Ops)	NSF Grantees Poster Session	Joyce B. Main	Purdue University, West Lafayette
34	A	11720	Factors Impacting Retention and Success of Undergraduate Engineering Students	NSF Grantees Poster Session	Stephen J Krause	Arizona State University
34	B	12971	Faculty Development Groups for Interactive Teaching	NSF Grantees Poster Session	Margret Hjalmarson	George Mason University
35	A	11523	Feedback in Complex, Authentic, Industrially Situated Engineering Projects using Episodes as a Discourse Analysis Framework – Year 3	NSF Grantees Poster Session	Milo Koretsky	Oregon State University
35	B	12317	Flipping the Infrastructure Classroom	NSF Grantees Poster Session	Philip J. Parker	University of Wisconsin, Platteville
36	A	11261	How do you like your course - Blended or Flipped?: A Preliminary Comparison	NSF Grantees Poster Session	Renee M Clark	
36	B	12199	Identifying Key Factors of Engineering Innovativeness	NSF Grantees Poster Session	Kathryn W. Jablow	Pennsylvania State University, Great Valley
37	A	11709	Identifying Why STEM Students Seek Teaching Internships	NSF Grantees Poster Session	Marian S. Kennedy	Clemson University
37	B	11930	Identity and Design Process in Adult, Non-traditional, Engineering Students: Phase I: Training for Extending Prior Studies	NSF Grantees Poster Session	Maria-Isabel Carnasciali	University of New Haven
38	A	13580	Image Capture, Processing and Analysis of Solar Cells for Engineering Education	NSF Grantees Poster Session	Michael G Mauk	Drexel University
38	B	11206	Impact of problem contexts on the diversity of design solutions: An exploratory case study	NSF Grantees Poster Session	Seda Yilmaz	Iowa State University
39	A	11415	Improving Learning in Continuous-Time Signals and Systems Courses Through Collaborative Workshops	NSF Grantees Poster Session	Mario Simoni	Rose-Hulman Institute of Technology
39	B	11858	Informal Pathways to Engineering: Interim Findings from a Longitudinal Study	NSF Grantees Poster Session	Christine Andrews Paulsen	Concord Evaluation Group
40	A	11466	Infrastructure Education using the Impacts of Extreme Storms as Case Studies	NSF Grantees Poster Session	Joseph A Daraio	Rowan University
40	B	11209	Integrated Active Learning Tools for Enhanced Pedagogy in a Software Engineering Course	NSF Grantees Poster Session	Sushil Acharya	Robert Morris University
41	A	13717	Integrated project for sophomore-level	NSF Grantees Poster	Tonatiuh Rodriguez-	California State University,

			engineering course contextualization	Session	Niki	Los Angeles
41	B	13665	Integrating biofuels education into chemical engineering curriculum	NSF Grantees Poster Session	Qinghua He	Tuskegee University
42	A	12173	Integrating Continuous Pharmaceutical Manufacturing into the Chemical Engineering Curriculum	NSF Grantees Poster Session	Alexander Vincent Struck Jannini	Rowan University
42	B	11292	Integrating Sustainability Grand Challenges and Experiential Learning into Engineering Curricula: Years 1 and 2	NSF Grantees Poster Session	Claire Louise Antaya	Arizona State University
43	A	13646	Interconnected Laboratory Modules in Metrology, Quality Control and Prototyping area Courses: Lessons Learned and Laboratory Modules Assessment	NSF Grantees Poster Session	Irina Nicoleta Ciobanescu Husanu	Drexel University (Tech.)
43	B	12075	Interconnected Software Modules to Aid the Learning of Fuel Cell Courses	NSF Grantees Poster Session	Amjad Aman	
44	A	12683	Investigating the Relationship among Faculty Knowledge of Self Determination Theory, the Classroom Learning Environment, and Engineering Student Outcomes	NSF Grantees Poster Session	Khaled Sobhan	Florida Atlantic University
44	B	13151	JITAR online modules to improve math preparation of engineering students: Preliminary results	NSF Grantees Poster Session	Hatice O. Ozturk	North Carolina State University
45	A	12280	Large-scale Research on Engineering Design in Secondary Classrooms: Big Learner Data Using Energy3D Computer-Aided Design	NSF Grantees Poster Session	Senay Purzer	Purdue University, West Lafayette
45	B	11458	Making the Funds of Knowledge of Low Income, First Generation (LIFG) Students Visible and Relevant to Engineering Education	NSF Grantees Poster Session	Jessica Mary Smith	Colorado School of Mines
46	A	13913	Mathematics as a Gatekeeper to Engineering: Preliminary Findings from the Interview Data	NSF Grantees Poster Session	DeLean Tolbert	Purdue University, West Lafayette
46	B	13272	Measuring the Effects of Pre-College Engineering Experiences, Year 2	NSF Grantees Poster Session	Noah Salzman	Boise State University
47	A	13037	Mechatronics Experiential Learning for Broadening Participation in Engineering	NSF Grantees Poster Session	Alan Bowling	University of Texas at Arlington
47	B	12688	Miniature Low-Cost Desktop Learning Modules for Multi-Disciplinary Engineering Process Applications	NSF Grantees Poster Session	Bernard J. Van Wie	Washington State University
48	A	13348	Model of Domain Learning Based Skill Assessment: Instrument Set Flexibility	NSF Grantees Poster Session	Gul E. Okudan Kremer	Pennsylvania State University, University Park
48	B	13392	Modification of Nanoscience Educational Content to Reach a Greater Number of Educators	NSF Grantees Poster Session	Deb Newberry	
49	A	13502	Motivated Engineering Transfer Students/STEP after Six Years	NSF Grantees Poster Session	Mary R. Anderson-Rowland	Arizona State University
49	B	13425	Moving from Quantitative to Qualitative Analysis to Capture the Development of Self-Directed Learning for a Cohort of Engineering Students	NSF Grantees Poster Session	Katherine Chen	California Polytechnic State University
50	A	13499	Nanotechnology Courses for General Education	NSF Grantees Poster Session	James E Morris	Portland State University
50	B	11604	NSF ATE Regional Center CREATE	NSF Grantees Poster Session	Kathleen Alfano	College of the Canyons
51	A	12882	Optimizing Student Team Skill Development using Evidence-Based Strategies—NSF Award 1431694	NSF Grantees Poster Session	Matthew W. Ohland	Purdue University, West Lafayette
51	B	11358	Organ-izing the Curriculum: enhancing knowledge, attitudes and interests in engineering with biomedical course modules	NSF Grantees Poster Session	Stephanie Farrell	Rowan University
52	A	11979	Positioning Students to Understand Urban Sustainability Strategies through Vertical Integration	NSF Grantees Poster Session	Kristen Parrish	Arizona State University
52	B	11588	Preparing Students for the Complexity of the Systems Medicine Field through a Research Experience For Undergraduates (REU)	NSF Grantees Poster Session	Cheryl A Bodnar	University of Pittsburgh
53	A	13462	Probing the Flipped Classroom: A Controlled Study of Teaching and Learning Outcomes in Undergraduate Engineering and Mathematics	NSF Grantees Poster Session	Nancy K Lape	Harvey Mudd College
53	B	11529	Productive Disciplinary Engagement in Complex STEM Learning Environments	NSF Grantees Poster Session	Milo Koretsky	Oregon State University

54	A	14118	Recent Progress in Step-Based Tutoring for Linear Circuit Analysis Courses	NSF Grantees Poster Session	Brian J Skromme	Arizona State University
54	B	11553	Reflection and Evaluation Data from e-Learning Modules on Learning Styles and Motivation	NSF Grantees Poster Session	Michele Miller	Michigan Technological University
55	A	13109	Research Experiences for Undergraduates in Mechatronics, Robotics, and Automated System Design	NSF Grantees Poster Session	Sheng-Jen Hsieh	Texas A&M University
55	B	14020	Research on Innovation and Creativity in Higher Education in Engineering and Science for Community Colleges	NSF Grantees Poster Session	Gisele Ragusa	University of Southern California
56	A	14188	STEM Scholars Bridge Program for Increased Student Retentions, Internship and Career Exploration at University of Southern Maine	NSF Grantees Poster Session	Carl Nelson Blue	University of Southern Maine
56	B	12959	Stimulating Active Learning in Hydrology Using Research-Driven, Web-based Learning Modules	NSF Grantees Poster Session	Emad Habib	University of Louisiana, Lafayette
57	A	13116	Student-Generated Videos for Thermodynamics Teaching and Learning	NSF Grantees Poster Session	Margot A Vigeant	Bucknell University
57	B	12504	Studying the fidelity of implementation of an intrinsic motivation course conversion	NSF Grantees Poster Session	Geoffrey L Herman	University of Illinois, Urbana-Champaign
58	A	12518	Supporting Students' Plans for STEM Careers: How Prepared are High School Educators in Appalachia to Help?	NSF Grantees Poster Session	Cheryl Carrico	Virginia Tech
58	B	11271	Teaching and Research Initiatives in Power Engineering Technology	NSF Grantees Poster Session	Yongpeng Zhang	Prairie View A&M University
59	A	13955	Teaching Community Approach to Prompting Effective Active Learning through Implementing Self-Regulated Learning Assessment in Multiple STEM Courses	NSF Grantees Poster Session	Wei Zheng	Jackson State University
59	B	12039	Teaching Freshman Design Using a Flipped Classroom Model	NSF Grantees Poster Session	Ann Saterbak	Rice University
60	A	13806	Teaching/Learning Resources for Chemical Engineering: www.LearnChemE.com	NSF Grantees Poster Session	John L. Falconer	University of Colorado, Boulder
60	B	12895	Tensions of Integration in Professional Formation: Investigating Development of Engineering Students' Social and Technical Perceptions	NSF Grantees Poster Session	James Huff	Harding University
61	A	11756	The Effectiveness of An Adaptive Serious Game for Digital Logic Design	NSF Grantees Poster Session	Ying Tang	Rowan University
61	B	13643	The Impact of 3D Virtual Laboratory on Engineering Education	NSF Grantees Poster Session	Pnina DUPE Ari-Gur	Western Michigan University
62	A	12268	The Impact of a Neuro-Engineering Research Experience for Undergraduates Site on Students' Attitudes toward and Pursuit of Graduate Studies	NSF Grantees Poster Session	John D. Carpinelli	New Jersey Institute of Technology
62	B	11388	The Impact of a Robotics Summer Undergraduate Research Experience on Increasing the Pipeline to Graduate School	NSF Grantees Poster Session	Leyla F Conrad	Georgia Institute of Technology
63	A	13443	The Rapid Adoption of SMARTER Teamwork Tools: the System for Management, Assessment, Research, Training, Education, and Remediation for Teamwork	NSF Grantees Poster Session	Matthew W. Ohland	Purdue University, West Lafayette
63	B	11882	The Washington State Academic RedShirt (STARS) in Engineering Program	NSF Grantees Poster Session	Eve A. Riskin	University of Washington
64	A	13229	The Wright State Model for Engineering Mathematics Education: Longitudinal Impact on Initially Underprepared Students	NSF Grantees Poster Session	Nathan W. Klingbeil	Wright State University
64	B	11101	Towards a Multimedia-based Virtual Classroom on Cyber-Physical System (CPS) Security Education for Both City and Rural Schools	NSF Grantees Poster Session	Fei Hu	University of Alabama
65	A	12325	TUES Type 2 Project: Development and Application of MITS/DATS Courseware: Advancement, Success, Concern, and Weakness	NSF Grantees Poster Session	Weizhao Zhao	University of Miami
65	B	11181	Understanding Diverse Pathways: Disciplinary Trajectories of Engineering Students: Year 3- NSF REE Grant 1129383	NSF Grantees Poster Session	Susan M Lord	University of San Diego
66	A	13104	Understanding the Communicative and Social Processes of Engineering Ethics in Diverse Design Teams	NSF Grantees Poster Session	Carla B. Zoltowski	Purdue University, West Lafayette

66	B	11931	University Maker Spaces: Discovery, Optimization and Measurement of Impacts	NSF Grantees Poster Session	Julie S Linsey	Georgia Institute of Technology
67	A	11222	Using Students-Generated Concept Maps to Assess Students' Conceptual Understanding in a Foundational Engineering Course	NSF Grantees Poster Session	Ning Fang	Utah State University
67	B	11706	Web-Based Scalable Intelligent Multimedia Virtual Laboratory for Power Engineering	NSF Grantees Poster Session	Ning Gong	Temple University
68	A	11420	What have we learned from a systematic review of literature on Hispanic transfer students in engineering?	NSF Grantees Poster Session	Jeffrey E. Froyd	Texas A&M University
68	B	13096	What is Making? What is Engineering?	NSF Grantees Poster Session	Micah Lande	Arizona State University, Polytechnic campus
69	A	11462	Work in Progress: Creating Alternative Learning Strategies for Transfer Engineering Programs	NSF Grantees Poster Session	Amelito G Enriquez	Canada College