

Session	Paper	Room A	Room C
I			
	1	Student-Designed Projects in Computational Fluid Dynamics: Challenges and Results Daniel N. Pope 3	What is Involved in Establishing a New Engineering Program? An Update on the New Computer Engineering Program at UW-Stout Robert Nelson 44
	2	Simplify Uncertainty Analysis Using Excel Macros Richard A. Davis 10	The Implications of ASME Vision 2030 for Mechanical Engineering Programs Ryan G. Rosandich 55
	3	Numerical Methods and Simulation Instruction Distributed Through the ChEn Curriculum Alon V. McCormick 23	Mind Trekkers Science and Engineering Festivals: Inspiring K-12 students to explore STEM Patchin, Kangas, Lindquist 62
	4	Principles of Particle Technology: Philosophy, Topics & Experiments Keith B. Lodge 26	Learning Structural Analysis in "A Building that Teaches" Katherine A. Acton 69
	5	Alternative Formative Assessments to Enhance Conceptual Knowledge Transfer in the Topic of Buoyancy: a Pilot Study Derek Wissmiller 38	ADVANCE: An investigation of the representation of female faculty candidates at Michigan Technological University Watrous, Buche, Bagley, Keith 75
II			
	1	Learning Through Service: Student Motivations Kurt Paterson 91	The Graduate Course in Electromagnetics: Integrating the Past, Present and Future David Rogers 140
	2	Preparing the Best Future Engineers through Improved Teaching Methods Genevieve Gagnon 107	Introducing Software Engineering to General Engineering Students Mike Rowe 147
	3	Academic Integrity in the Classroom Steve Sternberg 117	Adapting Digital Design Instruction to a Programmable Logic Device Setting Christopher R. Carroll 157
	4	The Engineering Advisory Committee – One Solution Closing the Gap in the Iron Range's Engineering Education: K-14 Sandness, Jamar, Smith, Benda 124	Fourier Workbench Ahmet Turkmen, Jon Breen 163
	5	Student Attitudes on a Collaborative Undergraduate Engineering Program between the USA and China Anneberg, J. Luo, S. Luo 135	Integrating Energy Modeling Software into Sustainable Energy Systems Curriculum Alison B. Hoxie 171

Session	Paper	Room A	Room C
III			
	1	Development and Delivery of a Project-Based Introductory Engineering Course for Online Delivery James-Byrnes, Holdhusen 181	Curriculum Assessment Using Professional Certification Criteria Robert G. Feyen 237
	2	Development of Freshman Seminar Design Project Eric Musselman 196	Examples of Rubrics Used to Assess ABET Student Outcomes in a Capstone Course Byron Garry 246
	3	Case-Based Learning: A Creative Experience in Comparison to Traditional Teaching Methods Waddah Akili 203	Assessing Experimental Design in Civil Engineering Nathan W. Johnson 257
	4	The Role of Adjunct Faculty in Undergraduate Engineering Education: A Cohort Needed to Enhance the Practice Waddah Akili 215	Streamlining Program Assessment for ABET: What to Do with All that Data James D. Allert 267
	5	Integrating Study Abroad Experience with Teaching Sustainability Course in Africa Enemuoh, Kwofie 229	Personality Type Demographics and their Relationship to Teaching and Learning P. B. Ravikumar 280
IV			
	1	Family Engineering for Elementary-Aged Children and Their Parents Neil J. Hutzler 300	A Nanotechnology Module within the Current Course in Engineering Economy Bidhan Roy 345
	2	Development of Infrastructure Materials Course for Undergraduate Students in Civil Engineering Eshan V. Dave 311	Emphasizing Environmental Health and Safety Training in all Aspects of the Emerging Nanotechnology Field Seraphin C. Abou 352
	3	Project Cam-A-Rok, Engaging Mechanical Engineering Freshman William C. Farrow 323	Design with Sustainability Analysis: Case Study of Renewable Bicycle Frame Enemuoh, Kwofie 359
	4	Fuzzy Versus Conventional Control M. S. Stachowicz 331	Keeping an Engineering Economy Course In-line With the Practice of Engineering Peterson, Chang 370
	5	Problem Based Learning Principles for Final Projects with Soft Evaluation Kofoed, Stachowicz 336	Engineering Targeted Project Design in Kinematics and Control Classes Debao Zhou 374
	6		Academic Versus Industrial Senior Design Projects Michael A. Rother 379