Contents

Journal of Pre-College Engineering Education Research

April Issue 3 : 1

Ingenuity in Action: Connecting Tinkering to Engineering Design Processes 1
Jennifer Wang, Maia Werner-Avidon, Lisa Newton, Scott Randol, Brooke Smith, Gretchen Walker

Designing for STEM Integration 22
Leema K. Berland

Elementary Engineering Education (EEE) Adoption and Expertise Development Framework: An Inductive and Deductive Study 32
Yan Sun, Johannes Strobel

Student Learning in Challenge-Based Engineering Curricula 53
Leema K. Berland, Taylor H. Martin, Pat Ko, Stephanie Baker Peacock, Jennifer J. Rudolph, Chris Golubski

http://dx.doi.org/10.7771/2157-9288.1076