

The University of Tennessee STEM REU Symposium



Schedule

From 10:00-11:00 Odd-Numbered Posters Are Presented
From 11:00-12:00 Even-Numbered Posters Are Presented

CURRENT Posters

1. Joe Foy (L&N STEM Academy). **Introduction of JAVA and Assembly Language Programming into STEM Academy High School**
2. Jessica Minton (Grandview Heights Middle School). **Using Bulletproof Electronic Boxes to Teach Electricity in Middle School.**
3. Karen Cheng (L&N STEM Academy). **Integrating Research Methods into Advanced Placement Statistics Through a Sustainable Energy Context**
4. Olivia Ritter (Maryville Junior High School). **A Hands-on Approach to Teaching Electricity and Conductivity in 8th Grade Science.**
5. John Tilson (Hardin Valley Academy). **Using Arduino in the Physics classroom: A physical computing approach to simplified smart grid modeling.**
6. Leonardo Bernal (Georgia Institute of Technology). **Wide-Area Power System Frequency Visualization and Oscillation Monitoring.**
7. Michael Massey (Univ. of Tennessee). **Solar Cell Evaluation.**
8. Casey O'Leary (Washington State Univ.). **Time Sync Signal Comparison.**
9. Jae Jang (Univ. of Washington, Seattle). **Optimization for Demand Side Management.**
10. Matthew Lambert (Univ. of Tennessee), Alfredo Bermudez (Univ. del Turabo). **Emulator for Energy Management System in order to Test New Control Strategies.**
11. Cory Raszeja (North Carolina State Univ.). **The Hardware Design and Development of a Smart Home Energy Management System.**

12. Geneva Doak (Univ. of Tennessee). **An Improved Test Set-up for Cell Impedance Measurement.**
13. Saajid Haque, Lingwei Zhan, Yilu Liu (Univ. of Tennessee). **Frequency Estimation Improvement of Single-Phase Power System Using FIR Filtering.**
14. Jason Chan (Univ. of Tennessee). **Simulation of a Smart Home Energy Management System with Dynamic Price Response**
15. Clifton Blalock (Univ. of Tennessee). **Energy storage Using Flywheels.**
16. Emma Berry (Clinton High School), Austin Grimes (West High School). **Cell Impedance Measurement System: Cell Culture and Interface Board Design.**
17. Andrew Chitwood (Hardin Valley Academy), Emmanuel Gyebison (West High School). **Energy and its Role in Turning the Wheels of Tomorrow.**
18. Caleb Walker, Alex Chan (Farragut High School). **Impact of Large-Scale Photovoltaic Penetration on Power System Voltage.**
19. Christina Cox (Knoxville Catholic High School), Quentin Eunstance (West High School). **Nanotechnology: Graphene Preparation.**
20. Erin Carter (Lenoir City High School), Clara Park (Farragut High School). **Experimental Investigation on the Integration of Renewable Distributed Energy Resources into the Smart Grid.**
21. Faiza Islam, Amber Tran (Farragut High School). **Effectiveness of Message Framing on Electricity Saving Behavior: Environmental vs. Economic Factors.**
22. Soni Akshey (Farragut High School). **Demand Response Systems in Dynamic Load Modeling in the Appliance Scope.**

NIMBioS Posters

23. Samuel Estes (Univ. of Tennessee), Erick Kalobwe (LeMoyne-Owen College), Kiersten Utsey (Carroll College). **An interactive Mathematica notebook for synthetic fetal electrocardiograms.**

24. Brittany Hale (Univ. of Tennessee), Kevin Hoang (Emory Univ.), Kathryn Schaber (Univ. of Dayton), Hunter Rice (Univ. of Tennessee). **Modeling feline infectious peritonitis in a cattery.**

25. Robert Adams (Maryville College), Christopher Oballe (Univ. of Texas-Austin), Natasha Rudy (Wofford College). **Predicting codon usage bias from a probabilistic model using codon position and gene expression.**

26. Nicole Bender (Marist College), Christian Mason (Harvey Mudd College), Sunil Shahi (Southeastern Louisiana Univ.). **Automatic detection of Prairie Warbler through audio recordings.**

27. Conrad Beckmann (Univ. of Vermont), Judy Bloom (Eastern Connecticut State Univ.), Jacob Lambert

35. Kenneth McKanders (Morehouse College). **Parallel Solution for Near Repeat.**

36. Jordan Talyor (Austin Peay State Univ.), Nyalia Lui (Morehouse College), Julian Pierre (Texas Southern Univ.). **Computing in Bioinformatics - Protein Domain Modeling.**

37. Tony Cheung, Kevin Zhao (Chinese Univ. of Hong Kong). **Parallel Tempering Algorithm in Monte Carlo Simulation.**

38. Nina Qian, Ben Chan (Chinese Univ. of Hong Kong). **Out of Core Cholesky Factorization Algorithm on GPU and the Intel MIC Co-processors.**

TN-SCORE Posters