23. Sarah Bogen (Capital Univ.), Auldon Francis (Univ. of Tennessee), Jessica Robins (Univ. of Tennessee), Annet Westhoek (Univ. of Wisconsin). **Agent-based model for Johne's disease dynamics in a dairy herd.**

24. James Dillon (University of Scranton), Weijje Li (Luther College), Andre Perez (Univ. of Texas-El Paso). **Modeling protein translation and genome evolution.**

25. Sarah Collier (Univ. of Dayton), Olatomiwa Lasebikan (Fisk Univ.), Yanjie Liu (Univ. of Tennessee). **Modeling the evolution of male sexual imprinting .**

26. Hayes C. Griffin (Bearden High School), Dalton W. Chaffee (Bearden High School). **The Evolution of Sexual Imprinting.**

TN-SCORE Posters

27. Steven Bell (Tennessee State Univ.). **A spotlight on alternative energy.**

28. Bonnie Herrell (Univ. of Tennessee). **A step-by-step design methodology for a solid oxide fuel cell in HYSYS.**

29. Kevin Huerto (Univ. of Tennessee). **Supramolecular brushes for solid polymer electrolytes.**

30. Phillip Johnson (Union Univ.). **Polarization curve analysis of vanadium redox flow batteries using current interrupt method.**

31. Evan Ornouski (Bethel College). **Purification and comparison of H_2 evolution between wild type and mutant hydrogenases of R. eutropha.**

32. Megan Schutt (Univ. of Tennessee). **Hydrogen Ion activity in all-vanadium redox flow battery (VRFB).**

33. Dylan Wood (Austin Peay State Univ.) **Spectrophotometric studies of vanadium permeation through ionomer membranes.**

The University of Tennessee

STEM REU Symposium

CURENT Posters

1. Izabela Biedo (Rensselaer Polytechnic Institute). **Calculating locational marginal price and optimal dispatch using a graphical user interface.**

2. Lily Hoang (Univ. of Tennessee). **Cascaded H-bridge multilevel converters.**

3. David Herbert (Rensselaer Polytechnic Institute). **Multi-level cascaded solar inverter simulation.**

4. Yamil E.Rivera (Universidad del Turabo). **Control analysis of photovoltaic power generation and conversion from direct to alternate current.**

5. Jacob Shelton (Univ. of Tennessee), Viktor Dimitrovski (Pellissippi State Community College). **Expanding on smart home system by implementing HVAC control.**

6. Vanessa Perez (Tennessee Tech Univ.), Gary Bogus (Tennessee Tech Univ.), Rusul Altaay (North Carolina State Univ.). **User friendly interfaces for distribution reconfiguration and residential demand response management.**

7. Xiandi (Charles) Zhang (Cornell Univ.). **Nature's effect on the power grid.**

8. Nick Dueber (Univ. California-Berkeley), Trushna Patel (Univ. of Tennessee). **Modeling and analyzing uncertainty in grid behavior.**

9. Shawn Cox (Univ. of Tennessee). **Performance testing of parallelized linear algebra packages.**

10. Milller Callaway (Bearden Middle School). **Inquiry-based unit on forces in nature for Knox County middle school students.**

11. Matthew Milligan (Farragut High School). **Modeling power grid dynamics in high school physics.**

12. Carolynn Clemons (Halls High School). **High school biology I TEAM/inquiry-based renewable resources module.**

13. Joe Foy (West High School). **Bringing power technologies into high school classrooms: first steps.**

14. Frank Wood (L&N STEM Academy). **Scientific research, a vehicle for a Tennessee high school robotics class.**

15. Stephanie Steren-Ruta (West High Schoool), Syeda Faiza Islam (Farragut High School). **Securing the smart grid by intrusion detection algorithm based Bayes' theorem.**

16. Jonathan Redington (L&N STEM Academy). **Graphene: The 2-Dimensional Organic Conductor.**

17. Jacob Walker (Farragut High School). **Compressed Air Energy Storage.**

18. Lawrence Wang (Farragut High School). **Optimization of PHEV battery fast-charging mechanisms.**

19. Emmanuel Gyebison (West High School), Demetrios Bovopoulos (West High School), Jacob Armstrong (West High School). **Analysis of load and calculated available wind power using data from the Bonneville Power Administration.**

NIMBioS Posters

20. Frances Hall (Earlham College), Jessica Welch (Univ. of Tennessee), Dawn Woodard (Appalachian State Univ.). **The effects of constituent monoterpenes of *Monarda* on sporulation and germ tube growth of *Beauveria bassiana*.**

21. Elena Crosley (Bowdoin College), Arielle Nivens (Maryville College) , Ilan Rubin (Cornell Univ.). **Spatially explicit model of *Salmonella* transmission in grower pigs.**

22. Kelly Hennessey (St. Olaf College), Vedaste Mutambuka (Univ. of Arkansas-Little Rock), Anthony Rhoads (McKendree Univ.). **Estimating rates of HIV recombination during first months post infection.**