University of Virginia
April 14, 2010

ENGINEERING RESEARCH SYMPOSIUM

Finalist Posters Viewable
Wilsdorf Hall, Atrium
1:30-4:30

Judging Session Ends
Wilsdorf Hall, Atrium
4:30-5:00

Announcement of Finalist Awards, Reception
Wilsdorf Hall, Room 200
5:00-6:00

Finalists

1. Thomas Bliss – Mechanical and Aerospace Engineering
   CPG Control of Tensegrity Propulsor

2. Caitlin Burke – Biomedical Engineering
   Contrast Ultrasound Targeted Treatment of Gliomas in Mice via Drug-Bearing Nanoparticle Delivery and Microvascular Ablation

3. Liz Cantando – Engineering Physics
   Combined Reactions Thermo-mechanical Processing Strategy Applied to Ferromagnetic Fe-Pd Alloys

4. William Carson – Systems and Information Engineering
   Material Characterization of Ex Vivo Prostate Tissue via Spherical Indentation in the Clin

5. Ross Collins – Systems and Information Engineering
   A Risk-Informed, Systems-Driven Evaluation of Solar Photovoltaic (PV) Options in Virginia

6. Michael Ellis – Biomedical Engineering
   Super-resolution Image Reconstruction Applied to Medical Ultrasound

7. Justin Erwin – Engineering Physics
   Fluid Model with Analytic Thermal Escape of Pluto’s Atmosphere

8. Wenbin Fan – Engineering Physics
   Oxide Diode Based on Anodized Transition Metal Junctions

9. Scott Kasen – Materials Science and Engineering
   Thermal Performance of a Heat Plate Leading Edge

10. Jiguang Li – Electrical and Computer Engineering
    A Novel TiOx Protection Film for Organic Solar Cells

11. Kamaram Munira – Electrical and Computer Engineering
    Material Study of Ferromagnetic Contacts in STT-RAM using Quantum Transport and Magnetization Dynamics

12. Rebekah Neal – Electrical and Computer Engineering
    Laminin-based biomaterials improve axonal regeneration in peripheral nerve repair

13. Karl Ottmar – Civil and Environmental Engineering
    Drugs in Your Water? A Comprehensive Study of the Source

14. Ernie Perez – Chemical Engineering
    IgG Adsorption on a New Protein A Adsorbent Based on Macroporous Hydrophilic Polymers

15. Chris Petz – Materials Science and Engineering
    Surface Morphological Evolution and Epitaxial Breakdown of Si and Ge Films During Low Temperature Growth on Strained 3D Ge/Si (001) Films

16. Linsey Phillips – Biomedical Engineering
    Focused Ultrasound for Targeted Drug and Gene Delivery

17. Tamim Sookoor – Computer Science
    The Smart Thermostat

18. Frank Tseng – Electrical and Computer Engineering
    Fundamental limitations in graphitic-based electronic devices

Judges
Kent Schlussel, Jon Michel, John E. Pickard

Faculty Reviewers
Craig Meyer (BME), Ramon Espino (ChE), Paul Reynolds (CS), Archie Holmes (ECE), Paxton Marshall (ECE), Lloyd Harriott (ECE), Petra Reinke (EP), Dana Elzey (MSE), Houston Wood (MAE), Gerard Learmonth (SIE)