FENA

FENA 8th Annual Review

POSTER INFORMATION FOR FENA RESEARCHERS

There are 2 components to the poster presentations:

1) Poster

2) Poster Pitch during Technical Review

Poster Requirements:

- **Expectation:** Each PI group to present ONE poster.
- **Format/Size:** **Posters should be in PPT format and no larger than 3 feet X 4 feet.**
- **Due Date:** **Your poster is due BEFORE the review date on January 27th, 2012. If we have not received your poster by then, it will not be presented at the review.**
- **Printing & Display:** Each student/researcher will be responsible to print his/her own poster slides and bring them to the review for display. FENA will provide poster backing and adhesive materials. Display of the posters will coincide directly to the theme task numbers. For example, if you are Theme 1 Task 2, then your Poster number will be 1.2.
- **Logos:** Please include the FENA and FCRP logos on your posters (See below or download from www.fena.org)
- **Slides Should Include:**
    a. **Poster Title**
    b. **Researcher Names**
    c. **Institution**
    d. **FENA Theme Affiliation -** Follow the theme/task matrix attached and number your own poster by Theme and task (e.g., Theme 1, task 3 = Poster 1.3)
    e. **Objective**
    f. **Introduction**
    g. **Experimental**
    h. **Results and Discussions**
    i. **Conclusions and Future Plans**

Poster Pitch Requirements:

- **Pitch:** It is expected that one student associated with each poster will give a 90 second presentation preview of his/her poster material during the review meetings. This student will present a PPT slide (template attached-please only use this format) summarizing the content of his/her poster.
- **Presentation Slide:** One slide will be presented during your poster pitch. Please make sure that your presentation slide includes:
    - **Poster Title**
    - **Presenter Name (insert into appropriate section on template)**
    - **Institution (insert into appropriate section on template)**
    - **FENA Theme Affiliation (insert into appropriate section on template)** Follow the theme/task matrix attached and number your slide in the designated section on the template by Theme and task
    - **Brief Highlights of Results**
- **Presentations will follow the order of the Theme task numbers: Theme 1 Task 1.1 will be 1st, 1.2 will be 2nd and so on.**
- **Pitch Slide is due Friday, January 27th**

Due to requests made by our sponsors, poster content will be made available in advance of the review dates. **Please send all poster materials to Katie Christensen at** kchrist@ucla.edu **by Friday, January 27th. Also include the name of the person who will give the presentation of the poster at the review.** Specific timing of the presentations will be emailed to all presenters during the week after receipt of the poster materials but before the review meeting on February 7th, 2012.

FENA Task List—Please align your poster number to your Theme and Task number!

This is your poster number!

FENA Phase II Project List

	Project Titles	PI Participants
Theme 1: Physical Fabrics		**C.A. Moritz (U Mass)**
1.1	Integration of Cross-Wire NASIC Systems: Cross-Cutting Issues	C.A. Moritz (U Mass)
1.2	Nanoscale Devices and Technology Enabled Fault Tolerant Nano-Architectonics	C.O. Chui (UCLA)
1.5a	Memory Testbed - Wide Band-gap Materials for Nonvolatile Memories	J. Liu (UCR)
1.6	Discovery Fabrics	A. Khitun (UCLA) K. L. Wang (UCLA) **
	Project Titles	**PI Participants**
Theme 2: Physical Processes & Devices		**Roger Lake**
2.1	Cold Carrier Injection in Si Nanowires	J. Appenzeller (Purdue)
2.2	Cold Carrier Injection Using Zero Bandgap Semiconductor	S. Salahuddin (UCB) **
2.3	Material Selection for Cold Carrier Injection	R. Lake (UCR) **
2.5	The Scaling Limit of Phae Change Materials	Y.-H. Xie (UCLA)
2.6	Molecular Assembly of Carbon Nanotubes	R. Lake (UCR) **
2.8	Quantum Limited Motion and Mass Transport through Graphene	Keith Schwab (CALTECH)
2.9	Resonating Sensors for Next Generation Fabrication Metrology	R. Candler (UCLA)
	Project Titles	**PI Participants**
Theme 3: Carbon Electronics		**Philip Kim**
3.1	Wafer-Scale Aligned Graphene Nanoribbons	C. Zhou (USC)
3.2	Surface Passivation of Si with Alkyl Groups for Graphene Synthesis	R. Kaner (UCLA)
3.3	Quantum Transport in the Lateal Graphene Heterojunction	P. Kim (Columbia)
3.4	Graphene Strain-tronics	J. Lau (UCR) **
3.5	Bilayer Graphene "Excitonic" Device	D. Goldhaber-Gordon (Stanford)
3.6	Electric Field Control Nonvolatile Logic Using Bilayer Graphane	K. L. Wang (UCLA) **
3.8	Thermal Transport and Energy Dissipation Characterization in Graphene Nanostructures	A. Balandin (UCR) **
3.9	3D Integrated Carbon Nanotube Circuits	H.S.P. Wong (Stanford)
	Project Titles	**PI Participants**
Theme 4: Correlated Electron Materials		**Ramesh**
4.1	Domain Wall Based Logic	R. Ramesh (UCB)
4.2	Exchange Coupled Ferromagnet-Multiferroic Heterostructures	C. Ahn (Yale)
4.3	Novel Probes of Correlated Systems	K. Moler (Stanford)
4.4	Modeling and Experimentation on the Possiblity of Controlling Magnetization Using Correlated Materials	S. Salahuddin (UCB)**
4.5	Nanoengineered Multiferroic Hybrid Structures for Hightly Functional Device Applications	Ki Wook Kim (NCSU)
	Project Titles	**PI Participants**
Theme 5: Functional Materials		**Fraser Stoddart**
5.1	Beyond Organic Reticular Geometries for Precise Three-dimensional Device Fabric	F. Stoddart (Northwestern) Omar Yaghi (UCLA)
5.2	From Strained Molecules to Functional, Carbon-Based Materials	C. Nuckolls (Columbia)
5.4	Theoretical Simulation for Nanostructured Switching Materials at Molecular Level	Goddard (Caltech)
5.5	Electrical Characterization of Complex Metal Oxide and Semiconductor Nanowires	J. Chang (UCLA)
5.6	Capacitive Energy Storage Using CNTs	B. Dunn (UCLA)
	Project Titles	**PI Participants**
Theme 6: Nanopatterning/Assembly		**Caroline Ross**
6.1	New Frontiers in Nanolithography via Self-Assembly	G. Fredrickson (UCSB) Craig Hawker (UCSB)
6.2	Templated Self-assembly of Block Copolymers for Nanodevices	C. Ross (Mass Tech)
6.3	Positioning and orienting DNA nanostructures on technological substrates	P. Rothemund (Caltech)
6.4	DNA Nanoarchitectures with CNTs and Graphene	M. Ozkan (UCR)
6.5	Molecular Nanodevices using Engineered Nanowire Templates	Y. Huang (UCLA)
	Project Titles	**PI Participants**
TOPOLOGICAL INSULATORS - 2010		
7.1	TI materials for room temperature operation	SC Zhang (Stanford)
7.2	Robustness of topological insulators with disorders	G. Refael (CALTECH); J. Moore (UCB)
7.3	PLD Topological insulator growth	A. Kapitulnik (Stanford)
7.4	MBE topological insulator growth	F. Xiu (UCLA)
7.5	Infrared properties of topological insulators	D. Basov (UCSD)
7.6	Transport and thermoelectric properties of topological insulators	J. Shi, J.Lau **, A.Balandin (UCR) **
7.7	Tera Hertz properties of TI	B. Williams (UCLA)
7.8	Studies of salient features and benefits of properties for devices	K. L. Wang (UCLA) **
7.9	Scanning Tunneling Spectroscopic Studies	N.C.Yeh (Caltech)

Example: *If you work in Theme 7, task 9, your poster number will be 7.9*