



Monthly Newsletter for August 2011

a n o e l e c t r o n i c s

R E S E A R C H I N I T I A T I V E

Dr. Jeffrey Welser, Director

NRI in the News



SWAN Center's Bhagawan Sahu talks about the advantages of using graphene in electronics in an exclusive interview by Sander Olson for [NextBigFuture](#) (click to read the full article).



NSF-NRI Stanford Professor H.-S. Philip Wong spoke on the Patt Morrison show July 27. He discussed his work on artificial intelligence and building a brain out of computer chips. To listen to the replay of the show, [click here](#).

NRI Review Season

SAVE THE DATE!

The Center Reviews and NRI Annual Review dates are set, put them on your calendar now so you won't forget. More info to come:



SWAN Onsite Review (preceded by **Techcon**): Review on Wednesday and Thursday, September 14 & 15 at the AT&T Conference Center in downtown Austin, TX. [REGISTRATION IS NOW OPEN!](#)



INDEX Onsite Review: Wednesday and Thursday, September 21 & 22 at CSNE at SUNY-Albany, Albany, NY. [REGISTRATION NOW OPEN!](#)



WIN Onsite Review: Thursday, October 6 at UCLA, Los Angeles, CA. [REGISTRATION IS NOW OPEN!](#)



NRI Annual Review: Tuesday, Wednesday & Thursday, October 25, 26 & 27 at the Crowne Plaza Hotel in Rockville, MD (a few off-ramps south of NIST). [REGISTRATION IS NOW OPEN!](#)

NRI Calendar of Upcoming Events

August 16, 17 & 18: **NRI Architecture & Benchmarking Workshop followed by the MIND Onsite Review**. Registration is closed for this event.

August 19: **Purdue NSF-NRI Liaison Team Visit** (team members only)

August 22: **Stanford NSF-NRI Liaison Team Visit** (team members only)

August 23: **UC-Berkeley NSF-NRI Liaison Team Visit** (team members only)

August 30: [e-Workshop: Magnetostatic Spin Waves in Ferromagnetic Microstructures](#), via WebEx

NRI Calendar of Upcoming Events (cont'd)

September 1: **UI-UC NSF-NFI Liaison Team Visit** (team members only)

September 2: **Northwestern NSF-NFI Liaison Team Visit** (team members only)

September 7: **Technical Program Group Meeting**

New Publications

NOTE: All the NRI Center's Mid-Year Reports are currently available to the GC, TPG and Assignees/Liaisons at <http://www.src.org/program/nri/advisory-board/tpg/?tab=nri-centers>, click on the link "Semi and Year-End Annual Reports".

Don't forget to submit your new publications to NRI regularly – see the "University Requests" section below for more information. Following are all publications submitted since July 13, 2011. *Remember that anything marked as a Pre-Publication should NOT be shared outside of the NRI member community.*

**Pre-publication – do not distribute outside of NRI.*

WIN CENTER – 0 publication, 0 pre-pub

INDEX CENTER – 0 publication, 0 pre-pubs

SWAN CENTER – 0 publication, 0 pre-pubs

MIND CENTER – 0 publications, 0 pre-pubs

**Nanomagnet Logic from Partially Irradiated Co/Pt Nanomagnets*

[Influence of Metal-Graphene Contact on the Operation and Scalability of Graphene Field-Effect-Transistors](#)

[Nanomagnet Logic: Progress Toward System-Level Integration](#)

[On-chip Clocking of Nanomagnet Logic Lines and Gates](#)

[Vertical InGaAs/InP Tunnel FETs with Tunneling Normal to the Gate](#)

[Oxide Surface Passivation of Ge for Optoelectronic Applications](#)

[High-Frequency Performance Projections for 2D Graphene Transistors: Role of Parasitics at the Ballistic Transport Limit](#)

[Sub-10 nm Epitaxial Graphene Nanoribbon FETs](#)

[In-situ Characterization of Ga\(2\)O Passivation of In\(0.53\)Ga\(0.47\)As Prior to High-k Dielectric Atomic Layer Deposition](#)

[Architectures and Systems for Nanomagnet Logic and Beyond](#)

UIUC NSEC – 3 publications, 1 pre-pubs

**Effect of Substrate Modes on Thermal Transport in Supported Graphene*

[Scaling of Highly Localized Heating in Graphene Transistors](#)

[Thermally Limited Current Carrying Ability of Graphene Nanoribbons](#)

[Imaging Dissipation and Hot Spots in Carbon Nanotube Network Transistors](#)

University Requests

Pub Submission: it's your duty! Please send them to [Allison](#) when you *first* send in your paper to the publication for review and she will do the rest! No usernames or passwords to remember, just attach the pub, hit "SEND" and you will be in compliance with your Center's contract. Of course, it's up to our university members to get those pubs into us so please send us your papers and presentations. We might even start a contest for most pubs!

Any student or Postdoctoral Researcher participating in SRC research is required to register for an SRC web account, whether they are directly funded by the contract or leveraged from another source. That's right, if you are an NRI supported student all you have to do is follow these simple directions on the new SRC website:

Students or Postdoctoral researchers new to SRC:

- Go to the SRC website at <https://www.src.org/app/account/sign-in/> to register for a web account including completing the academic information portion of the form. We recommend that all students upload their resume. Our member companies have recruiters that look at this site first when they have positions to fill.

Student or postdocs who have previously been on SRC research:

- Update your graduation date, advisor, research task # and resume at <https://www.src.org/app/account/edit/education/>

Please be sure *all* your NRI students and post-docs are registered on the website and that their information (particularly *graduation date*) is current. For questions or help contact leann.clewell@src.org

Should you have any questions, ideas, information to share, website issues or just want to talk about NRI, please call or email [Allison](#) at 919-941-9433, she will be happy to help!

If you no longer are interested in receiving the NRI Newsletter, please reply to this email saying so and you will be removed from the list.