Wu Lu

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News

Lingqian Chang's paper published a cover story paper in Nanoscle

Short Biography

Teaching

Courses Usually I Teach

- ECE 331 (Winter 2006)

- ECE 432
- ECE 734
- ECE 831
- ECE 835.03

Research

Current Research Interests

Nanofabrication and nanoelectronics for biomedical applications;

III-nitride high power and low noise electronic devices;

High speed semiconductor devices and circuits;

Solid state chemical and biological sensors;

MEMS and NEMS for RF and biological applications.

Current Research Projects

1. **NSF** *IMR: Acquisition of an Inductively Coupled Plasma Etching System for Research and Education (PI)*
2. *AFOSR: Non-Linear Radio-Frequency Research and Educational Laboratory (co-PI)*
3. *OBOR: Ohio Nanoscale Patterning Consortium (co-PI)*
4. *NSF FRG: Electronic, Chemical and Structural Properties of Metamorphic III-V Compound Heterojunctions and Devices (co-PI)*
5. *NSF GOALI: RF Performance of Si-Based RITD for Mixed-Signal Applications (co-PI)*
6. *Accent Optical DIVA: Modeling of Trapping Effects of GaN-based HFETs (PI)*
7. *NSF: GaN-Based Devices for Gas Sensing in Harsh Environments (PI)*
8. *NSF NER: Nanoelectromechanical Single-Electron Transistors Operating at GHz (PI)*
9. *NSF NSEC: Center for Affordable Nanoengineering of Polymer Biomedical Devices (co-PI)*

Research Laboratories

High Speed Devices and Circuits Laboratory

Lu's High Speed Devices and Corcuits Laboratory (HSDC) includes a complete device measurement and modeling system. The test and modeling system consists of 2 Karl Suss probe stations with a temperature controller, Agilent 4142, 4156C semiconductor parameter analyzer,

4284A LCR meter, 8510C network analyzer, N8975A noise receiver, Focus Microwave Automatic Load-Pull Tuners, DIVA D-265, etc. The system can perform DC, CV (20 Hz to 1 MHz), pulsed-IV (down to 200 ns), small signal (45 MHz to 50 GHz), noise (up to 18 GHz), large signal load-pull (1.8 to 18 GHz) measurements from room temperature up to 300C. See a lab picture.

OSU Microelectronics Laboratory (Cleanroom)

Publications

List of Selected Journal Papers

Group Members

Dr. Jaesun Lee

Ms. Dongmin Liu

Ms. Junghui Song

Mr. Hyeongnam Kim

Mr. Mike Schuette

Mr. Hyun Chul Jung

Mr. Xuejin Wen

Mr. Veysi Malkoc

Mr. Kun-Yeh Chiang

Former Group Members

Dr. Zhaojun Lin

Some Group Pictures and Videos

Party at Dr. Lu's home (1,2,3), IWN2004 at Pittsburgh(1), 2004 IEEE Eastman Conference at RPI (1, 2, 3)

Celebration of 2006 Chinese New Year (my daughter's dance performance, I am on the news of WBNS-10)

Our Research Sponsors

National Science Foundation

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