Engineering Microstructural Complexity in Ferroelectric Devices

OUTREACH

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Kick-off Meeting
May 30, 2001
An integrated approach, a multidisciplinary team

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Aeronautics  Applied Mechanics  Track-record of collaborative research and co-advised students
Applied Physics  Chemistry  research and co-advised students
Materials Science  Mechanical Engineering  research and co-advised students

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Kick-off May 30, 2001
Planned Outreach Activities

• **Caltech Residence Fellowships**  
  *(open to Army Scientists and Engineers)*

• **Focussed Workshops and Short Courses**

• **Summer Graduate Residence at ARL**

• **Faculty Visits to ARL**

• **Lawrence Livermore National Laboratory (LLNL)**

• **Industry**
Caltech Residence Fellowships

• Host ARL scientists and engineers at Caltech
• Duration: Weeks to months
• Faculty associated with MURI will serve as the local host
• Participate in MURI related activities:
  • Focused Research
  • Collaboration with students, postdoctoral scholars
  • Seminars
• Knowledge transfer
  • Processing and characterization
  • Theoretical and computational modeling
Focussed Workshops and Short Courses

- Develop focussed annual workshops and/or short courses on topics of research related to the MURI
- Instructors: Caltech faculty and selected outside experts
- Duration: 3 to 5 days
- Open to all scientists and engineers from Army and other DOD laboratories, as well as participants from National laboratories and industry
- Army personnel will be exempt from course registration fee and others will be charged nominal fees for attending the workshop
- Sample topics:
  - Multiscale Modeling
  - Synthesis and Characterization of Thin Film Devices
Summer Graduate Residence at ARL

• Selected graduate students to spend summers at participating laboratories in ARL

• The students will spend their summer at ARL working with a mentor who is conducting research in an area relevant to the MURI

• Provide opportunities for graduate students to be exposed to research at ARL
Faculty Visits to ARL

• Faculty associated with the MURI to visit the relevant ARL laboratories and present their work

• Provide a forum for discussion and exchange between ARL and the MURI program at Caltech.
Industrial Outreach

• Current Contacts
  - Si-Tek
  - Northrop Grumman
  - Lucent

• Caltech Industrial Associates
  - participation of more than 80 leading companies
  at annual meeting