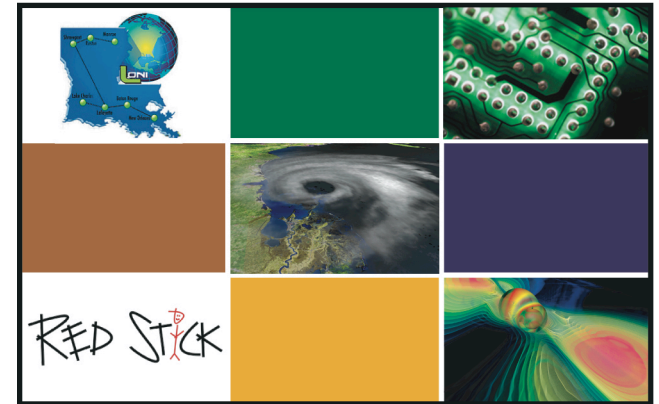


Brainstorming Session

Jarek Nabrzyski



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CCT: Center for Computation & Technology



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Brainstorming session

- How do we deliver on the great promises?
- Collaboration and coordination of research
- Education and training
- Economic development
- Coordination on hires



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Organization, meetings

- LI faculty meetings - once a month
- LI all-hands meetings – twice a year
- LI Leads telcos – bi-weekly
 - We need resource-deployable persons at each university who will have time to go and talk to people and engage them locally
 - Working groups (what is it???) phone calls - weekly



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Proposed RGs and WGs

- Research Groups on different topics
 - CFD and hyperbolic systems, AMR, toolkits, electromagnetic applications
 - MD, protein structure, and applications
 - Data management
 - Linear algebra
 - GPU acceleration, parallelism, tools
 - Density functional theory applications
 - and more...
- Education and Training WG
- Economic Development WG
- Outreach WG



Potential projects/ collaborations

- See working groups....



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Hires

- What areas we should hire in?
- 6 faculty - LSU (1), SUBR (2), Tulane (1), ULL (2)
- 2 CS (LSU and LaTech)
- We need staff funded from federal sources

Projects

- 12 projects by EOY1, 18/year after, At least 80! projects total.
- Also projects with the industry

Projects (cont.)

- Joint projects and proposals (inter-disciplinary and –university)
- Work with other national centers
 - Common, standard infrastructure and interfaces
 - Collaborative projects
 - Exchange programs



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Economic Development

- Pilot with Council on Competitiveness: 15 students trained/year, 30 placed in companies, 10 enter universities for continued study in CS
- Corporate partnership at all levels (interns, joint research projects, industrial centers of excellence, LED and CoC)

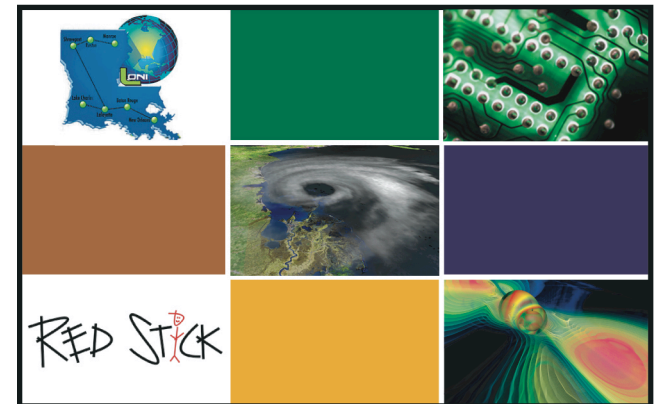
I/UCRC

Industry & University Cooperative Research Center Program (NSF)

Bety Rodriguez-Milla



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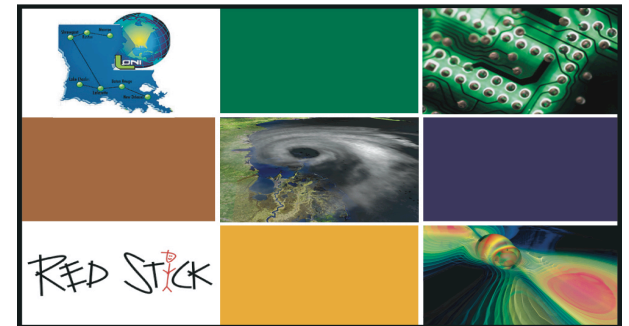
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Overview

- Develop long-term partnerships among industry, academia, and government.
- Small investment from NSF who takes a supporting role in their development and evolution, center is primarily supported by members.
- Stimulate cooperation by focusing on fundamental research recommended by Industrial Advisory Boards.

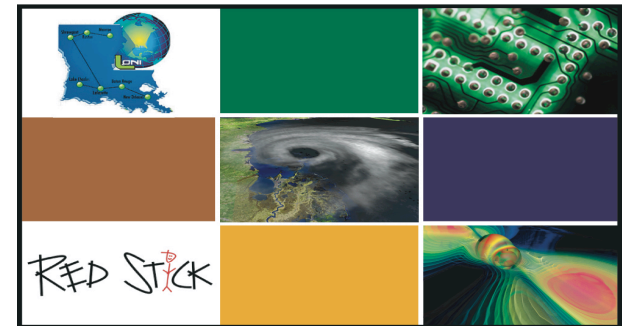




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Goals of the I/UCRC

- Contribute to research infrastructure
- Leverage NSF funds to support GAs
- Expand US innovation capacity with competitive workforce

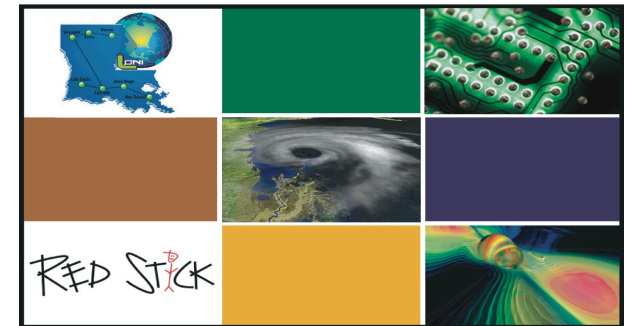




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Preferred Characteristics

- Multi-university centers (one university acting as the administrative lead)
- Interdisciplinary research capabilities

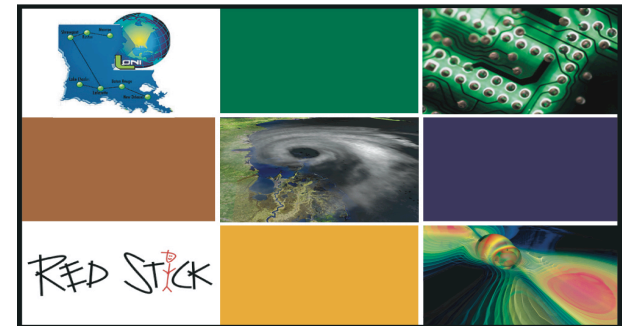




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(I/U) Requirements, Part 1

- Develop a partnership
- Set a defined research agenda focused on shared research interests, needs, and opportunities
- Limit the scope of research to areas of interest by that industry *and to specific* research areas that are **not** within the scope of other I/UCRC centers
- Share the intellectual property developed by the center among center members

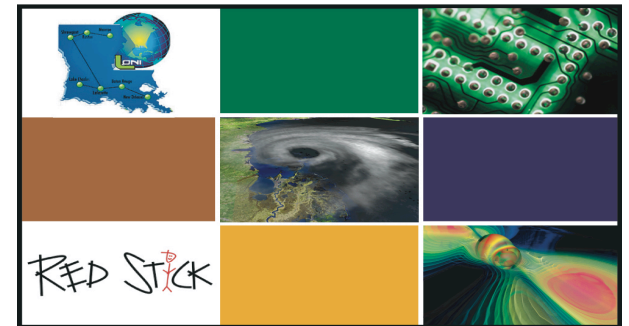




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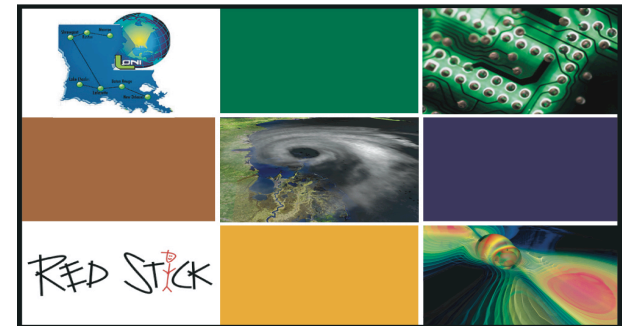
(I/U) Requirements, Part 2

- Have center members that recommend, guide, and advise on the progress of the research and contribute towards technology transfer between universities and industry
- Have industry support -- primary financial resources
- Have a center membership agreement



(I/U) Requirements, Part 3

- Rely on graduate student involvement
- Have an interdisciplinary team (faculty and students) diverse in gender, race, and ethnicity
- Have a center director, based at the lead administrative university, who is responsible for all center activities

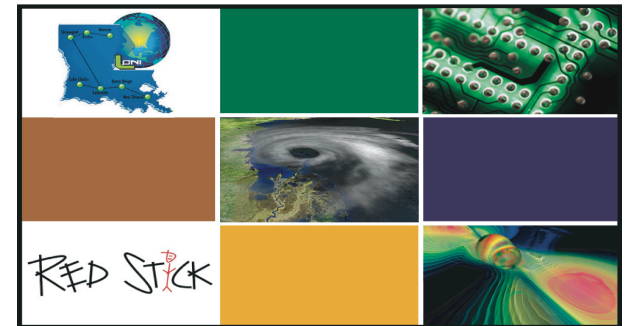




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(I/U) Requirements, Part 4

- Have a marketing plan -- how the center will grow, recruit new members, and build industry relationships that attract companies
- Have a research team capable of developing and operating a center
- Have a formal evaluation of the industry and university interaction conducted by an independent evaluator.

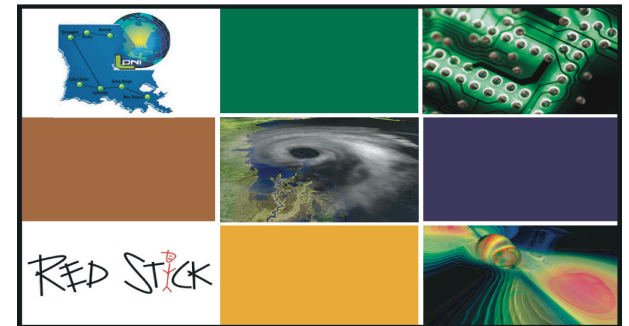




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(Admin) Requirements, Part 1

- Members (full or associate) are generally comprised of industrial firms, organizations, and non-NSF federal agencies
- Minimum of six members, \$300K annually in memberships; three members and \$150K per research site
- Membership of \$25K or more per year

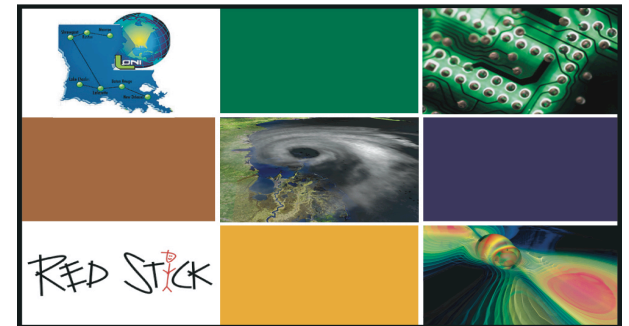




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(Admin) Requirements, Part 2

- Center policies meet NSF guidelines for intellectual capital and property rights, industry member rights, access to and retention of research data, and membership fees and rights.

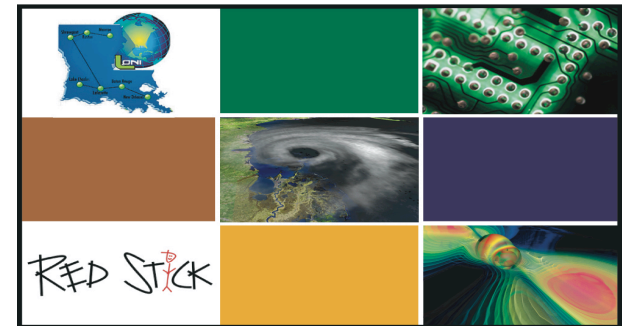




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Center Mgmt & Organization

- Includes:
 - Center director, site or co-directors
 - Industry advisory board
 - University policy committee
- Needs:
 - A policy for handling memberships
 - A collaborative and participative research environment
 - Graduate and other student involvement
 - A plan for addressing diversity.





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Award Information

- First five year award
 - If membership is \$150K-\$300K, NSF gives up to \$55K
 - If >\$300K, then NSF gives up to \$80K
- Second five year award
 - If membership is \$175K-\$350K, NSF gives \$28K
 - If >\$350K, then NSF gives up to \$40K
- Lead institution receives \$10K per site
- NSF funds evaluator

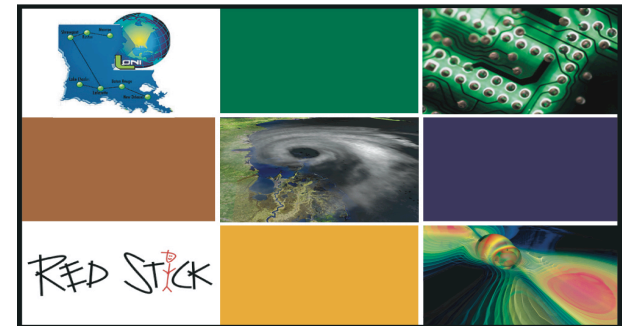




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Eligibility Information

- Universities and two- and four-year colleges (including community colleges)
- PI, co-PIs must be tenured faculty members
- Any institution may submit multiple multi-university center proposals provided that the proposed research topics involve different disciplines and support different industries
- PIs/co-PIs can only submit/participate in one proposal per submission period.

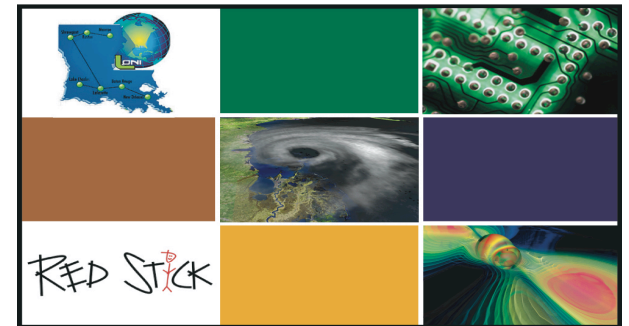




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Proposal Stages

- Letter of intent
- Planning grant proposal
- Center Proposal

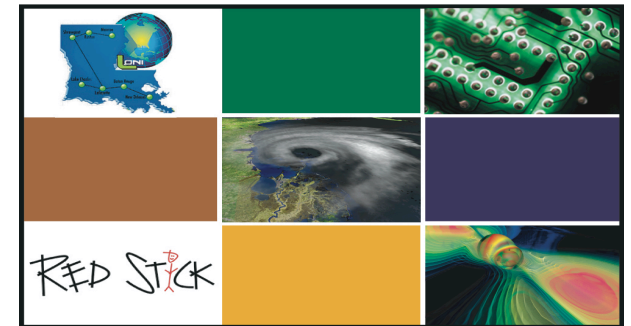




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Proposal Stages - LOI

- Letter of intent (LOI)
 - Description of the research focus
 - A list of participating center sites (universities & colleges) & faculty members
 - A list of potential members (industry & firm) that the research will attract

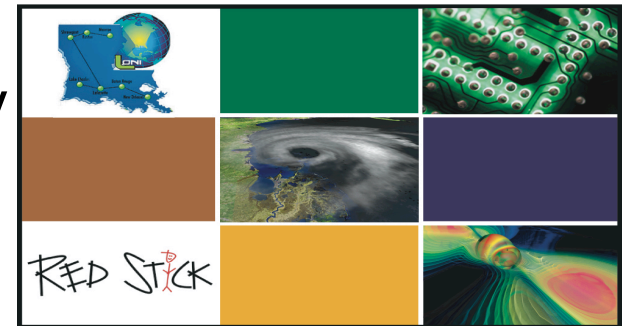




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Proposal Stages - Planning

- Planning grant proposal, after LOI has been accepted, \$10K
- Used to plan the joint industry and university research agenda and to determine the feasibility and viability of developing a center
 - Provide a description of the center's capabilities to conduct research addressing the industrial needs
 - Determine the proposed center's, policies, guidelines, organizational structure, and operational procedures;
 - Determine a plan to include diversity
 - Discuss proposed projects





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Center Proposal

- The center must develop and submit a plan to ensure that the center can support graduate students and industrially relevant research projects.
- Center structure and operations
- Research plan

