LACCIIR Virtual Institute
Latin American and Caribbean Collaborative ICT Research

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Agenda

1. What is LACCIR?
2. Research Projects
3. Graduate Students Mobility
4. Research Observatory
5. Next Stage Actions
What is LACCIR?

Latin American and Caribbean Collaborative ICT Research Federation

Federated LAC Universities

Partnerships

Sponsorships
LACCIR

- Founded on May 2007

- **Goal:** Stimulate Latin American-Caribbean collaborative research in ICT as enabler of economic and social development

- Created and supported by Microsoft Research (US$ 3,000K over seven years)
LACCIR

- Implemented with PUC Chile, U. Chile and universities throughout LAC

- Sponsorship by IADB (US$ 550K) and OAS

- Partnerships with: CONACYT (~US$ 500K), NSF, FAPESP, CLEI, CONICYT, Colciencias
Main Activities

- Grants and support for ICT applied research projects within LAC. Seed grant from MSR and IADB

- Support for LAC graduate students mobility: short stays, internships, fellowships in LAC universities and MSR

- LAC ICT Research Observatory: LAC ICT researchers map, projects map and indicators. Data collection (publications, thesis, projects, R+D investment)
Main Activities

- Collaboration among researchers and educators:
  - LiveMeeting for video-conferencing and e-learning
  - MS software/servers platform and MSR Research Accelerators
  - Workshops and summer e-learning schools
  - Repository of papers and thesis

- Fellowships and Support for New Faculty in LAC universities
Why collaboration?

CS/CE ISI Publications 2000-2010

- USA: 128,537
- China: 48,744
- England: 30,285
- Germany: 30,163
- Japan: 27,337
- France: 26,540
- Canada: 24,255
- Spain: 19,361
- LAC: 12,450
- India: 9,828
- Poland: 6,209
- Brazil: 6,077
- Mexico: 2,813
- Czech Republic: 2,728
- Hungary: 2,177
- Chile: 1,225
- Argentina: 1,119
- Other LAC: 756
- Colombia: 327
- Uruguay: 115
- Costa Rica: 18
Why collaboration?

**Within LAC Collaboration in CS/CE ISI Publications 2000-2010**

- Brazil: 175
- Chile: 132
- Other LAC: 101
- Mexico: 99
- Argentina: 96
- Colombia: 43
- Uruguay: 17
- Costa Rica: 4

**In LAC Collaboration**

**Out LAC Collaboration**
First 4 Years in Numbers

- 500 researchers from 50 institutions in 19 countries connected to the LACCIR network
- 180 world class expert researchers have evaluated research proposals
- 22 regional collaborative research projects funded by LACCIR
- 80 international publications
- 62 research teams
- 28 graduate students funded by LACCIR have visited other LAC countries for research stays, connecting 13 countries
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Research Projects

1. High Quality Research and ICT Applications

2. Collaboration: At least one Spoke and one participant from a different country

3. Matching Funds Potential
Research Areas

- Energy
- Earth, Environment and Climate Change
- Micro-economies
- E-Government
- Healthcare
- Education
## Research Projects

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects</th>
<th>Countries</th>
<th>Application Area</th>
<th>Research Teams</th>
<th>Publications</th>
<th>Presentations</th>
<th>Matching Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>5</td>
<td>Chile, Colombia, Uruguay, Brazil, Argentina, Ecuador, Mexico</td>
<td>E-Government; Micro-Economies; Education; Healthcare</td>
<td>14</td>
<td>50</td>
<td>39</td>
<td>6</td>
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<tr>
<td>2008</td>
<td>5</td>
<td>Uruguay, Brazil, Chile, Argentina, Uruguay, Mexico</td>
<td>Earth, Environment and Climate Change; E-Government; Micro-Economies</td>
<td>13</td>
<td>23</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>2009</td>
<td>5</td>
<td>Mexico, Chile, Brazil, Argentina, Colombia, Panamá, Bolivia, Uruguay</td>
<td>Healthcare; Education; Earth, Environment and Climate Change</td>
<td>17</td>
<td>7</td>
<td>5</td>
<td>1</td>
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<tr>
<td>2010</td>
<td>7</td>
<td>Brazil, Mexico, Chile, Costa Rica, Uruguay, Argentina, Trinidad &amp; Tobago, Nicaragua, Colombia,</td>
<td>Earth, Environment and Climate Change; Healthcare; Education; Micro-Economies</td>
<td>18</td>
<td>on-going</td>
<td>on-going</td>
<td>on-going</td>
</tr>
</tbody>
</table>
Research Projects: e-Government

Collaborating in Disaster Relief Efforts

- Coordination between several critical Information Systems
- Firemen, Police, National Government, Red Cross, Hospital Personnel, Armed Forces
Research Projects: Micro-economies

Quality Evaluation and Preservation of grains in Silo Bags

- Monitor and automatically adapt the internal conditions of the grain stored into silobags, in order to improve their preservation state
Research Projects: Micro-economies

Quality Evaluation of Food Products

- Automated computer vision System
- Low Cost
- For Small and Medium Enterprises
Server

Tortilla OK
Research Projects: Education

Bridging the gap between mobile and in-classroom learning

- Platform to support classroom activities.
- Outcome: a set of validated learning activities that will serve as patterns for implementing other learning activities.

![Diagram of interactive learning environment](image-url)
Research Projects: Environment

ANURA: Sensor Networks for Classifying and Monitoring Frogs Based on Their Vocalizations as an Early Indicator for Ecological Stress in Rain Forests

- Frogs and toads are natural candidates to be monitored as ecological stress indicator
- Outcome: Classification of frog species, allowing a long term monitoring of the frog population in rain forests, as an early indicator of ecological stress
LACCIR RFP 2011

2011 RFP Submissions

Start Date: May 30th, 2011
Deadline: September 5th, 2011
Awards Notification: December 12th, 2011
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## M.Sc. and Ph.D. Students Short Stays

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<tr>
<th>Year</th>
<th>Students</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>6</td>
<td>Chile, Mexico, Argentina, Uruguay, Brazil, Colombia</td>
</tr>
<tr>
<td>2009</td>
<td>12</td>
<td>Chile, Mexico, Argentina, Uruguay, Brazil, Colombia, Costa Rica, Paraguay</td>
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<td>2010</td>
<td>10</td>
<td>Argentina, Colombia, Chile, Brazil, Ecuador, Mexico</td>
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M.Sc. and Ph.D. Students Short Stays
LACCIR SSP 2011

2011 SSP Submissions

Start Date: May 30th, 2011
Deadline: August 29th, 2011
Awards Notification: October 31st, 2011
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Research Observatory
Data Collection Initiative

- Graduate Studies CS & ICT Alternatives in LAC
  Indicators: Enrollment, Scholarships, Women, Foreign, Graduate.

www.laccir.org/ResearchMap
Research Observatory
Data Collection Initiative

- Researchers, Institutions, Areas
- Academic & Research Programs.

www.laccir.org/rm
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Next Stage Actions
for Sustainability & Impact on Development

- Partnership with LAC national & state government agencies (i.e., CONACYT-México, FAPESP-Sao Paulo, COLCIENCIAS, CONICYT-Chile)
- Partnership with LAC industry (i.e., CODELCO-Chile, ICT industry)
- Improvement of Intellectual Property policies
- Joint LAC graduate programs in ICT (thesis, courses, diplomas)
- Collaboration with EU (FP7)
LACCI R Virtual Institute
Latin American and Caribbean Collaborative ICT Research

www.laccir.org

Ignacio Casas - Executive Director
Claudia Leiva - General Manager