Opportunities for RIT in Ecuador

By Rubén Proaño
Assistant Professor
Industrial Engineering
rpmeie@rit.edu
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Latitude 0° 0' 0"

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Megadiversity: cultural + natural

- 284,000 Km²
- 13 million people
- Three official languages: Spanish, Quechua, Shuar
- 13 indigenous nationalities
- 13 different native languages
- 20 culturally different communities
- 1,600 bird species
- 15,900 plant species, 4,000 endemic
- 350 reptile species
- 400 amphibian species
- Yasuni – 100,000 insect species (highest biodiversity / area in the world)
- Ecuadorian Amazon represents 2% amazon basin in area, yet it contains 10% of all plant species on earth
- 24 tropical life zones

by. Michael Sheridan at redbubble
What is going on in Ecuador?

- University reform
  - Improve faculty quality
  - Improve research infrastructure
- Scholarship program
- Prometeo
- Yachay, a technology city
- New research opportunities
SENESCYT

- Government agency responsible for
  - Science and technology
  - Higher education
  - Research promotion
Scholarships program

- Up to USD 35,000 per academic year
- Max $250,000 per 4 year Ph.D program
- For students admitted by international universities
Graduate scholarship programs

Universities of Excellence

• 150 top international universities (3\textsuperscript{rd} & 4\textsuperscript{th} level studies)

Open Call System

• 1,000 top international universities (4\textsuperscript{th} level studies)

Teaching English Scholarships (ESL)

• in collaboration with Fulbright

These programs benefit Ecuadorian citizens and the daughters and sons of Ecuadorians living abroad
Scholarships in numbers:

In 2011,
- 1,068 scholarships granted
- 300 PhD

In 2012 (as of May)
- 2,875 scholarships granted for MS or PhD (out of 20,000 applications)
- 1,000 ESL (out of 3,000 applications)

Goal to provide more than 5,000 graduate scholarships per year
Prometeo

• Program to attract international faculty interested in doing research in Ecuador
  • 4-month to 12-month long research/academic projects in science and technology
  • Researcher must submit a joint application sponsored by Ecuadorian counterpart (Local universities or research centers)
  • Fluency in Spanish is not required
• Incentives:
  – $4,000 USD/month salary
  – Housing
  – Health
  – Traveling expenses for researcher and family

SENESCYT aims to accommodate 200 researchers/ year
Sustained effort

• 3% of all oil exports destined to support scholarships and research promotion
  (USD 245 million per year)
YACHAY = technology city

- 10,551 acres, in Urcuqui
- Knowledge-hub
- Research park
- Technology transfer
- Research university
- Benchmark cities:
  - Daedok Innopolis, South Korea
  - Tsukuba, Japan
  - Palo Alto, USA
  - Irvine, USA
  - Sophiaantipolis, France
- Partner: Icheon Free Economic Zone (South Korea)
Yachay's main areas of research interest

- Chemical engineering – Petrochemical
- Mining
- Health sciences
- Environmental sciences and sustainability
- Nanotechnology
- Computer science, information technology, and new media
Other partners for RIT in Ecuador

- USFQ
  www.usfq.edu.ec
- ESPOL
  www.espol.edu.ec
Universidad San Francisco de Quito

- Research opportunities for research in the social sciences, anthropology, and sustainability
- Exchange programs
- Tiputini biodiversity research station
- Galapagos Institute for the Arts and Sciences
Tiputini Research Station

• In collaboration with Boston University
• Primary Amazon rain forest
• Located 200 miles from Quito
• Remote area within Yasuni Biosphere Reserve
  – ½ hr flight + 2 hr bus ride + 4 hr canoe trip
  – 6,000 ft2 laboratory building with internet access
  – Housing and dinning facilities to support up to 60 visitors at a time
  – 25 miles of marked trails in primary forest
  – Two 1-Km2 research plots, each with 100m grid system and geo-referenced
  – Two 118 ft-tall observation towers
  – 328 ft long suspended canopy walkways at 100 ft above the ground
Galapagos Institute for the Arts and Sciences

- Academic facilities for teaching, seminars, and research
- Galapagos Science Center (GSC) facility 11,000 sq. ft. houses four laboratories, each with a dedicated research focus: terrestrial ecology, marine ecology & oceanography, geospatial technologies (remote sensing & geographic information systems), and microbiology.

Semester study abroad programs
ESPOL

- Polytechnic university with interest in engineering disciplines and agricultural sciences
- Study abroad programs to host faculty and international students
Summary

Attract fully funded graduate students

Opportunities for faculty interested in doing sabbatical years in Latin America

Exchange program in Latin America
  Engineering
  COLA
  COB

Research areas:
  Imaging – monitoring
  Engineering – petro-chemical, mining, computer science, logistics
  Production system
  Health sciences and health care delivery
  Sustainability
  ESL
  Sociology
  Anthropology
  Linguistics

Access to research and instructional facilities in Amazon primary rainforest
Galapagos Islands
• SENESCYT - www.senescyt.gob.ec
• Graduate scholarships - www.educacionsuperior.gob.ec/becas/
• Prometeo project – http://prometeo.senescyt.gob.ec/portal/web/prometeo/inicio
• Yachay – www.yachay.ec
  http://www.yachay.ec/
• USFQ – www.usfq.edu.ec
• Tiputini - www.usfq.edu.ec/programas_academicos/Tiputini/Paginas/default.aspx
  http://www.bu.edu/cecb/tiputini/
• GAIAS - www.usfq.edu.ec/programas_academicos/galapagos/GAIAS/Paginas/GAIAS.aspx
  http://galapagos.unc.edu/gsc/galapagos-science-center
• ESPOL – www.espol.edu.ec