University of Texas at San Antonio
NSF CREST Center for Security and Privacy
Enhanced Cloud Computing (C-SPECC)
Research Briefing

Ravi Sandhu
Executive Director
Professor of Computer Science
Lutcher Brown Chair in Cyber Security

Workshop on the Role of NSF Research Centers in Broadening Participation and Closing the Gap in Science and Engineering
April 5, 2019
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MISSION
Sustained excellence in leading edge research

2007-2012
Founded by start-up funding from State of Texas

2012-2017
Graduated to a self-sustaining operation

2017-2022
Major expansion by winning NSF C-SPECC grant

- Established world class laboratories for:
  Secure cloud computing & Malware research

In collaboration with:
College of Engineering
College of Business
College of Education
Open Cloud Institute
Cyber Center for Security & Analytics
National Security Collaboration Center
Partnership with 4 NISD High Schools:
Harlan, Woodson, Taft, Business Careers
Faculty (12)

- Ravi Sandhu, Director (1)
- College of Sciences (4)
  - Palden Lama, Jianwei Niu, Xiaoying Wang, Shouhuai Xu
- College of Engineering (3)
  - Ram Krishnan, Jeff Prevost, Yusheng Feng
- College of Business (2)
  - Nicole Beebe, Raymond Choo
- College of Education and Human Development (2)
  - Guadalupe Carmona, Elizabeth Pate
PhD Students (11)

- College of Sciences (4)
  - Safwa Ameer, John Heaps, Rodney Rodriguez, Mehrnoosh Shakarami

- College of Engineering (4)
  - Kyle Everett, Randy Klepetko, David Rodriguez, Van Trieu-Do

- College of Business (2)
  - Richard Alvarez, Patricia Akello

- College of Education and Human Development (1)
  - Beatriz Galarza
Research Thrusts

Objectives

POLICY

ATTACKS

Enable

What?

Why?

Respond

Enforce

Defend

Mechanisms

PROTECT

How?

Detect

Complement

World-Leading Research with Real-World Impact!
Cloud

Cloud-Enabled IoT (Internet of Things)
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Broadening Participation Briefing

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- College of Business (2)
  - Richard Alvarez, Patricia Akello
    + 2 current under-graduate prospects

- College of Education and Human Development (1)
  - Beatriz Galarza
High School Pipeline

- NorthSide Independent School District (NISD)
  - 4th largest in Texas
  - Largest in San Antonio
  - Covers UTSA area
  - Diverse

- Partnered with 4 High Schools
  - 5 teachers enrolled in iStem Certificate
    (1 course/semester for 4 semesters)
  - 2 year Cyber Security strand at each High School
  - 2 cohorts over life of the grant