

# KSU Computer Science: Nichols Hall, 2001-2015



# The history of KSU CS can be grouped into these “eras”:

- Fairchild Hall: 1971-1985
- Nichols Hall, part 1: 1986-2000
- Nichols Hall, part 2: 2001-2015
- Engineering Hall: 2016-present

These slides introduce “Nichols Hall, part 2.” Because this time span is so recent and because a big majority of faculty/staff who worked during this period remain active at the time of writing, this story is necessarily incomplete. It deserves to be written, as a retrospective, by those who were most active during this period and when these people reach the ends of their careers. Therefore, the slides that follow merely summarize the personnel who worked during this period of time --- the definitive presentation is best written some years from now!

# The Department, 2001:

## Computing and Information Sciences

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Virgil E. Wallentine, Head

Professors Gustafson, Hankley, Mizuno, Schmidt, Unger, and Wallentine; Associate Professors Banerjee, Bleyberg, Dwyer, Hatcliff, Howell, Sigh, and Stoughton; Assistant Professor Andresen, DeLoach, Hsu, and Neilsen; Instructors Forgie and Shea; Emeriti: Professor van Swaay, Associate Professor Calhoun; Instructor Campbell.

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**Banerjee and DeLoach were new; the others were profiled in the earlier presentations about the Department.**

# Scott DeLoach



- Scott was hired in 2001; he moved to KSU from Air Force Institute of Technology, Wright-Patterson Air Force Base OH.
- He became acting head in 2013 and head in 2016
- Research interests: applying software engineering methods to the design and development of intelligent, complex, adaptive, and autonomous multiagent and distributed systems: (1) runtime/design time models, tools, and techniques for human-robotic systems where the robots are autonomous but part of a team that includes humans, and (2) the use of runtime models for adaptive network security.

# Anindya Banerjee

- A KSU PhD graduate, Anindya was an Asst. Professor 1997-01 at Stevens Inst. Technology, New Jersey, and a recipient of the Career Award of the US National Science Foundation in 2001.
- Anindya returned to KSU in 2001, and left in 2009 to work at IMDEA Labs in Madrid. He is now a program manager at the National Science Foundation.
- Anindya's research interests lie in language-based computer security, program analysis and verification, program logics, concurrency, programming language semantics, abstract interpretation and type systems.





# Torben Amtoft



- Torben arrived at KSU in 2004, after completing a PhD degree at Aarhus Univ. (Denmark) and holding posts at Aarhus, Heriot-Watt (Scotland), and Boston Univ.
- Research Interests: Program analysis, in particular dependency analysis, with applications to language-based security and program slicing.

- A KSU PhD grad, Robby was hired in 2006.
- He is a member of Santos Lab and key developer of Bandera (a software model checker for concurrent Java programs), Bogor (a software model checking framework), Cadena (an Eclipse-based extensible integrated modeling and development framework for component-based systems), and JMLEclipse (an Eclipse-based front-end for the Java Modeling Language).

#### Recent projects:

- Sireum is a long-term research effort to develop an over-arching software analysis platform that incorporates various static analysis techniques such as data-flow framework, model checking, symbolic execution, abstract interpretation, and deductive reasoning techniques (e.g., using weakest precondition calculation).
- MDCF provides an open-source Medical Device Coordination Framework for exploring solutions related to designing, implementing, verifying, and certifying, systems of integrated medical devices.

Robby



# Julie Thornton

- Hired as an instructor in 2006
- Julie did an M.S. in CS from KSU, on edge deletion algorithms for Bayesian network inference.
- She is a long-distance runner, completing multiple marathons (including Boston in 2005) with a best time of 3:30.





# Seth Galitzer



Seth has been systems administrator since 2008.

# Nathan Bean

- Hired in 2008; earned Masters in Computer Games Technology from the University of Abertay Dundee (Scotland), as well as a Masters in Creative Writing and a Bachelors in Computer Science from Kansas State University.
- Teaches software engineering, game programming, and web application development; coordinates the Department's K-12 outreach programs.





# Doina Caragea

- Ph.D., Iowa State University, 2004
- joined KSU in 2006
- Works in Artificial Intelligence, Machine Learning, Data Mining, Information Visualization, Information Integration, Ontologies, Semantic Web, Bioinformatics
- Associate Director, Bioinformatics Center, KSU, from 2007



# Xinming (Simon) Ou

- Came to KSU in 2006 after PhD studies at Princeton and a postdoc at Purdue
- Research Interests: Cyber defense technologies, especially human-centered approaches to understanding/improving security operations, intrusion/forensics analysis, cloud security and moving-target defense, mobile system security, and cyber physical system security
- Established the Center for Information and Systems Assurance (CISA) at KSU and achieved its accreditation as a National Center of Academic Excellence in Information Assurance Research (CAE-R)
- In 2015, moved to University of South Florida



## 2009: a new Department Head

Virg Wallentine stepped down as Head --- he would retire three years later --- and Gurdip Singh became head for the next six years.

Virg held the post as Head for 26 years!





# Patrice Chalin

- In 1995, Patrice completed his Ph.D. at Concordia University, Montreal, in the area of specification and programming language design.
- In 2002, he accepted a position at Concordia University (Canada) where he taught until 2011, when he moved to KSU to join the Santos Lab.
- Patrice has expertise in both theoretical foundations and practical systems development, being the project lead of the JMLEclipse extension to the Eclipse JDT compiler. He uses the Coq interactive theorem prover to describe and prove properties about program semantics.
- Patrice left CIS in 2014.



# Dennis Lang

- Came to the Department in 2012 as an Instructor. Has responsibility for CS10X and CS200 courses.
- Has a Doctor's degree from the University of Missouri-Kansas City



# Eugene Vasserman



- Came to CIS in 2012 from the University of Minnesota
- Research interests: Distributed system security, Privacy and anonymity, Network security, Medical and embedded device security, Applied cryptography, Public policy and cyber-law
- Current director of Center for Information and Systems Assurance (CISA) at KSU

# Russell Feldhausen

- Graduated in 2008 with a BS in CS at KSU
- Worked from 2008-2012 as a Computer Support Specialist for KSRE in the Department of Communications' Technology unit.
- Hired in 2012 as an Instructor/Academic Advisor
- Advisor of multiple student organizations



## 2013: a new Department Head

Gurdip Singh left KSU for a post as program manager at the National Science Foundation. Scott DeLoach took the post as acting Department Head. In 2016, Scott became permanent Head.



# Venkatesh Raganath

- KSU PhD grad who returned as a visiting professor in 2014 and was hired as an Asst. Professor in 2015
- Member of the Santos Lab



# Pavithra Prabhakar



- Ph.D. University of Illinois at Urbana-Champaign, 2011. Worked at IMDEA Labs, Madrid, before coming to KSU in 2015
- Research Interests: Cyber-Physical Systems: Verification, Synthesis; Formal Methods: Model Checking, Temporal Logics; Applications areas: Automotive, Aerospace and Robotics Systems;

# CIS Research Labs

- Santos: <http://santoslab.org/projects.html>
- Beocat: <http://www.cs.ksu.edu/beocat>
- Real-Time Embedded Systems:  
<http://chert.cs.ksu.edu/home.html>
- Knowledge Discovery in Databases (KDD):  
<http://www.kddresearch.org/>
- Multiagent & Cooperative Reasoning Laboratory:  
<http://macr.cs.ksu.edu/>