at the Ohio State University

January 2012
Columbus, Ohio

• 16th largest US city, *US Census Bureau*, 2009
• #1, Up & Coming Tech City, *Forbes* 2008
• #7, strongest US metro economy (of 361), *Policom* 2006
• #8, Best Places to Live, *Money Magazine* 2006
• #10, Nanotech Hot Spots, *Small Times* 2005
Ohio State University

• 2nd nationally in industry–sponsored research
• 3rd best work environment, US colleges & universities (*The Scientist*, ‘06)
• 9th among public universities with $756 million research expenditures
• 11th among all US universities (*SmartMoney*)
• 12th among all US universities (*Wall Street Journal*, 2010)
• Columbus enrollment: 42,916 undergrad & 13,951 grad/professional
• 93% freshman retention
ECE at Ohio State

- 18th best US graduate program, *U.S. News & World Report*
- 47 faculty, 362 graduate students, 714 undergraduates
- $25M/yr research expenditures
- 95 PhD degrees granted, 2007-2009
IPS Lab
• Professor **C. Emre Koksal** named NSF CAREER Awardee.


• Over 23,000 page views by 4,756 unique visitors to [ece.osu.edu/ips](http://ece.osu.edu/ips)
• IPS student Vijay Gadepally was appointed a member of the OSU President's and Provost's Council on Sustainability
• IPS moved into new 3,417 sq. ft. facilities on 6th floor of Dreese Laboratories.
Highly Cited Works

- Damen, El Gamal, Caire, *IEEE IT*, 2003. 766/446
- El Gamal, Damen, *IEEE IT*, 2003. 400/159

• 65 papers with 17,719 citations (avg. 273 cites per paper - Google)

[Google Scholar/ISI Web of Knowledge]
* Denotes not listed at ISI
Highly Cited Works II

- **Koksal**, Kassab, Balakrishnan, *SIGMETRICS*, 2000. 252/42
- Arora, Ramnath, **Ertin**, et al., *IEEE CS*, 2005. 246/9
- Gopala, Lifeng, El Gamal, *IEEE IT*, 2008. 228/73
- Lin, Shroff, *IEEE DC*, 2004. 214/1
- Stoica, **Moses**, Friedlander, Soderstrom *IEEE ASSP*, 1989. 213/147
- Murugan, Damen, El Gamal, *IEEE IT*, 2006. 196/118
- Srikant, Eryilmaz, *InfoCom*, 2005. 194/18
- Sharma, Mazumdar, Shroff, *IEEE CC*, 2006. 191/24

*50 papers with 6,269 citations (avg. 125 cites per paper - ISI)*
Highly Cited Works III

- Felemban, Lee, Boder, Vural, **Ekici**, *InfoCom*, 2005. 161/2
- Choe, **Shroff**, *IEEE/ACM Networking*, 1998. 147/81
- **Potter, Moses**, *IEEE IP*, 1997. 143/100
- Khalil, Saurabh, **Shroff**, *Systems and Networks*, 2005. 136/14
- Iverson, Ozguner, **Potter**, *HCW*, 2002. 132/53
- Gu, Bozdag, **Ekici**, *IEEE Comm*, 2006. 123/*
- Joo, Lin, **Shroff**, *IEEE/ACM Networking*, 2009. 123/7
- Felemban, Lee, **Ekici**, *IEEE T-MC*, 2006. 122/281
- Liu, Chong, **Shroff**, *IEEE Comp and Comm*, 2001. 120/12
- Akyildiz, Bender, **Ekici**, *IEEE Networking*, 2002. 118/68
- Lin, **Shroff**, *IEEE T-AC*, 2006. 118/47
- **Eryilmaz**, Ozdaglar, Medard, *InfoCom*, 2006. 112/0
- Kim, **Shroff**, *IEEE/ACM Networking*, 2001. 107/50
- Gu, Bozdag, Ozguner, Lee, **Ekici**, *IEEE SECON*, 2005. 101/1

[Google Scholar/ISI Web of Knowledge]
2011 Research Centers

- **AFOSR MURI** Integrated Fusion, Performance Prediction, and Sensor Management for Automatic Target Exploitation, directed by Professor Moses
- **ARO MURI** Stochastic Control of Multi-scale Networks, directed by Professor Shroff
- **NSF I/UCRC** Center for Surveillance Research, directed by Professor Potter
- **DARPA/DSO KECoM**, Active Sensing via Compressive Illumination, directed by Professor Potter
- MURI team member:
  - **ARO MURI** Design of Urban Sensor Networks, (PSU lead; Shroff)
  - **ARO MURI** Value-centered Information Theory (UM lead; Ertin)
2011


2010

University Leadership

• Ashok Krishnamurthy
  – Interim Director, Ohio Supercomputer Center

• Randolph Moses
  – Associate Dean for Research, College of Engineering
Graduate Student University Leadership

• Justin Ziniel
  – Delegate and Senator to the Council of Graduate Students
  – Representative on the Senate Fiscal Committee
  – Committee on Academic Misconduct
  – Council on the Physical Environment

• Vijay Gadepally
  – President's and Provost's Council on Sustainability
  – Delegate and incoming Treasurer, Council of Graduate Students
  – Member of CGS Government Relations committee
  – CGS representative to OUAB Graduate/Professional Student Committee
  – Member of the Engineering Dean Search Committee
IPS researchers are principal investigators on sponsored research programs that partially support faculty and staff in many units:

- Davis Heart & Lung Institute
- Ohio Supercomputer Center
- Cardiovascular Medicine
- Mathematics
- Civil, Environmental & Geodetic Engineering
- Industrial & Systems Engineering
- Computer Science & Engineering
IPS By the Numbers

- People
- Graduate Student Support
- Degrees Granted
- Instruction
- Research Expenditures & New Awards
People

FTE Tenure-track Positions 7.2
- Professors 3.2
- Associate Professors 2.0
- Assistant Professors 2.0
- Research Faculty 1
- Research Scientists 2
- Graduate Students 41
- Postdoctoral Researchers 5
- Staff 1
Grad Student Support

Graduate Research Assistants  25
Graduate Teaching Assistants  5
Industry Fellows  5
University Fellows  4
AFRL/ LTFT Fellows  2
## Degrees Awarded

<table>
<thead>
<tr>
<th>Year</th>
<th>MS</th>
<th>PhD</th>
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<tbody>
<tr>
<td>2011</td>
<td>2</td>
<td>5</td>
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<tr>
<td>2010</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>2009</td>
<td>6</td>
<td>3</td>
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Instruction 2011

- Number of lecture courses: 21
- Undergraduate credit hours: 1,714
- Graduate credit hours: 891
- Research credit hours: 1,676
- Total credit hours: 4,281

- College of Engineering 2011 MacQuigg Award for Instruction
- ECE Eta Kappa Nu Distinguished Teaching Award, 2011
- Six courses received student evaluations of 4.8 or higher.
Expenditure Report 2011

Sponsored research expenditures*  $6,849,145
Indirect cost recovery*  908,043
Tuition and fee recovery**  441,392

New awards  $4,749,989

*Jan –Dec, 2011; total expenditures include equipment and partner subcontracts under four multi-university research centers; data from OSU Research Foundation e-Activity.
**Tuition+fees approximated as 112 quarters GRA support across calendar year.
Ohio Jobs

- The US Department of Commerce estimates that 36 jobs are created for every $1 million in research expenditures.

246 Jobs from IPS Research
Sponsors