BITS AND BYTES

Missouri State University
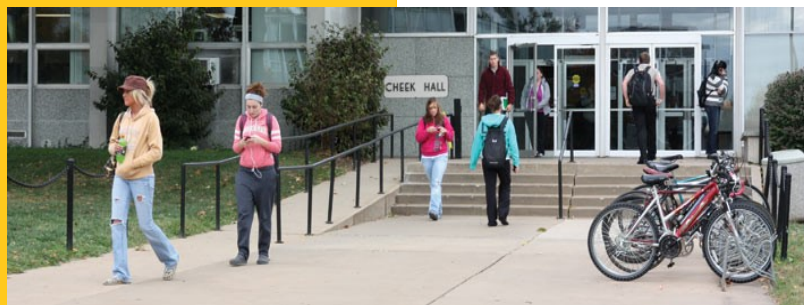
Department of Computer Science

SPRING 2018

Welcome to the Computer Science Department!

Computer Science is an evolving field, and our department, a proud member of the *College of Natural and Applied Sciences* at Missouri State University, is preparing the future generations of ethical leaders in this exciting and rewarding discipline to contribute to the innovation that drives the economic growth in the country.

The department offers two tracks towards a bachelor's degree in computer science: *Computer Science* (CS) and *Software Development* (SD). In CS, students complete a minor in mathematics whereas students in SD complete a minor of their choice.

Our enrollment numbers have tripled in the last seven years, and our students enjoy a very positive outlook for employment and very well-paid jobs.

Since fall 2017, the department is offering a *Master of Science* program, where students get an advanced expertise in the field , and get involved in cutting-edge research projects under the direction of our experienced faculty.

CS Students Excellence in Research Projects and Publications: Congratulations to our students for their contribution in faculty-lead research projects leading to peer-reviewed publications!

Jared Hall: "CoMPES: A Command Messaging Service for IoT Policy Enforcement in a Heterogeneous Network" (Coauthor: Dr. R. Iqbal), **Matthew Kenney:** "License Plate Tracking System in the Cloud" (Coauthors: Dr. R. Iqbal, Dr. J. Saquer), **Matthew Scott**: "Measuring Actual Visitor Engagement in News Websites" (Coauthor: Dr. R. Iqbal).

New Faculty Highlights

Dr. Razib Iqbal joined the CS department in the fall 2015. His previous experience includes four years as a Development Expert for Bridgewater Systems (Amdocs) in Canada, and one year as an assistant professor at Valley City State University, ND. His research interests include multimedia systems and communications, policy generation and dissemination for IoT, and digital content adaptation. He has published over 30 papers in leading journals and conferences since 2005. Dr. Iqbal also leads the newly formed MuSyC lab on campus.

Dr. Anthony Clark joined the CS department in the fall 2016. Dr. Clark's research interest include optimization and control algorithms for small, autonomous robots. His robot designs incorporate adaptive and self-modeling algorithms to overcome unexpected damage and/or changing conditions while balancing trade-offs among different objectives. Dr. Clark also has an expertise in evolutionary computing: creating algorithms that mimic natural selection, and bio-inspiration: mimicking features of living things.

CS New Facilities

We are proud to announce the addition of a brand new computer lab, intended to support our Master's program. **Cheek 151** has 50 Dell Precision Workstations

And next to it, we have added a **Graduate Student Lounge** for them to work on their academic tasks.

GRADUATE PROGRAM

In fall 2017, the Computer Science Department started its **Master's Degree in CS**.

Students in this program

- *Learn the latest in the field, and will be ready to contribute to the innovation and advances in computer science and information technology*

- *Get involved in cutting-edge projects with faculty*

- *Get a high level of expertise in areas including: autonomous robotics, evolutionary computing, multimedia systems, software engineering, mobile computing, sensor networks, data mining and Internet of Things*

FROM THE ADVISORY BOARD

Dr. Peter Sanderson came to MSU in 1992 after working for eight years as a software developer. He describes the next nine plus years as living the dream. He loved his classes and his students. In 1999 he became department head and led the successful ABET re-accreditation effort the following year. Soon thereafter, family matters drew him and his wife Nancy back to their home state of Ohio. For the next 16 years, he taught computer science at Otterbein University, serving as department chair for six of those years and retiring as Emeritus Professor in May 2017.

However, Dr. Sanderson never lost his devotion to MSU and the computer science department. Upon his departure, he established a scholarship fund to assist deserving students. When the Computer Science Advisory Board was established, he readily accepted Dr. Lloyd Smith's invitation to join it. The department depends on the Board to keep it aware of evolving trends and needs in the workplace so it may adjust its programs to prepare graduates for successful careers. Dr. Sanderson describes his role as an academic member to be providing an informed independent view on curricular matters. He feels honored to have served, and we are very grateful for his leadership and contributions to our department.