than $3M in funding

"It is very exciting to have the National Science Foundation recognize the importance of several Kansas State University projects that will benefit the U.S.," Singh said. "This is a huge investment in many of our talented faculty members who are addressing the security and vulnerability challenges facing the nation's various cyber infrastructures."

The projects are as follows:

- More than $2.37 million was awarded to a project by Xinming "Simon" Ou, associate professor; Eugene Vasserman, assistant professor; John Hatcliff, university distinguished professor; Scott DeLoach, professor; and Singh. The project provides scholarships to university students who pursue studies and career paths in cybersecurity and information assurance. Postgraduation, scholarship recipients will intern for government security positions.
- More than $482,000 in funding was issued to a project by Vasserman, Hatcliff and Dan Andresen, associate professor. Researchers are developing the theory and practice needed to build a flexible but standardized and secure communication network for the next generation of interoperable medical devices. The network would be used in hospitals and doctors' offices and will allow medical devices to securely communicate with each as they monitor and relay information about a patient's health.
- Nearly $227,000 was awarded to David Schmidt, university distinguished professor and Lloyd T. Smith creativity chair in engineering, for a project that applies parsing and static-analysis techniques for detecting errors and vulnerabilities in online web server scripts that dynamically generate web pages. The web pages themselves collect sensitive online data from users. Web server scripts are notorious for generating faulty web pages that leak data, Schmidt said. The project is focused on improving the quality of the scripts and the security of web-based data processing.

Training cybersecurity professionals

Millions of people depend on the Internet every day and cyber criminals are counting on that. To help counter the threat, the National Science Foundation has awarded $2.3 million to the College of Engineering department of computing and information sciences to provide scholarships to qualified students interested in becoming cybersecurity and information assurance professionals.

According to Xinming "Simon" Ou, CIS associate professor, many systems society uses every day—smartphones, online companies, media communications, transportation, electricity and hospital systems— are highly dependent on a very fragile cyber infrastructure that, if hacked into, could be disastrous and shake people's sense of security like a cyber version of Pearl Harbor or 9/11.

Read more at **www.k-state.edu/media/newsreleases/sept12/cybersecsch91812.html**.

Keeping medical devices secure

What if you could shut down several emergency rooms simultaneously without leaving your own home? How about "hacking" a pacemaker and reprogramming it to cause a heart attack?

Although these could be scenes from an espionage film, they are also some of the plausible scenarios that College of Engineering cybersecurity experts are working to prevent.

Read more at **www.k-state.edu/media/newsreleases/sept12/medhack90512.html**.

Taming the virtual Wild West

Nearly undetectable, cyber criminals have turned the Internet into a virtual Wild West. Helping to save the day is College of Engineering cybersecurity expert Xinming "Simon" Ou.

Although he may not be John Wayne, Ou, associate professor of computing and information sciences, is developing hacker-detection tools in collaboration with Hewlett-Packard Co., or HP, as part of the HP Labs Innovation Research Program. Kansas State University is one of only 46 universities in the world to receive the 2012 award.

"If a burglar breaks into your house, you can see them and call the police, but if a hacker taps into your computer, how do you know and who would you call?" Ou said.

Read more at **www.k-state.edu/media/newsreleases/sept12/hpaward92512.html**.