SaTC: EDU: Online Digital Forensics Courses and Labs for Students and Professionals

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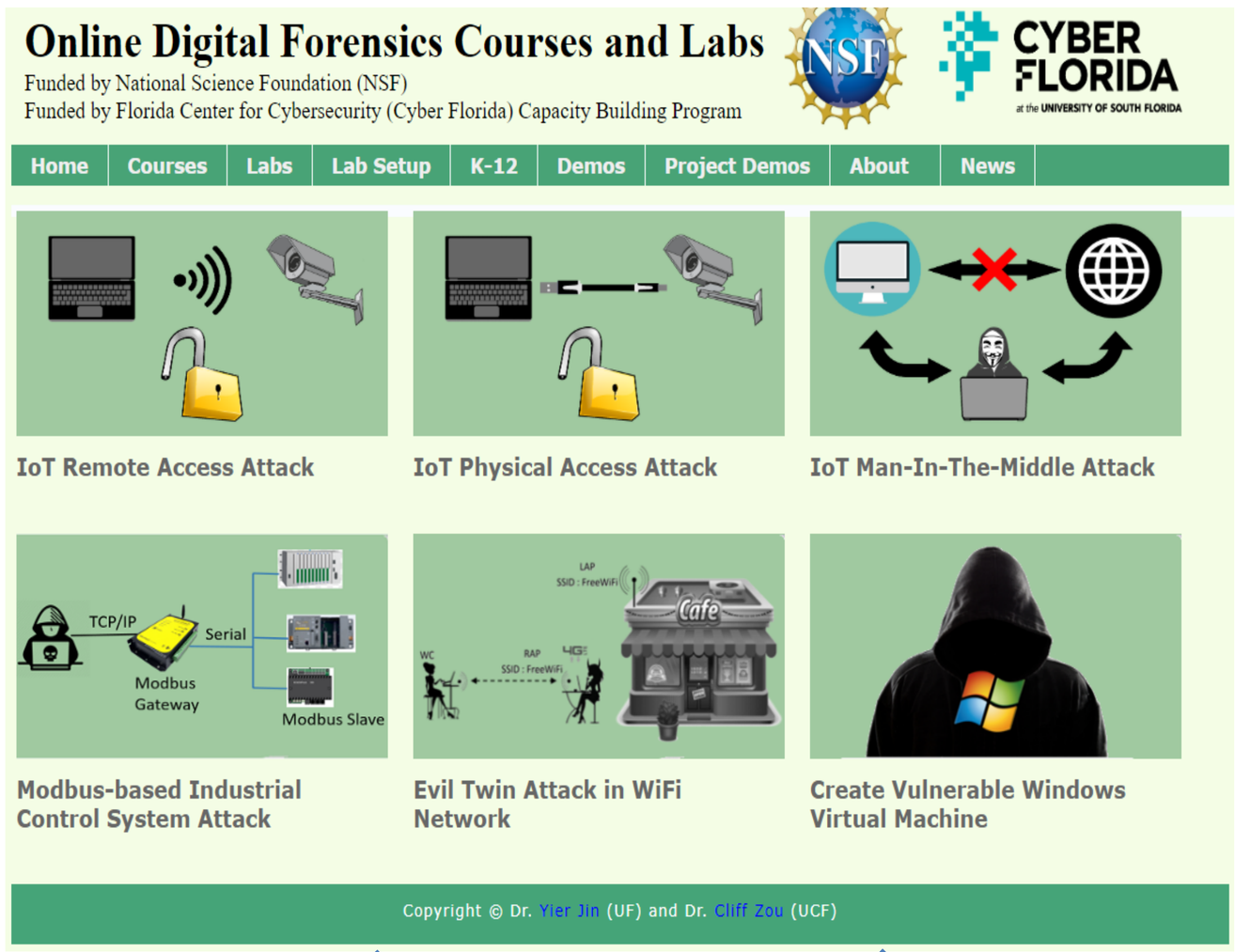
http://cyberforensic.net/

Challenges:

- Constant cyber attacks impose great threat to business and people's life
- Great shortage of cybersecurity workforce in both the government and the industry
- Current cybersecurity education lacks digital forensics and IoT security training and hands-on practices



Scientific Impact:

- Fill the gap on digital forensics and IoT security training
- Open/free online step-by-step self learning resources
- Hands-on labs to improve cybersecurity training effectiveness and coverage
- K-12 educational materials

Solutions:

- Develop and release defensive and post-attack digital forensics and IoT security curriculum
- Built an open website hosting a holistic suite of developed online courses and labs
- All online hands-on labs and courses rely on open-source or free software so that a student can learn them with minimal cost
- Step-by-step tutorial and lab document, along with video demos, make it easy for students to follow and learn by themselves
- Develop dedicated K-12 educational tutorials and labs
- In total, 6 courses, 6 hands-on labs, and 4 K-12 practices are developed

Broader Impact on Society

- Reduce cybersecurity and digital forensics workforce shortage
- Help reduce real-world cyber attacks and threats
- Open-access educational website increases society cybersecurity awareness

Broader Impact on Education and Outreach

- Fill the gap on digital forensics and IoT security education/training
- Provide intriguing entry-level cybersecurity tutorials and labs for K-12 teachers and students
- Introduce the developed course to other universities

Quantify Potential Broader Impact

- Total student enrollment in the course: > 200
- K-12 teachers and students visits: > 5
- Universities adopting the developed courses and labs: > 5

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