



Guy C. Hembroff

Assistant Professor
Chair, [CNSA Program](#)
[School of Technology](#)
[Michigan Technological University](#)
1400 Townsend Drive
Houghton, MI 49931
Office: EERC 311
Phone: (906) 487-3248
Fax: (906) 487-2583
Email: hembroff@mtu.edu



The [CNSA program](#) is designed to serve the need of industry by educating and training students to succeed in the field areas of *systems administration* and *network engineering*, with an emphasis on *network security*. It is one of the programs with the largest percent growth in students at [Michigan Tech University](#).

[\[Objectives\]](#) [\[Teaching\]](#) [\[Research\]](#) [\[Industry Experience\]](#) [\[Education\]](#) [\[Publications\]](#)

Objectives

Teaching: Continuously improve in my teaching methods and skills in order to prepare students for successful careers within industry.

Research: I wish to continue to conduct valuable research within network security and network engineering field, while maintaining a strict awareness of industry changes and progressions through consulting.

Service: To significantly contribute to the CNSA program, the School of Technology, Michigan Tech University, and my field of study, while assisting in the surrounding community.

Teaching

- [SAT4343: Network Engineering](#), fall 2006
- SAT3812: Network Security, spring 2006
- SAT3400: Scripting Programming, fall 2004
- SAT3511: MS System Administration I, spring 2005
- SAT3343: Network Administration II, fall 2005, spring 2006
- [SAT2343: Network Administration I](#), fall 2006, spring 2006, fall 2005
- SAT4480: Senior Project Design I, summer 2005, fall 2005
- SAT4880: Senior Project Design II, spring 2006

** Students: My current course content is on WebCT, which can be found at courses.mtu.edu.

Research

My research interests are intrusion detection systems (IDSs), internet and network security, and network engineering.

Current research involves the secure design, configuration, and implementation of electronic medical record (EMR) throughout a secure network channel for critical care access hospitals (CAHs) and hub sites. Research is funded through the Health Information Technology (HIT) grant and supported by the [Agency for Healthcare Research and Quality \(AHRQ\)](#).

Industry Experience

- Network Engineer, Charter Communications
- Systems Engineer, Pathways Behavioral
- Consulting within industry since joining MTU in Fall of 2004

Education

- MS, Northern Michigan University
- BS, Michigan Technological University

- Currently pursuing PhD in Computer Information Science Security.
- Research associated with doctoral degree is focused within the intrusion detection system (IDS) field.

Publications

- Hembroff, G., Cai, Y., and Amos, S. 2006. "Developing a Win-Win Environment with Service-Learning" *American Society of Engineering Education*.
- Cai, Y., and Hembroff, G. 2006. "Senior Design Project: DDOS Attack, Detection and Defense Simulation" *American Society of Engineering Education*.
- Cai, Y., and Hembroff, G. 2006. "Information Technology Course Development: Script Programming" *American Society of Engineering Education*.
- Amos, S., Hembroff, G., and Powers, M. 2006. "The Enterprise Program: A Vertically Integrated Engineering Technology Curriculum" *American Society of Engineering Education*.