TSM SPOTLIGHT

Carlos Lopez

Carlos Lopez, alumni of MSU, received his undergraduate degree in Computer Information Systems in 1996 and returned for his master's degree in TSM in 2005. Since his departure from Murray State Lopez is now the Information Technology department head and director of Information Technologies Solutions of Belize (ITSB) as well as serves as project manager (ITSB-Rural IT Project). Lopez decided to attend Murray State due to the affordability of the school and at the same time MSU offered his area of study. Another deciding factor was due to Murray State being one of 10 universities that belongs to COBEC, which is a group of universities that offered a form of financial aid and was willing to accept credit hours from a school in Belize.

Lopez grew up at San Roman Village in Belize then eventually moved to Corozal Town which is one of six districts in the country of Belize. As he currently resides back in Belize, Lopez is involved with a few projects and boards outside of his work. Currently he is the director of the Non-Governmental Organization and is working on a project to provide 30 community-based organizations in 30 different communities across the country to have a fully working internet café to serve the group as a source of income and provide a much needed service to the communities.

Not only does Lopez love what he does at work, he also loves who he gets to share his time with outside the office. He is happily married with two children, a son who is 9 years old and daughter who is 4 years old. Lopez married toward the end of his undergrad degree and when he returned to receive his master's his wife returned with him to pursue her master's degree in education. While attending MSU, Lopez was hooked on martial arts and during his time at Murray was able to obtain his first degree in black belt in Kenpo-JiuJitsu Karate and was certified as an instructor.

On his days off Lopez enjoys some training, helping others fix their computers and playing with his kids. In fact Lopez is responsible for the proper functioning for the IT department at the local high school, Corozal Community College, and for providing IT training to the staff. Lopez's quote to live by is, "See the invisible, feel the intangible, and achieve the impossible!" He interprets this as saying the sky is the limit, think outside the box, and be positive!

Mark your calendars

2009

- September 17 — Women In Telecom Golf Day
- October 9-10 — Homecoming

2010

- April 8 — Patterns of Distinction
- April 10-11 — ITERA Conference- Nashville TN

For more information on any events, please call **270-809-3987**

Freeze Frame

Pictured from left to right, TSM student Derrick Strong and faculty/staff Wesley Spencer and Dana Howard enjoyed some night activities with the CyberCave Academy at Virtual Kade.

Telecommunications Systems Management

Center for Telecommunications Systems Management

207 Industry and Technology Center
Murray, KY 42071-3347

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The Director's Chair

10 Years! Some of you are saying, has it really been 10 years? Others might be saying, has it only been 10 years? The first students entered the TSM program here at Murray State in the fall of 1999. While the program was approved in 1998 and the Center for TSM got its start in the spring of 1999, the academic program started 10 years ago in August 1999.

With over 200 undergraduate degrees and over 100 master's degrees awarded, the program has met or exceeded the goals set by the Kentucky legislature back in 1998. The TSM program at Murray State has gained recognition at the state, national, and even international levels as a Program of Distinction.

In 2007 our undergraduate program was selected as Program of the Year by the International Telecommunications Education and Research Association (ITERA). In 2009 our master's program received the ITERA graduate Program of the Year recognition. TSM faculty, staff and students are currently involved in over $3 million of research for the U.S. Department of Homeland Security. Our faculty members are presenting their research at conferences all over the world.

During this 10th Anniversary year we are planning on conducting a series of special activities to highlight the accomplishments of our graduates, students, faculty, staff and supporters. We will continue our recognition of graduates with our TSM Alumni award that was started in 2009. The first awards were given to Kent Bohannon (undergraduate) and Michael Ramage (graduate). We hope to bring back to campus many of those involved in the creation of the TSM program and the Center for TSM. There will be speakers, homecoming 2009, and the Fifth Annual Patterns of Distinction. Our celebration will culminate at our Fifth Annual Award Luncheon that will be held on April 8, 2010. Save the date and check our web site for planned events.

Make sure we have your best contact information so we can keep you informed about our Anniversary plans!

Jim Gantt

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Convergence

News from
The Center for Telecommunications Systems Management
Summer 2009

TSM Master's Degree is National Program of the Year

At the annual International Telecommunications Education and Research Association (ITERA) conference held April 18-20, Murray State University's Program of Distinction in Telecommunication Systems Management (TSM) was awarded Best Graduate Program of the Year. This was the third year for the ITERA distinguished undergraduate and graduate program awards. The new recognition was warmly welcomed by Murray State Provost Gary Brockway along with TSM faculty/staff and students attending the conference in Atlanta, Ga.

Murray State's TSM Master's Program is entirely online allowing easy access for individuals who are interested in TSM but are not in close proximity to campus.

In the last few years the program has grown to 121 students 10-15 percent of those students are out of state and 30 percent of those students are international. The success the graduate program has experienced is in large thanks to the eager driven students that make up the program and the advising of faculty member, George Rice. The TSM program, having only been around for 10 years has excelled at a rapid pace. In 2007, Murray State's TSM program received the award for Best Undergraduate Program of the Year. The recent honor of Best Graduate Program of the Year at ITERA only attests to the success of Murray State's Program of Distinction and foreshadows its future of excellence.

ITERA national champs for three straight years

The International Telecommunications Education and Research Association (ITERA) held its annual conference on April 18-20 in Atlanta, Ga. A group of TSM faculty/staff and students from Murray State attended this event where Murray State's TSM program was awarded for the Best Graduate Program in the Nation by ITERA.

Two TSM graduates, John Knight and Jesse Calhoun, were among the individuals who attended the conference and were awarded First Place at the ITERA National Student Case Study Competition. As representatives of their four-person team the two presented their solution for Healing Net, a cutting-edge telecommunications infrastructure for a fictional hospital. The team won money to split among the four of them as well as money and a trophy for the TSM program.

The victory in Atlanta was the third straight win for the TSM program in the ITERA National Student Case Study Competition. Other teams that participated in the final competition included Ball State University and Texas A&M. The Murray State graduate students created their proposal during their capstone TSM graduate class collaborating from several locations all over the region by means of online communication tools. After completing their project they had to compete against other MSU teams to be selected for the final competition in Atlanta to then face a panel of judges ranging from ITERA board members to industry representatives.

John Knight (on right) and Jesse Calhoun (on left) accept First Place at the ITERA National Student Case Competition in Atlanta, Ga.

The weekend was an all around success for Murray State and allowed all students and faculty that came and supported the students to gain an exciting educational experience. Several other MSU students attended the event, not only to support the others involved but, to also present research papers at the ITERA conference.

The great success presented by the TSM program over the last three years puts pressure on 2010 grad students to do well and excel in ITERA. Under the direction of graduate advisor George Rice, who has instructed the last three years' winners, it seems possible that Murray State could bring home another ITERA National Student Case Study Competition for 2010.

http://www.murraystate.edu/tsm

Let'$ Talk $ecurity

Murray State's Program of Distinction in TSM joined their annual Patterns of Distinction Conference with CFSB's $ecurity Matter$ conference and created the largest technology security conference in the region. The joint conference was held at the Murray State Curris Center on April 2 featuring Brad Lide of Infragard as the keynote speaker. With CFSB as the new co-host, Patterns of Distinction was formatted a bit differently than in years past. After Lide spoke, the conference broke into two separate tracks of speakers: a technical track and a business track. The business track focused on how and why individuals should secure information in their business while the technical track catered to individuals who were more interested in the detail of IT security.

Speakers for the business track included Tucker Oldham of Netgain and Chris Barker of DataLock. TSM faculty Wes Spencer and Marcia Combs along with some TSM students conducted a Business Lab that afternoon. Joe Popinski of Dynetics and Scott Vetter of Cisco spoke on the technical track and Mark Garland, CTSM researcher, finished the day with a technical lab about the Homeland Security grants the TSM program is working on.

All who attended Patterns of Distinction were able to mingle and enjoy themselves to some of Murray State's finest catering at the Fourth Annual TSM Awards Luncheon. During the meal the Lunch Speaker, Dr. Laurie Novak, from Vanderbilt Department of Biomedical Informatics, spoke about the implementation challenges related to the Health It Stimulus Package. At this Luncheon three prestigious awards, started in 2006, were announced along with student awards and a new faculty/staff and alumni award. Dr. Gary Brockway was honored as the Gary Brockway TSM Faculty and Staff Award was revealed for the first time. James Weatherly was the first faculty member to receive the award. Along with the revealing of this award was the TSM Distinguished Alumni Award given to alumni Michael Ramage and Kent Bohannon.

Toward the end of the afternoon faculty/staff, CFSB employees and several vendors were able to network and enjoy light conversation as the luncheon came to a close. The whole day turned out informative and exciting as there was something for everyone to enjoy from the small business managers to the security gurus. Murray State's TSM Program and CFSB intend to continue their collaboration on Patterns of Distinction/$ecurity Matter$ Conference in upcoming years, next years conference is planned for Thursday, April 8. For more information on Patterns of Distinction, check out our website at *www.murraystate.edu/tsm/ctsm/pod.html*

PRESTIGIOUS AWARD WINNERS

Gene Wells Ray TSM Lifetime Achievement Award
John A. Williams
Chairman of CSI Board of Directors

Dick Anderson TSM Leadership Award
Allison Willoughby
President of Brandenburg Telephone Company

John Williams TSM Entrepreneurship Award
Charles A. Jones
C.A. Jones Management Group, LLC

Gary Brockway TSM Faculty and Staff Award
James Weatherly

TSM Distinguished Alumni Award
Kent Bohanon

TSM Distinguished Alumni Award
Michael Ramage

AT&T Women In Telecom Golf Day

September 17, 2009

Hosted by:

Each day will include:
- **Basic golf instruction**
- **Contests with prizes**
- **Lunch with Guest Speaker**
- **9 holes of golf**

Register at *www.murraystate.edu/tsm/ctsm*

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Introducing and sharing knowledge in the high-tech fields of software development and information technology while providing environments for professionals to network on a regular basis.

FALL SCHEDULE:

- September 8, Murray
- October 12, Paducah
- November 9, Hopkinsville

First meeting will be held at the Big Apple Café at 6:00 p.m. All are welcome to attend.

For More Information Contact:
Loretta Daniel
(270) 809-6071
loretta.daniel@murraystate.edu

or visit our website at:
www.murraystate.edu/tbc/point

High School Students Can't Get Enough of the "Cave"

The TSM program finished another year of CyberCave spring field trips. The field trips had an overwhelming response from students this spring from students not only in Kentucky, but also Tennessee, Illinois and Missouri. The high schools that sign up for the CyberCave fieldtrip sessions are allowed to choose between four modules: Multimedia, Wireless, GPS and Internet. The field trips allowed students to get some true hands-on experience with technology and allowed great exposure for the CyberCave Academies that are held during the summer.

CyberCave Academy has continued in success, evidence from the overwhelming number of applications, which made a need for a fifth camp in the 2009 summer. The Center for TSM received close to 200 applications for the 2009 Academies between February and May. Students from 16 different states applied with the farthest away coming from California. "We were overwhelmed with the response this year," CTSM marketing and PR specialist Dana Howard explained, "we decided it was time to look at the next step for CyberCave which led to our decision to expand."

In all CyberCave Academies this summer included four first-year camps and one second-year camp. The five-day camps are under the direction of a select team of five TSM student workers Derrick Strong, Sarah Kennedy, Clay Carman, Randall Joyce and Cody Seely alongside TSM faculty Marcia Combs, John Hart and Wesley Spencer. Campers enjoy telecommunications training during the day followed by night activities to break away and mingle with other kids at the camp.

This summer 20 kids will attend each camp and will work in teams to produce a Local Area Network (LAN) while working with things like operating systems and storage devices. Also, a variety of network devices such as hubs, switches and routers, Domain Name Services (DNS), web servers, voiceover IP systems and network security will be available to work with.

For upcoming information on CyberCave Academy or Field Trips, check out our website *http://www.murraystate.edu/tsm/cybercave.*

TSM is a Leader with DHS Projects

Incident Management and Decision Support System™ (IMDSS™)
– $1.1M – 2 years – April 2009 – April 2011

The Incident Management and Decision Support System™ (IMDSS™) project will deliver a web-enabled software suite to collect, share and process data and events as they occur, providing situation awareness at the local emergency management level and incident management level. The IMDSS™ will deliver near-real-time fusion of data from a variety of local sources providing incident managers with the ability to monitor and respond to emergency situations in a timely fashion.

This project proposes the integration of the IMDSS™ software suite and the Man-portable Interoperable Tactical Operations Center™ (MITOC™) hardware platform in order to support the information and processing needs of the on-site incident commander. The MITOC™ is a man portable communications and processing platform that provides communications and processing capability.

Portable Community Infrastructure Resiliency System (PCIRS)
- $100K – 1 year – December 2008 – December 2009

This system will consist of a compact, lightweight power converter (an electronic transformer) equipped with a communications and control hub that can be rapidly deployed in response to a crisis in our nation's electrical-energy infrastructure. The compact, lightweight power converter will provide emergency replacement of large, heavy iron-core transformers used in substations and distribution yards. MSU will provide the communications and control hub for the project.

Incident Management Decision Support System – Health™ (IMDSS-H™)
- $1.7M – 2 years – announced but not started

The Incident Management Decision Support System – Health (IMDSS-H) project will deliver a health care extension to the Incident Management Decision Support System™ (IMDSS™) currently under development for Homeland Security. IMDSS-H™ will add the functionality required to collect, process and visualize public health information and use this information to aid in planning an effective response to potential medical and public health emergencies. IMDSS-H™will simultaneously support local users within the local Emergency Operation Center (EOC) or community and/or remote users via a direct connection to the internet or a satellite connection using the Man-portable Interoperable Tactical Operations Center – Health™ (MITOC-H™).

Faculty Members Begin Outreach Project

Beginning in fall 2009 faculty members John Hart and Marcia Combs will begin leading a project that will allow them to visit high schools within the region and introduce the TSM program to students as a potential area of study and career. The TSM Mobile Laboratory will provide some hands-on instruction in the area of telecommunications systems management (TSM). The laboratory supports basic Ethernet routing and switching, IP security, TDM voice, WAN protocols, network services and VoIP. Through the mobile lab, these technologies will be put in the hands of young students who may not have an opportunity to learn about careers in technology at their high schools.

"We feel the hands-on experience provided by the TSM mobile lab allows students a look into the field of telecommunications that is more accessible than simply showing pictures or writing equations on a board," said Hart.

This outreach project was created with the goal of increasing student enrollment in TSM as well as increasing overall education on modern telecommunications. Other faculty members who will be involved during this project include Wes Spencer, who teaches primarily network security in the TSM program.

Through the guidance of these faculty members, programs like the mobile lab can be of benefit to both the university and the school systems. Hart and Combs, along with others can share their knowledge and experience with the schools, giving the students more options when they are looking at career choices.

Combs commented, "Our hope is that young women and men will see that the field of telecommunications systems management has much to offer as a career and that a college degree is a desirable goal."