

# On - CITE

## Faculty Profile: Dr. Patricia Logan

*We would like to provide you the opportunity to become more familiar with the faculty in the College of Information Technology and Engineering, and so occasionally we will provide personnel profiles to you. In this issue Dr. Patricia Logan, Associate Professor, is profiled.*

My arrival in West Virginia three years ago to teach at Marshall was my first experience with living on the East coast and with Appalachian culture. It has been a fascinating experience—I love the music, history and beautiful mountain scenery that is part of this unique area of the mid-Atlantic region. How did I end up in West Virginia?

I spent most of my life in California, growing up during the time of the Beach Boys and the surfing beach party culture. I planned on a career as a high school teacher capitalizing on my speaking skills to be a speech and debate coach. In high school and college I competed (successfully) in speech competitions. At the age of 16, I attended a speech tournament in Pomona, California, and ended up meeting my future husband, a speech and

debate coach for a high school team from Riverside, California. I went off to college and in what can be described as serendipity, was asked by my college speech coach to be a paid judge at a high school speech tournament in Riverside. My future husband, Steve, who I had met the previous year, was the coach sponsoring the tournament. Six weeks later we were engaged and married, two weeks after I turned 19. I made it clear to my husband that I wouldn't get married unless he made sure I finished college and he kept his promise. We moved to Santa Cruz in Northern California and I attended UC Santa Cruz. By the time I graduated from college, the teaching jobs had dried up due to the passage of tax reform legislation in California known as Prop 13. I had no other plans for employment so I decided to get a master's degree.

Graduate school initially exposed me to computers (this was the mainframe



age) and I found that I was good at programming. I finished my masters degree adding science and math courses to my degree program in speech. My first computer related job was as a programmer at Hughes Aircraft (Southern California) in the circuit card department. I was responsible for writing programs that manipulated the test results from circuit card testing. I wrote code in Fortran, Basic, and Ada using a variety of statistical methods to present the data. An acquaintance let me know that Cal Poly Pomona had a need for adjunct faculty to teach computer courses in the School of Business Administration. For the next few years I taught programming to students at night. Eventually, the "teacher" in me was attracted more to the teaching than to the programming and I left Hughes to be a full-time lecturer in CIS. During my decade of teaching at Cal Poly Pomona I taught Fortran, COBOL, C/C++, and senior project. During this time my family raised Arabian horses, competed

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in local horse shows, and we had our second son. I realized that a PhD was needed in order to move to a tenure-track position. Local programs were at private universities and tuition was expensive. I investigated out-of-state programs settling on Utah State University (USU) in Logan, Utah. I convinced the professors in the Business Information Systems (BIS) program to allow me to work at a distance by sending assignments on disk, and taking proctored exams. I helped my husband write a proposal so he could take a sabbatical from his teaching job and we could temporarily re-locate to Utah for the residency part of the program.

In 1992, we all moved to Utah where, in another serendipitous happening, a connection from Cal Poly recommended me to the CIS department chair at Weber State University (WSU) to teach as a visiting professor. I was interviewed on the phone and was hired to start two months later. You may think it strange that I didn't do a personal interview. I couldn't as I was eight and a half months pregnant and was not able to travel. So, I was hired based on the strength of my teaching reviews and the phone interview. My third child was born August third and I moved to Utah to begin teaching on August eighteenth. My husband's sabbatical didn't begin until December; so for four months he flew between California and Utah while I managed a teen-ager, a toddler and a newborn all while taking sixteen units a quarter at USU and teaching full-time at WSU.

I loved my time in grad school and enjoyed the other PhD students who were also, teachers. I finished the balance of my coursework in May and passed my comprehensive exams. I was offered a position at Weber State University but my husband had a tenured position in California so I had to decline. After we moved back to our home in California I found it hard to find a teaching position while still ABD (All But Dissertation). So, I returned to the business world and worked in insurance and banking in a variety of positions. I worked as a team lead in software design, as an Assistant Vice President in a bank managing client-server development, and as a customer support manager in charge of an aggressive national expansion to thirty-six states. Ultimately, having three children and jobs that demanded 50-70 hour work weeks with on-call responsibilities and significant travel helped me decide (now that I had my PhD) to try academia, again. WSU was advertising openings and I was re-hired. The dilemma once again was that my job was in Utah and my husband's was in California. We tried a commute marriage and anyone who has done that knows it is very stressful. My husband decided to take early retirement and moved to Utah. He taught on renewable contracts at WSU in the same department as I did, although teaching programming while I taught the network, security, and forensics courses. I enjoyed my years on the faculty at WSU and accomplished a number of things including: serving as department chair, revising the curriculum, funding a security and forensic lab, starting a grad certificate

program in security, and working to improve the number of women interested in careers in IT.

Meanwhile my oldest son married the girl he dated while we were in Utah during my PhD work and moved to DC where she was attending law school. Part of my motivation to move to WV was to be nearer to my children (and now grandchildren) as well as closer to the action in security and forensics. Marshall was attractive to me because of the relaxed faculty and the warmth of the faculty, staff and administrators that I met during my interview. I have enjoyed my time at Marshall and my first year was notable for a number of crises—my husband drowned our car by driving through a flooded area close to where we live in Elkview, and he had two major health problems: pancreatitis and open-heart surgery.

As I mentioned earlier, my husband and I have 3 children—our oldest son is a systems architect in DC. He was an English literature major at UCI and swore he'd never go into the computer field. We have a 16 year-old at RMA (Randolph Macon Academy) in Virginia and a son in middle school. All the kids are good with computers and love playing computer games (that they are restricted from when their grades are unacceptable). I am still married to the man I met at age 16 (for 36 years) and we share our home with a cat and a Samoyed (think big and fluffy white) dog. Being on the East coast has allowed me to visit Civil War sites and explore the region's history. My husband and I recently took a fly fishing class and hope to try that skill out this spring. I enjoy cooking, making bread (not in a bread machine), reading, and going to estate sales to find that one antique that no one else spotted.

## Computer Science Courses

***Continuing with the phase-in of Computer Science courses, descriptions are provided for the new CS offerings CS 330, CS 320, and CS 460.***

### CS 320 - Internetworking

The course introduces students to network fundamentals and structure. Network administration and the basics of design are covered including the use of software for network management. Network security is an underlying theme for the course with students learning how to secure a network from intrusion. The course is offered from 4:00-6:20 pm on Thursdays. Dr. Patricia Logan is the course instructor. She can be reached at 304/746-1951; loganp@marshall.edu.

### CS 330 - Operating Systems

This course, required of all Computer Science majors, delves into the purpose, function, structure, and implementation of modern operating systems. A series of laboratory projects and programming assignments will provide students with the application of the fundamental concepts covered in the lectures and text. The pre-requisite for the course is CS 210 – Algorithm Analysis and Design. The course will meet on Tuesdays and Thursdays from 2:00 to 3:15 pm in GH206A, and will be taught by Jonathan Thompson. He can be contacted at 304/696-6349; thompsonj@marshall.edu.

### ENGR 241 – Introduction to Geomatics

~~ENGR 241 – Introduction to Geomatics~~ science and technology of determining the relative

### CS 460 Multimedia Systems

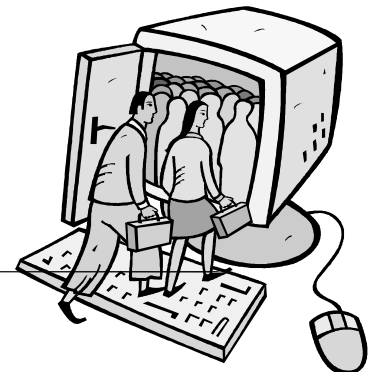
For the next generation computing systems, multimedia data manipulation will be as routine as what text manipulation is for today's computers. In fact, a system for searching the Web for multimedia data is considered as the next "killer application" in the computing field.

In CS 460, you will learn about how to capture and store multimedia data. You will also learn about how to edit, process, index, and search image and video collections based on their content --- content-based multimedia retrieval (CBMR). You will gain hands-on experience with high-end graphics/imaging servers and workstations; image and video capturing devices such as digital cameras, iris recognition cameras, and fingerprint grabbers; graphics/video processing software including Mathworks' Matlab, Mathworks' Image Processing Toolbox (IPT), and Adobe Photoshop.

Ability to program in a high-level programming language such as C, C++, Java, or C# is the foremost prerequisite for this course. Understanding of basic probability theory, linear algebra, and calculus

(integration and differentiation) is desirable (review material on these topics will be provided). During this summer CITE will be establishing a Visual Computing Lab, which will be used for this course. Funding for this lab has been obtained through a grant from the Marshall University Foundation. CITE has licenses for Matlab, IPT, and Adobe Photoshop for use in the department labs. Students who don't wish to use the lab facilities need to acquire license Matlab, IPT, and Photoshop on their own (cost about \$800) to install the latter on students' personal computers.

The course is offered on Mondays Wednesdays and Fridays from 12:00-12:50 pm. Dr. Venkat Gudivada is the course instructor and he can be reached at 304/696-5452; Gudivada@marshall.edu.





## EM 650 Advanced Project Management

The Advanced Project Management course is designed to aid prospective or current project managers to become more proficient in the advanced aspects of project management. By the end of the course, participants should be intimately aware of all the project management processes in the current version Project Management Body of Knowledge published by the global Project Management Institute (PMI) and have a basic understanding of how to properly apply those processes. The course is also designed to aid project managers in their preparation to take the Project Management Professional certification exam offered by PMI.

The course is offered on Wednesdays from 4:00-6:20 pm. Dr. Eldon Larsen is the course instructor and he can be reached at 746-2047; larsene@marshall.edu.

## New delivery method for TM 660

### TM 660 Computing and Information Systems Technologies

For the Fall 2006 Semester the TM 660 course will practice what it preaches. The course focuses on emerging technologies and collaboration and will be delivered using the Macromedia Breeze platform for synchronous and asynchronous access to the course lectures and support material. In addition to the advanced multimedia meeting framework, TM 660 will incorporate RSS, AJAX, Blogging, Podcasts, and other technologies leading the development of best practices for information-centered businesses.

The course is offered on Tuesdays from 4:00-6:20 pm. Allen Clarkson is the course instructor and he can be reached at clarkson6@marshall.edu.

## IS 650 Man Machine Interface

The present study of Man-Machine Interface draws inspiration from two scientific disciplines which are themselves newly established: Ergonomics and Tribology.

Machines and gadgets have been made for a long time now. Ergonomics is about designing machines and equipments in a way that recognizes the INABILITIES OF HUMANS who will be using them. As Computers become ubiquitous, it is exceedingly being recognized that more attention has to be paid to designing the Man-Machine interface, for essentially the same reasons that lead to the studies in Ergonomics.

Some twenty years ago, when home-computing became popular, the term 'user friendly' entered the everyday vocabulary. That term had to do with the design characteristic of the software that let the non-specialist user perform complex tasks in easy to understand steps and possibly in choice of instructions.

Tribology is the study of interacting surfaces, at the sliding or rolling interface, from the perspective of basic friction, wear and lubrication. In Engineering the purpose of interface study is the control of friction which leads to wear which leads to breakdown (if not maintained) or necessitates planned replacement. In an analogous manner, ill designed (or undersigned!) interfaces lead to friction=frustration, wear=mental and physical fatigue. Of course, a corollary of friction is heat; in the Man-Machine Interface paradigm, the corollary to frustration and fatigue is Aversion to using the Interface, or actual physical symptoms. Thus, in

Man-Machine Interface the Lubricant is the Quality of the Interface Design.

Till now the design of the interface evolved organically as it were. Only now, when:

- (1) the medical world finds itself treating causalities of computer usage
- (2) professional trainers while trying to teach managerial staff the use of 'computerized decision system' discovered the inadequacies of Interfaces of the MIS modules
- (3) the businesses accepting the necessity of cyberspace presence, realized that the sites most often visited are those that have certain pleasing characteristics

has the study of Man-Machine interfaces re-asserted itself as a hot research and business topic. Thus the study of Man-Machine Interface delves into characteristics which create non-optimal stimulation (either too much or too low); that require too high a level of physical accommodation from the human user; or that demand an elevated level of mental agility or concentration from the user.

All those aspiring to managerial jobs will find the knowledge gained in this course to be much in demand by employers.

The course will be offered on Wednesdays, 4:00-6:20 pm through the videolink in both Huntington and South Charleston Dr. Jamil Chaudri is the course instructor and he can be reached at 696-2694; Chaudri@marshall.edu.

## IS 651 Multimedia Information Retrieval

With the ubiquity of devices for capturing audio, image, and video in digital format --- digital microphones, digital cameras, cell phones, scanners, digitizers, medical imaging devices, fingerprint grabbers, iris scans, and earth orbiting satellites --- multimedia data is everywhere. For the next generation computing systems, multimedia data manipulation will be as routine as what text manipulation is for today's computers. In fact, system for searching the Web for multimedia data is considered as the next ``killer application" in the computing field.

In IS 651, you will learn about how to process, index, and search image collections based on their content --- content-based image retrieval (CBIR). You will also learn about text retrieval since a good understanding of the latter is essential for CBIR. You will also gain an overview of retrieval issues in audio and video data. You will build prototype text and image retrieval systems using



Lucene (an Apache Information Retrieval library), or Mathworks' Matlab and Image Processing Toolbox (IPT).

Ability to program in an object-oriented programming language such as C++, Java, or C\# is the foremost prerequisite for this course. Understanding of basic probability theory, linear algebra, and calculus (integration and differentiation) is desirable (review material on these topics will be provided). CITE has licenses for Matlab and IPT for use in the department labs. Students who don't wish to use the lab facilities need to acquire licenses for Matlab and IPT on their own (cost about \$160) to install the latter on students' personal computers.

Course is offered in Huntington on Mondays, 4:00-6:20 pm. Dr. Venkat Gudivada is the course instructor and he can be reached at 696-5452; Gudivada@marshall.edu.

## New: Information Security Emphasis

There is a new area of emphasis within the M.S. in Technology Management degree program:

### Information Security

The requirements of the area of emphasis are as follows:

- IS 651 Information S
- IS 656 Communication and Network Technologies (3 hrs)
- IS 632 Computer Security and Incident Response (3 hrs)
- One additional 3 credit hour elective, chosen from TM or IS courses, with permission of the student's advisor.



This new area of emphasis is a direct response to the many issues of information security facing employers and employees. Companies and organizations have a growing need to have people with up-to-date knowledge in this area. A number of students have already taken some of these courses, and several people have already expressed interest in declaring Information Security as their official area of emphasis. If you have an interest or have questions regarding this area of emphasis, please contact Dr. Neal Lewis at [lewism@marshall.edu](mailto:lewism@marshall.edu) or by phone at 304-746-2078.



## College of Information Technology and Engineering

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On-CITE is edited by Elizabeth Hanrahan. Suggestions for future articles are encouraged and can be emailed to [Hanrahan@marshall.edu](mailto:Hanrahan@marshall.edu)

### REGISTRATION DATES

#### Advance Registration:

Through Friday, August 11, 2006  
Payment must be received by due date on statement. Students registering 8/3-8/11 will not receive a statement of fees and payment is due by 8/11. (5/6-5/14/06 advance registration is suspended)

#### Regular Registration 8/14 - 8/18/06

No statement of fees will be sent. Payment listed on myMU must be received by close of business Friday, 8/18.

#### Late registration or Add/Drop 8/21-8/25/06

Payment due date of registration

Classes begin Monday, 8/21/06

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Permit No. 1093

## MyMU Website

MyMU provides an integrated web site where you can register for classes, check your MU email, and update your contact information. You can also forward your Marshall email account to another user account. Since MU email is an important means of communication, you should have a process in place to check your MU email.

Visit <http://mymu.marshall.edu>. Your log in should be your log in for MILO.

If you have any difficulty in accessing your account, or are not sure of the status of your email account you can contact the following individuals:

Huntington:  
Help Desk 696-3200

South Charleston:  
746-1976 or 746-2056

Email: [helpdesk@marshall.edu](mailto:helpdesk@marshall.edu)



The following identification is required to access the WWW registration systems:  
**Marshall University Identification Number:**  
This is a nine-digit identification number assigned by Marshall University.

**Personal Identification Number (PIN):** A six-digit number consisting of your date of birth (i.e., student born on March 23, 1973 would have PIN # 032373). For added security, students are encouraged to change their PIN number as soon as they access their personal account.

Please note that on the dates that registration is suspended, you will not be able to register by WWW.

You can pay your tuition on-line by credit card or check. No need to wait in line to register - use the web!