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Department of Information Systems

Spring 2018

The Infosys TIMES, Vol. 5, No. 1

St. Cloud State University

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Recommended Citation

St. Cloud State University, "The Infosys TIMES, Vol. 5, No. 1" (2018). *The Infosys TIMES*. 8.
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Spring 2018

THE INFOSYS TIMES

Vol. 5, No. 1



Symposium Attendees

Midwest Instruction Computing Symposium

The Midwest Instruction and Computing Symposium (MICS) conference focuses on integrating computer-based technology into teaching and learning processes of all disciplines, along with incorporating the study of this technology into the curriculum.

St. Cloud State University sent multiple participants to the MICS 2018 conference which was held at the College of St. Scholastica in Duluth, MN on April 6 and 7. From the Information System Department Brady Cooper and Erich Rice presented their research on the development of hands-on labs related to Enterprise Architecture, which will be integrated into the IS 363 Enterprise Architecture course. Also, students from the Information Assurance graduate program presented their research on various topics including Quantum Computing and Encryption as well as Automatic Identification System (AIS) which is used for tracking ship data.

MSIA students Andrew Erickson and Leena Radeke, with the help of Dr. Dennis Guster and Erich Rice, presented their research on quantum computing topics including Qubits and Shor's and Grover's algorithms. The papers presented: "Quantum Information Systems: The State of Post-Quantum Cryptography as A Means to Combat Shor's Algorithm", and "Understanding Quantum Information Systems: Take Your Cue from the Qubit" which won the Best Paper

Award. MSIA student Alexander Stewart also presented his research on AIS, which was derived from his thesis with the help of his committee chair, Dr. Paul Safonov and titled "Authentication Strategies for the Maritime Automated Identification System (AIS)".

Excellence In Leadership: Scott Lisbon

Scott Lisbon, a student in the Master of Science in Information Assurance program, was recently selected as a recipient of the Excellence in Leadership award.



Scott Lisbon

The Excellence in Leadership program recognizes students who, through their leadership efforts, have made significant contributions to St. Cloud State University and their communities. The University Award for Excellence in Leadership identifies and honors students who have demonstrated outstanding leadership while at St. Cloud State University. This year the Department of Campus Involvement handed out 28 awards to outstanding leaders across St. Cloud State University, however Scott was the only recipient from either the Information Systems or Information Assurance programs. The 28 students hail from 4 US states and 7 countries and include representatives from all 6 colleges and schools across campus.

The students were recognized at the 30th Annual Excellence in Leadership Banquet on April 15th. Congratulations to Scott on behalf of the Department of Information Systems and the Information Assurance program.



Department Award Ceremony officiated by Dr. Susantha Herath

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Title IX

Interview with Dr. Ellyn Bartges

Dr. Ellyn Bartges, the University's designated, Equity & Access Officer, ADA Coordinator, and Title IX Compliance Coordinator, gave us an overview of the programs on campus and talked about the resources available from the Office of Equity and Equal access.

Are there onboarding programs that focus on domestic, international, traditional or non-traditional students? There is no specific onboarding process or program that highlights Title IX that is geared specifically for international students. As long as you are a student at SCSU, the same intuitional rule applies to everyone.

In what ways do cultural differences collide and how does that impact international students' views of Title IX? There is no statute of limitations for Title IX violations and an investigation can be brought to the office even 10+ years after a student has left the school. So, if they later decide to file a complaint they can. This is a significant difference compared to other countries and how they treat assault or stalking.

Are there any experiences that have stood out, which could be shared? The first is the use of personal space, which for U.S students is typically large and making eye contact. In many other cultures they have a much smaller acceptable personal space and often do not make direct eye contact. This has created issues of misunderstanding between students.

What should a student do if they experience an incident? There is an online confidential reporting tool to report Title IX violations. There are other places students can seek services can be found at: <https://www.stcloudstate.edu/oea/support.aspx>. The Women's Center, the Health Services Center, and the Counseling and Psychological Services Center are other places to approach. These resources are paid by student fees and are free for students to utilize.

What items could be addressed for students to have a better understanding of Title IX? It would be helpful for students to familiarize themselves with Title IX, resources available from the Equity office, Women's Center, the Health Services Center, and the Counseling and Psychological Services Center during their onboarding session. Currently an undergraduate student must take a Title IX computer training module as a freshman or as a junior. Those who work as graduate assistant have to take the training as part of their job requirement. It would benefit the entire student community, if an information session was made mandatory for all students.

Federated Insurance IS College Fair

-Channa J Kumarage

The Federated Insurance annual IS College Fair this year was held on April 12th and 13th in Owatonna. There were four students and one faculty from SCSU among 44 students and ten faculty participants.

Information Security of SCADA Systems

-Alexander Stewart and Dr. Paul Safonov

In 2008, SCADA (Supervisory Control and Data Acquisition) systems were installed at the



St. Cloud Wastewater Plant Group

St. Cloud Wastewater Treatment Facility (WWTF). The SCADA system allows people to influence physical machinery through a software interface. In effect, by typing a command or pressing a button on your computer screen, a turbine will change its speed, or a relay will change positions. The St Cloud WWTF is currently managed by a third-party software company called Automated Systems Co. The built-in architecture utilizes over 1000 separate data collection points, known as tags that are stored in a database for further evaluation. Each sensor (tags) feeds data back to a PLC (Programmable Logic Controller) that is controlled by a CPU; that CPU is networked to the database and communicates data according to the system. As a result of data gathered by the SCADA system, the WWTF was able to reduce their total power consumption 12% by identifying times their equipment could be run at reduced output, which was revealed in a project conducted under the supervision of Dr. Paul Safonov's IS 459/559 class and completed by students Alexander Stewart, MSIA and Kehinde Sodunke, IS.

However, implementing SCADA systems comes with a cost, as over reliance on technology can and has opened systems that have been targeted by malicious attacks. Technology is being integrated with practically everything, and to be a successful cyber security professional one must look beyond the obvious targets and solutions.

This fair has been an annual event for the IS majors. The goal of the fair was twofold: (1) to introduce students to Federated & Owatonna and (2) to give students a chance to see what a job in their chosen profession may be like. Federated has been doing this for over 17 years and has received tremendous feedback from the students and professors who have attended. The most lauded activity of the 2-day event (besides the free lodging and food of course) is the hour each student gets to spend one-on-one with a Federated developer learning what they do on a daily basis.



Federated Insurance College Fair

Chicago WiCyS Conference

-Sushmita Acharya

The WiCyS (Women in Cybersecurity) initiative has been established to make headway in increasing women representation in computer science fields. Graduate students Kim Phan,



WiCyS attendees Leena Radeke, Sushmita Acharya, Garima Sapkota & Swapnika Putta

Leena M. Radeke, Sushmita Acharya, Garima Sapkota and Swapnika Putta attended the WiCyS conference for 2018 held in Chicago and helped to further expand on why this conference was different, and beneficial to the attendees.

WICY's primary effort is to bring together women students, faculty, researchers, professionals in cybersecurity from academia, research and industry for sharing of knowledge, experience, networking and extended help in mentoring students who want to advance in the cybersecurity field. As the object of WiCyS has been a continued effort since 2007 to recruit, retain and advance female representation which has received overwhelming head nods from industry, government and academic partners.

The WiCyS 2018 was focused on generating interest among students to consider cybersecurity as a viable and promising career. Additionally, it is a broad community that centers around engagement, encouragement and drumming up support for women in cybersecurity. But, even though there are barriers preventing women from entering or staying in the field, both companies and women would benefit from an increase in the numbers. It is a great feeling to have support organizations like WiCyS that provide extended services like training, interviews and even mentorships.



Women Conference WiCyS

ISA Certification Exam offered to graduating IS Students

Eligibility: Students graduating Spring/Summer 2018

Fee: IS Department pays the exam fee

Structure:

258 MC questions

Two parts Part A and B

3 hours 30 minutes exam with 10 minutes break

Reward: Based on the scores obtained from the exam, up to 10% of extra credit (final/overall grade) from a selected IS course they are currently taking.

Learn to Adapt

Interview with Eric Zierdt

A bit about your background (where do you work and for how long, and positions you have held internships or full-time positions)? I graduated in 2000 from SCSU with a B.S. in Business Computer Information Systems. At that time I was working for a very small start-up in Eden Prairie, and now I work as a Senior DBA and as a Database Architect for Boston Scientific.

Classes that you took at SCSU that you have found to be the most useful? I believe most of the courses in the IS program have been useful, especially learning to code, software development methodologies and statistics, management, etc.

Skills that you have found most valuable?

I think that skills like knowing the OS and Coding are important to learn as a theory, but both OS and programming languages change rapidly, and you must be ready to learn the next language, so learning the basics constructs that make up coding is vital.



Eric Zierdt

Looking back --what would you have done differently while attending school? The most valuable skill that I didn't learn in school was how to network.

Any certifications that you would recommend that would be highly valuable today? In the Database world, I don't think that certifications are as valuable as experience.

Any word of advice for our readers? If you want to have a successful career in Technology and Information Systems, you need to be willing to constantly learn and adapt.

In-Demand Certifications

-Praveen Uprety

Certified in Risk and Information Systems Control: This certification demonstrates an individual's abilities in risk management, assessment, mitigation, response, monitoring and reporting. A CRISC certification will need three years or more of experience in at least two of the four topics covered, plus maintaining Continuing Professional Education (CPE).

Certified Information Security Manager: The CISM certification also offered by ISACA and focuses on IT security. It's designed to demonstrate proficiency in building, designing and managing enterprise security initiatives. CISM requires at least five years of information security experience and maintaining CPEs each year.

Certified Information Systems Security Professional: The CISSP certification offered by the ISC2 and accredited under ANSI is the most recognized certification worldwide. The certification requires at least five years of experience in information security or experience as a security manager and continued CPE credits maintenance.

Certified Information Systems Auditor (CISA): CISA certification is a global certification for IS audit control. The certification demonstrates an individual's capability in every stage of the auditing process and redefines one's ability to report on compliance procedures & assessing vulnerabilities.

Cisco Certified Network Professional (CCNP) Routing and Switching: The CCNP certification is for IT pros and individuals can choose cloud, collaboration, data center, routing and switching, security, service provider, or wireless as other certifications, however they will need to complete the CCNA Routing and Switching exam.

CompTIA Certifications: CompTIA offers entry-level certifications as a basic starting point for an IT career. Network+ and CompTIA CySA+ act as a springboard for a cybersecurity career.

Citation: <https://www.cio.com/>

TERP10 - SAP Education Services

-Dr. Changsoo Sohn

St. Cloud State University has been offering SAP recognition awards (<https://www.stcloudstate.edu/is/student/sap-award.aspx>) and a SAP TERP10 prep course for completing the SAP Associate Certification (TERP10 certification) in conjunction with the SAP University Alliance. This TERP10 certification focuses on the fundamental knowledge required for an SAP consultant to configure and implement SAP solutions.

SAP (<https://www.sap.com/index.html>) includes ERP Basics, SAP ERP, NetWeaver, Financial Accounting, Manage-

ment Accounting, Sales Order Management, Planning, Manufacturing, Project System and Human Capital Management. SAP's globally recognized certifications demonstrate and exemplify an individual's ability on the ERP software. Since last summer SCSU has been offering the TERP10 prep class focusing on completing the SAP® Certified Associate certification, a globally recognized certification that is used currently by 3M, Citrix, Coca-Cola Co., Deloitte & Touche, DuPont, Cargill, Target, General Motors, United Health, H.B. Fuller, and many others.



Dr. Changsoo Sohn

If you are interested in hearing more about the class or have any question, please contact Dr. Sohn, SCSU's SAP Coordinator and SAP Certified Instructor, at csohn@stcloudstate.edu.

How I Survived the Job-Market

-Kehinde Sodunke

Finding a job after graduating was both scary and thrilling. I knew what position I wanted so I started my job search in my last semester of college. There are five lessons I feel all college students can benefit from before starting their job search.

First, get an internship in your field either in your sophomore or junior year. Trust me when I tell you that it really makes a difference when recruiters are deciding on their next round of interviewees. The second lesson is to make sure that your resume is up to date and reach out to people in your field to assess your resume. Third, is when to start looking for a full-time job and everyone has their own feeling about this. But from those I've spoken with, say it makes more sense to start looking for a job when you're about to graduate. Most recruiters shy away from hiring a sophomore or junior as they lack real world experience. The fourth lesson is pursuing and understanding what the position that you are applying for. People put so much faith on their resume and do not do enough research about the positions that they are applying for.

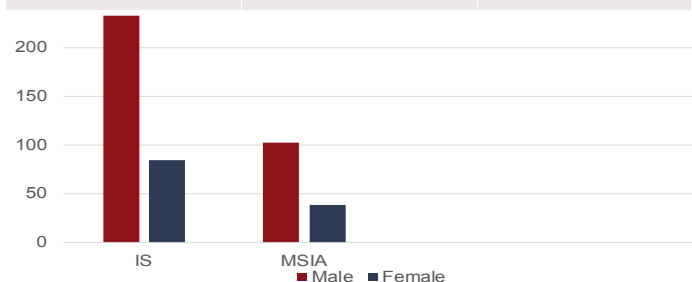


Kehinde Sodunke

Finally, you must understand that failures are part of a growing process during job searches. So, enjoy the moment and always be yourself, because there is something out there for you!

MSIA / IS Student Distribution

	IS	MSIA
Male	239 (78%)	102 (71%)
Female	85	39



Tutoring

The Academic Learning Center provides study and reading assistance to students enrolled at St. Cloud State University to help them become more efficient and effective learners. The ALC has a variety of services to assist students including courses, tutoring, workshops, and other resources. The Academic Learning Center is located in Centennial Hall Room 236. You can find sign up information in Centennial Hall 415.

Fall 2018 Course Registration!

Fall 2018 registration is open for all students. Meet with your advisor as needed to register now for Fall courses. Early registration is the best strategy to ensure courses you need are available to you. Registration is available online through E-Services. More information on registration is available through Records and Registration at: <http://www.stcloudstate.edu/srfs/registration/guide.aspx>

Blockchain-Internet of Value

-Jamla Hayat Mosakheil (MSIA)

Blockchain is a fascinating concept and my interest grew after taking an e-commerce security class with Dr. Abu Hussein, who is also my thesis mentor, the thesis is titled “Blockchain-Internet of Value”. My core area of focus is to develop a security model for threat classification and risk quantification in the Blockchain protocols. Blockchain, which is the foundation of Bitcoin has become one of the most popular technologies to create and manage digital transactions, it is a cryptographically secure electronic payment system, and it operates without any trusted third-party authority such as a bank, or any other centralized institution. Additionally, Blockchain and its technique has been applied in many other disciplines, including Internet of Things, healthcare, supply chains, software engineering, cloud computing, cybersecurity and many financial institutions.

However, Blockchain technology is still in its infancy and despite its great potential it is lacking in key areas of security and privacy (S&P), scalability, compliance, and governance. I personally believe that Blockchain will continue to enhance its ecosystems as it progresses and will mature into a well-adopted technology. It will help future businesses to develop robust applications while anticipating countermeasures in different abstracted layers. And I intend to develop a Blockchain based trust management system as my future Ph.D. research, because I believe in what R. Buckminster Fuller's vision “You never change things by fighting the existing reality. To change sometime, build a new model that makes the existing model obsolete.”, which applies to my thesis on Blockchain.

Student360 Conference

-Scott Lisbon (MSIA) & Nicole Schrom (IS)

In the face of a heavy afternoon snowstorm on Saturday, February 24th, SCSU once again turned out a few dozen students to attend the Student360 conference at Best Buy Headquarters in Bloomington, MN. Student360 is a student-focused event based off the annual Secure360 Conference and focuses on students who are pursuing careers in cybersecurity, business continuity, and risk management. During the one-day student conference participants were exposed to a variety of guest speaker information sessions, mock interviews, potential employers' interactions and lunch panel discussions with multiple Chief Information Security Officers (CISO). Primarily the session talks focused on areas related to cybersecurity and risk management and the topics presented were on password pragmatism, penetration techniques with SQL Server, and how augmented reality can enhance cyber security education. The panel discussions also involved on how to navigate the first five years in an IT career, networking's biggest lie, social media do's and don'ts, and sharing stories for career success. Even though this conference was heavily based on computer security, it also offered sessions that concentrated on general IT career development programs. Overall Student360 provided a professional experience even though the scale was smaller, but it helped prepare students for the future conferences that they might attend. And it gave them an insight on what to expect in the real world, additionally inclusion of mock interviews gave the younger professionals a chance to enhance their interviewing skills. And arguably the most important aspect of attending conferences like Student360 is it allows students to supplement their collective knowledge.

Career Fair

If you are planning to get an internship or full-time job offer, we hope you did not miss out on the Huskies Job & Internship Fair Career Day event held in Atwood on Wednesday, March 21, 2018 and the Diversity Job & Internship Fair held on Friday, January 26, 2018. If you did that is great, if not there are other events that are going to be held at SCSU that students can attend to sharpen their skills.

There are upcoming events like the Minnesota Education Job Fair on Monday, April 23rd 2018, Grad Expo on Wednesday April 18th 2018 and Tourism Career Day Friday April 6th 2018. And besides these remaining career events there are supplemental special events such as Employer Drop-Ins, Career/Job Fair Prep Party, LinkedIn Thursdays, Feedback Fridays, and Mock Interview Days organized by the Career Center. These events are intended to sharpen students' skills that will then impress employers, making them stand out from other college graduates. Spring and Fall semesters normally focus on SCSU's big Career Days which showcase employers seeking out students with job and internship opportunities. These events bring a variety of employers to campus to promote their business and help their recruitment process. The events are free and provide an opportunity for students to explore careers in their respective fields.

Quantum Encryption and Random Numbers

-Adam Fitzpatrick

With the rising functionality of Quantum Computing, development of a secure method of communication has become vital, but by using quantum mechanics that generates random numbers an impenetrable system could be developed. However, the difficulty then becomes where to find random numbers? Oftentimes while programming a developer will have the need for random numbers in an application. For example, rolling of dice, these numbers are generated from a computer algorithm that makes each sequential number seem random.



Adam Fitzpatrick

However, since they were developed from a computer algorithm that is publicly available we can replicate the scenario used in encryption and predict the next number. But the “random numbers” are predictable hence poor encryption candidates. Instead, we can look to mother nature for random numbers, like using radioactive decay over time, which is an essential part of my research project. The random number generator I built is based on the schematics of a research paper "Hybrid Quantum Encryption Device Using Radioactive Decay" (2017) by Anthony Kunkel. In Quantum computing, data is processed much faster and finding factors is an ideal job for them because of the attributes of quantum computers and the logic behind them in comparison to traditional security protocols used today.

My research hypothesis is to prove that these truly random numbers are extremely secure and thus difficult to predict for malicious users, therefore they will not be able to break the encryption. My project was developed as a demonstration of Quantum Encryption for the class IS 459 Topics in IS: Quantum Information and Processing Communication.

Department at a Glance

- 465 High caliber students (IS & MSIA)
- Representing 33 countries
- Dedicated 12+ faculty
- Grants over 6 million with 100 + publications
- Fastest growing major in HBS (48 in 2008 to 465 in 2018)
- 5-year BS/MS program

The Information Systems Department has also secured two National Science Foundation grants, totaling over \$1.2 million.

What's new in MSIA Program?

-Dr. Jim Chen

The information technology and security landscape evolve rapidly, the MSIA program strives to improve its curriculum by soliciting industry feedback. In November 2017, we held our MSIA industry advisory council meeting. Six industry representatives and seven faculty members from both CSIT and the IS Departments attended the meeting. The overall feedback was very positive. We are looking to incorporate some constructive input from the Council to our MSIA program.



Dr. Jim Chen

We have expanded our curriculum to include a Project Portfolio and an Internship as Plan C alternatives. We are also considering adding a new Capstone course as another Plan C option. And, in an effort to recruit students from under-represented groups such as women and ethnic minorities some of our faculty and graduate students have participated in annual Summer Science Fair by SCSU to promote high school students' interests in STEM programs at SCSU. To learn more about why so few women enroll in STEM programs, a couple of MSIA students have chosen the topic as their starred paper research term paper. Spearheaded by our MSIA students, a student organization called Women in Cybersecurity has been established.

Accreditation Board for Engineering and Technology (ABET)

For students

- Quality education
- Companies preferred to recruit ABET graduates

For universities

- Globally recognized
- Delivers best teaching practices

For the society

- Accreditation reflects expectation of educational programs.
- Meets professional requirements for the society

Starred Papers

The School of Graduate Studies requires the completion of a culminating project for all Graduate programs. The culminating project options for the MSIA program requires a thesis or a starred paper. Selection will determine if a student follows plan A or B. A is a thesis which "is oriented more toward original research, data gathering with statistical analysis, theory testing and theory building whereas the starred paper is oriented more toward the usage of secondary research sources" (for more information refer to the Graduate Studies website).

A list of IA program electives can be obtained from the IA program advisor and in the Graduate studies catalog. The thesis and starred paper take more than one semester of preparation, and require the formation of a Committee. Thus, students should be prepared to work autonomously on their paper proposal prior to the semester they will defend it.

First Name	Last Name	Starred Paper/ Thesis	Topic	Committee Members
Patrick	Jackson	Thesis	Long Term Assessment of Object Strength in a Web Service as Managed by the Garbage Collection in Java Based Service	Dennis Guster, Balasubramanian Kasi, Erich Rice
Kim	Phan	Starred Paper	Improving Resiliency of Adaptive Multi-factor Authentication Systems.	Abdullah Abu Hussein, Susantha Herath, Jie Meichsner
Priyanka	Mutyala	Starred Paper	Comparison of Intrusion Detection Systems/Intrusion Prevention Systems, It's features, and uses: A Selection Criteria.	Dennis Guster, Lynn Collen, Balasubramanian Kasi
Alexander	Stewart	Thesis	Authentication Strategies for the Maritime Automated Identification System.	Paul Safonov, Jie Meichsner, Erich Rice
Sri Rama	Dasari	Starred Paper	Performance Evaluation of Structured and Unstructured Data in Pig/Hadoop and MongoDB Environments	Dennis Guster, Susantha Herath & Kasi Balasubramanian
Srinath Reddy	Meadusani	Starred Paper	Virtualization using Docker: An alternative approach to Virtual Machines	Susantha Herath, Ezzat Kirmani, Kasi Balasubramanian
Scott	Lisbon	Thesis	A Comparative Analysis of HIPAA Risk Assessments Between Two Dental Clinics	Dennis Guster, Balasubramanian Kasi, Erich Rice
Mohammad Ashraful Huq	Shahi	Starred Paper	Tactics, Techniques and procedures (TTPs) to Augment Cyber Threat Intelligence (CTI): A Comprehensive Study.	Tirthankar Ghosh, Jim Chen, Dennis Guster
Joshua	Faust	Thesis	Distributed Analysis of Brute Force and Dictionary-Based Attacks.	Dennis Guster, Susantha Herath & Jie Meichsner
Sudip	Kandel	Starred Paper	Evaluating Security Aspects for Building A Secure Virtual Machine	Susantha Herath, Mark Schmidt, Abdullah Abu Hussein
Jamal H.	Mosakheil	Starred Paper	Security Threats Classification in Blockchain.	Abdullah Abu Hussein, Tirthankar Ghosh, Susantha Herath
Dimuthu	Candauda Arachchige	Starred Paper	Privacy Regulations in The context of Finance : Comparison between Developed and Developing Countries	Susantha Herath, Nimantha P. Manamperi, Lynn Collen



Congratulations!
Academic Excellence Awardees Spring 2018
MSIA: GPA of 3.75/IS: GPA of 3.5



Farewell!
Graduates of Spring 2018
MSIA and IS

Information Assurance (MSIA)

Sushmita Acharya
Sara Acikkol
Hussain Khalid Ansaif
Obeth Aranda
Poornima Arora
Krystal Balduc
Vinay Bodepudi
Satya Bommireddi
Corey Burns
Manas Byadigera
Dimuthu Arachchige
Venkata Devarasety
Andrew Erickson
Sindhu Gadhiraaju
Surendra Giri
Venkatesh Kandula
Brett Karow
Furkhan Khaja
Matthew McCullough
Talha Mirza
Zeeshan Mohammed
Jamal Mosakheil
Ravi Kiran Nishtala
Abhilash Nomula
Minank Podduturi
Bipul Poudel
Swapnika Putta
Janaka Gedara
Sirisha Reddy
Jayakrishnan Karunanithi
Garima Sapkota
Alexander Stewart
Godhuli Thapaliya
Zhao Xie

Information System (IS)

Nirman Acharya
Taesig Ahn
Mohamad Nahdi
Sohail Alam
Abdullah Aldaej
Hamad Alhajri
Tsegazab Atsebha
Melissa Berning
Nischal Bhandari
Shei Sze Bong
Jimmy Bui
Tao Chang
Brady Cooper
Jesse Hoffart
Jarin Karjala
Bishesh Karki
Madina Kartkozha
Renu Lakhema
Samantha Lee
Alyssa Lentner
Qiuping Lin
Trinka Maharjan
Evan Molin
Khalid Noor
Puskal Pant
Aashma Parajuli
Katie Peterson
Hannah Potrykus
Ahmed Qadiri
Riley Reed
Logan Salner
Dorothee Sam
Nicole Schrom
Elisha Shrestha
Griwan Shrestha
Samuel Stanton
Tanzila Tabassum
Alisha Tamang
Rahul Tamrakar
Ryan Tormanen
Farah Warfa

Information Assurance (MSIA)

Sushmita Acharya
Sara Acikkol
Manohar Adepu
Mohamoud Ahmed
Krystal Balduc
Dimuthu Candauda Arachchige
Hazem Farra
Joshua Faust
Nikita Gopathi
Mohammad Islam
Patrick Jackson
Yashwanth Kambalapalli
Utsav Karanjit
Vamsi Karukula
Chandu Kasthuriarachchi
Phanitha Kommareddy
Veenadhari Kotha
Scott Lisbon
Babu Rajeev Maddipati
Nalindrani Malimage
Srinath Meadusani
Zeeshan Mohammed
Jamal Mosakheil
Priyanka Mutyala
Nazneen Naik
Rishitha Naini
Rosthan Ngomssi
Suhass Padala
Srinath Reddy Pasunuru
Kim Phan
Unmesha Punyamurthula
Garima Sapkota
Mohammad Shahi
Sana Shahid
Dixit Shakya
Prabesh Shrestha
Alexander Stewart
Godhuli Thapaliya
Anusha Thottempudi
Ulrich Tofack
Ahmed Bakhtiyar Uz Zaman
Sandeep Vemulapalli
Thant Zaw

Information System (IS)

Abdullah Aldaej
Abdirahin Amin
Thomas Anderson
Tsegazab Atsebha
Melissa Berning
Shei Sze Bong
Brady Cooper
Michael Eli
Gurminee Goodlin
Sean Haley
Justin Hall
Blake Hamlin
Adam Her
Alex Hinnenkamp
Abdinoor Hussein
Azeem Javed
Crystal Klaphake
Richard Nelson
Khalid Noor
Austin Novitsky
Andrew Novotny
Garret Olson
Katie Peterson
Melina Pha
Ahmed Qadiri
Folly Quevi-Attakpla
Samuel Schindler
Elisha Shrestha
Brady Sprenger
Fletcher Xiong

Scholarship Recipients

Information Assurance

Obeth Aranda
Poornima Arora
Corey Burns
Manas Byadigera
Surendra Giri
Furkhan Khaja
Jamal Mosakheil
Ravi Kiran Nishtala
Abhilash Nomula
Sirisha Reddy
Jayakrishnan Karunanithi
Godhul Thapaliya
Zhao Xie

Information System

Madina Kartkozhakova

Ming-te and Debra Lu

Qiuping Lin

Federated Insurance

Hannah Potrykus
Farah Warfa

Wes Schiffler

Puskal Pant

Sterling 5

Alisha Tamang

Ruth K. Meyer

Muhammad Rahman

Graduates of the MSIA program



Grads Hazem Farra, Alexander Stewart & Dr. Paul Safonov

Have an interesting update/article/experience/news/idea/event to share?

We are always seeking content and suggestions for our newsletters. If you are interested in submitting a writeup of 250 words or less with relevant high resolution image, please feel free to contact the IS Department office or send an e-mail to is_Editor@stcloudstate.edu



Published By:
Department of Information Systems
CH 443 | (320) 308-2174
Herberger Business School
St. Cloud State University

Editor: Paveen Uprety | *e-mail:* puprety@stcloudstate.edu
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MINNESOTA STATE

St. Cloud State University,
a member of Minnesota State