

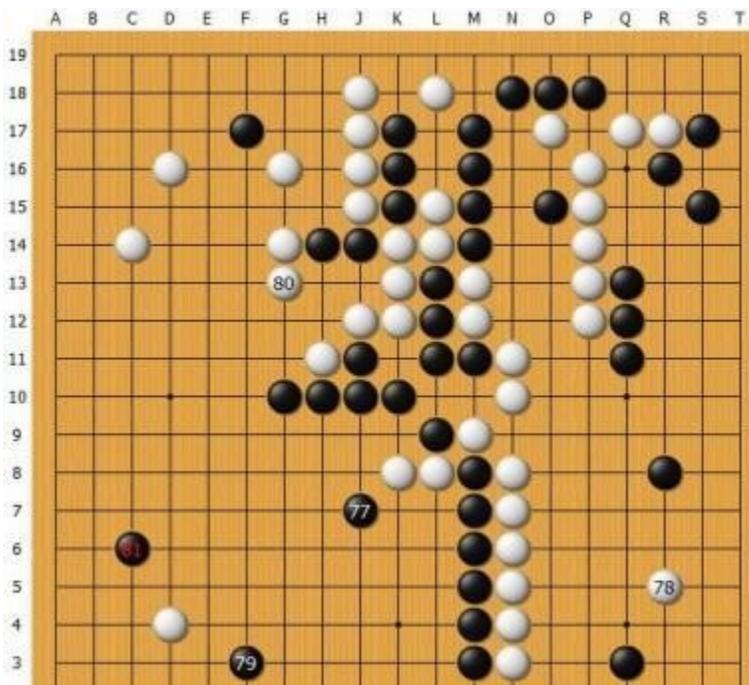
## CASA Dean's MMU (Monday Morning Update)

Monday, March 14, 2016

Dear Colleagues,

Happy Pi ( $\pi$ ) Day! Google's *AlphaGo* made headlines last week, when it defeated Go champion Lee Sedol three times to secure overall victory in a five-game series. AlphaGo is a computer program with machine learning ability, and it is the first computer program that has beaten a 9-dan (the highest rank) professional Go player.

In 1997, the IBM supercomputer *Deep Blue* beat Chess champion Garry Kasparov. However, AlphaGo's victory goes far beyond that achievement by Deep Blue, because Go is a much more complicated board game than Chess. Go (*Weiqi* in Chinese) originated in China more than 2,500 years ago. The rules of the game are simple: Players take turns to place black or white stones on a  $19 \times 19$  board, trying to capture the opponent's stones or surround empty space to make points of territory. Chess, however, has a board of  $10 \times 10$  grid, and each piece has a very limited number of possible next moves.



Taking the first move, for instance, Chess has only 20 possible moves at the beginning of the game, while in Go the first player has 361 ( $= 19 \times 19$ ) possible moves. Both AlphaGo and Deep Blue use tree search and position evaluation functions. Due to the fact that Go is much more complex than Chess, AlphaGo can no longer use exhaustive or brute-force search as Deep Blue does. Here is why: Since each location on the board can be either empty, black, or white, there are a total of  $3^{361}$  possible board positions in Go.

$$3^{361} = 1.74 \times 10^{172}$$

This number is larger than the total number of atoms in the universe! The computational complexity is what makes Go hard for computers to play. It is not feasible for AlphaGo to use a complex hand written board evaluation function reflecting the wisdom of top human Go players. Instead, AlphaGo uses a self-learned neural network to evaluate board positions, along with a policy function and a stochastic form of tree search called Monte Carlo Tree Search (MCTS).

AlphaGo's victory marked a milestone in the history of artificial intelligence. Why is it such a big deal? The algorithms in AlphaGo can be applied to many more applications than just Go, such as healthcare, robots, and smartphones. I would like to mention a few things in education that might also benefit from the applications of artificial intelligence demonstrated in AlphaGo.

1. **Automatic Grading:** Not just for multiple-choice questions, it is possible for teachers to use automated grading for nearly all kinds of tests, including student essays, term papers, computer programs, and other written examinations.
2. **Adaptive Learning:** Interactive teaching devices powered by deep-learning technologies will be able to orchestrate learning process and mediate resources according to the unique needs of each learner. Therefore a truly personalized adaptive learning will become a reality even in a classroom with one instructor and many students.
3. **Intelligent Tutors:** Machine tutors with artificial intelligence can teach students high-order thinking and creativity, thus acting as important helpers for teachers and human tutors.

I am excited about the success of AlphaGo with its deep learning ability. There are many educational tools that use computer intelligence to help students and teachers get more out of the educational experience. I believe artificial intelligence in general, and deep learning in particular, will shape and define the education experience of the future, and I encourage ways to apply these new technologies in our teaching and learning practice.

Have a wonderful Spring Break week!

## **ELECTRONIC TIME-SHEET & PAYROLL SYSTEM**

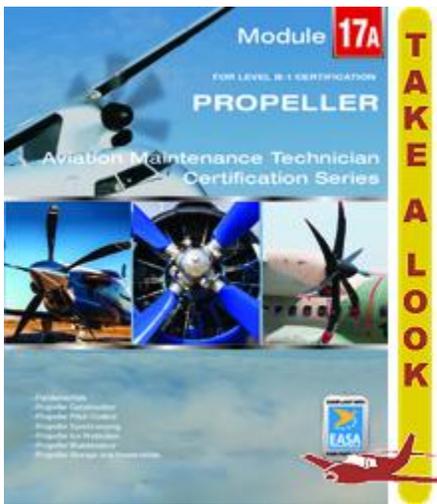
After significant effort by Cara Doerr, Nathan Black, Scott Frisch, Derek McNelly, Sheila Cheatham, and others in the College, you will start to see a "T" drive on your computer that is dedicated to timesheet and payroll. You may have to restart your computer for the "T" drive to show up. Each folder contains instructions, pre-loaded forms, format for saving, etc., and only the staff member and supervisor/payroll delegate can get into each folder. Faculty and staff cannot open someone else's folder. Please let Cara or Nathan know if you have any questions.

## **CONGRATULATIONS**

- Please join me in congratulating Dr. **Charles Rodriguez** for publishing his latest book: *Propellers for Aircraft Maintenance*. This is an EASA Part 66/147 approved textbook which will be used to train U.S. and European aircraft technicians.



A sample of this book has been put in the displaying cabinet within the Dean's Office suite. Please contact Mary Nemetsky if you would like to have a look-inside of this beautiful book. According to Chair Mike Burgener, "I saw a copy of the book and it is excellent work. Many of the illustrations were taken from AVTECH aircraft so it is very interesting to see our program aircraft in print!" Please use the link below to see an online sample: <http://www.actechbooks.com/products/act577/>.



## Propellers for Aircraft Maintenance

by [Charles L Rodriguez](#)

Publisher: [Aircraft Technical Book Co.](#)

ISBN-13: 9781941144367

Copyright Date: 2016

Edition: 2nd

Pages: 134

Binding: Paperback

Dimensions: 11.0" x 8.5"

Book Weight: 1.0lbs

<http://www.actechbooks.com/products/act577/>

<http://www.actechbooks.com/products/act577/#ixzz42FP9hPag>

This is the third book written by Dr. Charles L. Rodriguez, contributing to Aircraft Technical Books. The first book covers reciprocating engines and systems; the second deals with flight controls for large aircraft; and this one examines propellers. It is awesome to have our excellent Aviation Technologies (AVT) program displayed in books around the world, as it is among the best of the best and showcasing our assets and talents is long overdue. Aside from our physical assets, our training philosophy is also superior when compared to schools that solely teach the test or focus on only theories. Our AVT programs are ranked among the best in the country and were developed with input from industry representatives and the Federal Aviation Administration (FAA) to provide the requisite skills and broad educational experience necessary in today's competitive environment.

Congratulations Dr. Rodriguez for this great accomplishment!

- The following Automotive Technology faculty were invited to and attended the Illinois College Automotive Instructor's Association conference held in St. Louis on March 10 – 11, 2016.
  - **Blain Heisner** and **Drew Croxell** presented "FCA's MultiAir Induction";
  - **Ralph Tate** presented "Vehicle-to-Vehicle Communication: First Phase of the Connected Car"; and
  - **Sean Boyle** presented "Diagnosing, Testing, and Teaching Transmissions with Scopes."

Congratulations!

- **Mr. Tom Imboden**, Associate Professor of Information Systems Technologies (IST), received a *Distinguished Service for Education* recognition from the Computer Information Technologies program at Kaskaskia College, Centralia, IL on Thursday, February 25, 2016. Congratulations!



- **Dr. Nancy Martin**, Associate Professor of Information Systems Technologies (IST), has been accepted to become an *ABET Program Evaluator (PEV)* in Information Technology (IT) and Information System (IS). ABET stands for Accreditation Board for Engineering and Technology, a non-profit, non-governmental organization recognized by the Council for Higher Education Accreditation (CHEA). Congratulations!
- **Mr. Tom Imboden**, Associate Professor of Information Systems Technologies (IST), and **Dr. Nancy Martin**, Associate Professor of IST, have successfully submitted a Department of Labor grant proposal entitled “TechHire Training Program.” The targeted population of the grant is youth and young adults who are out-of-secondary school, between the ages of 17 and 29 who live mainly in the Southern Economic Development Region (EDR) of Illinois and who have barriers to training and employment. The project will serve at least 100 individuals per year with a target of 25 in the IT Kick Start program, 25 in the Bridge to Bachelor program, and 50 in various H1-B related degree programs at community colleges. Congratulations!
- This week, we have 28 CASA students completing an externship in an industry under the supervision of an SIU alumnus. Each CASA School or Department has at least one student participating. We will have an opportunity to recognize some of our sponsors and students, give them an SIU lapel pin, hear some of their stories, and congratulate them on their accomplishments at the SIU Externship Recognition Ceremony on Tuesday, March 29<sup>th</sup> in the Student Center Ballrooms 5:00pm – 7:00pm. Congratulations!
- Please join me in congratulating Health Care Management (HCM) student, Ms. **Avona Greene**, on her nomination to be recognized by the Mid-America Health Care Executives Forum (MAHCEF) this year. This is the sixth year the HCM program has been asked to participate in this award.



Avona E. Greene is a junior year student in Health Care Management (HCM), a member of the Delta Epsilon Iota Academic Honor Society, the Student Healthcare Management Association and a member of the SIUC Cheerleading team. Avona currently has a 4.0 GPA and has received several academic awards including a CASA Honors Award, Top 5% Psychology Student Award, Student Athlete Honors Award, as well as continually making the SIUC Dean's List each semester. Ms. Greene was nominated for this recognition by the HCM program faculty based on her academic performance, leadership acumen, and volunteer community service. Special thanks goes to Dr. Bernie Kerr from Central Michigan University, also a member of the HCM External Advisory Board, for once again facilitating the recognition of one of our excellent students. Congratulations!

- Please join me in congratulating Ms. **Haley E. Pangburn**, Senior of Health Care Management (HCM), who has been selected as the 2016 recipient of the William C. and Dorothy R. Bleyer Scholarship. This scholarship is valued at \$1,000. Congratulations!
- Please join me in congratulating the Dental Hygiene (DH) program on establishing DA1 code for its online Education and Management Specialization; and the Fire Service Management (FSM) program on establishing Distance Education Codes to offer FSM courses at the Chicago Fire Department in Chicago, IL effective Summer 2016. The establishment of these codes enable distance education programs and courses to be aligned with the SIU Board of Trustees tuition and fee approval of Item Z at their December 9, 2010 meeting. Congratulations!

## **CASA SHOWCASE WALL**

Under the leadership of Dr. **Becky Robinson**, CASA Recruitment and Communication Specialist, we are launching a new *CASA Showcase Wall* in the CASA building on the SIU Campus, as well as other interested sites, to showcase our CASA Research, Service, and Creative Activity accomplishments. We hope to collect interesting research posters, or creative activity posters which have been produced by faculty and/or students which can now be contributed for consideration to be laminated and displayed as part of our CASA Showcase Wall. We hope to make our walls more interesting and informative and inspiring for our faculty and students by sharing different types of research and initiatives our programs are involved with. If you have a poster to contribute, we can pick it up or you can drop it off in the Dean's Office Room 221. Please contact Becky Robinson at 453-7283 for further information. We hope to identify a dozen high quality posters we can laminate and hang throughout the CASA building.

## **AD STAFF MEETING**

The Administrative (AD) Staff will meet on Wednesday, March 16, 2016, 9:00am - 11:30am in the Dean's Conference Room. The tentative agenda of the meeting is below:

1. Welcome, Open Forum, and Dean's Update
2. Budget Information and Update
3. Annual Evaluation and Workload Assignment
4. Summer Model and Schedule Discussion
5. Round Table Discussion and Other Business

If you have any specific items that you feel the Administrative Staff should consider at the meeting, please send me your suggestions before 1:00pm Tuesday, 3/15/2016. All faculty and staff are invited to the open forum section of the Administrative Staff meeting from 9:00am - 9:30am.

## **RECRUITING & OUTREACH**

CASA will host a workshop on "*Design a Career in a High Job Growth Industry*" for 100 Massac County High School student visitors on Thursday, March 17<sup>th</sup>, 11:30am – 2:00pm, at the Transportation Education Center (TEC) Multipurpose Room. Each CASA School or Department will participate in this event, sharing promising career path opportunities available through their degree programs. Students will learn about high job growth industries and fast-growing occupations in various areas. Science, Education, Mass Communications and Media Arts, and Business, as well as the Career Services and University College also will participate.

## **CASA AMBASSADORS RECRUITMENT DRIVE**

During the weeks of March 21-31, 2016, students are being recruited to join as CASA Ambassadors to plan a series of fundraising initiatives which can support student travel and learning experiences for college to career readiness. Any student interested in joining the CASA Ambassadors can call Becky Robinson, Ph.D., CASA Recruitment and Communications Specialist at (618) 453-7283 or email [brobinso@siu.edu](mailto:brobinso@siu.edu).

## **REGIONAL COLLEGE FAIR**

CASA representatives will participate in the Southern Illinois Regional College Fair which will be held in the SIU Arena on Thursday, March 17<sup>th</sup> (9:00 – 12:00pm). Over 800 students are registered to attend and visit with 19 different Universities who have confirmed they will be present, including SIUC.

## **ON THIS WEEK'S CALENDAR**

- Monday, March 14, 2016: Spring Break week for students. Extern Program starts.
- Tuesday, March 15, 2016: 10:00am-12:30pm, Deans' Council Meeting, Anthony Hall Balcony Conference Room;
- Wednesday, March 16, 2016: 9:00am - 11:30am, Ad Staff Meeting, Dean's Conference Room.
- Thursday, March 17, 2016: 9:00am - 12:00pm, Southern Illinois Regional College Fair, SIU Arena.

## **AND FINALLY ...**

If you see something in this update that you want to comment on, please send an email to my SIU email [awang@siu.edu](mailto:awang@siu.edu); or call me at 618-536-6682. Also, if you know of anyone interested in receiving the

CASA Dean's MMU, please ask them to send me an email and we will gladly add them to our mailing list. If you prefer not to receive the CASA Dean's MMU, please let me know, as well. Thank you.

Andy Ju An Wang, Ph.D.  
Dean, College of Applied Sciences and Arts