

FRESNO STATE

Industrial Technology

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Industrial Technology Teacher Education going strong

Things are thriving with the department's teacher education program. This semester another 15 teachers in California will be properly credentialed thanks to our program. That makes 45 in the last year and a half. Including a couple of traditional students in the program this year, we provide working teachers the opportunity to learn about project-based learning so that they can be better teachers in the growing STEM programs. STEM stands for Science, Technology, Engineering and Mathematics. These programs are bringing back hand-on, technology based classes in secondary schools.

I have visited a lot of these classrooms, from Sacramento to Indio, and can report that most of these classes resemble old fashioned Industrial Arts classrooms with a modern flair. AutoCad is taught side by side with the writing of mobile apps;

The New IT ASM option effective this fall

The Department of Industrial Technology is now offering a new "hands-on" program in Agricultural Systems Management that will prepare students for managerial and technical leadership roles in agricultural industry. The program will provide students with an understanding of engineering technology, agricultural sciences, business and management systems. The knowledge may be applied to a career in the area of management and application of technology to agricultural production systems, power machinery systems, food production and processing systems, and production and management of agricultural

enterprises in general. This program is designed to produce tomorrow's workforce trained in the areas of agricultural engineering technology, agricultural information systems, manufacturing, processing and packaging technologies, quality systems, business and management systems thus satisfying a vital need of the San Joaquin Valley business community.

This program has been designed to cover a wide range of topics related to agricultural business, agricultural mechanics, food safety, quality systems, production operations, spatial technology and water technology with room for elective courses in a chosen area of specialization. If you would like to learn more about this option, please contact the program director, Dr. Balaji Seth at balajis@csufresno.edu.

Department undergoes a national Accreditation review

Last April, the department underwent review by an accreditation team from the Association of Technology Management and Applied Engineering (ATMAE). On May 10, they notified President Castro that we were awarded a two-year accreditation. We satisfied, wholly or partly, all of the criteria, except

two. It probably comes as no surprise that one area they found lacking was our outdated equipment. Basically, we have two years to improve the program by coordinating long range plans and updating our facilities, areas which will improve our service to students.

the newest graphics communication method (and graphics has long been an area of study for Industrial Technology). New CNC milling machines are entering the classroom labs.

I watched students program robots to harvest a field as part of preparing for a competition. And schools that kept their wood shops and metal shops are reinvesting in equipment and teachers. The failure of No Child Left Behind has opened the doors for the return of hands-on education that will inform a new generation in the practical arts and better prepare future citizens for college and the workplace.Don Austin

Earl and Beverly Knoblock Robotics Lab at the new Jordan Agricultural Research Center

The Knoblock family generously donated \$200,000 for Robotics lab to encourage research and teaching. The new lab was unveiled on May 10, 2016, and the Industrial Technology students, Bregan Gray, Huy Le, Arthish Bhaskar, Hemasri Rajendra, Prithvi Ravikumar, David

Tollakson, and Abhijit Bhaskar along with Department Chair, Dr. Alex and Lab Coordinator, Dr. Seth, showcased robotics research and interacted with the Earl and Beverly Knobloch family. The event was coordinated by Jordan College Dean Sandra Witte, Ag One Foundation Director, Ms. Alcidia Gomez, and Ms. Shannon Fast as part of the new Jordan Agricultural Research Center opening celebrations.

IT Department is now on Facebook, Twitter and LinkedIn. We urge you to join these social networking sites to stay connected.

LinkedIn - www.linkedin.com/groups?gid=2566316&trk=hb_side_g
 Twitter - <https://twitter.com/indtechfresno>
 Facebook - www.facebook.com/FresnoStateIndTech

Faculty, Staff and Student Activities

Professor Leal-Quiros led 15 students in **IT 106 Energy Conversion and Utilization** class on a tour of two power plants on April 20, 2016. First visit was to



the Waste Water Treatment and Cogeneration Plant of Fresno and Clovis at Jensen Avenue, where several Digesters generate natural gas that is utilized in two tandem Cogeneration Plants. The Plant comprises of two parallel systems of Gas and Steam turbines.

Although each system is designed to generate 5 MWe (megawatt electrical), the maximum power it has produced is 7.6 MWe. The second Plant, Rio Bravo Biomass Power Plant, generates 25 MWe. After a detailed presentation on the systems, students were able to walk and to observe firsthand the control room and the main power plant



systems. They also met with the upper management at both Plants and learned how these renewable



energy sources are used to generate electrical power.

Twenty students in **IT118 Production Operations** led by Dr. Ken Machoian toured Anlin Window Systems in Clovis on April 21, 2016. Anlin Industries has been manufacturing the highest quality

energy efficient replacement windows and doors since 1990, then moved into a brand new state-of-

the-art manufacturing facility in Clovis, California. In 2001 they completely re-engineered their replacement windows and doors, setting a new standard for energy efficiency, aesthetic appeal, functionality and warranty. Anlin Window Systems is a top 100 manufacturer in the United States.

MSIT student, **Bregan Gray**, presented his research on unmanned aerial vehicle systems for agriculture in Graduate Research and Creative Activities (GRACA) symposium. He also presented his work to industry

partners such as Agrian and AeroVironment.

MSIT students, **Nikhil Shinde** and **Arthish Bhaskar** were awarded the prestigious CII scholarship to attend Irrigation workshop in Sacramento in January 2016. They are involved in applied research on campus with CIT, CWI, ICWT, UAL and other collaborating Irrigation companies in Fresno. Also, **Nikhil** was awarded the outstanding poster presentation at the 37th Annual Central California Research Symposium on April 20, 2016, which included \$250 cash prize. BSIT/Special Major student, **Frank Baggiolini**, also won undergraduate honorable mention

on his research poster on orchard management and air emissions control for agriculture.

On April 10, 2016 Industrial Technology Department's **Fresno**



State Motorsports Club hosted its second Car Show on campus,

where over 100 vehicles participated and 23 trophies were handed out. It featured cars from imports, domestic, muscle, trucks, and even an audio category. The club members have remodeled BMW E30 and plan to race at the Thunderhill Raceway Park in December, to run under grueling conditions for 25 hours straight and conform to all technical and safety standards put forth by NASA. The club is still in need of parts. If you are interested in joining the club or able to donate materials, please contact the club President, Johnny Cano, johnnycano@mail.fresnostate.edu.

Dr. Balaji Sethuramasamyraja presented three posters at the

President's Showcase of Excellence 2016 on May 5, 2016. Posters included Precision Agriculture at Fresno State, Technology & Research in University Agricultural Laboratory, and Student Success by Industrial Technology Students.

Dr. Balaji Seth together with Dr. Yiannis Ampatidis at CSU, Bakersfield have been awarded \$275,178 grant (2016-19) for undergraduate experiential learning fellowships by the U.S. Department of Agriculture - Agricultural Food Research Initiative (USDA-AFRI). BSIT student, **Huy Le**, has been awarded a competitive fellowship

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29th IT Annual Spring Banquet & Career Fair



2016 IT Banquet was sponsored by Agrian, Anlin Window Systems, Betts Company, Bee Sweet Citrus, Compac, Cannon Sleep Products, Eliminator Manufacturing,

Grundfos, JBT FoodTech, Jain Irrigation Systems, Netafim. It was attended by 50 students, 47 industry representatives and 20 faculty and staff, and pictures can be glimpsed on the Jordan College facebook. The keynote speaker, Mr. Nishan Majarian, who is the CEO and co-founder of Agrian, Inc., gave a



heart-to-heart speech about working hard with good attitude in order to succeed in jobs.

Congratulations to the 2015-16 Graduates

MSIT Graduates

Ashwin Chandrasekaran
Siddhartha Reddy
Chennuru
Iuliana Coanca
Bregan Gray
Sairam Gopal Lella ♦
Pranav Menon
Fnu Parminder Kaur
Hemasri Rajendran
Prithvi Ravikumar
Jeznoel Santos ♦
Baby Suma Reddy Vemula

BSIT Graduates

Mohammed Al
Quraishah
Ahmed Alhedayan
Abdulaziz Almelihi
Feras Babge
Frank Baggiolini
Zachary Barrow
Wesley Carabarin
Ronald Castillo
Santiago Cerda Palacios
John Cizauskas
Willy De Leon
Leonor Diaz

Salvador Diaz
Paul Dickey*
Roberto Echeveste
Bradley Fowler
Jeffery Guy
Peiman Hadjian
Raymond Holm
Scott Johnson***
Jerry Kenshalo
Tomas Lunda Mendoza
Jose Magana Cortez
Barrington Mais
Corey Maxey
Ricardo Molina

Jorge Moreno Ramirez
Alejandro Ojeda Martinez
Michael Ornelas**
Joshua Polich*
Fernando Rosales
David Tollakson
Dang Vang
Jarvis Vang
Michael Vieira
Richard Vue
Christopher Willett**
William Wright
Chou Yang

♦ indicates “with distinction” and is awarded to graduate students with grade point averages of 3.90 to 4.0, together with departmental approval for distinguished work.

*** summa cum laude “with highest praise” 3.90 to 4.00

** magna cum laude “with great praise” 3.70 to 3.89

* cum laude “with praise” 3.50 to 3.69

Fall 2016 Important Dates/Events

Fall 2016 Fee Payment deadline - 7/31/15

Open Registration for F15 - 8/6/15

Fall Graduation filing deadline: 8/25 thru 9/22/15

August 25 (Tue) - Instruction begins.

Sept. 8 (Tue)

Last day to add a class *without* permission.

Last day to add a class by Waitlist.

Sept. 11 (Fri) - Last day to file for Master’s degree; Sept. 21 (Mon) - Last day to file Advancement to Candidacy.

Sept. 22 (Tue)

Last day to add *with* permission.

Last day to drop online *without* a “W” grade listed on your transcript.

Last day to change to/from CR/NC grading.

Oct. 1 (Tue)

Fall 2016 Admission Application cycle begins.

2016-17 Scholarship Applications will be available on line.

Nov. 2 (Mon)

Spring 2016 Registration begins.

Nov. 17 (Tue)

Last day to withdraw from classes for Serious & Compelling Reasons.

Nov. 25-27 (Wed-Fri) Thanksgiving Recess.

Dec. 9 (Wed)

Last day of Instruction.

Dec. 14-17 (Mon-Thur)

Final Examinations.

Dec. 21 (Mon)

Fall Semester ends.

Dec. 28 (Mon) F15 grades due.

Dec. 24-Jan. 13 **Winter Recess**

Jan. 15 (Thur)

Spring 2016 Instruction begins.



Faculty, Staff and Student Activities - Continued from Page 2

through this grant in summer 2016. **Dr. Seth** is also in collaboration with Plant Science department for \$150,000 (2016-18).

Dr. Matthew Yen presented a paper, “the Paradigm of Carnot Economic Cycles-a Glimpse of the Adam Smith ‘Invisible Hand’ at the International Conference on Business and Economics on March 21, 2016 at Las Vegas, NV.

Dr. Daming Zhang served as a Co-Author for the SAE (Society of Automotive

Engineers) 2016 World Congress and Exhibition during April 12-14, 2016 in Detroit Michigan. He also presented a paper, “Investigations of Atkinson Cycle Converted from Conventional Otto Cycle Gasoline Engine,” co-authored by Renhua Feng and Jing Yang and met with automotive professionals from Chrysler, General Motors and Ford companies.

At the 5th Annual Faculty and Staff Recognition and Appreciation Reception on May 12, 2016, which was held at the new Jordan Agricultural Research Center, **Dr. N.P. Mahalik** was awarded the Jordan College Outstanding Researcher Award

Dear Alumni and Friends,

The Department of Industrial Technology and I are thrilled to celebrate this semester’s endeavors. During the last semester, the department together with its advisory board embarked on a review of its program to ensure a vibrant and successful program for the foreseeable future. The changes are going to be submitted to the College and University committees next semester. A new Agricultural Systems Management option is going to be introduced fall 2016.

Additionally, the Department

continues the path set by its strategic plan, which was introduced a year ago, and together with its stakeholders and the College leadership’s continuing support seeks to strengthen its collaboration with the Lyles College of Engineering and is introducing a shared laboratory called Unmanned Systems laboratory.

As the Department looks into the future, your continuing support is of paramount importance. We thank you for this.

A. Alexandrou,
Chair

and **Ms. Christina Fitz Gibbon**, IT Department Assistant, was awarded the 2016 Distinguished Service Award.