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KLEIN DYTHAM ARCHITECTURE

CommuniCon 2017

**{ Christie Kennedy }**

@TCE

For December 15, 2017

News on the Tickle College of Engineering, Faculty, Students, Opportunities and Events

The TCE is pleased to announce that the following faculty and students will be presenting at the 2017 ASME International Conference on Thermal Stresses in the Engineering Communities (TCE) at the University of Tennessee.

Head of TCE is Dr. David G. Semak, and the TCE is held at the University of Tennessee, Knoxville, TN, from March 26-30, 2017.



Featured News



DISTINGUISHED LECTURE SERIES

McKinley Presents TCE Distinguished Lecture

Guest H. McKinley will speak at the Tickle College of Engineering 2017 Distinguished Lecture Series at 4 p.m. Monday, March 26, in Room 405 of the M. K. Pyle Electrical Engineering and Computer Science Building, McKinley off-campus.

Dr. McKinley is a distinguished professor and the Director of the Center for Engineering Education Research (CEER) at the University of Tennessee. He is the Editor of Engineering Education, a leading journal in the field of Engineering Education, and the Editor of the International Journal of Engineering Education Research.

Faculty & Staff News

TCE Faculty Members Earn Awards at ASME Zone Conference

Two Tickle College of Engineering Faculty members earned Faculty Research Awards at the 2017 ASME Zone 3 Conference, held March 27-29 in San Juan, Puerto Rico. Cong Tang, assistant professor in chemical and biomolecular engineering, won first place, and James O'Neil, assistant professor in nuclear engineering, won second place.



Kihm and Ehin Publish in Nano Letters

Magnus Professor Kenneth D. Kihm and Assistant Professor George Ehin, both in the Department of Mechanical, Aerospace and Chemical Engineering, have published a paper in Nano Letters, an American Chemical Society journal. The paper, titled "Synthesis of Polyethylene Glycol-coated Nanoparticles for Protein Adsorption," was published in the journal's March 15 issue.



Dobig Presents at "Energy Choices and Consequences"

H.L. (Les) Dobig, Professor Emeritus and former head of the UT Knoxville Engineering Department, recently gave invited presentations at "Energy Choices and Consequences," the Winter Joint Conference of the American Institute of Chemical Engineers (AIChE) and the American Nuclear Society (ANS). The conference was held at the University of Tennessee, Knoxville, and was the first time the two organizations have met at a single venue under the "Energy Choices and Consequences" theme. Dr. Dobig originally conceived and coordinated the event, and he will be presenting at the UT Knoxville Program.



Opportunities & Events

Completed Durability Discussed in Recent MCM Workshop

Over 100 complete professionals, researchers, and students attended the 2017 MCM Workshop, held February 23-24, 2017, at Knoxville, Tennessee, led by the Institute for Advanced Composite Manufacturing (IACM) in partnership with Composites, Dr. MJP and the Global Most Advanced Durability Workshop. The first MCM Workshop and MCM Day of Excellence presented by the workshop.



News to Speak in MARE Seminar

Head news on the MARE Seminar in the Structural Reliability and Risk Assessment (SRRA) in Knoxville, Tennessee, March 14, in Room 405 of the Douglas Engineering Building. News is a Program Officer and News Assistant with the Office of Naval Research. The seminar is presented by the Department of Mechanical, Aerospace, and Biomedical Engineering.

Undergraduate Research Symposium

The eight annual Undergraduate Research Symposium will be held in April 1, 2017, at the University of Tennessee. The symposium offers students an opportunity to present their research findings to a panel of judges. It is presented by the Office of Undergraduate Research, and is an excellent way for students to gain research experience and to be recognized for their contributions to the field of engineering.

WorkEngineers Day at UT, K&E is a day-long event that provides an opportunity for students and faculty to interact and share their experiences. The event is held at the University of Tennessee, Knoxville, and is a great way for students to gain research experience and to be recognized for their contributions to the field of engineering.

WorkEngineers Day in April 22

The second annual WorkEngineers Day Conference will be April 22 at Knoxville. WorkEngineers Day is a day-long event that provides an opportunity for students and faculty to interact and share their experiences. The event is held at the University of Tennessee, Knoxville, and is a great way for students to gain research experience and to be recognized for their contributions to the field of engineering.



Recent News and Opportunity

Waste Publishes UT Graduate Student's Work

Research by Sarah Thomas, a graduate research assistant in both mechanical engineering and business administration, was recently published in Nature's online journal, Scientific Reports. Sarah published a report on a new type of 2D material, which is a two-dimensional material with unique properties. That work caught the attention of both Nature and the UT Knoxville Graduate School of Engineering and Technology.



UT Students Honored at TMS Annual Meeting

Three students and one professor were honored at the TMS Annual Meeting in Phoenix, Arizona. The students were recognized for their contributions to the field of engineering and technology. The professor was recognized for his leadership in the field of engineering and technology.



Our Winner Family: Remembering Justin Smith

Recent engineering graduate Justin Smith, of Benton, Kentucky, died February 28. Justin participated in the Symposium and was a member of the Engineering Mentoring Program and the American Nuclear Society.

FEHR Hosts STEM Career & Professional Symposium

The Program for Excellence and Equity in Research (FEHR) is hosting the STEM Career & Professional Symposium on March 23, 2017, at the Four Peaks by Sheraton Conference House (Pulaski Room, A-2). The symposium will provide an opportunity for students and faculty to interact and share their experiences.



SEC Engineering Deans Establish Graduate Fellowship

The Deans of the Southeastern Conference (SEC), including Tickle College of Engineering Dean Wayne Davis, have established the SEC Engineering Deans Graduate Fellow Program. The program provides a grant of up to \$5,000 per year for up to five years, based on the student's satisfactory progress toward the completion of a PhD degree.



Engineering Advising

The Summer Timetable is now available. The Summer Timetable is a great resource for students and faculty to interact and share their experiences.

The Fall Timetable is Now Available

The Fall 2017 Registration Dates are now available. The Fall 2017 Registration Dates are a great resource for students and faculty to interact and share their experiences.

Students who are enrolling at UT Knoxville in the fall should check the website for the latest information on the Engineering Advising Office. The website is a great resource for students and faculty to interact and share their experiences.

Students who are in Good Academic Standing and have completed the required courses for the MARE and CBE programs will receive a Graduate Fellowship. The Graduate Fellowship is a great resource for students and faculty to interact and share their experiences.

NOTE: Engineering students will be taking Math courses together again in Fall 2017. Please look for sections with the following professors:

• Priddy (Chancellor Honors) - Veterans, Athens, Clayco, KY

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- Math 141 - Kevin Stalder
- Math 142 - Gary Pringle
- Math 241 - Mike Gilbert
- Math 241 - Mike Gilbert

Engineering Professional Practice

See website for Engineering Professional Practice information and application information. The website is a great resource for students and faculty to interact and share their experiences.

Featured Student: Jason Cook

The featured student, Jason Cook, is a graduate student in the Department of Mechanical, Aerospace and Chemical Engineering. He is currently working on his PhD degree in the field of engineering and technology. He is a great resource for students and faculty to interact and share their experiences.



Most of his time during the week is spent in the lab, working on his research. He is a great resource for students and faculty to interact and share their experiences.

Jason is currently working on his PhD degree in the field of engineering and technology. He is a great resource for students and faculty to interact and share their experiences.

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The National Student Leadership Conference

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- The Infinite Scroll
- No hierarchy
- Monochromatic
- Sent 4 p.m. Fridays

## Other Issues

- Listserv = no metrics
- Time spent coding & tweaking HTML
- Overwhelming amount of content



# Goal 1: Reduce Inbox Fatigue

In any given week, UT students may receive 10+ daily emails from a combination of:

- Faculty
- Administration & chancellor
- Academic support units
- Student Life
- UT president
- Their college
- Their department

We're competing for attention. They DO check email, but how can we be sure they're reading them?

Trick Question! We can't be sure.

## Established a Formula

Less frequent emails + more purposeful, useful, targeted information = higher open rates & content engagement.

Sending too many emails with low-value content or too many items leads to disengaged audiences.



## Goal 2: Consolidate Efforts

- Cut down the number of emails other TCE units are sending out
- Make @TCE *the* place to get all info
- Set expectations and stick to them

## Goal 3: Get Metrics

- Continually improve content decision making
- Show value to college administration
- Be data-informed



- Worked with C&M to get an Emma account
- No cost to us!
- Look good *and* know how we're doing



***emma***<sup>®</sup>

# Restructured Content

Hierarchy of 5–8 items per edition:

- Features (1–2)
- Points of Pride (1)



More than 100 high school students visit over the next few weeks for the college's annual eVOL and HITES camps. Participants come from high schools across the nation.

[Read more about eVOL and HITES](#)

**Nuclear Engineering is #1 nationally  
for NE PhD Enrollment.**



## CTR Makes the News

The *Knoxville News Sentinel* cited the [Center for Transportation Research](#) in an article on Tennessee's transportation industry, citing its critical role in the training of the state's future transportation professionals.

[Read the \*Sentinel's\* article.](#)

- Accolades (1 with many items)
- Around the College (2-4)

## ACCOLADES

ANS honors Richard Wood and Jamie Coble — Dorothy Bryson receives UT Foundation award — Maria Fernanda Campa has best abstract.

[Read more about these honors](#)

## Around the College



State Senator **Janice Bowling** and **Ted Townsend**, chief operating officer for Tennessee Economic Community Development, recently visited the University of Tennessee Space Institute and the HoriZon Center.

[Read more about Senator Bowling's visit.](#)



**Michael Berry**, a professor in electrical engineering, is currently in London with the students from the Engineering In London program. He is sharing experiences from the trip via the EECS department's Facebook page.

[Read more about EECS and Engineering in London.](#)



Nuclear engineering students **Trey Augustine** and **Chris Haseler** relate their study-abroad adventures in a collaborative blog post.

[Read about Trey and Chris's study abroad in Prague.](#)



Knoxville native **Sami Hijer** graduated as an industrial engineer in May 2017 and recently started working for Smithfield Foods in North Carolina. To help achieve his goals, Hijer built a focused resume filled with great experiences.

[Read more about Sami Hijer's experience.](#)

# ENGINEERING VOLLS

*Need-to-know info for  
UT engineering students*



## Main Feature

Dolor sit amet, consectetur adipiscing elit. Duis euismod ultrices lacinia. Aenean eget urna ut diam hendrerit accumsan.

[Read more about hendrerit accumsan.](#)

## Events & Deadlines

- Include any pertinent information that does not belong in the standard sections above.
- For example, reminders for deadlines, submission instructions, newsletter sign up, etc.
- Include any pertinent information that does not belong in the standard

- Move student-focused content out
- Send @TCE on Mondays

# A Note on Seminar Announcements

- 2-4 per week, college-wide distribution
- Super niche content

## Department of Materials Science and Engineering Seminar

"Doctoral Candidates: Jianqi Xi, Anna Hoffman, & Curt Frederick"

**When:**

2:15-3:15 p.m. Tuesday, March 28, 2017

**Where:**

Room 307, Science and Engineering Research Facility

**Speaker:**

**Jianqi Xi**

PhD Candidate

Department of Materials Science and Engineering  
University of Tennessee, Knoxville  
Knoxville, TN



**Advisor:** William Weber, PhD

**Title:** "First Principles Study of Defect Behavior at Interfaces"

### Abstract:

Interfaces in nanostructured materials are boundaries, separating crystals with the same structure and chemistry but different orientations, e.g. grain boundaries (GBs), different stacking sequences, e.g. stacking faults (SFs), or crystals with different structure and/or chemistry as well as orientation, e.g. the interface between substrate and thin film. Previous studies have shown that interfaces, especially in nanostructured materials, play an important role in determining the mechanical, electric, and even radiation-resistance properties, which broadens the application of nanostructured materials in some extreme conditions, such as high temperature, pressure or radiation conditions. In these conditions, defects are easily produced, which can interact with the interfaces. In fact, defect-interfaces interaction affects the behavior of defects, which further influence the properties of materials. Therefore, a fundamental understanding of how the influence of interfaces on the defect behavior is desirable. In this study, first principles calculations are used to investigate the defect behavior at different interfaces, such as stacking fault in silicon carbide (SiC) and grain boundary in ceria (CeO<sub>2</sub>).

### Biography:

**Jianqi Xi** is a third-year graduate student in the Department of Materials Science and Engineering. He received his bachelor's degree in Thermal Engineering from North China University of Water Resources and Electric Power, and

- Hurting potential engagement with @TCE or Engineering Vols emails
- Low-value content to the majority of our readers, but high-value for some, including departments

## Tickle College of Engineering

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# Solution

- Put in “events” box at the bottom of @TCE
- Drive traffic to department websites
- Smooth transition to new workflow

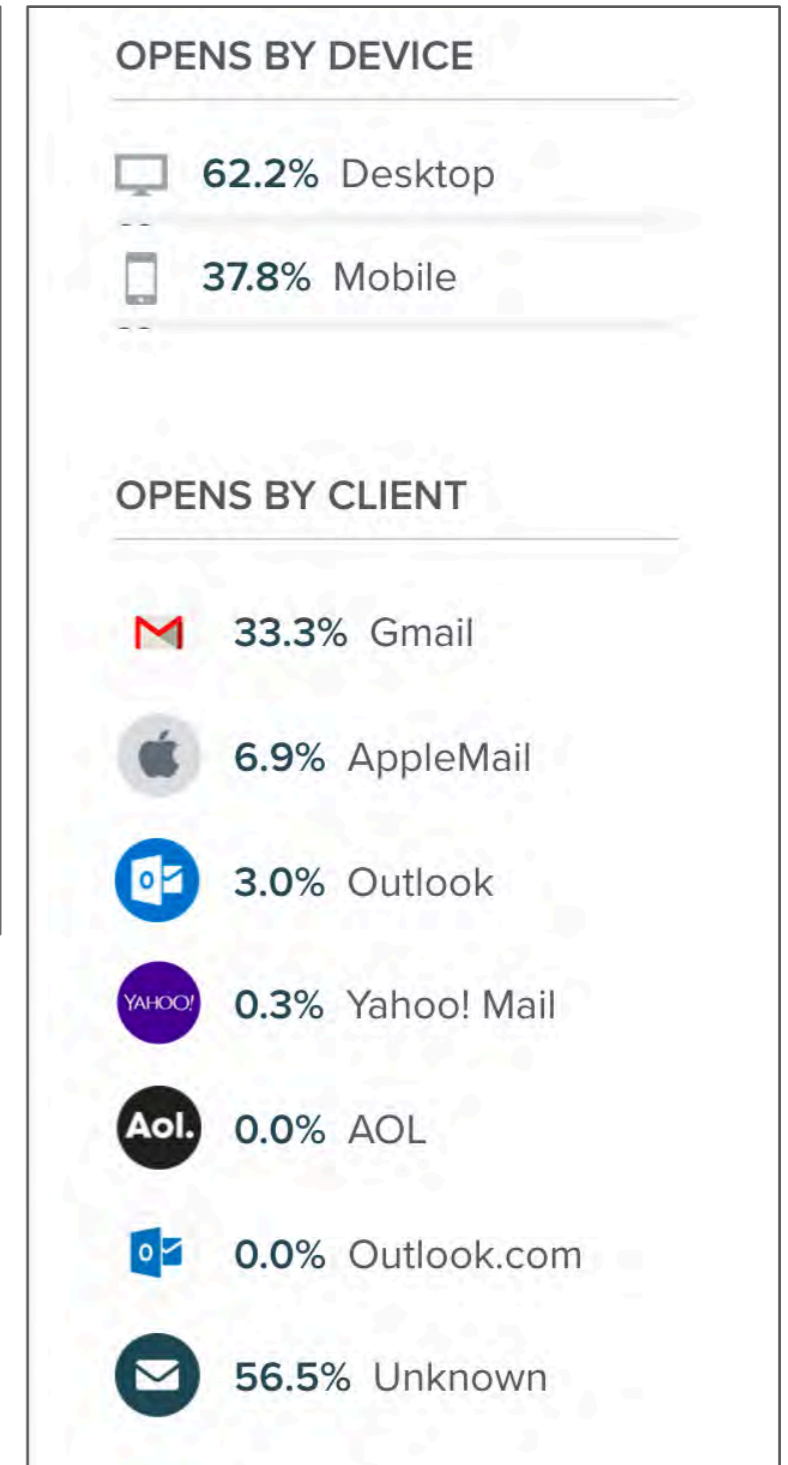
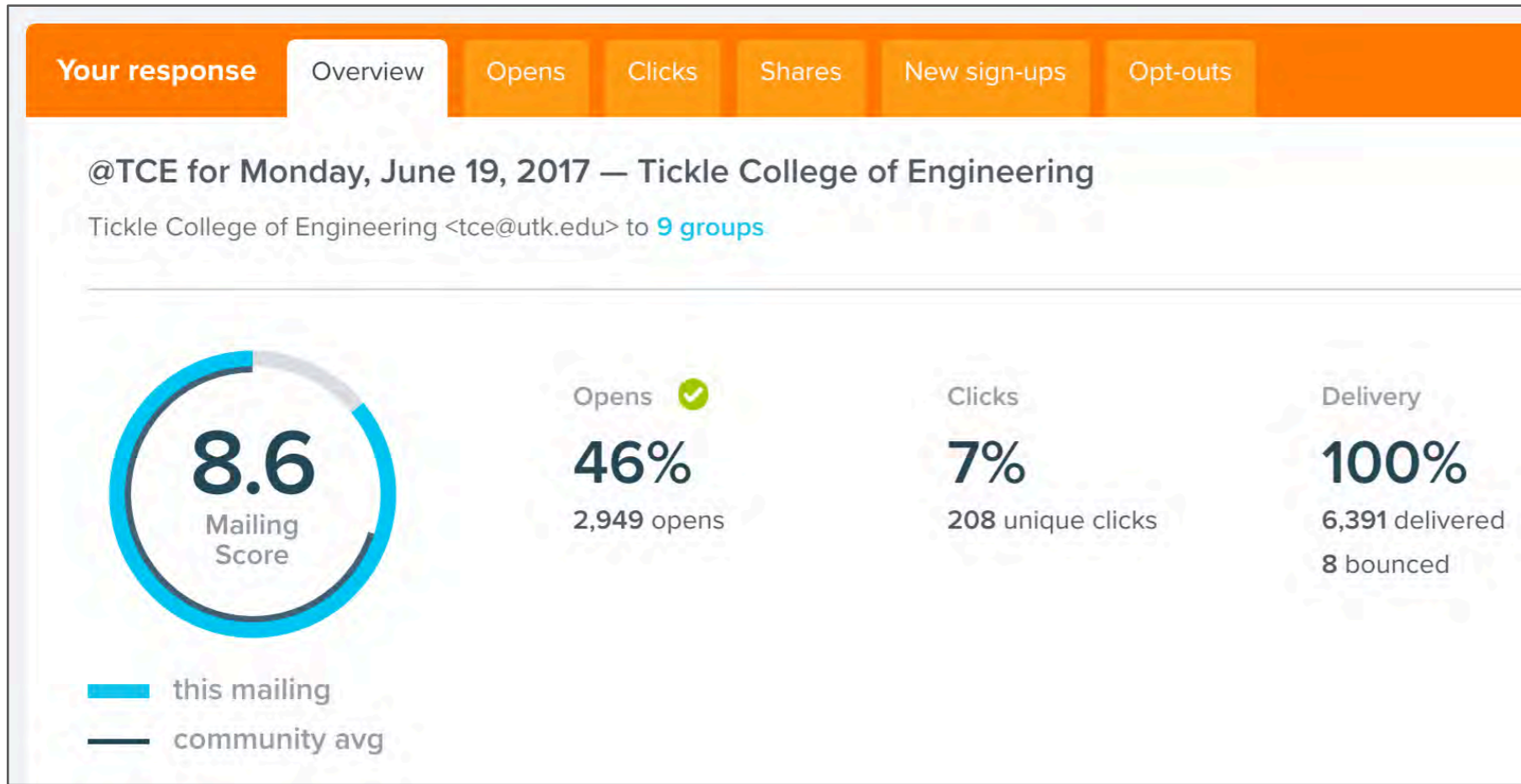


The image shows a screenshot of an 'Events' section from a social media profile. The header 'Events' is in white text on a teal background, accompanied by a calendar icon. Below the header, there are two event listings, each preceded by a white bullet point. The first event is a TA Instruments seminar on 3D printing, fiber composite technology, and materials characterization, scheduled for Tuesday-Wednesday, July 11-12, at ORNL, National Transportation Research Center. The second event is a seminar on engineering strategies for tissue engineering, scheduled for Monday, June 26, 2017, at 409 Dougherty.

 **Events**

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- TA Instruments seminar on 3D printing, fiber composite technology, and materials characterization: 8 a.m.–4:45 p.m. Tuesday–Wednesday, July 11–12, ORNL, National Transportation Research Center.
- Seminar: Engineering Strategies for Tissue Engineering: The Utilization of Nanomaterials to Recapitulate Tissue; 10:45–11:45 a.m. Monday, June 26, 2017, 409 Dougherty.



## So Far

- Sent @TCE four times this summer
- Open Rates: 42-46 percent
- CTR: 5-9 percent
- Will conduct A/B testing in fall

CLICK ANALYSIS

Click map | List

Highlight click activity



## @TCE

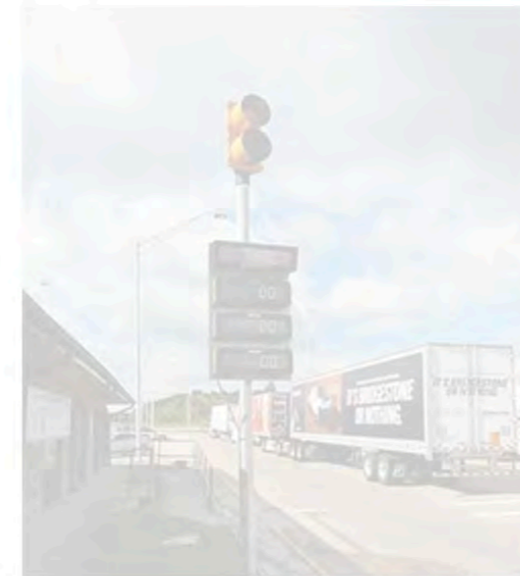
News and Events from the  
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More than 100 high school students will visit over the next few weeks for the college's annual eVOL and HITES camps. Participants come from high schools across the nation.

Read more about eVOL and HITES

48  
clicks



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### ACADEMICS

ANS honors Richard Wood and [redacted] Coble — Dorothy Bryson receives UT Foundation award — Maria Fernanda Campa has best abstract.

Read more about these honors

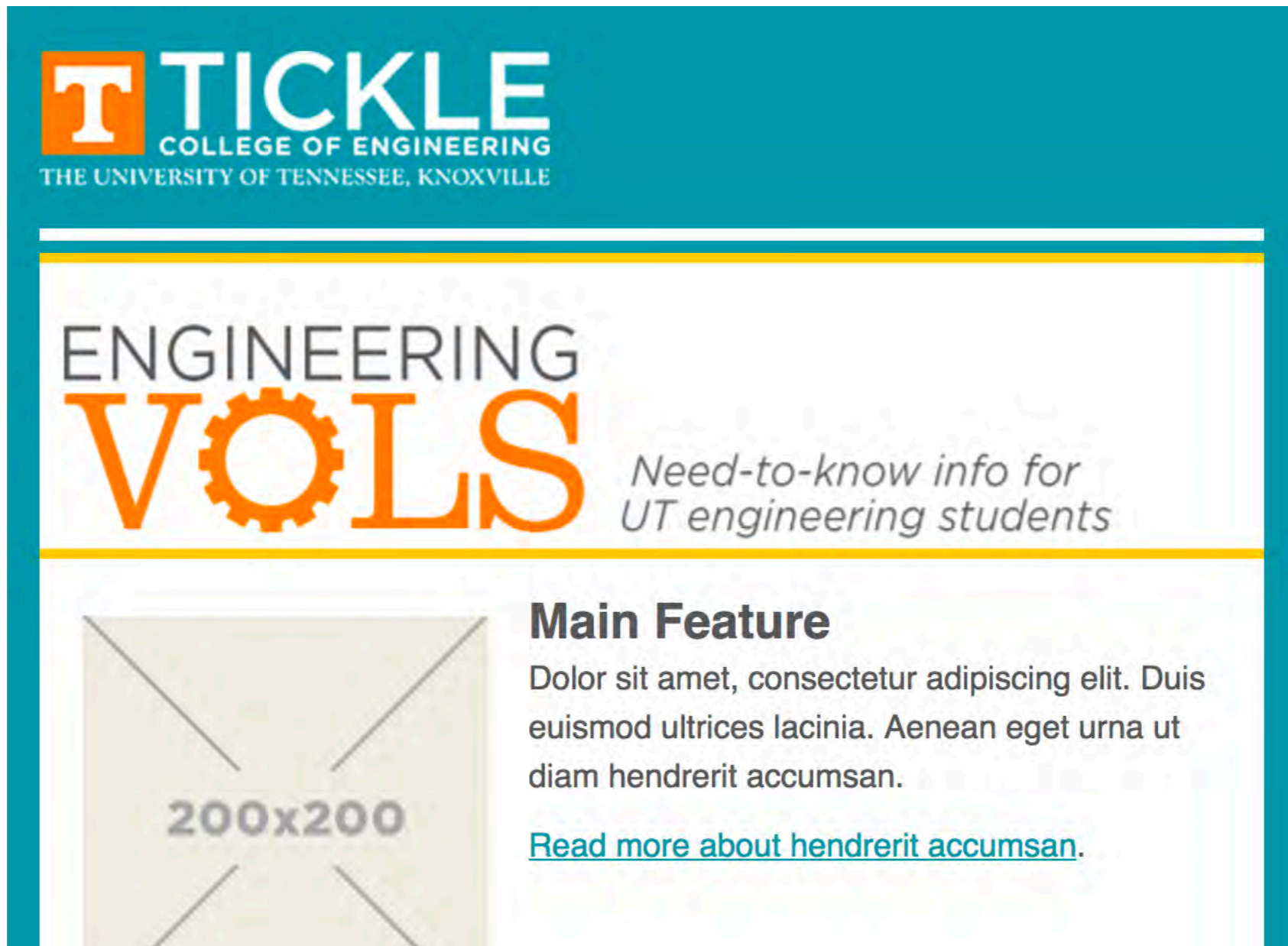
24  
clicks

## Earned Support

- @TCE content guidelines
- Showed rational decisions
- Dean's approval
- Brought in associate deans and department heads

# Future Plans

- Continue to tweak @TCE based on data
- FA17: Engineering Vols email
- SU18: Accepted students email



The screenshot shows the top portion of a website. At the top left is the logo for TICKLE, which consists of an orange square containing a white 'T' with a stylized orange figure inside, followed by the word 'TICKLE' in large white letters, 'COLLEGE OF ENGINEERING' in smaller white letters, and 'THE UNIVERSITY OF TENNESSEE, KNOXVILLE' in the smallest white letters. Below this is a white horizontal bar with a yellow border. The main content area has a white background with a light blue gear pattern. It features the text 'ENGINEERING' in grey, 'VOLS' in large orange letters with a gear for the 'O', and the tagline 'Need-to-know info for UT engineering students' in a grey italicized font. Below this is another white horizontal bar with a yellow border. The main content area then shows a placeholder for an image, represented by a grey square with a white 'X' and the text '200x200'. To the right of the placeholder is the heading 'Main Feature' in bold black text, followed by a paragraph of placeholder text: 'Dolor sit amet, consectetur adipiscing elit. Duis euismod ultrices lacinia. Aenean eget urna ut diam hendrerit accumsan.' and a blue underlined link that reads 'Read more about hendrerit accumsan.'

**TICKLE**  
COLLEGE OF ENGINEERING  
THE UNIVERSITY OF TENNESSEE, KNOXVILLE

ENGINEERING  
**VOLS** *Need-to-know info for  
UT engineering students*

200x200

**Main Feature**  
Dolor sit amet, consectetur adipiscing elit. Duis euismod ultrices lacinia. Aenean eget urna ut diam hendrerit accumsan.  
[Read more about hendrerit accumsan.](#)

Sharing is caring

ckennedy@utk.edu