A two-story news package on research by Assaf Gilad, professor of biomedical engineering and radiology, and Galit Pelled, professor of biomedical engineering, radiology and neuroscience, is telling readers about ongoing work in the Department of Biomedical Engineering.

• Gilad and Pelled are leading a team of biomedical and electrical engineers who are building biological circuits, oscillators and toggle switches inside cells to fight against neurological diseases. A $1.3 million NIH grant is helping them advance these biological circuits and so is a unique navigational gene in an almost invisible fish.

• Gilad and Pelled have discovered an electromagnetic gene in glass catfish that could one day help those with Parkinson’s and epilepsy.

Engineering Dean Leo Kempel was featured in the news several times in August:

• Kempel has been appointed to the 19-member Presidential Search Committee at MSU.

• Kempel, a member of the U.S. Air Force Scientific Advisory Board and dean of the College of Engineering at MSU, will be a featured speaker when the U.S. Air Force hosts a Department of Defense-wide High Performance Computing (HPC) User Group Meeting at the Air Force Institute of Technology Sept. 24-28. The meeting will focus on how supercomputing advances science, technology, testing and evaluation, and acquisition engineering, and especially
how supercomputing impacts critical mission objectives across the DoD spectrum.

Dayton Daily News

WHIO TV 7 Dayton

• Kempel told radio broadcaster Paul W. Smith that getting a good background in basic technology concepts is helping today’s engineering students be successful in the workforce. Kempel was featured Aug. 1 on WJR Radio (760 AM) during the Car Management Briefing Seminars in Traverse City. Listen to the podcast.

WJR - Paul W. Smith Show

Two recent stories featured University Distinguished Professor of Chemical Engineering and Materials Science Ramani Narayan’s work in biodegradable polymers:
• Designing the Death of a Plastic – Ramani Narayan told the New York Times about his push toward compostable plastics, starting with disposable utensils and food packaging.

New York Times

• Truth about Plastic Eaters – “There appears to be some utilization of polystyrene carbon, but I would still like others to reproduce the results,” says Ramani Narayan.

C & EN News (Chemical & Engineering)

Could facial-recognition tech violate your rights? University Distinguished Professor of Computer Science and Engineering Anil Jain has contributed his thoughts on that topic for Yahoo Finance, saying “comparing you to social media is a no-no.”

Yahoo Finance

How Universities are helping us go solar – Richard Lunt of Michigan State University says highly transparent solar cells represent the wave of the future for new solar applications. He is the Johansen Crosby Endowed Associate Professor of chemical engineering and materials science.

The University Network

National media outlets are continuing to quote Richard Enbody, associate professor of computer science and engineering:
• “For financially-motivated cybercriminals, cryptojacking a large number of inadequately protected IoT devices could be highly lucrative,” said Pranshu Bajpai, a PhD candidate of computer science and engineering. Enbody is also quoted.

Salon

• “When mining for gold, the person who works hardest with their pickaxe makes the most money,” Enbody told Scientific American. “In cryptomining … the more processing power and energy it uses and the more money it earns.”

Scientific American

Associate Dean for Research John Verboncoeur is continuing his work with the American Center for Mobility in southeast Michigan and with the international SmartAg Initiative. He is a professor of electrical and computer engineering as well as computational mathematics, science and engineering. Here are two recent stories:
• A new study commissioned by the American Center for Mobility finds that only a “modest” number of truck driving jobs will be affected by the rise of automated vehicles. The study, led by Michigan State University and supported by the Texas A&M Transportation Institute, predicted that significant numbers of automated vehicles won’t be deployed until the latter half of the 2020s. Verboncoeur is co-author of the study.

Crain's Detroit Business

MSUToday

Roads & Bridges

Tech Century (Engineering Society of Detroit)

Traffic Technology Today

• Verboncoeur is a national leader in the SmartAg Initiative. He talks about solving food shortages in 2050 with WKAR’s Russ White.

WKAR

MSU’s IQ and Department of Biomedical Engineering are revolutionizing healthcare by converging engineering and medicine to promote precision health. Christopher H. Contag, the James and Kathleen Cornelius Chair and Professor
of biomedical engineering and microbiology & molecular genetics at MSU—and director of MSU's Institute for Quantitative Health Science and Engineering and chair of the Department of Biomedical Engineering, discusses the topic with Russ White of MSUToday.

Construction has started on a one-of-a-kind STEM building at MSU. When completed in the fall of 2020, the 117,000-square-foot building will house 21st century classrooms and laboratory spaces that will support gateway courses for biological sciences, chemistry, computer science, physics and engineering.

Back to school at MSU – The MSU campus comes alive with students.

Alumni
Micro-location technology is taking off, so Microwave Journal turned to Spartan Greg Charvat to discuss how it will define the connected world, self-driving vehicles, and smart factories. Charvat (BS ’02, MS ’03, PhD ’07 ELEC EGR) is the CTO for Humatics.

Penny Wirsing (’83 CIV EGR) is a boundary breaker. The 15-year South Bay resident was named president of the Society of Women Engineers during ceremonies at the Portofino Hotel in Redondo Beach in August.

Ken Decker, a 1971 mechanical engineering graduate, has been named a “Legend of Artificial Lift” and will be honored by the Society of Petroleum Engineers (SPE) during the 2018 SPE Artificial Lift Conference from Aug. 28-30 in The Woodlands, Texas. Decker is considered an expert in the use of gas lift valve performance, design, and troubleshooting.

Students
Welcome Alumni Distinguished Scholars and University Distinguished Scholars, 6 of the 22 are headed to the College of Engineering.

The last concert of the summer at Sacred Heart Parish featured Katherine Walters on French horn. She will attend MSU on an engineering scholarship.

MSU greeted 8,400 freshmen in late August, including Leniseya Johnson of Detroit, who is interested in computer...
engineering. Every MSU dorm room is now wired for WiFi and the CATA bus service on campus is now free. Hear more on the new academic year on WKAR.

WKAR

Kasey Coleman, a senior in chemical engineering, is now the highest ranking undergraduate officer in the 300,000-member Alpha Kappa Alpha Sorority, Inc.

MSU Pride Points

• Aug. 3: Kalyanmoy Deb was presented the 2018 IEEE CIS Evolutionary Computation Pioneer Award at the IEEE World Congress on Computational Intelligence in Brazil on July 11.
• Aug. 13: Zhen Qiu, of biomedical engineering, and Nelson Sepulveda, of electrical and computer engineering, will use a $360,000 NSF grant to study limitations of wide-field tumor imaging in the fight against breast cancer.
• Aug. 20: $1.3 million grant from the National Institute of Neurological Disorders and Stroke of the NIH will support the efforts of MSU engineering researchers who are working to create synthetic biological devices inside the cells of mammals.
• Aug. 22: A research team, which included three Spartan engineers, was honored by the EPA for research of national significance with a 2017 Level 1 Scientific and Technological Achievement Award.
• Aug. 24: Arun Ross, professor of computer science and engineering, has been elected a Fellow of the International Association of Pattern Recognition. No more than .25% of the total membership receives this prestigious honor.

Related Website: Communications contact: Patricia Mroczek