Researchers prove trash ‘recycling’ could lead to energy independence

A new energy production method developed by a team of researchers at RIT and Purdue University could turn today’s trash into tomorrow’s energy.

Researchers are proposing a new “flexible” approach to producing alternative fuels that utilizes municipal solid waste, forest residues, sewage sludge and agricultural waste as sources for ethanol. The method could supply up to 20 percent of transportation fuels in the United States annually.

Thomas Seager, an associate professor in the Golisano Institute for Sustainability at RIT, is coordinating the project with Fu Zhao, a Purdue professor. The method was developed in a paper presented on Sept. 29 during the sixth Global Conference on Sustainable Product Development and Life Cycle Engineering in Busan, Korea.

“Producing ethanol using bioswaste could greatly expand the sources for alternative fuel and reduce pressure on world agricultural production,” notes Seager. “Our research creates a new production model that utilizes current sources to produce energy more efficiently and with less overall cost.”

The proposal is an alternative to the conventional method of biofuel production, which currently uses corn grain as a feedstock. Increasing production of corn grain to meet increased biofuel needs poses a potential threat to the environment and would be linked to rising food prices.

The new method, called a flexible carbon-to-liquid fuel process, converts a variety of domestic biomass wastes, including municipal solid waste and food processing wastes to liquid transportation fuels, such as biodiesel. The process can efficiently produce biodiesel with the same quality as that generated from feedstocks.

The method also captures excess emissions created through feedstocks.

Seagerleav, page 4

Show pieces reveal artist’s take on deafness and communication

In 1971, Betty Miller began expressing her deaf experiences through her paintings and drawings—causing that “ah-ha” moment in hearing viewers who began to comprehend that deafness isn’t about the lack of the physical sense of sound, but about communication and connection with other people.

The Dyer Arts Center at RIT’s National Technical Institute for the Deaf hosts the Betty Miller—Retrospective, featuring 45 pieces of artwork, including 10 paintings by Miller’s father, Ralph Miller. The show runs through Nov. 12.

Miller’s paintings, especially her DY/YA art (an acronym for Deaf View/Image Art), was the inspiration for deaf visual artists to create work based on their deaf experiences and perceptions. It uses formal art elements with the intention of expressing innate cultural or physical deaf experience.

From in the middle of the Great Depression, Miller was the third child of Ralph, a graphic artist and illustrator, and his wife Gladys, both deaf. Their first two children, boys named Benjamin and Ralph Jr., were hearing, so it wasn’t until Betty started school at age 5 that her family discovered she was hard of hearing. A graduate of Gallaudet College, she earned an MFA in advertising design from Maryland Institute and a doctorate in art education from Penn State University.

It’s this mixed background in both the deaf and hearing worlds that shaped the art that Miller is most famous for, art that focuses on her deaf experience. For more information about the retrospective, call 475-6855.

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RIT Army ROTC Tiger Battalion unit competed in the Ranger Challenge competition Oct. 17-19 at Fort Devens, Mass. Twenty schools from across the Northeast competed in 10 events: an Army physical fitness test, basic rifle marksmanship, hand grenade assault course, day and night land navigation, a mystery event, an obstacle course, orienteering and weapons proficiency. RIT took first place in the Army physical fitness test for the fifth time in the last six years. Pictured, from left to right, are cadets William Braun, Joshua Spith and James Flynn.

ROTC Army Rangers test their mettle

RIT recently announced its affiliation with Time Warner Cable SportsNet to be the official television home of RIT athletics. Time Warner Cable SportsNet will air 10 RIT men’s hockey home games live, with five other men’s home games being shown on tape delay. In addition, five RIT women’s hockey games will be telecast this season.

Gene Battaglia calls the action, with John DiTullo serving as color-commentator. All live home games air at 7 p.m. on the Time Warner Cable Sports Web site (www.twcsports.net) for all other listings. In addition, all aired games will be rebroadcast at various times during the week.

“We’re excited to be part of Time Warner Cable SportsNet,” says RIT men’s hockey head coach Wayne Wilson. “It is a great opportunity for our program to gain more exposure in all of western and central New York.”

“We are thrilled about our new partnership with Time Warner,” says Lou Spiotti, director of RIT’s Center of Intergovernmental Athletics and Recreation. “The kind of exposure and quality associated with this level of television broadcast is consistent with the goals of RIT hockey. We want to become a household name and Time Warner Cable SportsNet will facilitate that vision.”

“Everyone at Time Warner Cable SportsNet is thrilled to be the new home of RIT sports,” says Steve Arvan, director of the channel. “We are looking forward to many years of working together to bring the very best of RIT athletics to the custom- ers of Time Warner Cable SportsNet.”

Time Warner Cable SportsNet reaches all Time Warner subscribers in the greater Rochester, Syracuse and Buffalo areas.

Steve Jaynes | sjaynes@rit.edu

Live games to be broadcast

Nov. 1 vs. Holy Cross
Nov. 14 vs. Army
Dec. 12 vs. Mercyhurst
Dec. 13 vs. Mercyhurst
Jan. 9 vs. Connecticut
Jan. 10 vs. Connecticut
Jan. 17 vs. American International
Feb. 7 vs. Sacred Heart
Feb. 28 vs. Air Force

Angelo DiNardi, fifth-year software engineering student, uses one of the drink machines in the Computer Science House.

Recognition for historic ‘hack’ leads to a Coke and a smile

For an RIT student living in the Computer Science House, ordering a cold soda from the vending machine down the hall with just a keystroke is all part of day-to-day dorm life. PC Magazine, however, has deemed this computing ingenuity, born in the early 1990s, as one of the top 10 greatest “hacks” of all time.

The Internet Coke Machine on the third floor of Nathaniel Rochester Hall came in at number three on the list of hacker brilliance, getting beat out only by Spacewar* video game and NASA’s lifesaving hack to safely bring Apollo 13 back to earth.

Hacking, a term coined at MIT, was used to describe a clever computing solution to a difficult problem when it was considered a badge of honor to be called a hacker. “I’m not surprised PC Magazine has recognized the drink machine,” says Paul Tymann, chair of computer science in the B. Thomas Golisano College of Computing and Information Sciences. “Computer Science House has always been at the forefront of innovation in computing on campus. It was named the No. 1 wired dorm in the country by Wired magazine in the ‘90s.”

The Coca-Cola vending machine highlighted in the magazine article has since been replaced by two other Coke, page 4

On the side

Jewelry maker reveals inspiration behind creations, page 2

Research and Scholarship

Research studies viability of mentoring programs for young women engineers, page 3

Awards, distinctions

Richard Doolittle recognized for diversity initiatives, page 4

Viewpoints

The birth of the Caroline Werner Gannett Project, page 3

Research and Scholarship

October 30, 2008
Pulitzer Prize winner returns to teach at his alma mater

Four-time Pulitzer Prize winning photographer and RIT alumnus William Snyder is back in the RIT classroom. But this time he’s the pedagogue, inspiring future photojournalists to be passionate about their craft and their ideas. “The work you can generate yourself and be passionate about usually ends up being your best work,” says Snyder. “I draw this to the students—generate your own stories. Find things you are passionate about. Don’t let anybody tell you not to. You may not get the okay to do it, but do it anyway!”

Snyder cites his trip to Romania in 1990 to cover the AIDS infection rate among orphans. His boss at The Dallas Morning News didn’t like his story idea, but Snyder forged ahead anyway, self-financing the trip. Snyder says that project changed him both personally and professionally, and ultimately earned him his second Pulitzer. “These orphans were severely neglected,” says Snyder. “I kept thinking about my son in that position. And that emotional connection informed my work and made me think about things I had never thought about. It changed the way I worked from that point on. Because of all the attention generated from the Pulitzer, the Romanian government was reassured and cleaned up its act a little bit.”

Following graduation in 1981, Snyder landed at The Miami News for a couple years and then spent 23 years at The Dallas Morning News. The newspaper business offered him variety. Some of his numerous assignments included covering the Miami Dolphins Super Bowl wins in 1972 and 1973, and the explosion of the Challenger space shuttle, the ‘91 coup attempt in the Soviet Union, the re-unification of Germany, seal hunting in Newfoundland, Republican Conventions and five Olympics.

Snyder and fellow RIT alumnus Ken Goeter won a Pulitzer for their sports coverage of the 1992 Olympic games in Barcelona, Spain. “We had a good sense of the big stories of the day and because we controlled our schedules, unlike many of our colleagues, we were at almost all the high points of those Olympics. That was a lot of fun. And it was the first time Ken and I ever really worked that closely together.”

Now back at his alma mater teaching fulltime in the photojournalism department, Snyder hopes to grow and improve the program. He says the students motivate him to want to do better. “The students have a knowledge and a passion that is inspiring. And it motivates me. I want to help them look at this particular area of photography in a different way than what they are used to.”

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Viewpoints

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Creating RIT’s Caroline Werner Gannett Project—Three Years Out

by Mary Lynn Broe

Mass-produced hydrogen will help provide alternative fuel source

Hydrogen energy is considered by many experts to be one of the most promising futures for alternative energy power sources over the next two decades. However, there are a number of impediments to fully realizing the fuel’s potential. One of the most significant is the high cost-to-yield ratio of current hydrogen production techniques. At RIT, researchers are currently investigating the use of plasma as a means for creating hydrogen-powered micro-systems that could one day run our computers and electronics.

A national research collaboration seeks to shed new light on how the educational environment for engineers impacts female students and assists engineering schools in improving female retention rates. Although numerous efforts by government, industry and academia have been undertaken to increase the representation of women in science and math fields, the number of women engineers has remained low. The National Science Foundation reports: Women currently make up only 11 percent of professional engineering positions. Part of the reason for this discrepancy is the low retention rates of women in engineering degree programs, a statistic that has remained low. The National Science Foundation reports, “Women currently make up only 11 percent of professional engineering positions.”

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Study focuses on attracting, retaining female engineers

Research will examine viability of mentorship programs, advising

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Doolittle recognized for leadership in diversity initiatives

Doolittle’s approach to life and the regard he holds for others.

The attention Doolittle pays to his leadership and commitment to diversity on campus.

The award recognizes members of the RIT community who promote and model inclusive behavior and create a supportive, encouraging environment.

The award includes $5,000 for the College of Science to further advance recruitment and retention initiatives, and $500 for Doolittle in recognition of his leadership.

The efforts of his administrative team helped to introduce a diverse group of new faculty members to RIT’s fall in positions in biology and medical sciences.

Larry Buckley, associate head of life sciences, worked an amazing number of hours, and made a significant contribution to the effort.

“Doolittle says, ‘We share a philosophy of looking for the very best faculty and strong representation from AALANA faculty. I could not have done this without his help. ‘I’m trying to create the best possible environment for people to overachieve,’ he adds. ‘It’s all about helping people not just to reach, but to exceed career potential.’”

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During 2007-2008, we created a

Another ROARing success

Hollywood feel at RIT

Coke from page 1

drink machines named Big Drink

and Little Drink and the addition of the

snack vending machine.

Matt Campbell, a 2003 computer

science graduate who currently

works at RIT’s Information and

Technology Services, was one of

the students who found Big Drink

on the side of the road in front of a

scrap metal business. They hauled

it back to the residence hall and

brought it online.

“When I was a student, I worked

on the machine for hours,” says

Campbell. “The computer was

outside the machine at that time,

but now it’s embedded in it and

plugs into an Ethernet jack like your

computer does. Every couple years

someone gets the urge to make the

machine bigger, better, faster.”

The students’ urge for innovation and convenience has led to some high-tech upgrades.

“The drink machines are pro-

grammed so that the user can delay

when the drink drops out of the
dispenser,” says Angelo DiNardi, fifth-year mechanical engineering major.

“This fall, the Provost’s Office of

creating a supportive, encouraging

environment. The award also includes

$5,000 for the College of Science to

further advance recruitment and

retention initiatives, and $500 for

Doolittle in recognition of his leader-
dship.

Doolittle, head of the School of Life Sciences, believes academia should reflect the diversity of the private sector.

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Sue Gaslowitz, morgantown@rit.edu

Biodiesel from page 1

the production process for use in
electricity generation.

“It is estimated that the United States generates 1.3 billion tons of biomass annually, a plentiful energy source that we are currently underutilizing or throwing away,” Seager says. “Through this new production method we hope to provide an efficient avenue for transforming the ethanol production system in a way that utilizes this source and reduces reliance on corn and other feedstocks.

The research team believes that mass production of biodiesel using this method could, based on current biowaste production, ultimately generate 78 million gallons per day or one-fifth of current transportation fuel needs.

“Larry Hoag”

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Viewpoints from page 2

President Bill Dollier, right, joined by Provost Jeremy Haefner, far left, fall alumni members of the RIT community in letting out a giant roar during the official kickoff to the annual Raise Our Annual Responses Initiative. ROAR Day, held Oct. 23, provided faculty, staff and students an opportunity to make an annual gift to the university. This year, about 875 ROAR Day participants helped raise more than $22,000 for RIT students, programs and facilities.

Will Halas and Keesley Hammond, third-year film and animation students, test out equipment in the newly built audio control room in the College of Film and Animation.

Another ROARing success

Hollywood feel at RIT

Will Halas and Keesley Hammond, third-year film and animation students, test out equipment in the newly built audio control room in the College of Film and Animation.