

## NDSU electronics center to assemble CSP-based semiconductor products

Tessera Technologies Inc., a leading provider of miniaturization technologies for the electronics industry, announced Aug. 17 that it has completed a successful chip-scale packaging (CSP) technology transfer to NDSU, and has partnered with NDSU in the development of a fully functional microelectronics center at the university.

As part of a multi-year government program sponsored by the Defense Microelectronics Activity (DMEA), Tessera has licensed its MicroBGA CSP technology to NDSU and has provided the university with the technical knowledge and training necessary to package and assemble semiconductor chips, such as EEPROM, DRAM and Flash memory. These semiconductor devices are widely utilized in defense, medical, wireless, consumer and computing electronics to meet next-generation miniaturization, performance and reliability requirements.

The announcement marks the culmination of a joint effort by Tessera and NDSU to create a regional microelectronics center supporting the manufacturing needs of government agencies while facilitating the growth of technology companies.

"We are very excited about our partnership with NDSU in developing a world-class microelectronics packaging R&D center," said Nicholas Colella, senior vice president of Tessera's product miniaturization division. "NDSU gains a new resource for winning advanced development funding, while advancing its educational and research facilities. Tessera gains access to an academic community that will be applying new materials to chip-scale packaging. We hope to use this successful technology transfer as a model for future government and academic programs."

"The technology NDSU licensed, coupled with the packaging and assembly knowledge we've gained from Tessera, brings exciting new entrepreneurial and educational opportunities to NDSU faculty, students and business partners," said Philip Boudjouk, vice president for research, creative activities and technology transfer. "Having a commercially viable semiconductor packaging and assembly capability on campus is a strong indicator of NDSU's commitment to the pursuit of engineering excellence."

With fully qualified Class 10,000 and Class 100 clean rooms in place, NDSU is ready to realize the benefits of its efforts, including new manufacturing relationships with its existing business and research partners, and eligibility for additional government funding. The Center for Nanoscale Science and Engineering at NDSU conducts electronic miniaturization research and fabrication for micro-sensors and nanotechnology using traditional semiconductor processes. The Class 100 rooms include an Alien Technology Corp. NanoBlock fabrication line. The Class 10,000 rooms house a chip-scale packaging fabrication line.

The work completed by NDSU and Tessera was sponsored by the DMEA, an arm of the Department of Defense. NDSU is in the process of fabricating chip-scale packaged devices to be used in the DMEA's Chameleon program, which aims to develop wireless, low-observable surveillance sensors combined with a high-sensitivity base station receiver to provide a method of collecting more accurate intelligence information for enhanced security and safety, effective military engagement and rapid dissemination of intelligence data to decision makers.

### **Business office closed Sept. 7-9**

The Business Office will be closed Wednesday, Sept. 7-Friday, Sept. 9 for financial aid disbursement at the Memorial Union Ballroom. Departments are asked to hold their deposits to the Business Office after 4:15 p.m. Wednesday and Thursday, and after 2:15 p.m. Friday. Deposits will not be accepted at the Memorial Union during the payment event.

### **Blood drive scheduled**

A blood drive is scheduled for 1-4 p.m. Thursday, Sept. 1, at the United Blood Services mobile unit, which will be parked outside the west entrance of the Memorial Union. Donors must bring identification. Call Annette Graves at 1-8961 to schedule an appointment.

### **IHAS deadline change for Sept. 7**

Due to the Labor Day holiday, the deadline for submitting information for the Sept. 7 issue of "It's Happening at State" is noon Wednesday, Aug. 31.

### **Next Issue**

Publication date: Wednesday, Aug. 31  
Submissions due: noon Aug. 25  
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[www.ndsu.edu/university\\_relations/news](http://www.ndsu.edu/university_relations/news)

Tessera Technologies, through its wholly-owned subsidiary Tessera Inc., is a leading provider of miniaturization technologies for the electronics industry. Tessera enables new levels of miniaturization and performance by applying its unique expertise in the electrical, thermal and mechanical properties of materials and interconnect. As a result, Tessera's technologies are widely adopted in high-growth markets including consumer, computing, communications, medical and defense. Tessera's customers include the world's top semiconductor companies such as Intel, Samsung, Renesas, Toshiba and Texas Instruments. The company's stock is traded on the Nasdaq National Market under the symbol TSRA. Tessera is headquartered in San Jose, California. More information is available at [www.tessera.com](http://www.tessera.com).

## Counseling Center reaccredited

The NDSU Counseling Center has been reaccredited by the International Associate of Counseling Services Inc., a Virginia-based organization of U.S., Canadian and Australian counseling agencies.

The IACS bases its evaluations on counseling practice standards, and found NDSU's Counseling Center to offer competent and reliable professional services to its clients. IACS approval also depends on evidence of continuing professional development and demonstrated excellence in counseling performance.

According to center director Peggy Gaynor, the NDSU Counseling Center offers personal, career and academic counseling to NDSU students, and provides consultation to the NDSU community.

IACS was founded in 1972 to encourage and aid counseling agencies to meet high professional standards through peer evaluation, and to inform the public about competent and reliable counseling services.

## PRS software enhancements planned

Information Technology Services has announced an upgraded version of the Personal Response System (PRS) software. The upgrade is expected to be available before the start of fall semester classes.

Some enhancements include the ability to rename sessions, grade books and lessons; an added pie chart option and 3-D appearance of bar charts; the ability to print a paper copy of a quiz; the ability to copy multiple questions to another lesson and the ability to transfer PRS grade book scores to a Blackboard grade book.

PRS combines interaction and assessment to enhance classroom productivity, allowing students to answer questions and record their responses using infrared wireless transmitters. Results are instantly charted and displayed for real-time student feedback.

For more information on PRS and a tutorial of the new software, visit [www.ndsu.edu/prs](http://www.ndsu.edu/prs), or subscribe to the PRS electronic mailing list by sending e-mail to [ndsu.prs.support@listserv.nodak.edu](mailto:ndsu.prs.support@listserv.nodak.edu).

For more information on adding PRS functionality to the classroom, visit [www.ndsu.edu/prs](http://www.ndsu.edu/prs), or contact Jeffery Gerst at [Jeffery.Gerst@ndsu.edu](mailto:Jeffery.Gerst@ndsu.edu) or Nancy Lilleberg at [Nancy.Lilleberg@ndsu.edu](mailto:Nancy.Lilleberg@ndsu.edu).

## Libraries academic year hours set

The NDSU Libraries begin the regular academic year schedule Monday, Aug. 22.

### Main Library hours are:

Monday-Thursday—7:30 a.m.-midnight

Friday—7:30 a.m.-5 p.m.

Saturday—11:30 a.m.-5 p.m.

Sunday—1 p.m.-midnight

### Branch libraries hours are:

Monday-Thursday—8 a.m.-10 p.m.

Friday—8 a.m.-5 p.m.

Saturday—closed

Sunday—5-10 p.m.

### Institute for Regional Studies hours are:

Monday-Friday—8 a.m.-4:30 p.m.

Wednesday—8 a.m.-8 p.m.

Saturday-Sunday—closed

Hours vary during holidays and interim sessions. For a current listing of hours visit [www.lib.ndsu.nodak.edu](http://www.lib.ndsu.nodak.edu) or call the information tape at 1-9456.

## People

### Kemp named ag research center director



Kemp

William Kemp has been named director of the Red River Valley Agricultural Research Center. The appointment was effective July 11.

As center director, Kemp will lead a diverse team of researchers who are internationally recognized for their integrated agricultural research accomplishments. More than 40 scientists and 80 support personnel conduct fundamental and applied research related to insect pest management, foreign chemical metabolism in animals and the improvement of wheat, barley, oat, sunflower, potatoes and sugar beets.

Kemp has a bachelor's degree in wildlife management from the University of Maine, a master's degree in entomology from Michigan State University and a doctorate in forestry, wildlife and range sciences from the University of Idaho. He has more than 20 years of experience with the USDA-ARS, beginning as a research entomologist working on grasshopper pest management at the Rangeland Insect Laboratory in Bozeman, Mont.

Kemp previously was a research leader at the USDA-ARS Pollinating Insect Biology, Management and Systematics Research Unit, Logan, Utah, conducting research on pollinators.

A part of the USDA Agricultural Research Service, the research center is composed of four laboratories located on the NDSU campus, including the Biosciences Research Laboratory, Northern Crop Science Laboratory and Wheat Quality Laboratory. The Potato Research Worksite is located in East Grand Forks, Minn.

## Petry receives ag economics awards

Timothy Petry, associate professor of agricultural economics, received two "Premier Forecaster" awards from the American Agricultural Economics Association at meetings held in July.

Petry received awards in recognition of his forecasting of poultry production and price levels, and dairy production and prices during the 2004-05 production period.

## Berglund to speak at grains conference

Pat Berglund, Northern Crops Institute (NCI) director, is scheduled to be the featured speaker to kick-off the Midwest Specialty Grains Conference Aug. 23-25 at the Ramada Inn Airport/Thunderbird Conference Center, Bloomington, Minn.

"Enhancing Relationships in the Global Marketplace" is the theme for the conference. The quality advantage in the people and crops from the Upper Midwest is one topic Berglund will address at the opening session.

"NCI is the perfect organization for covering this topic, since we are not only in the business of developing markets for northern-grown crops but also of developing the relationships that result in those markets," said Berglund. "In recent years, due to new crop varieties better suited to our cooler climate, regional agriculture has expanded from small grains—wheat and barley—to the production of a broad diversity of crops. Producers are looking for new uses of traditional crops, such as flax, and for opportunities to grow and market crops that are non-traditional to our region, such as soybeans, dry peas, lentils and other pulses. At the same time, many processors are looking for identity-preserved (IP) and specialty crops."

Additional NCI staff involved with the conference are John Crabtree, NCI assistant director, who serves on the Midwest Shippers Association Board of Directors and the conference planning committee; Sally Sologuk, NCI public relations/communications specialist, who provides news releases for the conference; and Brian Sorenson, NCI technical director. The institute is an exhibitor and sponsor of the conference.

The conference is sponsored by the Midwest Shippers Association. Registration information is available at [www.grainconference.com/](http://www.grainconference.com/) or by email to [info@mnshippers.org](mailto:info@mnshippers.org).

## McCullagh article among publisher's most popular

"Factors Influencing Use of Hearing Protection among Farmers: A Test of the Pender Health Promotion Model," an article by Marjorie McCullagh, associate professor of nursing, recently received recognition for its popularity among articles published by Lippincott Williams Wilkins. The article was published in the February 2002 issue of *Nursing Research*.

The article is based on research conducted by McCullagh using the Pender health promotion model to predict the use or non-use of hearing protection among farmers. According to McCullagh, research using model testing is increasingly used to design intervention programs because the technique has been shown to increase the efficacy of the intervention.

The article was among the most frequently ordered reprints from Lippincott Williams Wilkins in 2004.

## Koch and Odde to address nutrition conference

Kim Koch, Northern Crops Institute Feed Production Center manager, and Ken Odde, professor of animal and range sciences, are scheduled to speak at the 66th annual Minnesota Nutrition Conference and Technical Symposium set for Sept. 20-21 in St. Paul, Minn.

Koch will address the technical symposium, which focuses on the future of corn in animal feed. The planned topic is the relationship of growing, harvesting and storage on feeding (nutritive) value of corn.

Odde will speak at the ruminant session on the effects of perinatal beef cow and calf nutrition on pre- and post-weaning health and performance.

## Faculty receive Gehrts, Engberg and Hogoboom presidential professorships

Three faculty members have received Presidential Professorships in recognition of excellence in academic performance.

Bernhardt Saini-Eidukat, associate professor and chair of geosciences, was presented the Walter F. and Verna Gehrts Presidential Professorship; Raymond Miltenberger, professor of psychology, was awarded the Jordan A. Engberg Presidential Professorship; and Mukund Sibi, professor of chemistry, received the Dale Hogoboom Presidential Professorship.

"These faculty members are well-respected educators and researchers in their fields," said Craig Schnell, provost and vice president for academic affairs. "They are outstanding recipients for these prestigious awards, and they demonstrate the quality that NDSU has to offer to our students."

Saini-Eidukat received the Gehrts Professorship, which is awarded to an associate professor with at least five years of service to NDSU.

He was nominated the Department of Geosciences faculty and members of the NDSU Worldwide Web Instructional Committee, who wrote, "The Gehrts Professorship was established to recognize an individual whose record demonstrates excellence in teaching, research and service. In our colleague and friend, Bernie, we see and all benefit from an individual who has excelled in all three areas."

The letter noted his enthusiasm in the classroom, that Saini-Eidukat is one of the few living geoscientists who have discovered and named a new mineral and that he is a founding member of the Environmental and Conservation Sciences Graduate Program at NDSU.

He earned two bachelor's degrees and his doctorate from the University of Minnesota. His vita lists 24 selected publications. Among his previous honors were the 2001 Award for Innovative Excellence in Teaching, Learning and Technology; 1999 College of Science and Mathematics Distinguished Service Award and the 1998 Education Award from the Fargo-Moorhead River Keepers.

Miltenberger received the Engberg Professorship, which goes to a faculty member with the rank of professor who has a balanced academic record demonstrating excellence in teaching, research and service.

He was nominated by Kevin McCaul, professor of psychology, who wrote, "Dr. Ray Miltenberger is an award winning teacher, author and scholar whose work is known throughout the world."

McCaul described Miltenberger as "a dedicated, accomplished teacher at both the graduate and undergraduate levels," noting that he published the textbook "Behavior Modification: Principles and Procedure." McCaul wrote that Miltenberger has been on the editorial board for seven journals, has approximately 125 publications and has served on a number of boards, including the North Dakota Board of Psychologist Examiners.

Miltenberger earned his bachelor's degree at Wabash College, and his master's degree and doctorate from Western Michigan University. His honors include the 2001 Chamber of Commerce Distinguished Professor Award, 2000 College of Science and Mathematics Award for Excellence in Research, the 1995 College of Science and Mathematics Award for Excellence in Teaching and the 1990 Mortar Board Award for Outstanding Adviser in the college.

Sibi received the Hogoboom Professorship, which is presented to a professor with at least eight years of service to NDSU with a balanced record of excellence in teaching, research and service. He was nominated by John Hershberger, professor and chair of chemistry and molecular biology, who described Sibi's accomplishments in organic synthesis research as "nothing short of outstanding."

According to Hershberger, Sibi has served with distinction as an educator and participated in numerous department committees. "Mukund Sibi has made outstanding contributions to the university in research, teaching and service. He is a tireless worker both in his own research and on behalf of the department," Hershberger wrote.

Sibi earned his bachelor's and master's degrees at Bangalore University, India, and his doctorate from City University of New York. His vita includes 127 peer reviewed publications. His previous honors include the 2003 Engberg Professorship, the 1998 Waldron Award for Research Excellence and the 1997 Dean's Award for Research Excellence.

The Gehrts professorship was endowed by the estate of Walter F. and Verna Gehrts. Gehrts was a Moorhead businessman involved in banking, real estate and insurance ventures. The Engberg professorship was established by NDSU alumnus Jordan A. Engberg, Redlands, Calif. The Hogoboom professorship was established by NDSU graduate Dale Hogoboom Jr., Middleburg, Va.

## Events

### Defensive driving courses offered

Two four-hour defensive driving courses are scheduled for 8 a.m.-noon and 1-5 p.m. Wednesday, Sept. 14. The first class will be held in the Memorial Union Century Theater, while the afternoon class will be conducted in the Dakota Ballroom.

The course is required for employees who drive a state fleet vehicle at least monthly. A refresher also is required every four years. Completion of the course also will afford a 5 percent discount on most auto insurance policies or restore points to class participants' driver's license.

To register, e-mail [Jolean.Pederson@ndsu.edu](mailto:Jolean.Pederson@ndsu.edu), Office of Safety and Environmental Health or call 1-9587 with additional questions. The course is free to NDSU faculty and staff and is limited to the first 50 to register.

**Shorts and Reminders****Union Food Court specials for Aug. 24-31****Soup of the day**

Wednesday: wild rice and vegetarian vegetable  
 Thursday: beef noodle and chicken tortilla  
 Friday: beef barley and broccoli cheese  
 Monday: turkey rice and California medley  
 Tuesday: chicken noodle and corn chowder  
 Wednesday: vegetable beef and baked potato

**The Corner Deli**

Wednesday: ham  
 Thursday: roast beef  
 Friday: your choice  
 Monday: Dagwood  
 Tuesday: All-American wrap  
 Wednesday: Italian

**A La Carte**

Wednesday: carved pork loin  
 Thursday: meatballs and gravy  
 Friday: lasagna trio  
 Monday: meatloaf with gravy  
 Tuesday: big Texan salad  
 Wednesday: carved roast beef

**Pizza Express**

Wednesday: Thundar  
 Thursday: Southwestern chicken  
 Friday: meat lovers  
 Monday: once around the kitchen  
 Tuesday: Hawaiian  
 Wednesday: creamy garlic chicken

**Union Grab and Go hot entrée**

Wednesday: chicken and rice casserole  
 Thursday: beef stroganoff  
 Friday: chicken stir-fry  
 Monday: chicken rosemary  
 Tuesday: turkey  
 Wednesday: beef pepper steak

**Hot wrap (available in Grab and Go)**

Wednesday: Italian  
 Thursday: garlic chicken  
 Friday: veggie  
 Monday: taco  
 Tuesday: beef fajita  
 Wednesday: ham and cheese

**Entrée salad (available in Grab and Go)**

Wednesday: popcorn chicken  
 Thursday: taco  
 Friday: chicken Caesar/Caesar  
 Monday: turkey Cobb  
 Tuesday: Southwest chicken salad  
 Wednesday: popcorn chicken

Items are subject to change without notice. Call the Dining Services lunch line at 1-9501 for all the daily specials. Questions or comments may be dropped in the suggestion boxes located in each dining center and the Union Food Court or call Shelly at the Union Buffet at 1-8122.

**Positions Available**

Positions open and screening dates through the Office of Human Resources, Room 205, Old Main:

Administrative Secretary/#00020259  
 Coatings and Polymeric Materials  
 \$22,000+/year  
 Aug. 26 (re-opened)

P.M. Custodian/#00021701  
 10 months; 40 hours/week  
 M-F; 2-10:30 pm; summer hours may vary; weekends as necessary  
 Dining Services-Memorial Union  
 \$8+hour  
 Open until filled

Lead Caterer/#00023314  
 12 months; 40 hours/week  
 M-F; 10:30 a.m.-7:30 p.m.; some evenings  
 Dining Services-Union Dining Center  
 \$8+/hour  
 Open until filled

Baker/#00023548  
 12 months; 40 hours/week  
 Tuesday-Saturday; hours vary; primarily 4 a.m.-12:30 p.m.  
 Dining Services  
 \$11.10+/hour  
 Open until filled

Lab Coordinator (11- or 12-month position)  
 Psychology  
 \$23,000+/year  
 Aug. 24

Range Research Technician/#00023708  
 12 months; 20 hours/week  
 Dickinson R/E Center  
 \$17,160/year  
 Aug. 29 (re-opened)

Research Specialist-Livestock  
 Carrington R/E Center  
 Carrington, N.D.  
 Commensurate with education and experience  
 Open until filled

Insect Physiologist/#00020607  
 Entomology  
 Commensurate with education and experience  
 Open until filled

HRMS Business Analyst/#00023777  
 North Dakota University System (NDUS)-CIS/HECN/HRMS  
 Salary commensurate with experience  
 Open until filled

Fire Management Specialist/#00019422  
 North Dakota Forest Service-Bismarck  
 \$28,134/year  
 Open until filled

Position openings also are available through the NDSU Web site at [www.ndsu.edu/jobs](http://www.ndsu.edu/jobs).

**Calendar****August**

- 18 Soccer vs. Jamestown College, 4 p.m., Ellig Sports Complex
- 22 Classes begin
- 24 Physics—Abraham Ungar, professor of mathematics, “The Hyperbolic Vector Algebra of Einstein Velocity Addition Law,” 4 p.m., South Engineering 208
- 25 NDSU Career Center Part-time Jobs Fair, 11 a.m.-2 p.m., Memorial Union Ballroom
- 27 Wellness Center—“Run Through SU” 5k run and one mile fun run/walk, 8:30 a.m., Wellness Center

**September**

- 1 World I View presentation, noon, Memorial Union Peace Garden Room
- 1 Soccer vs. University of Mary, 4 p.m., Ellig Sports Complex
- 1 Football vs. Arkansas-Monticello, 7 p.m., Fargodome
- 2 Animal and range sciences—Anna T. Grazul-Bilska, associate professor of animal and range sciences, “Role of Hormones and Growth Factors in Assisted Reproduction in Sheep,” 3 p.m., Hultz 104
- 4 Soccer vs. University of Northern Iowa, noon, Ellig Sports Complex
- 5 Labor Day holiday; university closed
- 9 Volleyball—Doublewood Inn Classic, noon and 8 p.m., Bison Sports Arena
- 10 Volleyball—Doublewood Inn Classic, 3 p.m. and 7 p.m., Bison Sports Arena
- 15 World I View presentation—international student Munir Kaderbhai, “The Indian Diaspora in East Africa,” noon, Memorial Union Peace Garden Room
- 17 Football vs. Weber State University, 6 p.m., Fargodome
- 18 Soccer vs. University of Wisconsin-Green Bay, noon, Ellig Sports Complex

**October**

- 1 Football vs. Nicholls State University, 6 p.m., Fargodome
- 7 Volleyball vs. Indiana University-Purdue University Fort Wayne, 7 p.m., Bentson Bunker Fieldhouse

- 8 Volleyball vs. University of Northern Colorado, 7 p.m., Bentson Bunker Fieldhouse
- 11 Volleyball vs. Minnesota State University Moorhead, 7 p.m., Bentson Bunker Fieldhouse
- 14 Soccer vs. University of Northern Colorado, 3 p.m., Ellig Sports Complex
- 14 Volleyball vs. University of Texas-Pan American, 7 p.m., Bentson Bunker Fieldhouse
- 15 Volleyball vs. Brandon University, 7 p.m., Bentson Bunker Fieldhouse
- 16 Soccer vs. University of Montana, noon, Ellig Sports Complex
- 21 Soccer vs. Utah Valley State College, 3 p.m., Ellig Sports Complex
- 21 Volleyball vs. South Dakota State University, 7 p.m., Bentson Bunker Fieldhouse
- 22 Football vs. University of California, Davis (Homecoming), 1 p.m., Fargodome
- 23 Soccer vs. South Dakota State University, noon, Ellig Sports Complex

**November**

- 5 Football vs. University of Northern Colorado (Harvest Bowl), 1 p.m., Fargodome
- 11 Veteran's Day holiday; university closed
- 12 Football vs. South Dakota State University, 6 p.m., Fargodome
- 24 Thanksgiving Day; university closed

**December**

- 9 Last day of classes
- 16 Commencement, 4 p.m., Fargodome



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