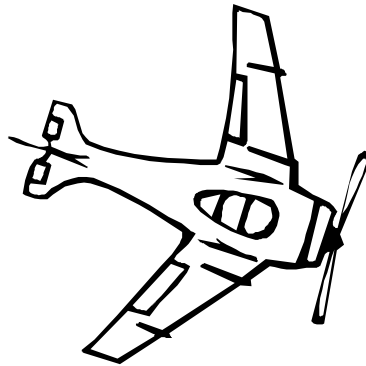


Brain Cells In Dish Can Fly Plane

Scientists at the University of Florida have cultured a mass of brains cells attached to electrodes that are able to perform simple tasks. Thomas Demarse, a biomedical engineer, cultured the cells after they were placed over an electrode grid at the bottom of a dish.

When approximately 25,000 cells were first placed over the 60-channel array grid, they were simply unconnected cells floating in a liquid. The cells began to extend small dendrites towards each other until they formed a neural network. This neural network resembles a brain in that it is what Demarse calls “a living computational device.” “Using these same channels (electrodes) we can also stimulate activity at each of the 60 locations (electrodes) in the network. Together, we have a bidirectional interface to the neural network where we can input information via (electrical) stimulation. The network processes the information, and we can listen to the network’s response,” DeMarse told Discovery News. This ‘brain’ was then attached to a computer and attempted to control an airplane in a flight simulation program. The cells were ungainly at first, but with 15 minutes more practice, navigation became possible. The cells were able to navigate through storms and clear weather alike by controlling the movements of an F22 jet. Demarse hopes that this is just the beginning of harnessing the computational power of neurons.



Story originally written by Jennifer Viegas, Discovery News, Oct. 22, 2004

ECMA Conference 2005

The 2005 Engineering College Magazines Associated (ECMA) Conference is being hosted by Nebraska Blueprint Magazine this year. The conference, which is being held April 7-9 at the Cornhusker Hotel, will feature workshops on Digital Photography, Science Writing, Communicating Science to the Media, Advertising, and Team Building. The conference will open with a free No Limit Hold ‘Em Poker Tournament, with lots of prizes. The cost of attending the conference is \$40 for UNL students, staff and faculty. For more information, visit the conference Web site at <http://www.nuengr.unl.edu/cet/ecma2005>.



NSF Research Experiences for Undergraduates (REU)

http://www.nsf.gov/crssprgm/reu/reu_search.cfm

See Engineering in Action

You are invited to join the AGC-sponsored tour of Concrete Industries on Thurs., March 10. You will see the precast operations and hear a presentation on pre-cast concrete. Transportation will be provided, leaving Nebraska Hall at 12:30 p.m. and returning by 3:30. Please register in the Construction Management office. All participants must register by 5 p.m. on Tues. March 8.

NAHB Meeting

The National Association of Homebuilders (NAHB) will hold a meeting and elections on Tues. March 8 at 6 p.m. Room TBA. For more information, contact eroyal@hotmail.com.

CETSAB Texas Hold'em Poker Tournament

CeETSAB will be hosting a Texas Hold 'Em Poker Tournament for charity on Thurs. March 10 at 7 p.m. in the Engineering Library. The buy-in is \$5 for \$50 in chips. One additional buy-in will be allowed during the first hour. \$100 in prizes will be awarded to the first three places. Must arrive by 6 p.m. 60 seat limit. All proceeds go to Relay for Life (www.acevents.org/unlrelay). Celebrity dealers Ann Koopman and Dr. Ballard will help the evening along.

Thought of the Week

Oh, my friend, it's not what they take away from you that counts. It's what you do with what you have left.

~Hubert Humphrey

From the Office of Career Services

We can help with all phases of your academic experience and employment search! Need help? Walk-in counseling is available M-F, 10 a.m. – 4 p.m. in Room 230 Nebraska Union. These are 20-minute sessions, with the final session beginning at 3:40 p.m. Sign up sheets are available beginning at 8 a.m. each day. Assistance is also available by appointment.

Lark Bear, Career Specialist
COET
114 OTHM
472.7073
lbear1@unl.edu

CASNR Career Specialist
301 ECU
472.8273

Chris Timm, Associate Dir
Career Services
ENGR Liaison
472.8049
ctimm1@unl.edu

Information on Career Services and Husker Hire Link can be found on-line at www.unl.edu/careers/!

Open Sign-up Interviews and Pre-Select Deadlines

Interview schedules are subject to change. Log-on to Husker Hire Link for the most current information.

Organization	Position	Preferred Majors	Resume Deadline	Interview
JE Dunn	Proj Mgr/Supt/Intern	CM	Open	03/08/2005

Employer Information Sessions

Employer representatives describe positions, share organization philosophy, and answer questions. All individuals selected to interview should attend as employers offer insight as to their interview questions and employment needs. **Other interested individuals may also attend. Bring a resume and see if interview times are still available. Business casual attire is appropriate and you may be asked to show a UNL ID.**

Burns & McDonnell 03/09/2005 6-7 pm, City Campus Union

Upcoming Career Events

WEEKLY

Walk-In Counseling, Monday through Friday, 10:00 AM to 4:00 PM. (Last appointment begins at 3:40 pm), 230 Nebraska Union
Choosing Majors/Matching Careers, Wednesdays, 3:00 pm, 225 Nebraska Union
Internship Orientation Sessions, Thursdays, 3:30 pm, 225 Nebraska Union

Coming in April

Student Job & Internship Fair: Wed., April 6, 10 a.m.- 3 p.m., City Campus Union

Local and national employers will be on hand to recruit student staff for part-time, seasonal, and internship positions. Students at any level in any major are encouraged to attend this great event. More details can be found at <http://www.unl.edu/careers/stufair/index.htm>.

Nebraska Engineering Scholarship Opportunities

Applications for the **James S. Blackman Scholarship for Excellence in Engineering** are now available in the Dean's Office, 114 Othmer Hall or on the college Web site (<http://www.nuengr.unl.edu>). A recipient must be enrolled as a full-time student for both fall and spring semesters during 2005–06, shall have senior class standing and graduate no sooner than May 2006. A GPA of 3.200 or greater, preference given to those who demonstrate need and evidence of proven leadership. Deadline is March 30. The stipend is \$2,500 per semester.

Applications for the **Mort and Barb Nicholson Scholarship** are also available. A recipient must be enrolled as a full-time undergraduate student for both fall and spring semesters during the 2005-06 academic year. Must have a 3.0 or higher GPA. Preference given to those who demonstrate financial need. The stipend is \$2,500 per semester. Deadline is March 30.

Summer Undergraduate Engineering Research Experience (SUERE) agreement forms are now available in the Dean's Office, 114 Othmer Hall or on the college Web site. SUERE offers opportunities for undergraduates to work alongside faculty members and directly participate in research activities.

Graduate Fellowship Offers

Graduate Assistantship/Fellowship applications are now available in 114 Othmer Hall, 100 PKI or on the college Web site. Any May 2005 graduate of the College of Engineering & Technology with a cumulative GPA of 3.50 or above is eligible to apply. Preference will be given to those who obtained cost sharing from a faculty sponsor. No more than one active award per faculty sponsor. Further information can be found on either the web or application. Deadline date is March 30, 2005.

Still Need a Job?

Eaton Corporation has scheduled interviews for Manufacturing Engineers and Materials Planning Supervisors on March 29. Although these interviews have been scheduled late, these are great opportunities for May and August graduates. Interested students should submit their resume through the Career Services' Husker Hire Link system by March 15 for consideration.

Kudos

Senior Beth Tieszen was recently honored as an "Outstanding Woman Scientist," from the Graduate Women in Science Association.

Architectural Engineering student Zac Robinson is currently featured on the UNO Web site. Read his intriguing story at <http://www.unomaha.edu/news/features/index.php>

1	2	3	4	5		6	7	8	9		10	11	12	13
14						15					16			
17						18					19			
20					21			22		23				
			24				25		26					
27	28	29					30	31						
32					33	34				35		36	37	38
39				40					41			42		
43			44			45					46			
			47		48				49	50				
51	52	53					54	55						
56						57		58				59	60	61
62					63		64			65				
66					67					68				
69					70					71				

The first three students to return the puzzle to 114 J Othmer Hall, correctly solved, will win a prize!!

P.S. Omaha students, this includes you. Take your completed puzzles to Alma Ramirez Rodgers in PKI 105 E!

Across

- 1 Novices
- 6 Promise
- 10 Colony members
- 14 Freshwater fish
- 15 Syngman of Korea
- 16 David Copperfield's first wife
- 17 Japanese seaport or dog
- 18 Troublesome sprites
- 19 Refusing to listen
- 20 Submarine-launched missile
- 22 "The __ of the Lambs"
- 24 Electric battery inventor
- 26 Lunar craft
- 27 Dweller on the Red Sea
- 30 British currency
- 32 Line of rotation
- 33 Crooked
- 35 Faux pas
- 39 Money in Albania
- 40 Accomplish

- 42 Indian prime minister 1991-6
- 43 "__ directed"
- 45 Trickle
- 46 Admonish
- 47 Havana, e.g.
- 49 Zoo beasts
- 51 Scamp
- 54 "Little Eyolf" playwright
- 56 Land east of Turkey
- 58 Like some exercises
- 62 TV's talking horse
- 63 Weirdos
- 65 Dispatch boat
- 66 Tree trunk
- 67 Shade of blue
- 68 Admit
- 69 Nocturnal birds
- 70 Swing around
- 71 Clothing

Down

- 1 Kisser
- 2 One of the Two Virgins
- 3 Air alternative
- 4 Musical intervals
- 5 Stone on screen
- 6 Carpus
- 7 Resistance unit
- 8 Sales force
- 9 Arnaz-Ball partnership
- 10 Reading supplements
- 11 Immensely
- 12 Tiny amount
- 13 Less risky
- 21 Of the upper hipbone
- 23 Oscar-winning Jessica
- 25 Based on hypothesis
- 27 Manchuria-North Korea border river
- 28 Former spouses
- 29 Spillane's Hammer

- 31 Town-crier's call
- 34 "Hold it!"
- 36 Humorist Lebowitz
- 37 Western card game
- 38 Geological periods
- 40 From the East
- 41 Poetry
- 44 Consents
- 46 Conciliate
- 48 Gleams
- 50 Royal messenger
- 51 Stallone antihero
- 52 Direction indicator
- 53 Common sense?
- 55 Swiss city on the Rhine
- 57 "The Clan of the Cave Bear" author
- 59 Angler's luck
- 60 Sister of Osiris
- 61 Jailbirds
- 64 Sigma follower

Manager Knows Best?

A man is flying in a hot air balloon and realizes he is lost. He reduces height and spots a man down below. He lowers the balloon further and shouts, "Excuse me, can you tell me where I am?"

The man below says, "Yes, you're in a hot air balloon, hovering 30 feet above this field."

"You must be an engineer", says the balloonist.

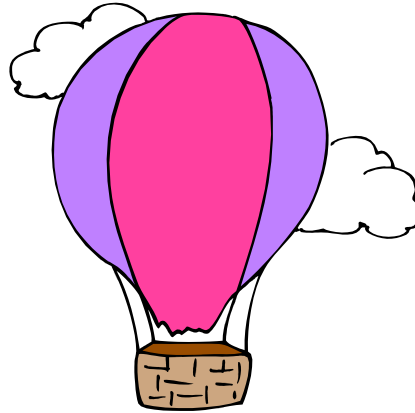
"I am", replies the man. "How did you know?"

"Well", says the balloonist, "everything you have told me is technically correct, but it's of no use to anyone."

The man below says, "You must be in management."

"I am", replies the balloonist, "but how did you know?"

"Well", says the man, "you don't know where you are, or where you're going, but you expect me to be able to help. You're in the same position you were before we met, but now it's my fault."



Construction Definitions:

Contractor: A gambler who never gets to shuffle, cut or deal!

Bid Opening: A poker game in which the losing hand wins.

Low Bidder: A contractor who is wandering what he/she left out.

Engineer's Estimate: The cost of construction in Heaven.

Project Manager: The conductor of an orchestra in which every musician is in a different union.

Critical Path Method: A management technique for losing your shirt under perfect control.

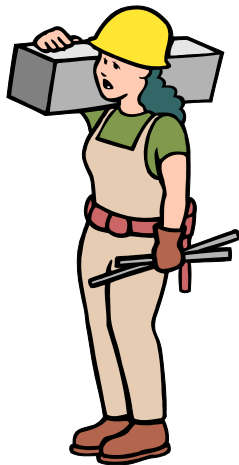
OSHA : A protective coating made by half-baking a mixture of fine print, split hairs, red tape and baloney : usually applied at random with a shot gun.

Strike: An effort to increase egg production by strangling the chicken.

Delayed Payment: A tourniquet applied at the pockets.

Completion Date: The point at which liquidated damages begin.

Liquidated Damages: A penalty for failing to achieve the



impossible

Calendar

Lincoln

March 13-20

March 28

April 8

April 22

Spring Break

Priority Registration for Fall 2005 begins.

Last day to withdraw from one or more classes.

E-Week Open House

Omaha

March 11

Final day to apply for a degree in May

About the Blueprint Weekly

Editor: Roxane Gay

If you have news and information you would like to share with the faculty, staff and students of the College of Engineering & Technology, please e-mail the information to us at blueprintweekly2@unl.edu or drop it in our mailbox at 114 Othmer Hall on the Lincoln Campus and in PKI 107A (next to the Dean's office) on the Omaha Campus. Note that the deadlines for information submission are Wednesdays at 5 p.m.

Letters to the Editor

It is the policy of the Blueprint Weekly to print letters that are signed and can be verified. Names may be withheld by request, but must be included for verification. Please include with each letter a name and phone number or e-mail address. All letters should be sent to blueprintweekly2@unl.edu or dropped in the Blueprint Weekly mailbox in 114 Othmer Hall in Lincoln or PKI 107A in Omaha.

The University of Nebraska is an affirmative action/equal opportunity institution.

UNIVERSITY OF
Nebraska
Lincoln

Trivia Corner:

1. What is the relationship between the strength of concrete and time?
2. What flammable liquid was first used to dry clean clothing?
3. What were bathing caps invented to prevent?

Random link:

New York Public Library Digital Gallery
<http://digitalgallery.nypl.org>

1. Concrete strengthens over time; 2. Gasoline; 3. Clogged drains

ANSWERS: