

to the faculty and staff of Mississippi State University

MSU again among top supercomputer sites

Mississippi State is once again on the list of the world's most powerful computer sites.

The latest "TOP500" list of supercomputer sites shows MSU's Engineering Research Center has the 158th most powerful computer in the world, 85th most powerful at any U.S. facility and 13th at any American university. Mississippi State also has the only TOP500 site in the Southeastern Conference.

The list is based on data compiled and released twice a year by the universities of Mannheim (Germany) and Tennessee.

MSU first made the list in 1996, debuting at 359th, and has moved to its current position thanks to a new system that actually is a cluster of computers, said Engineering Research Center computer specialist Roger Smith.

"In its current configuration, the cluster contains 165 dual-processor Pentium III computers using special software and a high-speed network to make them function like a single supercomputer," he said.

Clustering to create supercomputers is a recent trend, but it is an area Mississippi State pioneered more than a decade ago.

"The ERC started research with clusters in 1987, and the current system is our fifth generation cluster," Smith said. "The benefit of a cluster is that it lets you create a lot of computing power using off-the-shelf personal computers and other readily available hardware at a cost much lower than a traditional supercomputer."

The ERC cluster is extremely powerful, including 3.5 terabytes of disk space. A terabyte is 1,000 gigabytes, or one trillion characters. The system has 165 gigabytes of memory, the equivalent of almost 34 million typed pages, which if laid end-to-end would stretch almost 6,000 miles.

Another important element is the

Message Passing Interface, or MPI, software developed in part at Mississippi State.

Scientists in the ERC's Computational Simulation and Design Center use the Mississippi State supercomputer for computational fluid dynamics research, with applications as diverse as submarines, surface ships, turbomachinery, and automobile components.

"The cluster is well equipped for computational fluid dynamics, which involves solving large, complex mathematical problems," Smith said. "In fact, if you could do one long division problem per second with a pencil, it would take more than 10,000 years to

do what the computer can do in one second."

There are plans to double the capacity of the cluster in the next few months, which should keep the MSU site on the TOP500 list, but making the list is secondary to the benefits the equipment provides, according to SimCenter director David Whitfield.

"The TOP500 list is a bonus, but computer technology changes quickly," he said. "Keeping up with changes is a vital part of MSU research in support of the Department of Defense and NASA, as well as state and national industries."

Computing resources at the ERC have helped the center generate more than \$20 million in annual research expenditures.



Site work is under way for a new landscape architecture building to be located north of Thompson Hall on Stone Boulevard. The 20,000-square-foot facility will take about a year to complete.

Online listing helps campus find student employees

Campus units seeking part-time student employees and students looking for jobs can now find each other on the web through a new centralized student job listing provided by the Office of Career Services.

Campus employers and students seeking part-time jobs have access to the centralized listing from any Internet-connected computer 24 hours a day, seven days a week, said Career Services director Luther Epting.

The listing will include both part-time on-campus jobs funded through wages accounts and part-time federal work-study positions.

“We hope that campus employers will take advantage of this service and post available positions prior to the start of the fall semester,” Epting said. “Students will be able to check the job listings as soon as they return to campus or they can visit the Career Services web site from their home to see what’s available.”

Posting one or more jobs is quick and easy, Epting said.

First, register with Career Services by completing the simple online form at www.career.msstate.edu. An account will be activated and will be available for use on the next business day.

Once the account is active, departments

may log in to CareerConnections and post jobs online, designating the positions as either “part-time on-campus” or “part-time federal work-study.” Information about how and when students should apply for or inquire about the positions should be posted as well.

All part-time jobs will be posted automatically for 30 days unless the department designates a different period. When a job is filled, it should be removed from the listing by changing the expiration date.

Campus units may edit their job listings at any time, as often as needed. As an added convenience, previous job listings can be retrieved, reactivated and re-posted in subsequent semesters.

Assistance with using the centralized job listing system is available by contacting Career Services by e-mail at career@career.msstate.edu or by calling 325-3344.

Epting noted that users could encounter delays in using the system on July 23-25 during a scheduled upgrade of the Career Services web server.

National riding conference to convene

Some ride horses for relaxation and others for sport, but an August conference at Mississippi State is training people to use horses as treatment tools.

The North American Riding for the Handicapped Association is holding its Region 5 conference in Starkville Aug. 3-5. Hosted by the MSU Extension Service, much of the conference will be held at the Mississippi Horse Park, Agricenter and Fairgrounds on Poorhouse Road.

“This is the first time this annual conference has been held in a university setting instead of at a therapeutic riding center,” said Mary Ford, Extension youth development specialist and conference coordinator.

Therapeutic riding is a universal term used to describe one of four aspects of riding for persons with any type of disability. Some riding is simply for the fun of it under the supervision of a trained instructor.

Other therapeutic riding helps those with learning disabilities become more skilled at sequencing. Sequencing includes following directions and knowing the difference between right and left.

A third type of therapeutic riding is for those who can ride alone and may want to compete in the Special Olympics or other organized events.

Therapeutic riding also involve hippotherapy, or using a horse as a physical therapy treatment tool.

The NARHA conference is designed for anyone interested in learning more about

therapeutic riding.

Registration fee for the conference is \$75. Certain continuing education credits are available to conference participants.

For more information, contact Mary Ford at 325-3350 or maryf@ext.msstate.edu. A conference agenda and details are available online at msucare.com/4h_Youth/trconf.html.



Gov. Ronnie Musgrove (c) was one of many visitors to Mississippi State's exhibit at the recent Innovators' Fair, part of the Southern Growth Policies Board conference. Manning MSU's booth, were Brett Shufelt (l), MSU continuing education information specialist, and Nelson Wall, Northeast Mississippi Community College dean of community services. MSU, NEMCC and Northeast Mississippi public schools are members of the Northeast Pilot Project. The project is researching ways to provide higher education opportunities to students who otherwise may not be attending college. More than 400 business, education and government leaders attended the conference in Hot Springs, Ark., to discuss the future of the South's economy.



Kudos

Edward B. Allen, computer science, had two papers he co-authored published in the proceedings of the Seventh International Software Metrics Symposium in London—“Measuring Coupling and Cohesion of Software Modules: An Information-Theory Approach” and “Controlling Overtiffing in Software Quality Models: Experiments with Regression Trees and Classification.” In addition he had a paper, “Empirical Assessment of a Software Metric: The Information Content of Operators,” accepted for publication in the *Software Quality Journal*.

Alan Blaine, plant and soil sciences, received the Southern Soybean Success Award at the Southern Soybean Conference. The award is sponsored by the Uniroyal Chemical Co. and recognized Blaine for his efforts to improve soybean production in the South.

Stanley F. Bullington, industrial engineering, was reappointed to the National Institute of Standards and Technology’s Malcolm Baldrige National Quality Award board of examiners. First named in 1999, Bullington will continue on the 400-member body, which includes American business leaders, health care professionals and other educators.

MSU’s Jackson-based Center for Safety and Health recently was presented with an award by the U.S. Department of Labor’s Occupational Safety and Health Administration. The Assistant Secretary’s Team Impact Award recognized **Davern Jones**, **Kelly Tucker**, **Charles Savage**, **Charles Shorter Sr.**, **Danny Sumrall**, and **Phillip Harrell** for “exceptional team contributions to the successful accomplishment of OSHA’s safety and health mission and goals.”

Stephen Cottrell, international services, and **Bunnak Poch**, Social Science Research Center, presented a paper, “Cambodian Internal Migration: A Study of the Khmer Rouge Initiated Population Displacement” at the 2001 annual meeting of the Southern Sociological Society in Atlanta.

Marita Gootee, art, had one of her digital images selected for display in the

Gallery on the Santa Fe (New Mexico) Community College campus through Aug. 16. The photograph, “Mike and the Monster in the Closet,” is included in the “Evolution of Narrative Photography” exhibition.

John A. Hargreaves, wildlife and fisheries, was one of 14 international aquaculture scientists invited to present a paper at a workshop on “Aquaculture Growout Systems—Challenges and Technological Solutions” at the East-West Center in Honolulu, Hawaii.

Information Technology Services recently was awarded two citations of excellence by the Golden Triangle Advertising Federation. **Amy Berryhill** was recognized for her design of the ITS brochure. The second award went to the BullyWare CD, designed by former employee Celeste Brignac.

Don Mabry, history, presented a paper, “Historians and the Early Days: Life Before the Web,” at the 36th International Congress on Medieval Studies in Kalamazoo, Mich.

Doug Marshall, food science and technology, spoke on “Rapid Shellfish Freshness Detection Using Impedance Technology” at the National Fisheries Institute Technical Innovations in Seafood Products and Processing Conference in Orlando, Fla. He also served as a consultant on an article entitled “America’s Fish: Fair or Foul?” in the February issue of *Consumer Reports* magazine. In addition, he was named a contributing editor for *Food Microbiology*, a London-based scientific journal.

Tim McCourt, art, had work included in the seventh annual National Art Exhibition at St. John’s University, New York, and in “New Directions 2000, National Exhibition” at the Barrett Art Center, also in New York City.

Sherry S. Swain, Mississippi Writing/Thinking Institute, was among those testifying before a U.S. Senate appropriations subcommittee on behalf of the National Writing Project in Mississippi. Sen. Thad Cochran (R-Miss.) conducted the hearing. The Mississippi affiliate is housed in MSU’s College of Education.

TV center earns top MAB awards

Staff members at the University Television Center are bringing home more than half a dozen first- and second-place honors in state competition.

The TV center earned two gold and five silver awards from the Mississippi Association of Broadcasters at the group’s recent annual meeting.

The nonprofit MAB, which represents the state’s television and radio stations, recognized Mississippi State productions with faculty, student, public affairs, and sports themes. Awards included:

—A gold for “Cove Dance,” a university promotional spot produced by Bret Hillard and Paula Hindman.

—A gold for “The Sideline,” a student sports broadcast produced by Alex Wheelock.

—A silver for “Snow Bowl 2000,” a sports highlight video produced by Bret Hillard.

—A silver for “The Insight,” a student news program produced by Bret Hillard.

—A silver for “Step up to the Plate,” an alumni outreach spot produced by Bret Hillard.

—A silver for “Speak Out MSU,” a student talk forum produced by Alex Brown.

—A silver for “MSU Football with Jackie Sherrill,” a coach’s program produced by Bennie Ashford.

The university’s full-service television operations are located at the Wise Center.

Memo is published for the faculty and staff of Mississippi State University by the Office of University Relations. It is published weekly during the fall and spring semesters and twice a month during the summer. It is also available electronically through the World Wide Web at msuinfo.ur.msstate.edu/msu_memo/. Editorial material should be sent to Kay Fike Jones, Mail Stop 9512, or via Internet to jonesk@ur.msstate.edu.

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Contributors—Maridith Geuder

Sammy McDavid

Bob Ratliff

Dale Dombrowski

Fred Faulk

Russ Houston



Calendar of Events

Send your calendar items to

Kay Fike Jones, 102 George Hall; Mail Stop 9512; FAX 325-7455; e-mail jonesk@ur.msstate.edu at least **TWO WEEKS** in advance. For updates, check www.msstate.edu and click on "News" for msu.NOW!

July 24

ITS workshop: Introduction to Microsoft Access 2000, McArthur Lab A, 1:30 p.m. 325-0631.

25

"Christmas in July" workshop, will help parents, caregivers and others complete simple modifications to make toys more accessible for children with disabilities, sponsored by T.K. Martin Center for Technology and Disability, 10 a.m.-2 p.m. 325-1028.

ITS workshop: Microsoft PowerPoint 2000 II, McArthur Lab A, 8:30 a.m. 325-0631.

26

Instructional Media Center workshop: Design Brochures Using Microsoft Word 2000, ELI Classroom, Mitchell Memorial Library, 1:30 p.m. 325-7676.

ITS workshop: Microsoft Excel 2000 II, McArthur Lab A, 1:30 p.m. 325-0631.

27

NASIG Continuing Education seminar, Mitchell Memorial Library, 9 a.m. Maria Collins, 325-8184.

28

Summer Volunteer Workshop, Crosby Arboretum, Picayune, 9 a.m. Kimberly Johnson, 601-799-2311, extension 21.

August

3-5

North American Riding for the Handicapped Association regional conference, Mississippi Horse Park, AgriCenter and Fairgrounds, Poorhouse Road. 325-3350.

9

ITS workshop: Faculty Instructional Techno-

logy Series, McArthur Lab A, 8:30 a.m. Kathleen Olivieri, 325-8800.

14, 15

MSU-Meridian Campus New Student Orientation.

18

Women's Basketball Coaches Clinic. 325-0198.

20

Fall semester classes begin.

September

3

MSU vs. Memphis, football, Davis Wade Stadium at Scott Field, 6 p.m.

15

MSU vs. Brigham Young, football, Davis Wade Stadium at Scott Field, 6:30 p.m.

20

MSU vs. South Carolina, football, Davis Wade Stadium at Scott Field, 6:30 p.m.

Biomedical grant boosts cartilage cell research

A 2001 Whitaker Foundation grant is aiding a Mississippi State scientist's investigation of new strategies for treating arthritis and other cartilage tissue problems.

Biological engineer Steven Elder is receiving almost \$210,000 from the Virginia-based organization for research into how mechanical stress affects the development of cartilage cells.

Whitaker is a private, nonprofit foundation in Arlington, Va., dedicated to improving human health through the support of biomedical engineering. Each year, the organization funds approximately 80 national research projects following an extensive review process.

The Mississippi Agricultural and Forestry Experiment Station also helps support Elder's research.

msu.NOW!

Check out the latest news, announcements and weather at msu.NOW! Just click on the news button on the MSU home page www.msstate.edu.

Media office wins national recognition

The Athletic Media Relations Office received three awards for excellence in publications at the recently completed College Sports Information Director's Association summer convention in San Diego.

MSU's Sanford Independence Bowl media guide was judged second-best in the nation by a CoSIDA panel. The university's bowl publication finished behind only Notre Dame's Tostito's Fiesta Bowl guide among all-sport, postseason publications.

Mississippi State's guide was written and edited by Mike Nemeth and John R. Cade. Nemeth is associate athletic director for media and public relations, while Cade is assistant director.

Nemeth and Cade also were awarded a third-place certificate in District 6 for their 2000 regular season football media guide. Only the University of Texas and the University of Oklahoma finished ahead of MSU.

District 6 includes all schools in Mississippi, Louisiana, Texas, Oklahoma, and Arkansas.

Cade received another national award when his men's tennis media guide was voted seventh-best in the country by CoSIDA.



Employment Opportunities

Lists of currently posted MSU positions (executive, administrative, faculty, and staff) are available on the Human Resources Management web site www.hrm.msstate.edu/employment/postings.html, or by visiting HRM Employment Services at 150 McArthur Hall. Information on open support staff positions may also be obtained by calling Dial-A-Job at 325-4132.

Mississippi State University does not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status.



Funding Opportunities

Below are funding opportunities received from various sources such as the Grants Resource Center. Sponsored Programs Administration (SPA), 325-7404, will assist you in obtaining information and applications necessary for submission to governmental or private sources. For complete listings and other opportunities, see the Sponsored Programs World Wide Web page on the MSU server: <<http://www.msstate.edu/Dept/SPA/index.html>>.



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msu.NOW!

June

12

How to Use Your Library, Giles Room,
Mitchell Memorial Library, noon. Beth
Ashmore, 325-3834.

13

How to Use Your Library, Giles Room,
Mitchell Memorial Library, 10 a.m. Beth
Ashmore, 325-3834.

14

Electronic Thesis and Dissertation Preparation
Workshop, ELI Room, Mitchell Memorial
Library, 1:30 p.m. Eula Betts, 325-7666.

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