

Instrumentation Physicists Win L.I. Section IEEE Awards

Physicists Pavel Rehak and Graham Smith, both of the Instrumentation Division, have each won a Region 1 Award for New Technological Concepts in Electrical Engineering from the Long Island Section (LIS) of the Institute of Electrical and Electronics Engineers (IEEE).

Four other Region 1 Awards and four Section Awards were also presented to other honorees at the LIS IEEE 1999 awards banquet held at Farmingville on April 25.

Both Rehak and Smith design advanced detectors used for a wide range of particle physics experiments, in which detectors provide information

on the positions of particles emerging from collisions in accelerators.

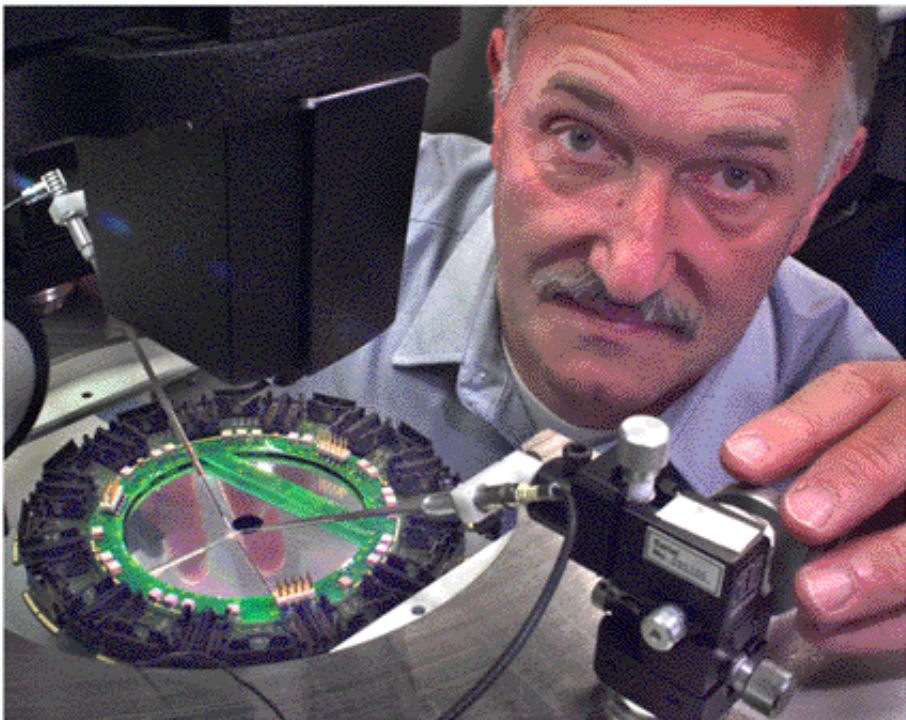
Rehak (right) is measuring a silicon drift detector (SDD), which he invented with Emilio Gatti from the Polytechnical University of Milan, and which is used in physics experiments at CERN, Switzerland. Rehak's innovative concept has made possible the silicon vertex detector for the STAR experiment at BNL's Relativistic Heavy Ion Collider.

It has also inspired a new type of charged coupled device as an imaging x-ray detector for astrophysics experiments at Germany's Max Planck Institute, and a high-resolution silicon x-ray detector on which industry is basing electron microscopes to analyze traces of elements by x-ray fluorescence.

Pavel Rehak holds two Ph.D.s in physics: one from Charles University in Czechoslovakia, and the other from the *Scuola Normale Superiore* in Italy. He worked at research institutions in Europe, he joined the BNL's Physics Department in 1976. After joining Instrumentation in 1994, he was awarded tenure and also won BNL's Distinguished R&D Award in 1997.

Rehak's contri-

Graham Smith



Roger Stoutenburgh

Pavel Rehak

Contributions in addition to the SDD include his technique to reduce significantly a serious shortcoming in gaseous position-sensitive detectors — line broadening due to parallax that occurs in diffraction experiments using x-rays and neutrons. He has also collaborated at BNL, in Germany and in Italy on forefront design and development of detector electronics.

Smith (left) is inspecting a new design of position-sensitive cathode for use in x-ray, neutron and particle detectors. His work on improving gas detector performance has been applied in many devices, such as the x-ray detectors used at BNL's National Synchrotron Light Source (NSLS).

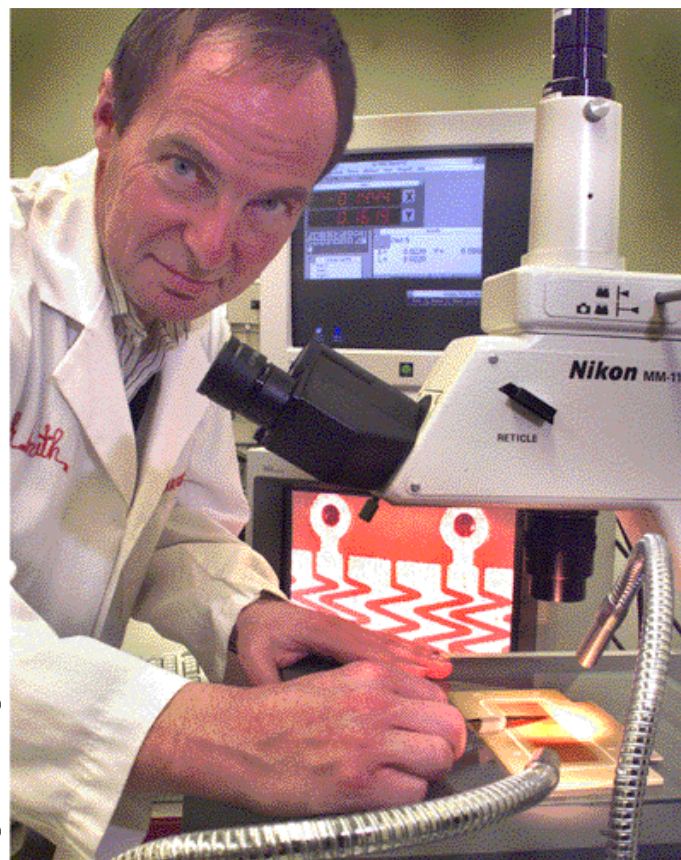
In the first quantitative assessment to be performed by a research group, Smith led investigations of the limi-

tation to x-ray position resolution in gas detectors caused by the finite range of photoelectrons and Auger electrons. A fundamental understanding of this phenomenon led to x-ray position measurements that are the most precise ever made in a gas.

Graham Smith earned a Ph.D. in physics from Durham University, England. He joined Leicester University in 1974 and came to BNL in 1982. Granted tenure in 1994, he won BNL's Distinguished R&D Award in 1996.

Smith is responsible for Instrumentation's R&D and construction of position-sensitive detectors for x-rays and neutrons, primarily for structural biology and materials-science studies, and several of his proportional detectors in use today have achieved posi-

(continued on page 2)



Roger Stoutenburgh

Coming Up

The National Synchrotron Light Source Annual Users' Meeting & Workshops will be held Monday to Wednesday, May 24-26, in Berkner Hall.

On Tuesday, May 25, John Norvell, Assistant Director of the National Institute of General Medical Sciences, National Institutes of Health (NIH), will give the keynote address, "NIH Involvement in Synchrotron Science and Structural Genomics," at 1:50 p.m.

Then, at 3:55 p.m., Kwang-Je Kim, Associate Division Director of Research, Advanced Photon Source, Argonne National Laboratory, will give a scientific highlight address on "Towards Coherent 1-Angstrom Radiation Via High-Gain Free Electron Lasers."

The meeting's full agenda is on the World Wide Web at www.nsls.bnl.gov/Intro/usrmtg/meet99.htm.

Biophysicist John Flanagan, Biology Department, will deliver the 346th Brookhaven Lecture entitled "Macro-Molecular Machines at Work in the Intra-Cellular Assembly Line," on Thursday, May 27, at 4 p.m., in Berkner Hall. All are welcome.

Donald Fleming Named New Chief Information Officer, Director of BNL's Information Technology Division

Coming to the Lab with 20 years of experience in developing and managing the networking, computing and application infrastructures for Fortune-100, multinational corporations, Donald Fleming is BNL's new Chief Information Officer and the Director

of the Information Technology Division (ITD).

Theodore Daniels, who headed ITD (previously called the Computing & Communications Division) before Fleming took over its leadership on April 15, has become head of ITD's Program Development Office.

In the newly created position of Chief Information Officer, Fleming is responsible for developing a strategy to implement an information infrastructure to support the Lab's scientific computing and management-information requirements. As Director of the Information Technology Division, Fleming has a staff of 75 people who operate the Lab's computing facility and communications network.

"For continued success, the Labo-

ratory must have today's most effective technology for technical computing and knowledge management," said Fleming. "My goal is to provide the Lab with a computing and networking infrastructure that is cost-effective, easy to use, highly reliable and secure. The strategic information-technology plan which will be developed will justify investments in information technology and will set the agenda for information technology at the Lab."

Donald Fleming, Ph.D., earned a B.S. in astronomy and physics from Yale University in 1965, and he took a Ph.D. in nuclear physics in 1973 from the University of Massachusetts. While a graduate student, he came to Brookhaven in 1966 to do research in the Physics Department.

From 1974 to 1977, Fleming became a crude-oil supply planner at the Standard Oil Company in Cleveland, Ohio. He then joined Brown & Williamson Tobacco Corporation in Louisville, Kentucky, where he was Manager of Marketing Planning & Analysis. Fleming returned to Standard Oil in 1978, ultimately becoming manager of the Cleveland Data Center, which had an annual operating budget of \$30 million and 365 employees.

In 1984, Fleming joined the General Electric (GE) Corporation in (continued on page 2)



Roger Stoutenburgh

Donald Fleming

Last Year's Winner Places First in 1999 Model Bridge Contest

For the second consecutive year, William Thornewell II (pictured right), an East Islip High School student, has won first place in the Lab's annual Model Bridge Contest. By exhibiting the greatest stress to weight ratio during the day-long contest on February 27, his basswood bridge earned first over approximately 300 others submitted by high schoolers from 21 schools in Suffolk County.

Placed under a stress tester (shown in photo) Thornewell's 39.1-gram bridge held more than 303 pounds, or more than 3,524 times its own weight. In fact, he beat the contest's record that he himself had established last year, when his first-place bridge held 3,089 times its own weight.

As a result of his bridge's holding up so well under stress, Thornewell won a \$100 gift certificate to a local computer store, courtesy of the Lab. Thornewell, and second-place winner Alex Rotz, from Huntington High School, were flown by BSA to the 1999 International Bridge Building Contest, which was held on April 24 at the Illinois Institute of Technology. There, Thornewell placed 15th and Rotz finished 26th out of 111 contestants and 56 qualified bridges.

Since 1981, this contest has been run by Museum Programs, now within the Lab's Community Relations Office. As Museum Programs Manager Janet Tempel (pictured below, third from left) explains, this annual event would not be possible without the participation of volunteers, who this year again include: (pictured from left) Marty Woodle, National Synchrotron Light Source Department, who, as contest engineer, designed the contest's rules and ran the contest; Department of Applied Science (DAS) retiree Don Horne (center), who operated the stress tester; Jim Cullen (second from right), Alternating Gradient Synchrotron Department, who was an assistant contest engineer; DAS and retiree Carl Klamut (right), who also ran the stress tester. They are pictured with Susan Sears (second from left) of the Museum Programs, who was in charge of the contest's database. Absent from the picture is volunteer Bill McGahern, AGS, who also was an assistant contest engineer. — photos on this page by Roger Stoutenburgh



Bowling

Red and Green League - 4/27

R. Mulderig Sr. 289/224/224/737 scratch series, J. Griffin 236/225/211/672 scratch, E. Larsen 236/216/205/657 scratch, J. Sullivan 244/203/620 scratch, T. Sullivan 215/214, M. Grau 214/601 scratch, R. Mulderig Jr. 212/201, R. Raynis 258, J. Mayeski 223, N. Besemer 214, K. Asselta 213, B. Miltenberger 211, K. Koebel 205, G. Mack 202, L. Mulderig 201, J. Giuffre 200.

Red and Green League - 5/4

R. Raynis 257/213/205/675 scratch, R. Larsen 237/214/202/653 scratch, E. Larsen 288/226/670 scratch, R. Mulderig Sr. 256/206/658 scratch, F. Wahlert 229/213, M. Meier 227/202/611 scratch, A. Pinelli 220/204/620 scratch, R. Mulderig, Jr. 213/203/612 scratch, J. Mayeski 243, J. Griffin 226, B. Miltenberger 221, E. Sperry III 202, L. Mulderig 201.

Purple and White League - 4/28

J. McCarthy 219/199/188/606 scratch, G. Mehl 212/184/184, B. Mullany 233/203, A. Pinelli 215/203, M. Guacci 216/197, J. Zebuda 191/181, E. Mamay, 189/174, J. Pinelli 185/173, L. Simes 176/173, S. Reynolds 231, T. Dilgen 228, S. Logan 223, M. Meier 214, D. Keating 203, G. VanSickle 202, P. Callegari 198, C. Johnson 188, E. Zukowski 185, C. Holmstrom 181, Donna King 174, I. Sperry 173, M. Addressi 172, M. DiMaiuta 172.

Purple and White League - 4/28

P. Wynkoop 208/203/192/603 scratch, L. Simes, 235/170, G. Mehl 221/200, J. Zebuda 212/191, D. Keating 192/179, B. Mullany 191/180, S. Rothe 225, E. Meier 211, M. Guacci 210, M. Addressi 204, Donna King 188, P. Callegari 185, J. Tabacco 181, M.G. Meier 177, J. Holmstrom 174.

Bowling Awards Party

All BNL bowlers, their family and

friends are invited to the annual Bowling awards party, which, this year, will be held at Ladakins on Friday, June 11, 6-10 p.m.

For tickets purchased by June 4, the cost is \$12 for each bowler and \$17 for each guest, which covers dinner, music by a DJ, and an open bar. Tickets purchased after June 4 will cost \$40 per person, and no exceptions will be made. To purchase tickets, bring or mail checks made payable to BERA Bowling (not cash) to: Tracy Blydenburgh, Ext. 4422, Bldg. 750.

Defensive Driving

Due to popular demand, a second defensive-driving course will be offered by the training group of the Safety & Health Services Division during June: a second six-hour defensive driving course on Saturday, June 26, 9 a.m.-3:30 p.m., in Berkner Hall, Rooms B & C. A Metropolitan Life instructor will teach the course, which is open to BNL, BSA and DOE employees, BNL facility-users, and their families, at \$23 per person.

Completing the course entitles participants to a 10-percent discount on vehicle collision and liability insurance for three years, and to have up to four points deducted from their driving records if they were incurred during the 18 months before the completed course.

To register, call Scott Zambelli, 249-3000, Ext. 5877 (not the on-site Ext. 5877).

Donald Fleming

(cont'd)

Fairfield, Connecticut, as Manager of its Lighting Information Systems Operation within GE's Lighting Business Group. In 1986, he became GE's Manager of Corporate Applications, Corporate Information Technology, as which he helped integrate the \$12-billion RCA acquisition, developed and implemented the common software strategies to support the financial shared services program, and supported all corporate headquarters' departments.

He then became Corporate Director of Information Systems & Services at Allied Signal Corporation in Morristown, New Jersey. There,

Fleming was responsible for leadership of information systems, which had an international staff of 3,000 and an operating budget of \$300 million. In 1995, Fleming became Chief Information Officer for EG&G, Inc., in Wellesley, Massachusetts, a position he held until he joined Brookhaven in April. — Diane Greenberg

Correction

In the report on U.S. DOE Assistant Secretary Rose Gottemoeller's April 7th visit to BNL in the Brookhaven Bulletin of May 7, her name was inadvertently misspelled as Gottenoeller. The Bulletin regrets the mistake.

IEEE Award

(cont'd)

tion resolutions that are unsurpassed. Smith contributes to R&D on detectors for high-energy and relativistic

heavy-ion physics, and collaborates with experimental groups at the NSLS, the Alternating Gradient Synchrotron and national neutron sources.

— Liz Seubert with Diane Greenberg



(From left) Pavel Rehak and Graham Smith, Instrumentation Division, display the plaques presented to them as winners of the Region 1 Award for New Technological Concepts in Electrical Engineering from the Long Island Section of the Institute of Electrical and Electronics Engineers.

BNL's Space Poster Returns; Now on View at Science Museum

When the space shuttle Discovery returned from its 25th flight on November 7, 1998, mission STS-95 made history in two ways: first, U.S. Senator John Glenn (Democrat-Ohio) returned to Earth after his second space flight, which was over 36 years after his first journey into space in 1962 when he became the first American to orbit the Earth.

Second, and more important to BNL, Discovery returned the Lab's "embrace space" poster (pictured right) to Earth, along with the signatures of approximately 2,000 schoolchildren and teachers who had signed the poster while on tour at the Lab's Science Museum last May, and the names of BNLers and their kids who had penned their signatures on the poster during the week that included May 21, national Space Day 1998 (see Brookhaven Bulletin, May 15, 1998).

Now, the poster — along with a sticker which certifies its space journey, and a picture of the Discovery crew (pictured below) signed by the astronauts, including Glenn, who served on that mission — is on display by the main door of the Science Museum, Bldg. 935.

Digital versions of that poster and others gathered from museums around the country were launched with Discovery on October 29, 1998, as part of an educational program called "Student Signatures in Space." Sponsored by Lockheed Martin, it was one of several educational programs, including an in-flight interview with Glenn, during the STS-95 mission, which were designed to interest kids in space flight and science.

As part of the program, Museum Programs Manager Janet Tempel also sent a cyber postcard, to wish the astronauts good luck in their flight, saying: "The 2,000 students who signed the space poster at the U.S. Department of Energy's Brookhaven National Laboratory will be gazing out into space and thinking of the excitement and wonder of your mission."

— Marsha Belford



Pictured are the astronauts who accompanied BNL's signed "embrace space" poster into orbit on the space shuttle Discovery: (standing, back row, from left) Flight Engineer Scott Parazynski, Payload Commander Stephen Robinson, Payload Specialist Chiaki Mukai of Japan, Mission Specialist Pedro Dugue of the European Space Agency, Payload Specialist John Glenn, (seated, front row, from left) Pilot Steven Lindsey, and Commander Curtis Brown.

Plant Trees on Site On May 17 & 18

BNLers are invited to help plant pine seedlings on the north firebreak by the Relativistic Heavy Ion Collider on Monday and Tuesday, May 17 & 18, from 4 p.m. until 7 p.m. The seedlings will be provided by the environmental organization Global ReLeaf.

Volunteers are asked to bring their own shovels, work gloves, plastic buckets, tick repellent, family members, and plenty of muscle.

For more information and to register for this event, call Elaine Lowenstein, Community Relations Office, Ext. 2400.

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MS Word Users Group

The new MS Word Users Group will hold its first meeting on Friday, May 21, 10-11 a.m., in the Seminar Room of the Information Technology Division, Bldg. 515. Resources that are available to help MS Word users move from WordPerfect to Word will be discussed. All are invited.

For more information, contact Pam Mansfield at pam@bnl.gov.

Volleyball Party

The end-of-the-season Volleyball League party will take place on Saturday, May 15. There will be open play in the gym from 10 a.m. to 1 p.m., outdoor play at the gazebo from 2-6 p.m., a hot and cold buffet and soda. No alcohol will be served.

Tickets at \$5 a person are on sale from Denise Meisell-Bingham, Bldg. 97, Ext. 5873, children under 12 years of age may enter free.

Arrivals & Departures

Arrivals	
Raymond R. Costa	Plant Eng.
Joseph R. Walsh	Info. Tech.
Hubert K. Zajonz	Physics
Departures	
William S. Bereza	Plant Eng.



Certified as having flown in space on board the Shuttle Discovery during the John Glenn mission during October and November of last year (see sticker, bottom center), the Lab's "embrace space" poster is on display at the Science Museum, Bldg. 935.

BERA Excursions

Tickets for the following are on sale at the BERA Sales Office, Berkner Hall, Tuesday through Friday, 9 a.m. to 1:30 p.m. For more information, call Andrea Dehler, Ext. 3347.

Great Adventure

Buy an early-bird park-safari combo ticket to Six Flags Great Adventure Amusement Park, which features rides that include "The Great American Scream Machine," "Batman," the Batman-and-Robin ride "The Chiller," and "The Viper." Great Adventure also offers the indoor roller coaster "Skull Mountain," and the "Lethal Weapons" water-stunt show.

At Great Adventure, regular park tickets are \$38.15 for adults, while the park-safari combo is \$41.34. The \$24-early-bird tickets, which are not available at the gate, may be used until Sunday, June 27.

The regular BERA price is \$28 for the park and \$31 for the combo. BERA also sells combo tickets at \$20 for children of up to 48 inches tall. Children under 3 years old are free. Also available are food-voucher coupons at \$5.50.

Atlantic City Bus Trip, July 17

The next BERA-sponsored bus trip to Atlantic City will be on Saturday, July 17. The cost will be \$25; the hotel-casino and coin-return amount will be announced later.

The bus will leave the Brookhaven Center promptly at 8 a.m. and return by approximately 10 p.m. An extra pickup at the park and ride off exit 63 of the Long Island Expressway may be requested.

Hospitality Committee

The Hospitality Committee invites all on-site residents, their spouses and friends to join it during the following events. More details are posted in the laundry and on the door of the Recreation Building. For more information, call Susan Hart, 821-4257.

Welcome Coffee

Coffee is served to newcomers and existing residents of the apartment area every Tuesday, from 10 a.m. to 11:30 a.m. in the lounge of the Recreation Building.

At the meeting on Tuesday, May 25, Lyme disease, which is endemic on Long Island, will be discussed.

Parent-Toddler Group

Parents of two- and three-year-olds are invited to bring the children to the Recreation Building every Wednesday, 9:30-11:30 a.m. For more information, call Sarah Zill, 821-2602.

Family Night

On Friday, May 21, on-site residents are invited to bring the family, friends and a dessert to share to the Recreation Building for an evening of fun and games from 6:30 to 8:30 p.m. Soft drinks will be provided.

Watchhill Camping

The BNL Mountain & Canoe Club invites employees, facility-users, other Lab guests, and their families to join its members for a weekend of camping at Watch Hill on Fire Island, from Friday, May 21, to Monday, May 24.

For more information, call Nancy Nagy, 821-2652.

Tennis, Anyone?

1999 Tennis Ladder

The tennis ladder season would normally have started, since it usually spans the beginning and end of the daylight savings time. However, three of BNL's tennis courts are undergoing a mini face-lift, so have not been available.

Therefore, the 1999 tennis ladder will officially start when work on the courts is complete, in approximately one week's time.

To obtain information on the rules associated with ladder play, watch for a notice in a forthcoming Brookhaven Bulletin, or call Joe Carbonaro, Ext. 5139.

1998 Tennis Ladder Results

After some intense competition over the course of last season, the top four finishers on 1998 Tennis Ladder were as follows:

- 1. Joe Carbonaro
- 2. Sven Roosild
- 3. Ed Gill
- 4. Ady Hershcovitch

Honorable mentions went to: Terry Maugeri, Ken Perkins, Pete deToll, and Ady Herschovitch, who all reached the top rung at some point.

Bus Trip to U.S. Open

The BERA Tennis Committee is again sponsoring its popular bus trip to the U.S. Open Tennis Championships at the National Tennis Center, Queens.

The 1999 trip will take place on Tuesday, September 9, when the bus will leave from the tennis-court parking lot at 8:30 a.m., with a pick up at the Long Island Expressway Exit 63 park & ride. After the day's session,



Roger Stoutenburgh

1998 BNL Tennis Tournament Champions

Congratulations to the 1998 BNL Tennis tournament champions, who are: (from left) Joe Carbonaro, second-time winner of the Mens Singles; Rita Kito and Frank Kito, who won the Mixed Doubles, also for the second time; and Tom Koetzle, who, with his son, John (not pictured), came first in the Men's Doubles.

the bus will leave the National Tennis Center at 7:30 p.m.

The per-person cost of \$57 includes the day-session ticket (now \$41) and the round-trip bus fare, including a tip

for the driver. Paid reservations are being taken at the BERA Sales Office, Tuesday through Friday, 9 a.m. to 1:30 p.m. Sign up early, as only 49 seats are available.

No Bulletin June 4

In observance of Memorial Day, the Lab will be closed on Monday, May 31, and there will be no Bulletin on Friday, June 4.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBLINE, Ext. 7744 (344-7744), for a complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBS/jobs.html>.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD8147. PHOTOGRAPHY & GRAPHIC ARTS SPECIALIST C - (temporary) Under direct supervision and technical direction, carries out phases of the Lab's graphic arts work. Works from written or oral directions to execute tasks associated with copy/duplicating and related equipment. Will also do related bindery functions. Performance of these duties requires knowledge of some phases of graphic arts. Must possess valid New York State drivers' license. Information Services Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

MK7016. SPECIAL ASSISTANT TO THE ASSISTANT LABORATORY DIRECTOR FOR FINANCE & ADMINISTRATION - (reposting) Requires a bachelor's/master's degree in an appropriate discipline; excellent analytical and communication skills (oral and written); a high degree of initiative and professional judgment; and knowledge of latest computer applications, such as Office 97. In addition, requires the ability simultaneously to plan, organize, coordinate and handle several projects with divergent viewpoints and a variety of requirements and conditions. Extensive knowledge of Lab operations, and BNL and DOE policies, procedures, and practices is highly desirable. Responsibilities include, but will not be limited to, the development and implementation of those policies and procedure under the jurisdiction of the Assistant Laboratory Director (ALD), acting as liaison between the ALD and the organizational units reporting to ALD, and as liaison on special studies and projects. Will also respond to requests for information from all levels of the Lab, DOE and outside organizations. Director's Office.

NS8402. ES&H ENGINEERING POSITION - Requires a bachelor's degree in engineering, at least five years' experience in the development and implementation of environment, safety & health programs, and strong communication and interpersonal skills. Computer literacy including MS Word, Excel, Access, PowerPoint and knowledge of Internet services, is necessary;

CSP or PE certification is an advantage. Ability to work with all levels of individuals, excellent presentation skills, team-leader skills and the ability to work multiple tasks simultaneously are also required. Will provide guidance and technical support by analyzing and evaluating/auditing operations, maintenance and construction projects. Plant Engineering Division.

DD8201. HAZARDOUS WASTE MANAGEMENT TECHNICIANS - (reposting) Requires an AAS degree in chemistry, engineering, physical sciences, or equivalent experience. Ability to operate handling equipment and to obtain and maintain a commercial driver's license are also required. Responsibilities include, but are not limited to, the pickup, packaging, transportation, storing, and bulking of hazardous and radioactive wastes. Additional responsibilities include completing and maintaining certifications required for the operation of the Waste Management Facility. Waste Management Division.

DD8405. REFRIGERATION & A/C ENGINEER - Under minimum supervision constructs, install, repairs, maintains, and operates refrigeration, air-conditioning, ventilating, and auxiliary and related equipment. Will perform the same work on air compressors and vacuum pumps whether or not associated with the above equipment. Plant Engineering Division.