"We put faculty innovation front and center in our strategic plan to enhance educational delivery and create a more vibrant research enterprise."

These words from West Virginia University President James P. Clements were spoken during the annual State of the University Address on October 9. In order to give meaning to these words, Clements discussed the “Mountains of Excellence” initiative that aims for strategic investment in research areas where there is potential for growth and substantial return on the University’s investment. He went on to announce a number of new faculty positions, including seven positions in shale gas utilization. According to Professor Cerasela-Zoica Dinu, who gave the faculty perspective at this event, the “Mountains of Excellence” initiative will set in motion a chain of events that will have a transformational impact on faculty and students. It will also allow for updating of the existing facilities and the introduction of new instructional technologies. This is just the beginning of a multi-year program aimed at completely changing the face of the Evansdale campus through the construction of several other buildings, including a possible provision for retail space and restaurants.

It is not just the physical appearance of the campus that will change. Other equally significant and important changes are in the offing as well. These will occur within the ambit of the University’s 2020 plan that was unveiled in October 2010. In brief, this plan has five major elements: engaging the quality of life of West Virginians. The draft Statler College strategic plan for retail space and restaurants. This will allow for updating of the University’s 2020 plan that was unveiled in October 2010. In brief, this plan has five major elements: engaging the quality of life of West Virginians. The draft Statler College strategic plan for retail space and restaurants. This will allow for updating of the University’s 2020 plan that was unveiled in October 2010. In brief, this plan has five major elements: engaging the quality of life of West Virgians.

The Statler gift will also contribute in a significant way to the construction of the new Advanced Engineering Research Building. Ground was broken on this building on September 20. According to Professor Cerasela-Zoica Dinu, who gave the faculty perspective at this function, “this building will bring new energy to the whole engineering college, and it will have a transformational impact on faculty and students.” It will also set in motion a chain of events once it is ready for occupancy in about two years; one or more academic departments will relocate to the new building, and the Engineering Sciences Building will be renovated in stages. This will allow for updating of the existing facilities and the introduction of new instructional technologies. This is just the beginning of a multi-year program aimed at completely changing the face of the Evansdale campus through the construction of several other buildings, including a possible provision for retail space and restaurants.

It is not just the physical appearance of the campus that will change. Other equally significant and important changes are in the offing as well. These will occur within the ambit of the University’s 2020 plan that was unveiled in October 2010. In brief, this plan has five major elements: engaging students in a challenging academic environment, excelling in research, fostering diversity and inclusivity, advancing international activity and global engagement, and enhancing the quality of life of West Virginians. The draft Statler College strategic plan is organized within this framework and structure, and the detailed plan, which is currently being disseminated and deliberated among faculty and staff, is likely to be finalized by early next year. It will then be accessible on the College’s web site. The process, however, will not culminate till each department has its own strategic plan. Chemical engineering will initiate the planning process in the new year with involvement of the department Visiting Committee and will seek input from all its constituencies.

With the addition of Debangsu Bhattacharyya to the ranks of tenure-track faculty, the number of full-time teachers in the Department has risen to 14. It will grow further with the arrival of Fernando Lima in January 2013. Dr. Bhattacharyya is teaching ChE 435, Chemical Process Control, this semester, but will likely concentrate on teaching Chemical Process Design in the future. This will allow us to maintain the vigor and vitality of our design curriculum, which is a hallmark of our undergraduate program. Dr. Bhattacharyya is a co-author, along with Drs. Turton, Bailie, Whiting, and Shaeiwitz, of the fourth edition of the well-established textbook, Analysis, Synthesis and Design of Chemical Processes. The latest edition of the book was published earlier this year.

For some time now, I have been reporting on progress being made toward establishing a bachelor of science degree in biomedical engineering. Subsequent to receiving approval of our “intent to plan” document from the Provost’s office in March 2012, we prepared a formal proposal that included a full description of the proposed curriculum and all prescribed coursework. This was ratified recently by the Statler College curriculum committee with appropriate changes. It now goes to the Faculty Senate, and, if successful, it will be forwarded to the Board of Governors for final approval. Depending on how soon all the paperwork is completed, students will be enrolled in the program beginning fall 2013 or fall 2014.
Chair’s message continued from page 1...

This fall, the senior class has 45 students, while the junior class has 41 members. The sophomore class is significantly larger at 82 students, and this has necessitated providing instruction in the Agricultural Sciences Building. Early indications are that the sophomore class will be just as large in 2013. While this is a welcome development that reverses enrollment trends of prior years, it will make the teaching of senior design quite challenging.

In student news, Matthew Thompson, who is one of my doctoral students, is the inaugural recipient of the Statler Doctoral Fellowship. His research centers on energy reduction in the process of polymer blending. Anna McClung was the winner in the Physical Sciences and Engineering poster contest, while Surya Manivannan won in the Nanosciences Division at this year’s Summer Undergraduate Research Symposium. As in the previous year, our students were selected to be NASA Space Grant Scholars for academic year 2012-2013. Areej Kuzmar will be doing research with John Zondlo and Paula Pacurari will work with Robin Hissam. At the recently concluded American Institute of Chemical Engineers (AIChE) annual meeting, the undergraduate student poster session was the largest in the history of the event with 230 posters. We had nine undergraduates who attended the meeting, and six of them competed in the poster session. Three of these students won awards. Surya Manivannan placed first in the Food, Pharmaceutical, and Biotechnology Division; Jonathan Yancey won second place in the Materials Engineering and Science Division; and Anna McClung stood third in the Fuels, Petrochemical, and Energy Division. Congratulations are due to these students and also to Cerasela Dinu, the faculty advisor to the student chapter of AIChE and Society for Biological Engineering, for working tirelessly to prepare them for the poster contest. We have created a “wall of honor” on the fourth floor of the Engineering Science Building to celebrate these successes, but, not surprisingly, we have run out of space. This is a happy problem to contend with!

The AIChE student chapter took a group of undergraduates on a plant trip to Bayer MaterialScience in Pittsburgh, Pa., on October 19. Students were introduced to new applications of polycarbonate and polyurethane plastics. They also took part in a question and answer session related to career options and the value of co-op education and internships. Thanks are due to Karl Haider of Bayer for arranging the visit. Similar plant trips are planned for future semesters as well. An event planned for the spring semester is a “Plastics Day” to be held with the financial support of the NASA West Virginia Space Grant Consortium. It is also sponsored by the West Virginia and South Eastern Ohio section of the Society of Plastics Engineers (SPE). This event will feature James Griffing, technical fellow with Boeing Research and Technology and SPE president, as a speaker, and it will be part of a year-long celebration of the 125th anniversary of engineering education at West Virginia University. We will also hold a safety “boot camp” for undergraduates under the aegis of AIChE’s Center for Chemical Process Safety (CCPS). CCPS was established in 1985 to focus on engineering and management practices that can prevent and mitigate catastrophic accidents involving release of hazardous materials. This has been facilitated by Louisa Nara, the technical director of CCPS and a member of our Academy. Alumna Kate Ziemer of Northeastern University announced at the department heads forum at the AIChE annual meeting that WVU will be the first University in the country to participate in such a “boot camp.”

I extend our support and sympathy to everyone affected by Hurricane Sandy that struck the east coast of the United States in late October. I know that many of our alumni and friends have been affected by this disaster, as well as members of our faculty and staff who live in the mountains of our beautiful state. Many organizations have mobilized to assist the relief efforts in the affected areas. For those of you who assisted in these efforts, thank you. Your help and support are greatly appreciated.

Dr. Rakesh Gupta
Chair, Department of Chemical Engineering
DEPARTMENT NEWS

DEBANGSU BHATTACHARYYA JOINS FACULTY

The Department of Chemical Engineering welcomed Debangsu Bhattacharyya to the Department as an associate professor in August 2012. Bhattacharyya received his Ph.D. in chemical engineering from Clarkson University in 2008. He previously was a research associate professor in the Department working closely with Richard Turton. Bhattacharyya’s research interests are in integrated gasification combined cycle, chemical looping, fuel cells, optimization, dynamic modeling of process systems, and process control.

CHE INDUSTRIAL VISITING COMMITTEE

The Departmental Industrial Visiting Committee met on October 3-4 for its annual meeting. The following members were present and provided valuable advice and counsel to the Department, especially as it progresses with the biomedical engineering degree:

Steven Auvi, Air Products and Chemicals, Inc.
Jack Dever, MATRIC
Kevin DiGregorio, Chemical Alliance Zone
Kevin Gilbert, E.I. du Pont de Nemours & Company
George Keller, MATRIC
Kenneth Miller, Mylan Inc.
Raymond Page, Worcester Polytechnic Institute
Geo Richards, U.S. Department of Energy/National Energy Technology Laboratory
Vince Stricker, Dow Chemical Company

Steve Alford from CIRCOR Aerospace and Valerie Patrick from Bayer were unable to attend due to scheduling conflicts. The committee welcomed new member Jack Dever from MATRIC.

UNIVERSITY NEWS

MORGANTOWN NAMED TOP 10 COLLEGE TOWN IN AIER COLLEGE DESTINATION INDEX

Morgantown has been recognized as a top 10 college town by the American Institute for Economic Research (AIER). The town also ranks 10th in overall college destinations of all 227 metropolitan statistical areas assessed. A total of 12 factors were evaluated using the most current data available from the Census Bureau and others to provide a snapshot of each community’s overall academic and cultural environment, quality of life, and employment opportunities in the area. More information is available at http://aier.org.

STUDENT NEWS

Joseph Chada, ’13, participated in a summer research experience for undergraduates (REU) at Penn State University, working under the direction of Robert Rioux. “Joe Chada is king,” Rioux said. “He is, by far, the best REU student I've ever had. He is technically quite sharp, but also competent in the laboratory. I hope that he will apply to Penn State; he would be a superstar here and would do fantastically well. He built a breakthrough reactor from scratch and obtained a number of breakthrough curves for CO2 capture by solid amines in only 10 weeks. Quite impressive to me.”

Areej Kuzmar, ’14, and Paula Pacurari, ’14, were selected by NASA West Virginia Space Grant Consortium as NASA Space Grant Scholars for 2012-2013. Kuzmar is doing research with John Zondlo and Pacurari is working with Robin Hissam.

Surya Manivannan, ’13, won the 2012 Summer Undergraduate Research Symposium Poster Session in the Nanosciences Division. Manivannan’s poster was titled, “Real-time Analysis of the Effects of Sub-Therapeutic Concentrations of Digitoxin on Lung Cancer Cells.” The authors of the poster were Manivannan, doctoral student Reem Eldawud, and Cerasela Dinu.

Anna McClung, ’13, won the 2012 Summer Undergraduate Research Symposium Poster Session in the Physical Sciences and Engineering Division. McClung’s poster was titled, “Performance of Direct Carbon Fuel Cells Using Bio-derived Fuel.” The authors of the poster were McClung, Areej Kuzmar, graduate student Borja Cantero-Tubilla, John Zondlo, and Edward Sabolsky from the Department of Mechanical and Aerospace Engineering. McClung also was a recipient of an inaugural Statler Undergraduate Research Scholarship for 2012-2013.

Eliot Roth, a Ph.D. student working with Rakesh Gupta, recently completed an internship at Bayer MaterialScience in Pittsburgh, Pa. Roth was part of a research project team that won the Bayer MaterialScience Science and Technology Award for achievement. The project team developed a measuring method for the company’s new composite products. Roth contributed to the successful development and implementation of a quality method to quantify the composition of the company’s new composite product. Jim Mason, director of product technology at Bayer MaterialScience said, “As a science-based company, Bayer MaterialScience values the educational experience that we can offer our interns and we appreciate their contributions to the company.”

Matthew Thompson, a Ph.D. student, was the recipient of the inaugural Statler College Ph.D. Fellowship for 2012-2013.
Nine undergraduate chemical engineering students attended the annual meeting of the American Institute of Chemical Engineers, which was held in Pittsburgh, Pa., this past October with six presenting posters.

Surya Manivannan, ’13, won first place in the Food, Pharmaceutical and Biotechnology Division with her poster, “Real-Time Analysis of the Effects of Sub-Therapeutic Concentrations of Digitoxin on Lung Cancer Cells.” Manivannan is conducting research under the direction of Cerasela Dinu.

Jonathan Yancey, ’13, took second place in the Materials Engineering and Science Division with his poster, “Thin-Film All-Solid-State Li-ion Batteries.” Yancey is working with Kathy and Edward Sabolsky from WVU’s Department of Mechanical and Aerospace Engineering.

Anna McClung, ’13, took third place in the Fuels, Petrochemicals, and Energy Division with her poster, “Performance of Direct Carbon Fuel Cells Using Bio-derived Fuels.” McClung is conducting research under the direction of John Zondlo.

Cerasela Dinu is the faculty advisor for the student chapter of the American Institute of Chemical Engineers.

SCHOLARSHIPS ANNOUNCED

In addition to the Academy scholarships that were noted in the summer 2012 edition of The Chemical Engineering Major, the following scholarships were awarded for the 2012-2013 academic year:

Joseph Anderson, ’15, Lester Kincaid Memorial Scholarship
Nicole Audette, ’15, Lester Kincaid Memorial Scholarship
Kelly Babia, ’13, James Kent Biomedical Scholarship
Jesse Beihart, ’15, W.J. Fitzgerald Chemical Engineering Scholarship, Georgia Nash Memorial Scholarship, Williard W. Hodge Chemical Engineering Scholarship, John M. Summerfield Scholarship
Steaven Brenwald, ’15, Williard W. Hodge Chemical Engineering Scholarship, William M. Smith Scholarship
Rebecca Cain, ’13, Camden Coberly Memorial Scholarship
Molly Callaghan, ’15, Dow Chemical Scholarship, Candelaria Jacques Memorial Scholarship
Angela Carey, ’13, James Wimer Memorial Scholarship, George A. and Sylvia B. Crago Scholarship
John Cordonier, ’14, Georgia Nash Memorial Scholarship
Zachary Easterly, ’13, Williard W. Hodge Chemical Engineering Scholarship
Kevin Eisenrout, ’14, John M. Summerfield Scholarship
James Flora, ’14, DuPont Scholarship
Robert Guy, ’13, James Kent Biomedical Scholarship
Jeremy Kazee, ’15, Williard W. Hodge Chemical Engineering Scholarship
Brittany Lilly, ’14, B.G. McGuire Scholarship, CHE Scholarship
Nathaniel Littleton, ’14, Lester Kincaid Memorial Scholarship
Thomas Lyvers, ’14, Lester Kincaid Memorial Scholarship
Patricia Moran, ’15, W.J. Fitzgerald Chemical Engineering Scholarship
Paula Pacurari, ’14, Martha Hopkins Hashinger Scholarship
Lindsay Roe, ’13, James Kent Biomedical Scholarship
Nicholas Rotz, ’13, Dow Chemical Scholarship, Williard W. Hodge Chemical Engineering Scholarship
Tanner Sherman, ’15, W.J. Fitzgerald Chemical Engineering Scholarship
Robert Severt, ’14, Lester Kincaid Memorial Scholarship
Carl Shaffer, ’13, Georgia Nash Memorial Scholarship, Carl Shaffer Memorial Scholarship
Mason Smith, ’13, James Kent Biomedical Scholarship
Andrew Taylor, ’15, B.G. McGuire Scholarship, DuPont Scholarship
Roman Taylor, ’14, Lester Kincaid Memorial Scholarship
David Webb, ’13, Dow Chemical Scholarship, James Wimer Memorial Scholarship
Andrew White, ’15, John M. Summerfield Scholarship
Ryan Whitehair, ’15, Lester Kincaid Memorial Scholarship
There are currently 32 full-time graduate students enrolled in the Department, 24 of which are in the Ph.D. program. We graduated five M.S. students and two Ph.D. students during the past academic year. Their names, research topics, and research advisors are as follows:

August 2011

Soumya J. Gujjar, M.S.
Research Advisors: Dady B. Dadyburjor and Edwin L. Kugler
“Fischer-Tropsch Synthesis for Kerosene-Range Products Using a Multi-Component Catalyst Supported on Coal-Based Activated Carbon”

Avinashkumar V. Karre, M.S.
Research Advisors: Dady B. Dadyburjor and Edwin L. Kugler
“Addition of Zeolite ASM-5 to an Iron-based Fischer-Tropsch Catalyst Supported on Activated Carbon: Effect of Reactor Conditions”

Timothy Nelson, M.S.E.
Research Advisor: Charter D. Stinespring
“Functionalization of Buckled Graphene”

May 2012

Ashish S. Bambal, Ph.D.
Research Advisors: Dady B. Dadyburjor and Edwin L. Kugler
“Study of the Effect of Surface Modification and Sulfur Impurities in Syngas on the Fischer-Tropsch Performance of Cobalt Catalysts”

Borja Cantero-Tubilla, M.S.
Research Advisor: John W. Zondlo

Terrence Ryan, M.S.
Research Advisor: Brian J. Anderson
“Effect of Sediment Composition on the Uniformity of Experimentally-Formed Methane Hydrate”

Christopher Yurchick, Ph.D.
Research Advisor: Alfred H. Stiller
“Coal Liquefaction Process Development”

Recent Graduates
The Department has 168 undergraduate students enrolled for the fall 2012 semester in the sophomore through senior years. This past May, 33 students graduated with a B.S. degree.
The list of BScHe graduates for 2011-2012 follows. Our congratulations and best wishes to all of them in their careers! Please keep in touch!

If your company is hiring, please let us know. We are always interested in providing more opportunities for our graduates.
IN MEMORIAM

Samuel F. Audia (BSChE ’40) passed away October 31, 2011, from lung cancer. Audia resided with his wife of 70 years, Virginia Rich Audia, in Cincinnati, Ohio. “Smashin’ Sam” was a fullback for the Mountaineers who won the 1938 Sun Bowl.

Ernest Dourlet (BSChE ’49) passed away on September 24, 2012. Dourlet graduated from WVU after having spent time in Europe in World War II. He resided in Tucson, Ariz.

Make a Difference in the Lives That Follow

It’s no coincidence that chemical engineering plays a significant role in 21st century life. The impact of the work chemical engineers do is all around us.

Continuing this important progress is crucial. Gift support for the Department is crucial as well.

For A State of Minds: The Campaign for West Virginia’s University, various gifts count, including those which are a part of a person’s estate plan.

Gift provisions in wills or revocable trusts count as long as the donor will be age 70 by the campaign’s end on December 31, 2015. Also, future gifts made by listing the WVU Foundation as the beneficiary on an account (retirement account, stock account, life insurance, or annuity policy) will count when the age-related requirement is met.

For supporters of any age, a life-income gift with the WVU Foundation for retirement security or a gift of a home with a retained life estate will count.

A gift for undergraduate scholarships, research support for non-traditional graduate students, or undergraduate conference or travel funds will certainly make a difference.

Contact Robert Bragg, director of development, at robert.bragg@mail.wvu.edu or 304-293-4036, to let him know that you want your support to count in the campaign.

REMINDER

For those who have sent contributions to the Department this past year, OUR MANY THANKS!! These funds are used to support many undergraduate and graduate activities, and to help enhance the overall academic and learning environments in the Department. Your support is greatly appreciated.

Please remember to designate your tax deductible gifts for use by the Department. The best way for contributing to support the Department of Chemical Engineering is to write your check out to the WVU Foundation and designate it for use by chemical engineering on the memo line. Also, please check with your company; many will provide matching gifts.
1950

John W. Sirockman, Jr., (BS) who resides in Atlanta, Ga., writes, “Eighty six years old and going strong; very proud of my 59-year association with the University.”

1979

John Dever (BS, MS ’81) is director, development and process engineering, for MATRIC in South Charleston, W.Va. Dever and his family reside in South Charleston.

1995

Mitchell Clendenin (BS, MS ’04) is a quality engineer for Fiberweb in Old Hickory, Tenn. Clendenin and his family reside in Thompson’s Station, Tenn.

1996

Francisco Benavides (MS) is global director, environmental, health, and safety, for Hexcel Corporation in Salt Lake City, Utah. Hexcel is a leading manufacturer of advanced composite materials. Benavides received a Ph.D. in environmental science from Oklahoma State University in 2005. He lives with his wife and two daughters in Salt Lake City.

Brian Bland (BS, MS ’00) is employed by National Gypsum in Charlotte, N.C.

2006

Jeffrey Shields (BS) is employed by DuPont as a manufacturing technology supervisor. Shields recently accepted an assignment in Singapore to develop and train a group of new engineers and to provide regional leadership to the technical group in AP for DuPont Performance Polymers.

2011

Soumya Gujjar (MS) is a research and development process engineer in the exploratory-catalysts development department for UOP, a Honeywell Company in Des Plaines, Ill. Gujjar writes, “There is a lot of scope for a chemical engineer in the exploratory department since I am constantly involved in a number of upcoming process development projects.”
THE MAJOR

Department of Chemical Engineering
West Virginia University
P.O. Box 6102
Morgantown, WV 26506-6102

Please write to us! We want to know where life has taken you since you left West Virginia University. Complete and return this form with your news and comments. Pass this newsletter on, or let us know any alumni who are not receiving The Major.

Send to: Department of Chemical Engineering | West Virginia University | 403 ESB, PO Box 6102 | Morgantown, WV 26506-6102

Or, email updates to linda.rogers@mail.wvu.edu.

Name: _________________________________________________

Degree(s): ______________________________ Year: ____________

Home Address: ___________________________________________

City:_____________________________ State: ____ Zip: __________

Home Phone: _____________________________________________

Business Phone: ___________________________________________

E-mail: _________________________________________________

Employer:

Position Title: ____________________________________________

Employer Address: _________________________________________

City:_____________________________ State: ____ Zip:__________

Preferred Mailing Address:____________________________________

Home: ________________________  Work:_____________________

Brief News of Professional and Family Activities for Future Newsletters: __

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

Suggestions/Comments: 

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

______________________________________________________

We continue to make it more informative and useful to our visitors. Let us know your thoughts and comments, and drop us a line.

This newsletter is published twice yearly to keep our alumni and friends informed of Departmental news and ongoing activities. For additional information, visit our website: www.che.statler.wvu.edu