IMPACT

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Editor: Shaojin Wang
Associate Editor: Yi Zhu and Xianglian Li

Association of Overseas Chinese Agricultural, Biological, and Food Engineers

海外华人农业，生物技术和食品工程师协会

Remarks from AOC President

Dear AOC Members and Friends,


Ruihong Zhang

First of all, on behalf of all the AOC Board Members, I wish you and your loved ones a Happy New Year! This is an exciting time of the year when the accomplishments in the past year are celebrated and new-year resolutions are made. Certainly there are many things to celebrate for AOC. In the past 4+ years, AOC has evolved into a well-connected community with over 100 formal members and many friends. Our quarterly newsletter, IMPACT, has been an effective vehicle to keep us informed of the new activities and progresses. We thank the Newsletter Editorial Board for their diligent effort. Recently, thanks to a group of highly capable young leaders in the Student Activity Committee (SAC), a new website dedicated to serving the interests of students has been established: http://www.aoc-web.org/student/forstudent.htm. We welcome more students to join this student group and will lend strong support to them.

Our close partner, Chinese Society of Agricultural Engineering, held their first bi-annual meeting in Guangzhou, China, December 19-21. We sent our congratulatory letter and best wishes to the CSAE and also expressed interests in organizing joint international workshops or symposia at their next meeting in 2007. We also sincerely hope to see many CSAE members to participate in our meetings. The plans for our next annual meeting are well underway. The meeting will be held from July 9-12, in Portland, Oregon, US, in conjunction with the Annual Meeting of ASABE. Please mark your calendar and make plans to attend.

Last but not least, this is the time to renew your membership if you haven't done so. We do need and appreciate your continued support. The AOC Board has approved the change of Bylaw to reduce the student membership fee to only one-time, initial fee ($5). We encourage more students to join the AOC. Of course, we always welcome new members.

Many thanks to your support of the AOC. Wish you a happy and prosperous new year!

Happy Holidays,

Ruihong Zhang
President of AOC

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News in Brief

Dr. Juming Tang from Washington State University attended the 6th International Conferences on Food Science and Technology and 2005 Chinese Food Science and Technology Annual Meeting between November 6 and 10th, 2005 in Guangzhou China. He made a keynote speech entitled "Development of Advanced Processing Technologies in USA" at the joint opening session. He visited South China University of Technology, Guangdong Agricultural Machinery Research Institute, and South China Agricultural University

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during the meeting period.

Dr. Qiang Zhang worked with the Academy of State Administration of Grain in organizing the Sino-Canada Symposium of Grain Storage Ecosystems in Beijing, November 7 - 9. More than 50 people from the State Administration of Grain, provincial grain administrations, state grain depots, research institutes, and universities attended the symposium. Dr. Qiang Zhang and his colleagues Drs. Digvir Jayas and Noel White presented a series of lectures on stored grain ecosystems at the symposium.

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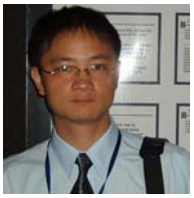
Dream Big, Start and Do Small

By Wenqiao Yuan



Wenqiao Yuan

When I was offered the ASAE Research Award, AOC Scholarly Achievement Award and AOC Paper Award in ASAE 2005 Annual International Meeting, I was requested by some friends to share my "success" experience. If I do have something worthwhile sharing with my fellow Chinese students, I would say Dream Big, Start and Do Small.

I believe we all remember those days we were applying for admissions to the universities in the United States. We prepared for TOEFL and GRE, we studied the universities, we wrote personal statements, we talked to the professors, and we collected materials for the application. If I asked you what supported us to go through this long process, I believe most of us would say it is the dream of coming to study in the U.S., whether you realized it or not. Because of this dream, we had the passion to do everything looked trivial, and we could overcome numerous obstacles instead of being overwhelmed.

After we came to the U.S., we still could not relax. We had to struggle in burdensome coursework, we had to learn how to work as a team in numerous projects, we had to keep communicating with our advisors about research progress, we had to improve our English and study American culture, and we had to balance life and work. My dream during this period of studying was to finish my Ph.D. in 3.5 years and find a faculty position in the U.S. Although I was not offered an assistant professor job after graduation, the dream of being a professor did motivate me to complete 11 journal articles, to present 12 papers in technical meetings, and to practice applying for 4 funding grants. I am not showing off anything here. What I want to tell everyone is the importance of having a big dream and doing small things. I have seen some students who lose their directions and passions without having a dream and finally give up. I have also seen some students not willing to do small things and finally could not achieve anything.

Early in 2005, I was lucky to find a good full time job before graduation. To those who are still hunting in this undesirable job market, I would say: Don't give up. With a dream that you will be offered a job sooner or later, do every small thing as best as you can, such as perfect your resume, extend your network, and improve your interview skills. To those who are still in schools and do not have a dream or do not know what to do, I would suggest to close communicate with your advisors and other successful professors. They are always the most valuable resource for us to learn from. At this point, I would like to express my sincere appreciation to my former advisor, Dr. Alan C. Hansen, and Professors Qin Zhang, Yuanhui Zhang, K.C. Ting and Xinlei Wang at UIUC for their mentoring. Also, I would like to extend my appreciation to Dr. Zhongchao Tan at University of Calgary. He was my role model to form my "dream".

Finally, special thanks to AOC. I have attended every year's AOC meeting since 2002. It is a wonderful place for students to network and learn. It also offers us a valuable stage to show up on. Thank those who contributed or are still contributing to this organization.

by Wenqiao Yuan
International Truck and Engine Corporation, wenqiao.yuan@gmail.com

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Dr. Shulin Chen: Among the Most Recognized Names in Biological Systems Engineering

Interviewed By Xianglian Li

Xianglian Li

Dr. Shulin Chen is a professor of Biological Systems Engineering at Washington State University (WSU). He received his bachelor's degree from the Agricultural University of Hebei in 1981 and master's degree from Beijing Agricultural Engineering University in 1984, both in Agricultural Engineering. He got his Ph.D. degree in Biological and Environmental Engineering from Cornell University in 1991. In the period of 1990 to 1992, Dr. Chen worked as a postdoctoral research associate and a research assistant professor at the Department of Civil and Environmental Engineering in Louisiana State University. Dr. Chen joined Washington State University faculty in late 1995.

As an accomplished scholar, Dr. Chen is well known for his work on providing advanced knowledge and technical tools for addressing agriculture related environmental issues, processing biomass, and developing bioproduct and bioenergy. He leads the Agri-Environmental and Bioproduct Engineering research group (AEBE) in WSU. During Dr. Chen's successful career in biological systems engineering, he has received more than seven million of funding from various federal, state and industrial sources. As a vigorous scholar, he has written twelve book chapters, five non-refereed books and reports, and more than 160 archival technical publications including 78 journal papers, in which, two of them were awarded the best paper award by Journal of Aquacultural Engineering and the Aquacultural Engineering Society in 2004. He has given 15 major keynote invited lectures, 88 conference presentations, and filed applications for 4 U.S. patents. In recognition of his groundbreaking research in biological systems engineering, Dr. Chen has been honored and awarded several times. In 2003, he was honored with Researcher of the Year award in the College of Engineering. He was awarded Kellogg Fellow from 2002 to 2005.

Meanwhile, Dr Chen is actively involved in teaching and advising work. He has taught eight courses for both undergraduate and graduate students, in which five courses were developed by Dr Chen mainly covering areas of wastewater treatment and advanced bioprocessing and biotreatment. Since 1994, Dr. Chen has advised 26 graduate students as major advisor, and has been advisor for over twenty post-docs, research associates or technicians. In addition, he is adviser and honorary guest professor in several universities in China, including Dalian Fisheries University, China Agricultural University, and Beijing Chemical Engineering and Technology University. He also volunteered to teach in Pullman Chinese Culture Center.

Dr. Shulin Chen (No. 4 from Left) with the 4 recently graduated Ph. D. students

Dr. Chen is very active in both academic merit and non-academic activities. He reviews papers for six scientific journals: journals of Transactions of the ASAE, Aquacultural Engineering, Bioresource Technology, Environmental Engineering Science, Journal of Environmental Engineering, and Aquaculture. He also reviews proposals for funding agencies including USDA, NOAA, EPA, USGS, WRAC, United States-Israel Binational Agricultural Research and Development Fund, Australian Research Council, and China Natural Science Foundation. He serves as a senior technical adviser of United Nations Development Program and board of directors for Aquacultural Engineering Society (AES). Moreover, Dr. Chen has organized several workshops about wastewater management, sessions for ASAE international annual meeting, AES issue forum, and AES program for world aquacultural society conference. He also provides technical consulting for companies and towns/cities in Washington State.

Interview

Xianglian: *Who or what were your biggest inspirations in choosing your career in biological systems engineering? If you hadn't become a professor in biological systems engineering, what career might you have chosen?*

Shulin: I did not choose this profession, but I end up with it. Nonetheless, I now really like it because the tie with agriculture. I grew up in a rural area, and I will be very happy if I can do something through my career for farmers. I have not had much chance to give too much thought on the second career, but I would say environmental engineering is the next in line.

Xianglian: *What are some of your most memorable experiences as a scientist in biological systems engineering?*

Shulin: In two types of situations. One is the joy and satisfaction when we make any discoveries, no matter how small they are; the other is when our expert opinions are taken in policy making and goal setting at regional or national levels. The feeling of responsibility and trust given to a professional is tremendous.

Xianglian: *In your opinion, what are some of the most significant biotechnological innovations in agricultural/aquaculture waste water treatment underway today and why are they important?*

Shulin: The establishment of energetics theory for bacterial growth that laid the foundation of biological wastewater treatment processes and the development of molecular biotechnology that allows deign of a microorganisms to process a specific pollutant.

Xianglian: *You have received numerous grants and contract support. What factors did you consider when choosing a program? Is there anything else that you wish you had considered?*

Shulin: Relevance to the problems to be addressed and likelihood of success. I wished I had also considered potentials to advance science and engineering more often than I did.

Xianglian: *I noticed that, you have participated in many public services for many institutions, local societies, and international organizations as well. What do you think about these services? Do you think they take your time?*

Shulin: I did not think I have done enough although I am very careful on what commitment I can make because there is simply not enough time to do good jobs on many things.

Xianglian: *Could you give some advices to prospective students thinking about an education or career in the Biological Systems Engineering?*

Shulin: 1) Do not get into this career if you do not really like it; if you are already in and do not seem to be having fun, you can find a way to like it if you try to focus on what contribution you can make. 2) Biological Systems Engineering has great future as it represents, among many things, some of the most exciting new opportunities such as industrial biotechnology for the production of fuel and chemicals. 3) Biological Systems Engineering is critical to any nation, thus as a profession, it will last and continue to evolve. By nature, Biological Systems Engineering deals with land, water, environment, and the use of the land and water for food production. Land, water, and Sun are the most reliable long lasting resources that will become most valuable in future as these resources will be used not only for food production, but also for the production of energy and chemicals when fossil based feedstock runs out. It is the responsibility of the Biological Systems Engineers to find ways to the best utilize these resources.

Xianglian: *Can you tell us something about your family?*

Shulin: I grew up in a teacher's family within a countryside setting. My family here in the US includes a wife who is running a business and a son who is a freshman at Stanford University.

Xianglian: *One final question. What do you usually do in your spare time?*

Shulin: I usually do some exercises.

Xianglian: *Thank you very much for sharing your story and time.*

to the newsletter.

Shulin: Thank you for your service and contributions

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Visiting Report

浙江大学应义斌教授与5位博士研究生

来美参加国际会议并顺访美国的4所大学和3家农业部研究机构

2005年10月22日 - 11月4日，浙江大学生物系统工程与食品科学学院常务副院长应义斌教授带领5位博士研究生赴美国波士顿参加“ 自然资源与食品安全光学检测技术(OpticsEast—Conference on Optical Sensors and Sensing Systems for Natural Resources and Food Safety and Quality) 国际会议” 。在会上，应义斌教授主持了第七论坛--“ 图像处理技术” ，蒋焕煜、刘燕德、饶秀勤、傅霞萍和陆辉山等5位博士研究生完成了9篇学术论文的口头演讲，并与相关领域的国际知名学者和专家进行了学术上的交流和探讨，学术报告受到了与会专家的好评。10月26日代表团还顺访了美国农业部Instrumentation and Sensing Lab（ISL）和美国马里兰大学生物资源工程系。ISL主任陈育仁博士和美国马里兰大学生物资源工程系陶阳教授向代表团详细介绍了他们的主要研究领域、研究成果和将来的研究目标，并参观了实验室的硬件设施。而且，饶秀勤先生在访问后就直接留在陶阳教授的实验室中从事合作研究。研究生们一致认为，这次赴美参加国际会议和顺访美国的研究机构与大学，为他们拓宽国际视野，增强国际交流能力，了解美国的风土人情，掌握本领域学科前沿的最新研究成果和研究动态提供了极好的机会，帮助他们分析了各自的优势和差距，树立了信心，并进一步明确了他们将来更好地完成研究与学习任务的努力目标。

10月27日-11月04日期间，应义斌教授和蒋焕煜先生还先后访问了University of Arkansas、Kansas State University、美国农业部Grain Marketing & Production Research Center、University of California, Davis和美国农业部Western Regional Research Center，并分别拜见了阿肯色大学生物与农业工程系教授李延斌博士、现任美国农业与生物工程师学会(ASABE)主席Otto. J. Loewer教授、阿肯色大学家禽研究中心主任和家禽科学系主任Walter Bottje教授、堪萨斯州立大学谷物科学与工业系教授孙秀芝博士、堪萨斯州立大学生物与农业工程系助教授王东海博士、海外华人农业生物和食品工程师协会（AOC）的创办人与首任主席张乃迁教授、堪萨斯州立大学农学院副院长Forrest G. Chumley教授、堪萨斯州立大学生物与农业工程系主任Gary Clark教授、UC Davis生物与农业工程系的张瑞红教授(AOC现任主席)和潘忠礼博士、UC Davis校长助理Dennis J. Dutschke教授、UC Davis农业与资源科学学院院长Neal K. Van Alfen教授、UC Davis农业与资源科学学院副院长James E. Hill教授、UC Davis生物与农业工程系主任Bruce Hartsough教授、UC Davis食品科学与技术系主任Charles W. Bamforth教授、美国农业部西部研究中心主任James N. Seiber博士和美国农业部农业研究署太平洋与西岸地区的副执行官Andrew C. Hammond等，就进一步加强科研合作、人员互派、学生联合培养和实验室共建等问题进行了广泛地探讨和交流，并达成了一些初步意向。在UC Davis访问期间，应义斌教授还与UC Davis----Zhejiang University合作委员会的11位UC Davis的教授进行了座谈，双方就浙江大学二期985工程“ 农业生物与环境创新平台” 的共建问题，进行了探讨。

附：浙江大学代表团访美剪影

代表团在自然资源与食品安全光学检测技术国际会议会场

代表团参观马里兰大学X-射线成像与机器视觉实验室

与现任美国农业与生物工程师学会（ASABE）主席Otto. J. Loewer教授和李延斌教授合影


与UC Davis分管外事和国际交流的校长助理Dennis J. Dutschke教授和UC Davis生物与农业工程系的张瑞红教授（AOC现任主席）合影


与UC Davis农业与资源科学学院院长Neal K. Van Alfen教授和张瑞红教授合影


与堪萨斯州立大学生物与农业工程系主任Gary Clark教授、海外华人农业生物和食品工程师协会（AOC）的创办人与首任主席张乃迁教授和生物与农业工程系的王东海博士合影


拜见堪萨斯州立大学农学院副院长Forrest G. Chumley教授和生物与农业工程系的孙秀芝教授


代表团参观美国农业部仪器与传感技术实验室


与美国农业部农业研究署的西部研究中心主任James N. Seiber博士、美国农业部农业研究署太平洋与西岸地区副执行官Andrew C. Hammond和UC Davis生物与农业工程系的潘忠礼博士合影

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KSU Delegation to China

By James Steichen

James Steichen

KSU faculty, Drs. Naiqian Zhang, James Steichen, Donghai Wang, Marie Steichen, and Specialist Judy Willingham from the Department of Biological and Agricultural Engineering and College of Arts & Science visited Jilin University, Northeast Agricultural University, Henan University of Technology, Henan Agricultural University, Southern Yangtze University, and Shanghai University of Technology during late September and early October 2005.

For the three members of the group not born in China, this visit was a first-time experience. Though the primary purpose of the trip was to visit Chinese universities, we also wanted to get a feel for what is happening today in China. Our schedule provided for a good mix of academic exchanges with Chinese faculty and students, tours of cultural and historical treasures (Great Wall, Forbidden City, etc.), industrial sites (Volkswagen plant), natural resource management projects (Xiaolangdi Dam on the Yellow River and related river management strategies, etc.) and development of long-range planning (with emphasis on environment) for the City of Shanghai.

We were told to expect wonderful hospitality from our university hosts. This was an understatement. During the many fine banquets and meals we learned more about the plans and aspirations of our hosts. We frequently had student interpreters who helped us tour the sites of the cities we visited. During these drives we were able to observe some of the ordinary aspects of life in China. For example in Changchun, at 7:00 p.m. while we were driving toward a restaurant, hundreds of young people wearing the same color uniforms appeared on the streets. High School had just dismissed for the day and students crossing the streets in every direction had brought traffic to a halt. We later learned that the regular school day ended earlier in the afternoon, but that many students enroll in extra classes (at some extra cost to their families).

At some locations there was discussion about developing new campus space outside the city. At Zhengzhou we were taken to their "New University City," a site where a new campus is being built for three universities. In two years they expect to have 70,000 students on the campus. This is all new construction including academic buildings, apartment buildings, athletic stadiums, R&D parks, and industrial development. This was very impressive. Based upon news programs and articles, this kind of "New University City" is being developed at a hundred different places in China.

A final surprise was our visit to Shanghai. Before our trip some of us had read about an exhibit of a model of central Shanghai as planners expect it to be in 2020. We wanted to see this exhibit. Dr. Donghai Wang contacted a friend and former student, Xinghua Huang, who works for the City of Shanghai and arranged for us to meet him. Mr. Huang is the Vice Director and Chief Engineer for the Shanghai City Appearance & Environmental Sanitation Administrative Bureau. He gave us a 90-minute briefing of Shanghai's goals and plans for the future when the population of Shanghai is expected to be 18 million. We later visited the planning exhibit in the museum.

We are excited about their goals to increase green space for Shanghai residents. In 1949 there was only about 0.2 m^2 of green space per resident. Today Shanghai has 7 m^2 of green space per resident and the intent is to provide 10 m^2 per resident by 2020, with an ultimate target of 20 m^2 per resident. To that end, new apartment buildings with more living units will occupy the same footprint as the buildings being replaced. Environmental conditions are under duress due to two causes: from 1920 – 1980 development occurred without regard to the environment, and the density of population (2,100 persons/km^2) with their need for transportation, services, etc. Beginning in 1996, plans were developed for the next 50 years to improve environmental conditions. Currently, the agency is in the second 5-year plan. The goal is that within 9 more years, the environment will be similar to the larger U.S. cities (Washington D.C. for example). Funding for this initiative is based on 3% of the GDP.

Recognizing that transportation of people and materials is very critical, the vision for the future is to divide the city into areas with specific purposes. Four lane roads will be expanded to eight lanes; high speed rail service will be expanded; and the subway/bus system will be expanded an additional 50 km/year. Central Shanghai (9 million residents) will focus on service and tourism. Nearby, nine new cities of 4.5 million people each will focus on various industries, including a new harbor built to accommodate deep draft ocean liners. Outlying areas are planned for 60 towns of 50,000 population with an industrial park in each town. Beyond those

towns are 600 villages, each with 2,000 people, devoted to agricultural production.

During this trip, our delegation provided several lectures in the areas of U.S. graduate and undergraduate education, land management, U.S. Agricultural Policies, citizen involvement on decision making, environmental issues, and bioenergy. These seminars provided the opportunity to exchange scientific information, to discuss the hot topics related to environment and energy, to introduce U.S. Agricultural policies, and to compare the differences in the graduate and undergraduate programs between the U.S. and China. Dr. Naiqian Zhang also attended the Centenary Celebration of China Agricultural University and gave a speech on the World Agricultural Forum.

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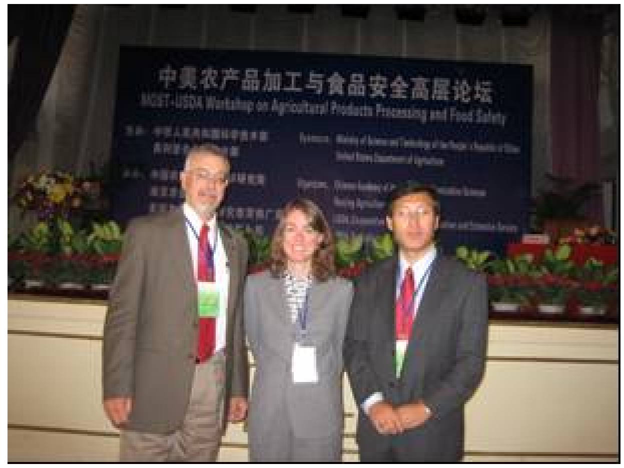
AOC Members Participating in USDA-MOST Workshop in Beijing

AOC members Juming Tang, Yanbin Li and Zhongli Pan participated in a MOST-USDA Workshop on Agricultural Products Processing and Food Safety between Sept 21 and Sept 24, 2005, in Beijing. MOST stands for the Ministry of Science and Technology of China. This was the second MOST-USDA meeting, following the first in USA in July of 2004, both coordinated by Dr. Honda Chen, CSREES National Program Leader, and Dr. Shujun Li, Vice President of Chinese Academy of Agricultural Mechanization Sciences (CAAMS). The aim of the workshops was to develop long-term collaboration between China and USA on food processing by establishing two mirror centers, each in one country. Undersecretary of USDA Dr. Joseph Jen and Vice Minister of MOST Mr. Xueyong Li spoke at the open session of the workshop. More than thirty participants from US including USDA ARS Regional Directors, USDA CSREES Program Leaders, ARS Scientists and several US university professors exchanged information on research programs and suggestions for future collaborations with over 100 counterparts in China during the three-day workshop. Juming presented his research on using microwave for disinfestations of fruits and vegetables, Zhongli spoke on the development and future of infrared heating technology for processing agricultural products, and Yanbin gave a talk on biosensors for rapid detection of food borne pathogens.

Representatives from USDA and MOST discussing collaborative research in agricultural product processing

Representatives from the USDA visiting CAAMS and discussing the establishment of Joint Agricultural Product Processing Center

Juming and Zhongli visiting Beijing Agricultural Demonstration Zone during the meeting



Drs. Seriber, McHugh and Pan from USDA ARS Western Regional Research Center at the meeting

AOC Members Attending the Centennial Celebration of CAU

Dr. Naiqian Zhang and Dr. Yanbin Li, both AOC members, were invited to attend the Centennial Celebration of China Agricultural University and the World Agriculture Congress during September 12-19, 2005. Both of them participated in celebration activities in the College of Information and Electrical Engineering and gave invited presentations at the Forum on Development of Agricultural Informationization. Naiqian discussed the major trends in research within the Information and Electrical Technology (IET) Division of ASABE, and Yanbin gave a talk on biosensors and their applications in agriculture and food. They also attended the Opening Ceremony at the People's Great Hall and the banquet for foreign delegates and visiting scholars. They met Prof. Maohua Wang, visited his laboratory, the National Key Laboratory of Precision Agriculture and Information, and had discussion with his research group.

Naiqian had his undergraduate education at Beijing Institute of Agricultural Mechanization, which was merged with Beijing Agricultural University to form China Agricultural University (CAU) in 1995 and, since then, has often been referred to as the "East Campus" of CAU. Currently, Naiqian serves as the Vice President of the CAU Alumni Association in North America. The Centennial Celebration provided him and his classmates with a golden opportunity for reunion – the first reunion after they graduated from CAU 35 years ago. Sixteen out of 32 of his classmates enjoyed wonderful time together in Beijing. It was reported that more than 20,000 alumni plus 30,000 current students attended the centennial activities of China Agricultural University.

After their short stay in Beijing, Naiqian visited five universities in China with four of his colleagues and Yanbin left for Zhejiang University to conduct joint research.

Reunion of Naiqian's class

Naiqian and Yanbin attended the banquet

Call to Renew AOC Membership

By *Chenghai Yang*

Chenghai Yang

Dear AOC Member,

It is about the time of the year to renew your AOC membership. If you are a regular member, you can pay your AOC dues when you pay your ASABE dues before January 1, 2006. If you are a student member, you DO NOT need to pay any annual membership dues from now on as long as you maintain your student status, thanks to a bylaw recently passed by the AOC Executive Board. Only new student members need to fill out an application form and pay a one-time $5 membership fee. However, all student members still need to renew their student membership annually by responding to an email request from the Membership Committee Chair. Therefore, if you are a student member, I would like to request that you respond to this email by indicating if you want to remain to be an AOC student member during 2006. If you are going to graduate before the end of 2005, I invite you to change your student membership to a regular member. You can do so by applying through ASABE. Please refer to the ASABE website http://www.asabe.org for the application procedure.

If you are an ASABE lifetime member or if you are not an ASABE member, you can pay your dues by sending a check with an amount of $20 payable to AOC directly to Dr. Donghai Wang, Biological and Agricultural Engineering, Kansas State University, Manhattan, KS 66506.

Attached please find the regular and student member rosters posted on the AOC website http://www.aoc-web.org/aocroster.htm. We currently have 2 honorary members, 61 regular members, and 41 student members outside China. Please take a few minutes to check your member information and send any missing information and corrections to me. If you know any student, postdoctoral associate, visiting scholar, engineer, or faculty member who would like to join AOC, please refer him/her to me or to one of the following committee members:

- Shufeng Han (Industry Rep.), HanShufeng@JohnDeere.com
- Changying Li (Student Rep.), cul140@psu.edu
- Baoji Wang (China Rep.), wbj@cau.edu.cn
- Donghai Wang (Treasurer), dwang@ksu.edu
- Chenghai Yang (Chair and ARS Rep.), cyang@weslaco.ars.usda.gov
- Xiusheng Yang (President-Elect), xiusheng.yang@uconn.edu
- Naiqian Zhang (Student Advisor), zhangn@ksu.edu
- Ruihong Zhang (President), rhzhang@ucdavis.edu
- Jun Zhu (University faculty rep.), zhuxx034@tc.umn.edu

If you want to know more information about AOC and its membership benefits, please visit our website at http://www.aoc-web.org. On behalf of the AOC Membership Development Committee, I thank you for your continued support.

Best regards,

Chenghai Yang
Chair, AOC Membership Development Committee

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An Open Letter to Students

Dear AOC student members and friends:

The 2005-2006 Student Activity Committee (SAC) of AOC was formed during the 2005 ASABE Annual Conference at Tampa, Florida. As a unique and important committee in AOC, this SAC will be dedicated to building a community of our young Chinese engineers working in the ABE field, promoting networking and communication, and better serving for your professional and career development.

We did not realize there are so many Chinese students working on Agricultural and Biological Engineering in the U.S. and Canada until we searched online department by department in more than fifty universities in 2005. It turned out that there were more than one hundred students in this field! We strongly felt that there is a need to connect all these colleagues together and build up a community of our own.

Thanks to AOC Executive Board's support, our

suggestion was adopted and we are pleased to announce that a student would need to register and pay the $5 membership fee only once during his/her entire student years to become an AOC student member and to enjoy all the benefits AOC provides. We believe, by attracting more colleagues to join, each of us will benefit more from this community.

In order to accomplish our goal of promoting communication and connection, we have developed a mail-list which will be used as a platform for news distribution and information exchange. By registering as a student member, you can post messages on it. You can ask professional questions, post your resume for job searching, and share information such as hotel room sharing during conference… You can join this mail-list by contacting: Jian Shi (jshi@unity.ncsu.edu).

We will devote ourselves to helping you for future professional development and providing you with the information you are interested. With more than fifty faculty members and one hundred students working in this area, we believe it is a tremendous resource for each of us if we can effectively integrate and distribute useful information in a timely manner. The first idea that came to our minds is an E-News that features fast delivery, convenient access, and ease of reading. With the help of AOC faculty members and other individuals, we are trying to collect and compile all the information into an E-News which will be distributed to all student members biweekly or monthly. The news will focus on post-doc or faculty position openings, funding opportunities, and other information that you may be interested in.

Working closely with the AOC Executive Board, the SAC will continuously represent all student members' interests and will try to organize events better serving your needs. In 2005 ASABE Conference at Tampa, we organized student gathering and invited AOC distinguished professors Dr. Ting and Dr. Zhang to give speeches on how to succeed in academia in the U.S. and Canada (you can download their wonderful speeches on our redesigned website: http://www.aoc-web.org/forstudent.htm). Currently, we are working on expanding the number of awards of the annual AOC Student Paper Competition.

This is an open community and we sincerely welcome you to join us and give us suggestions! With your valuable support, we are confident to better serve you and to further promote communication and networking among all young engineers in agricultural and biological engineering.

Sincerely yours,

Student Activity Committee of AOC
Chair: Changying Li
Board members: Xianglian Li, Chunxia Wu, Jian Shi

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Minutes of AOC Board Teleconference

By Joan Wu

Joan Wu

1. Friday, September 2, 2005

The AOC Board teleconference was held on Friday, September 2, 2005. AOC President Ruihong Zhang called the meeting to order at 1:05 PM PST.

There were 11 members in attendance and they were (alphabetically): Shufeng Han, Yanbin Li, Zhongli Pan, Roger Ruan, Jimmy Tang, Donghai Wang, Shaojin Wang, Joan Wu, Chenghai Yang, Naiqian Zhang, Ruihong Zhang.

Decision was made collectively to keep the previous Board meeting schedule, i.e., the meeting is to be held regularly, at 1 PM PST on the first Friday of every odd month starting September, 2005. The next meeting is therefore on November 4, 2005.

Next, the Business Meeting minutes of year 2005 were approved after a brief discussion.

Naiqian Zhang proposed constitution changes with respect to the AOC Webmaster. He suggested that the Webmaster should be added to the Board to help improve the work efficiency. AOC Webmaster often needs to update the AOC Website upon changes initiated and with information provided by the Board. Hence, it is the most efficient for the Webmaster to be on the Board and directly involved in the Board meetings. It was further suggested by other Board members that the name of Webmaster should be changed to Web Manager. The motion was approved.

Appointment of vacant board member positions was made.

- AOC Board Secretary: Joan Wu (one year)
- North/South America Regional Director: Jun Zhu

- Chair, Meetings and Conference: Xiusheng Yang
- Chair, Nomination and Constitution: Jimmy Tang
- Chair, Membership Development: Chenghai Yang
- Chair, Professional Development and Awards: Naiqian Zhang
- Student Activity: Changying Li
- Chair, Fund Raising: Shufeng Han (who also serves as Associate Director of AOC Foundation)
- Director, AOC Foundation, Yanbin Li

Suggestions were made for the Board to contact Dawen Sun who may serve as the Euro-AGEN Liaison.

Discussion was then switched to the establishment of technology cooperation between AOC and China as well as the relevant documentation and database development. Zhongli Pan explained to the Board that improvement has been made to the database that is now in both Chinese and English. Such a database is meant to be a vehicle providing information on the technical expertise of individual AOC members to various Chinese organizations, thus enhancing agricultural, food, and biological technology development through collaboration between AOC members and Chinese governmental and local agencies, enterprises, and other entities.

Agreement was reached that a position of Director of Technology Cooperation Development should be established and Zhongli Pan was elected as the first Director of this program. Additionally, it was collectively agreed that the Director of Technology Cooperation Development should be included as a Board member. Owing to this new responsibility, Zhongli Pan is to resign from the AOC Treasurer position, which will be taken over by Donghai Wang, effective immediately after the Board meeting.

The Board next discussed several issues related to membership development and fees.

- US, Canada AOC member lists are relatively complete. Lists of members in other countries are not as complete.
- It was not clear how the membership fees were spent by the Chinese branch. Shaojin Wang was asked to contact Baoji Wang to clarify the usage and current balance of the Chinese membership fee account.
- Is it necessary for students to pay membership fees? Naiqian Zhang proposed to change the Bylaw to waive student membership fees. However, not all agreed; some citing that most professional societies in the US charges membership fees, though the amount may be rather low for students. After a lengthy discussion, the attendees approved the policy that a life-time fee of $5 for students is to be collected. AOC Membership Committee is to send an electronic mail to students for them to confirm or claim change of their student member status at the beginning of each year.

Discussion also arose regarding scientific publications.

- A web-based, peer-reviewed technical journal is favored by the Chinese side.
- E-journal is also the preferred form by CSAE and AOC Board.
- This issue should be revisited at the next Board meeting

Last, Shaojin introduced the major contents of the current issue of IMPACT for discussion.

- Prof. Xiuzhi Sun is to be featured in this issue.
- Members are encouraged to send in short news.
- New faculty members should be announced in the newsletter.
- News on faculty promotion and other achievements are sought for.

The contents of the current issue of IMPACT were approved.

With no other new business, the AOC Board teleconference was adjourned at 2:33 PM PST by President Ruihong Zhang.

2. Friday, November 4, 2005

The AOC Board teleconference was held on Friday, November 4, 2005. AOC President Ruihong Zhang called the meeting to order at 1:00 PM PST (3:00 PM CST).

There were 11 members in attendance and they were (alphabetically): Shufeng Han, Changying Li, Zhongli Pan, Donghai Wang, Joan Wu, Chenghai Yang, Xiusheng Yang, Naiqian Zhang, Qin Zhang, Ruihong Zhang, Jun Zhu.

President Ruihong Zhang inquired about suggestions and comments on the minutes of September 4, 2005 Board Meeting. There were no additional comments and the minutes were approved.

Next, Xiusheng led a discussion on the theme and potential speakers for the China Exchange Session at the ASABE Annual Conference. The following items were discussed.

- Whom to invite. Several suggestions were made and a few names were mentioned, including Mr. Maoliang Lin, Dr. Xaioping (Adjunct Professor, State Key Lab of Estuarine & Coastal Research East China Normal University), and Deputy Director of Chinese Academy of Agriculture. It was recommended that mixed speakers residing

in the US and from abroad should be invited in order to avoid unexpected "no show" or low attendance due to unforeseen time conflict or visa issues. The discussion was ended with Xiusheng encouraging all meeting attendees to provide him with names and complete contact information of potential speakers for the China Exchange Session.

- Major themes. It was suggested that a presentation on the joint venture and scientific exchanges between Zhejiang University (a Key 985 Institute) and UC Davis to be made and that Ruihong may be involved in the organization. It was also suggested that a report on the undergraduate student exchange with Jilin University should be presented and that Naiqian may be in charge of the coordination.

Chenghai then opened discussion regarding AOC membership.

- Decision was made that email should be sent to members reminding professional members to pay dues. Student members only pay a one-time membership fee ($5) upon joining AOC and do not need to pay annual dues thereafter as long as they maintain the status of active AOC student member. Upon graduation and assuming a professional position, a former student member should start to pay annual membership fees should he or she remains interested and active in AOC. This decision shall become official after the November 4, 2005 Board Meeting.
- Discussion was also brought up about AOC Honorary Members. Currently, there are two Honorary Members, one of the two is Dr. Ramish Kanwar. However, Dr. Kanwar has not been actively participating AOC activities likely because of his extremely tight schedule at and off the ASABE meetings. Yet another reason could be that AOC has not been active in approaching him and inviting him to our program activities. It was then proposed that a committee be formed with a task to formulate and evaluate policies (e.g., term policies—should we set a 3-year duration for Honorary Membership or make it life-long?) Jun (Dr. Jun Zhu) was nominated to serve on (or lead) the committee.
- Decision was also made on establishing a student email list and updating AOC student website. Changying explained the needs for updating the AOC student website and stressed that students welcome timely news and reports on recent development in AOC, including position openings, faculty status, and scientific and technical exchanges with Chinese scholars and governments. Web posting for AOC student members is evidently more timely than the IMPACT Newsletters and may also have different focus and contents. Ruihong suggested Changying to contact Dr. Shaojin Wang for adequate coordination and to ensure that relevant news and information goes to the right avenue. The Board regarded this issue important and it should be revisited at the next Board Meeting.

The issue of E-Journal was revisited. Roger was not able to attend the Board Meeting. He provided brief information to Ruihong prior to the meeting.

- No new information has been received from the Chinese side.
- Yingquan, who is involved in editorial activities of the *Trans. CSAE* expressed desire to promote E-journal.
- The Board decided to revisit this issue at the next meeting.

Shaojin was not able to attend the meeting due to time conflict. Ruihong introduced the contents of the forthcoming issue of the IMPACT Newsletters.

- The major contents were approved.
- Dr. Shulin Chen at Washington State University was chosen as the faculty member to feature. Possible candidates to feature for the future are Drs. Yuanhui Zhang and Jinglu Tan.

The next meeting was tentatively set for the second week of January, 2006. The meeting time was consolidated to 1–2 PM PST (3–4 PM CST) Friday, January 13, 2006, after a series of email exchanges among the board members and the President.

With no other new business, the AOC Board teleconference was adjourned at 2:15 PM PST by President Ruihong Zhang.

Respectfully Submitted,

Joan Wu
AOC Board Secretary [2005–2006].

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University Spotlight: University of Minnesota

By Roger Ruan

Roger Ruan

A Top Public University

The University of Minnesota is one of the most comprehensive public universities in the United States and ranks among the most prestigious. It is both the state land-grant university, with a strong tradition of education and public service, and the state's primary research university, with faculty of national and international reputation. The University of Minnesota has four campuses—Twin Cities, Duluth, Morris, and Crookston—a collaborative center in Rochester, extension offices, and research and outreach centers throughout the state.

The University of Minnesota was founded as a preparatory school in 1851, seven years before the territory of Minnesota became a state. Financial problems forced the school to close during the Civil War, but with the help of Minneapolis entrepreneur John Sargent Pillsbury, it reopened in1867. Known as the father of the University, Pillsbury, who was a University regent, state senator, and governor, used his influence to establish the school as the official recipient of public support from the Morrill Land-Grant Act, designating it as Minnesota's land-grant university.

The University of Minnesota is one of the nation's top research universities. That means your college experience will be enhanced by world-renowned faculty (including eight Nobel laureates and three Guggenheim Award winners), state-of-the-art learning facilities, and an unprecedented variety of options. The University, with more than 370 fields of study, offers more choices and unique opportunities for its 60,000 students.

The University of Minnesota, Twin Cities (UMTC) is a classic Big Ten campus in the heart of the Minneapolis–St. Paul metropolitan area, just minutes from downtown. The largest of the four campuses, with its state-of-the-art facilities and stately historic buildings, it is set along the banks of the Mississippi River and in the rolling hills of St. Paul. The thriving University of Minnesota-Twin Cities campus stretches over 1,150 acres in Minneapolis and St. Paul. Nestled around the scenic Mississippi River, the Minneapolis campus sits under the shadow of a sparkling downtown skyline.

The nearby St. Paul campus is home to rolling green space and historic architecture.

A Top Research University

Minnesota's Only Research University - Many states have at least two major research universities (Michigan and Michigan State; Iowa and Iowa State). The University is Minnesota's only research university.

Sponsored Research—The University is one of the leading recipients of federal research awards. The University received more than $520 million in grant and contract awards from federal, state, and private sources in fiscal year 2004. The University conducts 98 percent of all sponsored academic research in Minnesota.

Department of Biosystems and Agricultural Engineering

Biosystems engineers integrate engineering and biology to design:

- efficient, economical systems to produce and deliver high quality, safe food to consumers.
- sustainable systems that protect the environment, humans, plants, and animals.
- safe and efficient machines, processes, and practices for biological systems.

The Department offers both undergraduate and graduate programs as well as conduct research in a wide range of areas that contribute to environmental quality, enhance agricultural production, and provide safer and healthier foods. Its extension and outreach programs use the results of its research to serve citizens in urban as well as rural communities.

Its undergraduate program is offered through the Institute of Technology, the University of Minnesota's college of engineering, physical sciences, and mathematics. Its administrative home is in the College of Agricultural, Food and Environmental Sciences where we are also affiliated with the University of Minnesota Extension Service and the Minnesota Agricultural Experiment Station. Faculty in the Department conduct research in a wide range of areas, including

- Agricultural Safety and Health
- Bioprocessing, Food, and Value-Added Processing
- Land and Water Resitsces
- Livestock Systems

The Center for Biorefining

Co-Directors: Dr. Roger Ruan, Professor, ruanx001@umn.edu
Dr. Vance Morey, Professor, rvmorey@umn.edu

Program Director: Dr. Paul L Chen, Senior Research Associate, chenx088@umn.edu

The Center for Biorefining is affiliated with the University of Minnesota Initiative for Renewable Energy and the Environment (IREE) to coordinate the University efforts and resources to conduct exploratory fundamental and applied research; provide education on bioenergy, biochemicals and biomaterials; stimulate collaboration among the University researchers, other public sector investigators, and private investigators involved in biobased production technology development; promote technology transfer to industries; and foster economic development in rural areas.

The Center consists of a network of multi-disciplinary researchers holding teaching, research, and/or extension positions at the University, as well as industry and government cooperators. This combination of the University's multi-disciplinary experts and interested private and government investigators will enable us to establish excellent research programs and attract funding to develop viable technologies for biorefining of biomass. The University of Minnesota and the State of Minnesota are in unique positions to develop and support biobased industry for a number of reasons:

- Strong academic disciplines and organizations
- Eagerness among faculty and academic leaders to build "dream teams" of faculty and scientists to extend and expand this strength into a leading-edge research university for biobased production
- Pioneering and proven success
- Domination of Minnesota industry by material-based or material-dependent companies
- Large portion of Minnesota economy dependent upon agriculture and natural resources, the raw materials for biobased products.

Here are a few research projects currently being carried out at the Center:

- Development of Commercially Transferable Thermochemical Conversion Technologies
- Development of a Biorefining Model for Corn Processing
- Microwave Pyrolysis of Biomass for Bioenergy production
- Converting Liquid Swine Manure Into

Bio-oils and Hydrogen

University's China Connection

In 1979, the China Center was established to manage the University of Minnesota's exchanges with the People's Republic of China. For more than two decades, the China Center has reflected the firm and long-standing commitment of the University to international research, teaching, and outreach.

The first three Chinese students entered the University in 1914, and since then there have been more than 8,000 Chinese alumni who have studied or worked at the University. After the normalization of U.S. - China relations, the University again began to host visiting scholars and students from the PRC, resuming exchanges interrupted for nearly 30 years. The China Center has played a crucial role in facilitating such exchange. Today there are more than 1,200 visiting Chinese scholars and students at the University, the largest population on a North American campus.

One of the China Center's top priorities is to encourage more U of M students to study in mainland China. The China Center offers a full-academic year exchange program, the Chinese Universities Exchange Program (CUEP), which offers students the opportunity to study at three top-ten universities in mainland China. Through a generous endowment of the Jennie and Fred Hsiao Scholarship Fund and a scholarship gift from the Chinese Ministry of Education, the China Center offers additional scholarship opportunities to U of M students. Currently, the University has Exchange Agreements with dozens of universities and colleges in Hong Kong, Taiwan and Mainland China.

The China Center also organizes and sponsors seminars and programs on Chinese culture, politics, trade, and development in order to foster a greater understanding of China.

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贺　信

值此“中国农业工程学会2005年学术年会”召开之际，我谨代表海外华人农业，生物及食品工程师协会（AOCABFE）向大会表示热烈的祝贺。

我们热切期望同在祖国从事农业，生物和食品工程领域的专家和学者加强交流与合作，促进农业工程科技创新与成果的产业化应用，为推动农业工程技术的发展和进步做出贡献。

祝大会圆满成功

海外华人农业，生物及食品工程师协会

AOCABFE 主席 张瑞红

二〇〇五年十二月十九日

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