

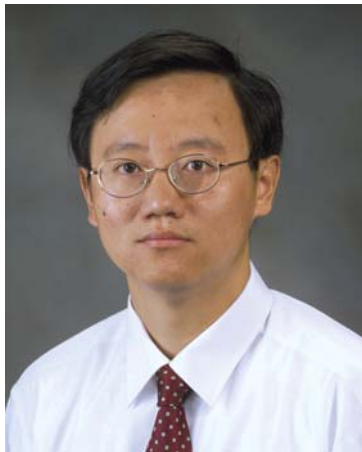
Association of Overseas Chinese Agricultural,  
Biological, and Food Engineers (AOCABFE)

海外華人農業、生物及食品工程師協會

DECEMBER 2009

VOLUME 9 ISSUE 2

# IMPACT



## Highlights:

- ❖ Honors and Awards in 2009
- ❖ AOC Members invited to attend China's 60<sup>th</sup> National Day Celebration
- ❖ AOCABFE Board Meeting Minutes
- ❖ Global Climate Change and Agriculture

More ...

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<http://www.AOC-web.org> <http://aoc.cau.edu.cn>

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*IMPACT* is an electronic newsletter of AOCABFE and is published quarterly to inform members within the association (or, other subscribers applied). We invite you to submit comments, story ideas or news to our editors.

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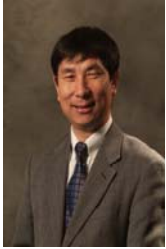
<http://www.AOC-web.org> <http://aoc.cau.edu.cn>

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**Message from Editor**

## Chase Your Dreams

By Zhuping Sheng, TAMU



Dr. Zhuping Sheng

Dear IMPACT-Newsletter readers,

During the holiday season, on behalf of the editorial team, I'd like to take the opportunity to congratulate you all on your achievements in 2009 and wish you greater successes in 2010.

Thank you for your continued support so that we can continue to improve coverage of the newsletter and expand our readership by outreaching beyond the AOC.

Special thank goes to the managing editor for this issue, Ms. Xia Zheng, who had coordinated editorial and review process before she returned to China. Again, thank our associate editors, Mr. Di Long and Mr. Ziyu Wang for their diligent work.

I would like to share with you the following greetings made by D.M. Dellinger:

***“This is my wish for you: peace of mind, prosperity through the year, happiness that multiplies, health for you and yours, fun around every corner, energy to chase your dreams, joy to fill your holidays.”***



"You are unrepeatable. There is a magic about you that is all your own..." - D.M. Dellinger

Remember it is you who create news and successful stories. Looking forward to sharing your dreams that become true.

- The Editor

**Message Board**

## New Year Greetings from the President

**By Lingjuan Wang, NCSU**



*Dr. Lingjuan Wang*

Dear AOC Family and Friends:

In this thanksgiving/holiday season, on behalf of the AOC executive board members, I would like to thank you all for your continuous support. Your contributions to the development of our AOC mean a lot to all of us!

In the past several months, the new executive board and committees have been working on various issues to promote our AOC. Under the leadership of Dr. Zhuping Sheng, the newsletter editorial team published the first issue of IMPACT and they are working diligently to deliver the second issue of IMPACT. Our membership committee Chair, Dr. Jude Liu, and the website Manager, Dr. Juhua Liu, are leading efforts to update AOC membership database and the AOC WebPages. One of the most noticeable accomplishments is the joint AOC and CSAE E-journal, the International Journal of Agricultural and Biological Engineering (IJABE). Under the direction of Drs. Rongsheng Ruan and Yingkuan Wang, the journal has published four issues. It has been indexed by CA, CAB and INSPEC. Currently, the editorial board is working diligently for EI and SCI indexing. I strongly encourage you to contribute to and promote our own journal. You may learn more about this journal at <http://www.ijabe.org/index.php/ijabe/index>. In addition, we also continued to work with Northwest A & F University (NWAUFU) in China to establish a joint education and research center, "The Yangling International Academy for Modern Agriculture". This effort aims to build an effective platform for sustainable collaboration among scientists in China and abroad. Thank the Yangling Project Committee, which is currently chaired by Dr. Xiusheng Yang, for the commitment and dedication of its members.

As 2009 comes to end and 2010 is approaching, it is time to celebrate your accomplishments in the past year. It is also time for you to make new-year resolutions for the coming year. I sincerely congratulate on all of your achievements and hope that supporting AOC will be part of your new-year plan. Your continued support ensures success of our own AOC.

**Wish you all a very blessed Christmas and Happy New Year!**

Lingjuan Wang,  
President of AOC for the year of 2009-2010

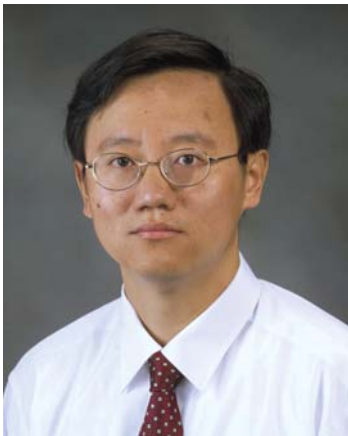
## News Brief

## Honors and Awards

By Yanbin Li, University of Arkansas

Congratulations on achievements of our AOC members. Following AOC members have received awards and honors this year.

### 1. Dr. Y-H Percival Zhang received Sunkist Young Designer Award



The American Society of Agricultural and Biological Engineers has named Y.-H. Percival Zhang winner of the 2009 Sunkist Young Designer Award. The award was presented June 24, at the 2009 ASABE Annual International Meeting, in Reno, Nevada.

Zhang was selected for the honor in recognition of his outstanding engineering accomplishments in bio-refinery process design as a researcher and educator.

More detail can be found at <http://www.asabe.org/awards/major/09majorrecip.htm>

### 2. Dr. Yud-Ren Chen and Dr. Yanbin Li were inducted as Fellow of ASABE in 2009

The American Society of Agricultural and Biological Engineers (ASABE) has named Yud-Ren Chen to its 2009 class of ASABE Fellows. Chen is one of fifteen individuals of extraordinary accomplishment who were inducted in a ceremony held June 23, 2009, during the ASABE Annual International Meeting, in Reno,



Nevada.

Chen was selected for the honor in recognition of his accomplishments as a visionary leader, researcher and administrator. Now retired, he was a research leader for the U.S. Department of Agriculture Agricultural

Research Center in Beltsville, Maryland.



The American Society of Agricultural and Biological Engineers (ASABE) has named Yanbin Li, P.E., to its 2009 class of ASABE Fellows. Li is one of fifteen individuals of extraordinary accomplishment

who were inducted in a ceremony held June 23, 2009, during the ASABE Annual International Meeting, in Reno, Nevada.

A professor of biological and agricultural engineering at the University of Arkansas, Li was selected in honor of his outstanding contributions in advancing biosensor technology for the detection of bacteria and virus with novel concepts and design in research and commercialization.

More details can be found at

<http://www.asabe.org/awards/fellow/asabefellow2009.html>

*The ASABE Bylaws establish that "A Fellow shall be a member of unusual professional distinction, with outstanding and extraordinary qualifications and experience in, or related to, the field of agricultural, food, or biological systems engineering. A Fellow shall have had 20 years of active practice in, or related to, the profession of engineering; the teaching of engineering; or the teaching of an engineering-related curriculum. Graduation from a professional agricultural engineering curriculum (or its engineering equivalent) shall be considered equal to four years of active practice. The designation of Fellow shall have honorary status, to which members of distinction may be elected, but for which they may not apply. Admission shall be only after a minimum of 20 years as a Member-Engineer or Member. The number of candidates elected to the grade of Fellow each year shall not exceed 0.2 percent (2/10 of 1.0 percent) of total ASABE membership in the grades of Member-Engineer and Member at the end of the immediate preceding calendar year.*

### 3. Paper Awards

#### 2009 ASABE PAPER AWARDS

##### Superior Paper Winners

**R. SUI, J.A. THOMASSON, Y. GE, C. MORGAN**

“Multispectral Sensor For In-Situ Cotton Fiber Quality Measurement”  
TRANSACTIONS OF THE ASABE  
Vol. 51, No. 6

**C. SHIH, Z. PAN, T. McHUGH, D. WOOD, E. HIRSCHBERG**

“Sequential Infrared Radiation and Freeze-Drying Method for Producing Crispy Strawberries”  
TRANSACTIONS OF THE ASABE  
Vol. 51, No. 1

#### 2009 ASABE PAPER AWARDS

##### Honorable Mention Winners

**B. HU, Y. LIU, Z. CHI, S. CHEN**

“Biological Hydrogen Production via Bacteria Immobilized in Calcium Alginate Gel Beads”  
BIOLOGICAL ENGINEERING  
Vol. 1, No. 1

**M. J. DARR, L. ZHAO**

“A Model for Predicting Signal Transmission Performance of Wireless Sensors in Poultry Layer Facilities”  
TRANSACTIONS OF THE ASABE  
Vol. 51, No. 5

**P. A. TOPPER, E. F. WHEELER, J. S. ZAJACZKOWSKI,**

**R. S. GATES, H. XIN, Y. LIANG, K. D. CASEY**

“Ammonia Emissions From Two Empty Broiler Houses with Built-Up Litter”  
TRANSACTIONS OF THE ASABE  
Vol. 51, No. 1

**J. ZHAO, H. B. MANBECK, D. J. MURPHY**

“Computational Fluid Dynamics Modeling of Ventilation of Confined-Space Manure Storage Facilities: Applications”

JOURNAL OF AGRICULTURAL SAFETY AND HEALTH  
Vol. 14, No. 4

### 4. Other Recognitions

#### CONFERENCE CHAIR RECOGNITION:

Jiannong Xin, Co-Chair of WCCA 2009- The 7th World Congress of Computers in Agriculture and Natural Resources, June 22-24, 2009 Reno, Nevada, USA.

#### 2009 IET Division Paper Reviewers:

Naiqian Zhang

#### 2009 IET Division Paper Award Authors:

Yanbo Huang, Yubin Lan;  
ASABE Paper number 095972

Authors: Yanbo Huang, Yubin Lan, Steven J Thomson, Alex Fang, Wesley C Hoffmann, and Ron E Lacey  
Title: Technical development and applications of soft computing in agricultural and biological engineering

Haiyan Cen, Renfu Lu  
Paper number 096998  
Authors: Renfu Lu, Haiyan Cen, Min Huang, and Diwan P Ariana  
Title: Optical Properties of bruised apple tissue

Ning Wang  
Paper number 096052  
Authors: Sunil K Mathanker, Paul R Weckler, Ning Wang, Timothy Bowser, and Niels O Maness  
Title: Adaptive thresholding of pecan X-ray images using water flow model and feature extraction

**Outstanding Reviewers:**  
Zhiyou Wen

**Member Activity**

## Past President, Dr. Zhongli Pan, invited to attend the China's 60<sup>th</sup> National Day Celebration

**By Zhongli Pan, USDA/UC Davis**

Dr. Zhongli Pan, Research Engineer at the USDA ARS and Adjunct Associate Professor at UC Davis attended the China's 60<sup>th</sup> National Day Celebration as one of invited guests by Chinese Central Government (中组部) representing the distinguished overseas Chinese scholars. Together with about 180 delegates from the overseas, Dr. Pan attended the National Day celebration and related activities. President Hu Jintao and other Chinese top officials met the delegates and highly encourage the overseas Chinese scholars to contribute to China's development. The CCTV has reported the news (video <http://space.tv.cctv.com/video/VIDE1254311556136887>).



Dr. Pan at the China's 60<sup>th</sup> National Day Celebration  
(More photos are published in Photo Gallery - the Editor)



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## Former AOC President, Dr. Xiusheng Yang is honored for his international activities

**By Xiusheng Yang, University of Connecticut**

Xiusheng Yang, AOC former President, was honored by top Chinese leaders at several occasions. As a reputable scientist, Dr. Yang has been dedicating himself to the promotion of international collaborations in between Chinese and overseas colleagues, organizations, and institutions. In 2009, Dr. Yang was invited to visit China 4 times, and joined a couple of survey studies in Jilin, Shaanxi, and Yunnan. His visits were reported and profiled by various media, including TV news, newspapers, and websites. In particular, he was invited to attend the national ceremony in Beijing for celebrating the 60<sup>th</sup> anniversary of the founding of the People's Republic of China.

Dr. Yang is a permanent board member of AOC, and the President of the Association of Chinese American Agricultural Scientists. Representing the two associations, he has been working with various Chinese agencies to establish the “Yangling International Academy of Modern Agriculture (YIAMA)”. Dr. Yang is planning to attend and chair the first YIAMA preparatory committee meeting at Northwest A&F University in late December. AOC former Presidents Qiang Zhang and Chenghai Yang are also members of the preparatory committee, and will go with Dr. Xiusheng Yang for the trip.



Dr. Yang at the China's 60<sup>th</sup> National Day Ceremony in Beijing

Inside AOCABFE

## Minutes of AOC Executive Board Teleconference (August 2009)

(Prepared by Yufeng Ge, Secretary, AOC)



*Dr. Yufeng Ge*

Friday, August-28-2009, 3:00 to 5:00 PM Central Time

### **Present**

Yufeng Ge, Yanbo Huang, Yubin Lan, Yanbin Li, Zhongli Pan, Roger Ruan, Zhuping Sheng,

Ruixiu Sui, Juming Tang, Lingjuan Wang, Yingkuan Wang, Naiqian Zhang, Qiang Zhang

### **Call to order**

AOC President, Dr. Lingjuan Wang, called the meeting to order at 3:00 PM Central Time.

### **New board members and officers**

Dr. Lingjuan Wang introduced new AOC officers to the board: Dr. Yufeng Ge as Secretary, Dr. Yanbo Huang as Treasurer, Dr. Juhua Liu as Web Manager, Dr. Zhuping Sheng as Editor of Impact, Dr. Ruixiu Sui as Vice President, and Dr. Yingkuan Wang as China Regional Director.

### **Yangling project**

Dr. Qiang Zhang briefed the board on the initiation, purposes, history, and recent progress of the Yangling project. Dr. Zhang reported to the board that funding for this project has been procured through Government of Shanxi Province, China. There are some concerns raised by the board about the proper use, administration, and logistics of the fund. The board has not been well informed concerning the project progress and some other aspects. There is a need for better communication between the board and the project committee. Dr. Qiang Zhang suggested creating a permanent position in the board. Whoever assumes this position should serve as an AOC representative and a liaison between AOC and other collaborative parties in this project. This person should also report to the board for project planning, updates,

and processes in a timely manner.

Dr. Naiqian Zhang made a motion to (1) create in the board a permanent position to oversee the Yangling project, and (2) recommend Dr. Xiusheng Yang (Chair of the Yangling Standing Committee) for this new position. Dr. Yang should report to the next board meeting in October 2009 about the project mission, long-term goal, and detailed project plan for board's review and approval. The motion was seconded by Dr. Yubin Lan and approved by the board.

As for the decision about "current president sitting on the Yangling project committee" in the previous board meeting, the board thinks that any decision made by the past board should be honored. Due to time constraint, the board agreed to discuss this issue further via email.

### **Approve Minutes from the last board meeting (June-22-2009)**

Dr. Yubin Lan made a motion to approve Minutes for the last AOC board meeting; Dr. Yanbin Li seconded the motion; and Minutes was approved by the board.

### **IJABE E-Journal (International Journal of Agricultural and Biological Engineering)**

Dr. Roger Ruan and Dr. Yingkuan Wang updated the board on International Journal of Agricultural and Biological Engineering (IJABE). Dr. Ruan indicated that the biggest problem is the lack of accepted articles, and because of this, the next issue of IJABE may not be released as scheduled. Dr. Ruan made some suggestions to tackle this problem. He encouraged the AOC members to consider publishing in IJABE and submit high-quality manuscripts. He also urged that division editors, associate editors, and ad-hoc

reviewers should improve the efficiency of peer review. There is a tradeoff between the quality and quantity of accepted manuscripts. For manuscripts submitted outside the U.S., Dr. Ruan suggested that they should not be rejected simply because of English writing. Rather, reviewers should give constructive comments and help authors to improve their writing. Dr. Wang updated the progress of paper review, revision and editing for the third issue of 2009, and the contact with indexing databases for coverage.

### **IMPACT – the AOC newsletter**

Dr. Zhuping Sheng updated the board that he is seeking associate editors for IMPACT. The outline for the next issue will be completed in two weeks.

### **AOC website**

Dr. Juhua Liu will be in charge of the AOC website and Dr. Jiannong Xin will provide assistance to Dr. Liu during the transition time. Photos of new board members and officers need to be sent to Dr. Liu.

### **Fundraising committee**

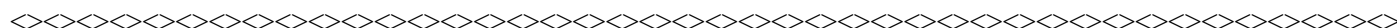
Dr. Yanbin Li expressed his intention to retire from the position of Chair of the fundraising committee. But the board believes his leadership is very much needed at the time. Dr. Li then proposed an alternative way to make the committee more efficient. Instead of having all past presidents involved, he proposed to establish a three-member committee for fundraising. This committee will consist of Drs. Yanbin Li, Zhongli Pan, and Juming Tang. The chair of the committee will serve as a member on the board and will be responsible for the communication between the board and the committee. The board favored Dr. Li's proposal and will discuss this more in next board meeting.

### **Others**

Dr. Zhongli Pan updated the board on the 30<sup>th</sup> anniversary of Chinese Agricultural Engineering Society.

### **Adjourn**

The meeting was adjourned at 5:00 PM Central Time.



## Minutes of AOC Executive Board Teleconference (October 2009)

(Prepared by Yufeng Ge, Secretary, AOC)



*Dr. Yufeng Ge*

Friday, Oct-02-2009, 3:00 to 4:30 PM Central Time

### **Present**

Yufeng Ge, Yanbo Huang, Changying Li, Jude Liu, Juhua Liu, Zhuping Sheng, Ruixiu

Sui, Lingjuan Wang, Yingkuan Wang, Chenghai Yang

### **Call to order**

AOC President, Dr. Lingjuan Wang, called the meeting to order at 3:00 PM Central Time.

### **Minutes from last meeting (Aug-28-2009)**

The Board discussed the draft Minutes from the last

AOC meeting (Aug-28-2009). Several suggestions and comments have been made to the draft Minutes; and the revised Minutes will be proved through email votes.

### **Limited lines for AOC teleconference**

The Board discussed the issue about the limited number of available lines for AOC teleconferences. Dr. Changying Li suggested that a web-based system through Internet might provide a solution.

### **IMPACT – the AOC newsletter**

Dr. Zhuping Sheng, Editor of IMPACT, reported to the Board about the current issue of IMPACT. Two associate editors (both are the AOC student member) have been identified and appointed. The

bulleted outline for the current issue would be forwarded to the Board through email. A request has been made by Dr. Sheng to AOC members for more information that can be included in the current issue (particularly awards that have been received by the AOC members and student members).

### **Yangling project**

Dr. Lingjuan Wang reported to the Board on the voting results concerning decision by the previous AOC board on “the participation of AOC President in the Yangling Project committee”. Eleven out of 13 votes were in favor of that decision. Dr. Chenghai Yang reported to the Board on progress of the Yangling Project. The project committee in AOC has been closely collaborating with Northwest A & F University (NWAUFU) for the establishment of “Yangling International Academy for Modern Agriculture”. Dr. Qiang Zhang will generate a brief report and proposal in late October about how to move the project forward, and hopefully Dr. Xiusheng Yang will bring this report to the next board meeting and update the Board with the latest progress in more detail.

### **AOC website**

Dr. Juhua Liu reported to the Board about the progress and updates on the AOC website. The web pages have been updated to include (1) the 2009 ASABE annual meeting at Reno, Nevada, (2) the updated AOC committee page (present chairs for each committee), (3) updated constitution and bylaws, (4) AOC Board Minutes, and (5) greetings from AOC President. Drs. Yingkuan Wang and Lingjuan Wang made a suggestion to include the IJABE journal link to the AOC website and vice versa. The Board also discussed the possibility of use the AOC website for the Yangling Project.

### **IJABE E-Journal (International Journal of**

### **Agricultural and Biological Engineering)**

Dr. Yingkuan Wang reported to the Board on the IJABE E-Journal. The third issue of the journal should be published on Oct 8-9, 2009. This issue featured some high-quality review articles and the special cover design. This issue also published an article by Dr. Yubin Lan on the China-US exchange. Currently the journal has been indexed by CA, CAB and INSPEC. The editorial board is working diligently on EI and SCI indexing. Dr. Yingkuan Wang called on AOC members to publish high-quality papers in IJABE, review manuscripts for IJABE and cite papers published in IJABE (namely, support IJABE with “PRC”).

### **Membership**

Dr. Jude Liu made a proposal to update students, graduates and visiting scholars’ corresponding list. The purpose of this list is to expand the AOC roster and promote AOC among new Chinese students and scholars. Dr. Liu called for support from all the members in this effort by sending the contact information of new students/scholars from members’ departments/universities. The contact information will contain AOC individual’s Chinese name, English name, telephone number, and email address.

Dr. Yingkuan Wang suggested making flyers to promote AOC. These flyers can be posted on many University campus and departments (particularly biological and agricultural engineering)

### **Student activity committee**

Due to absence of President of SAC, discussion on SAC activities was not carried out.

### **Adjourn**

The meeting was adjourned at 4:30 PM Central Time.



## 2009-2010 AOC SAC Activities Plan

**By Xiguang Chen, UC Davis, SAC Chair (2009-2010)**



*Xiguang Chen*

Student Activity Committee (SAC) of AOC has planned following activities for the coming year:

1. Promote AOC as well as SAC, especially after the official name is confirmed. This will be done by posting flyers or posters of AOC/SAC information in related University in the United States and China. The flyer and poster are currently under design.
2. Communicate with Chinese students who are planning to continue their study in the US. Introduce the graduate programs and professors in related departments here and share with them the experience of application for the graduate school.
3. Keep updating the website of SAC.
4. Welcome the Chinese students who will attend next year's ASABE annual international conference at Pittsburg. Help with their reception during the conference.
5. AOC SAC board's quarterly conference call will be held in January 2010.

All students are encouraged to participate in the SAC activities. Please contact me ([xgchen@ucdavis.edu](mailto:xgchen@ucdavis.edu)) if you are willing to serve and participate in those activities.

## Forum and Letter

## Prospects on the Impacts of Climate Change on Agriculture and a Glimpse of Recent UN Climate Change Conference

By Di Long and Zhuping Sheng, TAMU

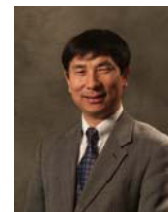


*Di Long*

Climate change and agriculture show an intricately interrelated relationship with each other. Global warming is expected to result in considerable impacts on agriculture at different spatial and temporal scales through changing atmospheric and hydrological conditions, including rising temperatures, changes in regional, continental and global hydrological regimes (e.g. variations in amount and patterns of precipitation, higher rate of evapotranspiration, increasing extreme weather events—a more vigorous hydrological cycle), glacier retreat and rising sea levels. Under the global warming conditions, many crops show positive responses to elevated carbon dioxide and lower levels of warming, which can contribute more active photosynthesis and enhance the growth of crops, particular for C3 crops, and to lengthening the growing season in regions with a relatively cool spring and fall. However higher levels of warming often negatively affect growth and yields. In addition, weeds, diseases, and insect pests benefit from warming, and weeds also benefit from a higher carbon dioxide concentration, increasing stress on crop plants and requiring more attention to pest and weed control. Forage quality in pastures and rangelands generally declines with increasing carbon dioxide concentration because of the effects on plant nitrogen and protein content, reducing the land's ability to supply adequate livestock feed. Increased heat, disease, and weather extremes are more likely to reduce livestock productivity.

Moreover, changes in water supply and soil moisture conditions caused by climate change would bring direct effects on agriculture

production for certain regions. It should also be noted that changes in the hydrological cycle would lead to more erosion, soil degradation and a change in soil fertility. All of these effects resulting from climate change will impose challenges for agriculture production and farmers. The primary goal for developing agriculture is to maximize agricultural production, providing enough food to increasing population and domesticated animals without exceeding the carrying capacity of the biosphere and degrading the eco-environment. As such, trends of climate change with related issues and quantification of climate change on agriculture have been one of major focuses for the agriculture community, with the aim of offering effective and timely measures for adapting farming to current and potential significant climate changes.



*Dr. Zhuping Sheng*

On the other hand, the agricultural sector itself is the major contributor to increasing methane and nitrous oxide. Being a significant user of land and consumer of fossil fuel, agriculture has been found to cause significant effects on climate change through the production and release of greenhouse gases such as carbon dioxide, methane, and nitrous oxide. In addition, land cover changes caused by human activities, like increasing the amount of arable land and deforestation, can contribute to the changes in the surface fluxes, like radiation, soil heat, sensible and latent fluxes, thus resulting in more release of carbon dioxide. Moreover, the livestock and relevant activities relying on crops would be affected due to changes in land covers.

Leaders from 193 countries were gathered in the United Nations Climate Change Conference in December 2009 in Copenhagen to make an attempt to fight against climate change. Every nation would have different evaluations on the progress of the conference; however, U.S. and China, as the world's two largest emitters of greenhouse gases of carbon dioxide, both believe that a substantive progress has been made at the U.N. Climate Change Conference in Copenhagen. The Accord stated: **“We agree that deep cuts in global emissions are required according to science, and as documented by the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity.”**

What China has done in Copenhagen was to promote international cooperation to combat climate change, communicate and negotiate with other countries. China plans to cut emissions of carbon relative to economic growth by up to 40%-45% by 2020. As indicated by Chinese Premier Wen Jiabao in the conference, this is a voluntary action taken by the Chinese government based on its fundamental reality and is a major contribution to the global effort in tackling climate change. Acknowledging that China is still a large developing country; economic development and improving living standard of people are the major target of the Chinese government.

However, China's emission will have to continue to increase rapidly with China's rapid growth of economy. The commitment made by China would create possibilities to promote it to shift from a highly energy and resources intensive consumption mode to a new development mode primarily reliant on adoption of renewable energy, with progressively replacing old power stations with more efficient plants and greatly encouraging utilization of clean and renewable energy, like wind power, solar energy and carbon capture. China's demand for due right to development is justifiable and reasonable given that China's situations and its substantial efforts in reducing

emissions of carbon dioxide. “We know the country that harnesses the power of clean, renewable energy will lead the 21st century. And yet it is China that has launched the largest effort in history to make their economy energy efficient” said by U.S. President Obama when addressing a joint session of Congress on February 24, 2009.

The United States is taking significant action to meet one of the greatest threats facing our planet, Climate Change. Under President Obama, the U.S. has done more to reduce greenhouse gas emissions than ever before, and is demonstrating its commitment to lead through robust domestic action including historic investments in clean energy, stringent vehicle and appliance efficiency standards, and comprehensive clean energy and climate legislation that is making its way through Congress. In the context of an overall deal in Copenhagen that includes robust mitigation contributions from China and the other emerging economies, the President Obama was prepared to put on the table a U.S. emissions reduction target in the range of 17% below 2005 levels in 2020 and ultimately in line with final U.S. energy and climate legislation. In light of the President's goal to reduce emissions 83% by 2050, the expected pathway set forth in this pending legislation would entail a 30% reduction below 2005 levels in 2025 and a 42% reduction below 2005 in 2030. This provisional target is in line with current legislation in both chambers of Congress and demonstrates a significant contribution to a problem that the U.S. has neglected for too long.

But no nation can solve this crisis on its own. Climate change is a global challenge that demands a global solution.

The authors wish this article will serve as a piece stone to attract more pieces of jade. Hope to see more discussion on this topic in future issues.

### References

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## Feature Story

## 对话潘忠礼教授 — 中国 60 周年国庆专访

Interviewed by Ziyu Wang



Dr. Zhongli Pan

在刚过去不久的中国建国60周年庆典的一系列活动中,潘忠礼教授受邀见证了这一庄重而欢乐的历史性时刻。为了和广大读者一起回味那段时间举国同庆的快乐和激动的画面,我们编辑部特别安排了这次对潘教授的专访,让我们一起分享那段美好的回忆吧。

*Ziyu:* 潘老师你好!很高兴这次能有机会对您进行专访。最近您先后获得了“2007美国青年科学家总统奖”和“2008世界因你而美丽—影响世界华人大奖”。这次应邀参加中国的60周年国庆观礼,在接到邀请的那刻当时的心情如何?

*Zhongli:* 在收到邀请的那刻心里非常非常的高兴,也很激动,同时也觉得很荣幸。高兴和激动的原因是有机会参加和见证60周年国庆的这样一个具有重大历史意义的活动。感到荣幸是因为能够作为代表众多的海外学人学者前去参加国庆。我所在的观礼团是受中组部邀请的“海外高层次留学人员国庆观礼团”,总共有180多个代表来自世界不同的国家和地区。

*Ziyu:* 这次的阅兵我们在电视上观看了现场直播,当时看得可是热血沸腾,激动不已。我想您在当天应该也是心情非常激动。可不可以和我们分享一下您在十月一号阅兵现场的所看所感?

*Zhongli:* 可以用两个字来描写这次的国庆阅兵和游行及庆祝:壮观。参加活动的人数大概有二、三十万人之多,规模之宏大,气势之高昂展现了中国在过去60年所取得的巨大进步和成绩。

当阅兵队伍和群众走过观礼台时,掌声雷动。所有在现场的人们同你和许多在电视机前的观众一样,为中国人们所取得的成绩而欢呼和骄傲。当时的激动的场面是很难用文字来描述的,有一些也是从电视上很难体会到的。十月一

号那天早上我们在从酒店到天安门广场的路上就已经感受到了那些阅兵方阵的气势。当得知受阅人员从半夜里就开始在长安街等候,我深深的为他们的奉献精神而感动。过一段时间我会将我所摄的一些照片和视频在我的博客上同大家分享。当天除了参加国庆阅兵,晚上还参加了在天安门广场的联欢晚会。第二天我们有机会参观了奥运场馆以及中国建国60周年成就展,并且在那天晚上观赏了在人民大会堂举办的名为“复兴之路”的表演。

*Ziyu:* 您作为食品工程和安全领域的专家,对中国在过去的60年里尤其是改革开放后的30年来在食品安全工作上的成绩如何看待?有哪些方面还有待进一步改善?

*Zhongli:* 在过去30多年来,中国在各个方面都取得了很大的成绩,包括食品加工和食品安全方面。但是毋庸置疑,在现在新的情况下也产生了很多新的食品安全的问题和隐患并急需去解决。比如说像去年出现的三鹿奶粉的事件。现在人们对食品安全的关心和担心都达到了历史上前所未有的程度。今年三月二十八日在影响世界华人盛典上,无论是金庸先生、神七的航天员、还是凤凰卫视的“美女私房菜”的主持人,食品安全都是他们同我交谈的主要话题。怎么样让消费者用上更安全的食品,是摆在中国面前的重要



Ziyu Wang



问题。

中国目前的食品安全所面临的突出问题其实和美国是不完全一样的。美国的食品安全最突出的问题实际上一个病原菌的问题，有很多是因为生产过程中自然而然产生的。但是在中国大家所关心的食品安全问题有很多是人为因素造成的，比如说在食品中添加了不应该加入的某些添加剂或是某种物质、环境污染所造成的食品安全问题等等。病原菌所造成的食品安全问题还没有受到足够的重视。中国必须要有更严格的法律、管理、监督、和惩治措施，使生产不安全食品的个人和企业付出代价，不再生产不安全食品。对存在安全隐患的食品，必须回收及销毁。

*Ziyu:* 在刚过去不久的60周年国庆中，我们作为炎黄子孙的一份子，都亲身感受到了祖国在一天天地变得强大，各个方面的成就有目共睹。中国在世界范围内的影响力也越来越大，您身边的一些外国友人他们对这次的60年国庆有什么感受？对待中国的和平崛起，他们又是如何看待的？

*Zhongli:* 这次的阅兵所展现的整齐划一并且宏伟的气势体现了我们中国军人优良的风貌，这给我身边的外国朋友们也留下了深刻的印象。很多跟我一起工作的外国同事对中国有着或多或少的了解。他们当中很多人也都多次到过中国，体会到了中国在改革开放后这三十年来来的巨大变化，对于这些变化他们甚至感觉是不可思议的。对于中国能够在这么短的时间内通过政策的改变和人们的努力所取得的一系列的巨大成就，外国友人都是感到高兴的。

*Ziyu:* 既然中国对世界的影响变得越来越深，范围也越来越广。作为一个个华人个体，您觉得我们应该如何从个人角度出发去积极地影响并改变世界？

*Zhongli:* 我在去年参加旧金山总领馆的改革开放30年庆祝活动上代表海外留学学生和学者讲话时谈到过，我们每一个人其实就是一个点，可能我们每个人所起的作用微不足道，但是如果我们大家都能去做一件事情，那么这个力量就会很

强大。或者从另一个角度讲，一个个华人个体其实代表着我们的整个华人社会。很多非华人看待我们每个华人时都把我们看做是整个华人群体的一个缩影，我们的言行和做事的态度都会影响到外国朋友对中国人或是华人的印象。中国有句老话就讲到，万事从我做起。所以说如何做好自己，以自己的言行来感染并影响你身边的同事就变得非常非常重要。我坚信先做人，后做事的原则。一个人的人格魅力，将使其受用无穷。

*Ziyu:* 21世纪是人才高需求的时代。不管是个人，企业，还是一个国家也好，谁能运用好人才，让他们自由的发挥自己的才能，谁就能在这个竞争激烈的时代立于不败之地。中国未来的发展更是如此。作为一位中美教育科技交流合作的积极推动者，您认为中国应如何更好的去培养，挖掘，运用好人才？

*Zhongli:* 这是一个很重要的问题，我想很多人都在研究怎么样使中国的教育来满足中国现在的发展。总的来说，现在的科技发展迫切需要有更优秀的人才涌现出来。尤其对于中国的教育来说，我们更应该注重具有开创能力人才的培养。我个人觉得，一个真正的优秀人才不光是精通书本上的知识，同时需要具备创新能力，良好的道德品质，还有领导能力，也就是人们所说的复合型人才。培养人才应注重解决实际问题及沟通及交流的能力，应该更重视质量，而不是数量。至于挖掘人才，首先应当给每个人展露才华的机会，以使人们有机会发现他们的才能。为了运用好人才必须使其充分发挥其所长，用人政策应更为灵活，提供必要的条件，鼓励和允许新的想法及探索。

*Ziyu:* 每一年的诺贝尔奖我们中国人都期待着能出现一个由我们自己的高等教育培养出来的获奖者，但至今还未能实现“零”的突破。这其中的根本原因是不是因为那些接受中国高等教育的华人的创新能力不及在西方发达国家（比方说美国）接受过高等教育的华人？

*Zhongli:* 我们必须承认中美之间的教育体制还是有很大差别的。美国的教育是一种启发式，创

新式的教育，鼓励孩子的自由思维。而中国现在有一部分学校做的还是应试教育，学生还是为了考试而学习。这是中美两国在教育方面一个本质上的区别。因为一个人从小以一个什么样的方式去思维会影响其将来的发展，所以我们应该从孩子小时候起就培养他的创造思维能力，要允许他有不同的想法。科学研究其实就是一个探索未知的过程，我们要让每个人有充分的自由去发展不同的创新的想法。同时，现行的中国的科学研究体制也在某种程度上限制了科学工作者的创新欲望。

*Ziyu:* 记得在去年您接受我们Impact Newsletter采访时提到您不建议留学生都回国发展，这样会削弱了“间接贡献”的影响力。但是事实上，在这些选择留在国外发展的留学生中，能够起到推动中美合作发展，对祖国的建设有“间接贡献”的人才也还是占少数。那么怎样才能改变这种局面让这部分人能够真正意义上对国家做出贡献呢？

*Zhongli:* 说到这个“间接贡献”，由于每个人所做的事情不一样，这个贡献的作用也许会不一样。但无论多少，这个“间接贡献”的作用都是很重要的。要是没有这些留在国外的华人，很多人对中国的了解就会弱很多，也不利于国际间的文化科技的交流与合作。至于我们每个人如何在促进这个交流合作中起到作用，我想有很多途径可以达到。其中很重要的一个基本点就是“重在参与”。比如说我们的这个“AOCABFE”协会，它的根本目的之一就是要促进国际间的交流与合作。通过这样一个平台，其实给我们大家提供了一个很好的机会去做些事情来推动这种文化教育科技领域的交流与合作。就拿你们所做的这个IMPACT Newsletter来说，实际上也是在为这方面做着重要的贡献。

我还是那么说，很多人选择回国是一个很好的方式为中国发展做贡献，那些留在国外的人才其实也是在为中国为世界进步和发展贡献着自己的智慧。去年我在一次会议上也讲到，我们这些留在国外的学生、学者、及华人其实也是通过不同的形式参与了中国的改革开放建设，并为中国的发展做出了贡献。

*Ziyu:* 您这次回国除了参加各种活动外，让您印象最深的是什么？

*Zhongli:* 通过这次国庆回国之行，给我最深的印象就是中国政府对人才的重视。在这次受邀参见国庆庆典的观礼团中，中国的几位主要领导人胡锦涛，温家宝，习近平等只是接见了我们的这个“海外留学高层次人才与优秀留学回国人员代表团”。由此可见中国现在对人才的重视程度。现在政府提的“科技兴国”以及“人才强国”也正体现了这一点。从中央领导到政府各个部门都对人才的引进非常的重视，鼓励优秀留学人员回国开辟中国的科学和经济建设。现在所实施的“千人计划”就是中国对人才重视的一个具体体现。总的来说，中国政府现在对人才的重视给了我深刻的印象。

*Ziyu:* 面对中国如此快速的发展，对于一些想毕业后回国发展的留学生们在就业定位以及面试准备上您有什么建议？因为现在很多留学生在回国就业时所犯的通病就是过高的估计自己的市场价值。

*Zhongli:* 最近我也注意到很多媒体报道说现在的一些留学人员过高地估计了自己的价值。但是从某种角度来看，我对这个观点不是完全认同。原因是大部分能够到国外留学的人员都是非常优秀的，并且他们又接受了双重文化和科学技术的教育，使他们具有了很强的能力，能够在教育，科技，经济各个领域为中国的发展做出贡献。关键的问题在于人们怎么才能够充分认识他们的价值，这是非常重要的。现在大家讲到的有些人回国之后工资非常的低，很多连基本的生活保障都没有。这形成一个鲜明的对比。究其原因，还是整个社会对人才和知识的重视程度不够。

*Ziyu:* 最后，能否请您畅想一下10年后的中国？

*Zhongli:* （笑）这个10年后是很难讲。但总的来说，根据中国过去这些年的发展情况来看，应该会是越来越好，各方面的条件也会有很大的改善。那么10年之后，对于每一个留学人员来说，

应该考虑怎么样去应对这样一个新的形势。从就业的角度来讲,我觉得也许会更加严峻。这样的话,我们的留学人员除了在学校里读书,做科研之外,有机会可以做做intern,或者是去企业里工作一段时间,这样可以为自己打下良好的基础。不光是书本知识,同时还有实践经验,与人的交流能力,对国外的生活方式和社会构成也有一个更深入的了解。这样在回国之后就会更有竞争力。

*Ziyu:* 非常感谢您百忙之中腾出时间接受我们的访问!

*Zhongli:* 不客气!其实这次真的是非常高兴有幸参加国庆60周年这么一个很特殊很隆重的活动,并且很开心这次有机会能够通过IMPACT和大家去分享这样一个令人难忘的经历。也谢谢你的采访!

## 访美国农业部工程师隋瑞秀博士

Interviewed by Di Long (龙笛), TAMU



*Dr. Ruixiu Sui*

隋瑞秀 (Dr. Ruixiu Sui) 博士旅美多年。在 University of Tennessee 获得博士学位后,先后在 Mississippi State University 和 Texas A&M University 从事科研工作。

2009年受聘于美国农业部,任农业研究工程师。由于多年的辛勤工作,隋瑞秀博士在传感器技术,精准农业,棉花工程,遥感技术等研究领域研究成果颇丰,得到了同行专家的好评。他是美国农业工程师协会会员,海外华人农业、生物与食品工程师协会副主席。最近我有幸对隋博士进行了专访,现将访谈记录整理发表如下。

**龙笛:** 隋博士,非常感谢您能够抽空接受我们AOC的IMPACT Newsletter的采访。我在Texas A&M University的生物与农业工程系学习没有多久,您就调到USDA (United States Department of Agriculture)工作了。不过还好,去年暑假时有幸在系里见过您。祝贺您顺利开始了新的工作。首先,您能否谈谈调到美国农业部工作的初衷和考虑?

**隋博士:** 谢谢。您代表IMPACT Newsletter来采访我,我感到很荣幸。我现在在美国农业部的

研究机构ARS

(Agricultural Research Service) 从事棉花加工机械和棉花加工技术的研究工作。谈及到美国农业部工作的初衷和考虑,大体上主要有两点:其一,岗位更稳定,待遇略提高。再者,科研领域基本未变,研究方向更为集中。



*Di Long*

**龙笛:** 在美国的大学或科研机构与在政府和管理部门工作,各有什么差异和利弊?在哪里工作能够更好地发挥个人潜能,实现自己的个人目标?

**隋博士:** 我现在的工作单位USDA-ARS是归属美国联邦政府的科研机构,其主要任务是搞科研。我现在工作的性质与在大学工作时基本一样。我没有在管理部门工作的体验,不敢就此多言,不过,我认为这主要还是要看个人的背景、兴趣和能力,因人而异,不可一概而论。

**龙笛:** 您在Texas A&M University工作了4年多的时间,如果再算上您早期的研究和学习经历则时间更长。您能否结合自己的经历,谈谈工作、研究和学习的体会?特别是对还处在tenure-track (终身制)压力当中的中国年轻学

者有什么样的建议？

**隋博士：**我在A&M工作时是Research Faculty。若把在Mississippi State University的工作也算上的话，我总共做了八年Research Faculty。Research Faculty 是一个颇具挑战性的岗位，既做研究也带研究生。一般来说，Research Faculty的部分或全部工资要从自己的科研经费里支出，说到这儿您感觉到做Research Faculty的压力了吧。其实每个人生活中都有压力，即便是拿到tenure(终身职位)后也还会有工作压力的。我认为处在tenure-track阶段的这种压力是一种积极健康的压力。既要重视tenure，又不要把它看得太重了。关键是要把自己的活干好。工作做出成绩了，会自有公论。劝君春夏勤耕耘，莫愁秋后果不丰。

**龙笛：**您拿到过很多研究项目，也写过很多project proposals (项目建议书)，应该有很多的经验，能否谈一下你写proposals的经验和体会？

**隋博士：**成功的经验不多，但project proposal确实写了不少。我以为写proposal首先应该对要做的研究领域有个全面地了解，这就要求做好文献调研工作。要善于总结前人的工作和前沿的工作，并结合自己的背景、特点和兴趣，看一下在哪一点或哪几点上能够做得与众不同，即有新意。拿到项目之后，要认真对待，把原proposal中所涉及的研究工作做好。这样一来你就会逐步地在你的研究领域里有了一席之地，机会也就会越来越多了。

**龙笛：**从您的简历上来看，您曾在中国农科院工作和任职较长的时间。能否谈谈在国内和美国工作和研究的差异和利弊？

**隋博士：**是的，我曾在中国农科院工作16年，在此期间一直在做科研工作，也任过几年室主任。第一次出国是1986年，公派到University of Tennessee做访问学者。1987年在该校由访问学者转为研究生，同年获硕士学位后回国。回国后一直在原单位工作至1996年1月二度来美，继续在University of Tennessee读博士学位。现在国内的科研环境条件和我在国内工作

那会儿已大不一样了，那会儿还是计划经济体制，当时的体验对现在而言可以说是老黄历啦，和现在没有可比性。不过我个人感觉在美国做科研，经费较多，学术氛围较浓。我与国内的大学、科研单位和工业界还一直保持着一些工作上的联系。

**龙笛：**您对在美国高校就读的学生在学习、生活、和职业规划上有什么建议？

**隋博士：**中国留学生爱学也会学，这是公认的事实。在学习上我没什么好说的。但是，到美国读书的同学们刚从国内出来，由于文化冲击，语言障碍，生活环境变化，加之远离父母和家庭，一切全靠自己，这对每个人的心理素质都是一次极其严峻的挑战。特别需要保持健康的生活和精神状态。在生活上，要培养独立生活能力和良好生活习惯，既不能铺张浪费，也不要太亏欠自己。在精神上，既要坚强自信，又要多与亲人、朋友和同学保持沟通。自觉锻炼心理承受能力，注重培养提高心理素质。要想把学习搞好，首先在身体和心理两方面都必须保持健康状态。如果身体或精神垮啦，何谈搞好学习？

另外，大多数研究生都有科研任务，工作中要发挥主观能动性，创造性地开展，为自己毕业后找工作奠定好基础。做学生时的研究工作将对其以后的工作机会有很大影响，决不可小视。

至于职业规划，人各有志，每个人应依据自己的背景、兴趣、特长等具体情况做出有利于自己事业发展的最佳选择。但是，不论在那里，都应该勤勤恳恳做事，老老实实做人。

**龙笛：**作为海外华人农业、生物与食品工程师协会副主席，您在协会的工作重点是什么？

**隋博士：**海外华人农业、生物与食品工程师协会(Association Of Overseas Chinese Agricultural, Biological, and Food Engineers)是一个由农业和其相关领域的专业人士组成的、独立的、非政治性、非盈利性学术团体。自成立以来，会员越来越多，影响也越来越大。协会的工作都是由会员们自愿无偿地做。我是会员之一，理应在里面做点事。根据

协会章程, 协会副主席协助主席处理协会事务, 并负责协会年会的组织工作

(<http://www.aoc-web.org>)。

**龙笛:** 您平时有什么样的业余爱好? 如何在繁忙的研究工作之余安排您的家庭生活?

**隋博士:** 我有一个幸福的家庭。我太太姜卫华和我住Leland, Mississippi。我们的女儿隋玉

在Texas A&M University 的MBA毕业后, 已经开始工作啦。Leland位于密西西比河畔, 是布鲁斯(BLUES)音乐发源地, 鹿溪绕镇, 别具特色。这里虽无都市大邑的繁华, 但有多乡间田园之野趣。我没有太多爱好, 闲暇时喜欢看看时事新闻, 整整院里花草, 或陪太太逛店购物。每天都在忙, 但也知道忙了个啥。

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### Announcement

## Vacant PhD position at the University of Southern Denmark

The University of Southern Denmark has opened a PhD position on Developing models for assessing production and release of odour from stored animal slurry”.

More information can be found: [http://www.jobs.sdu.dk/vis\\_stilling.php?id=5489&lang=eng](http://www.jobs.sdu.dk/vis_stilling.php?id=5489&lang=eng)

Information provided by Dr. Victoria Blanes-Vidal, Associate Professor, Inst. of Chemical Eng., Biotechnology and Environmental Tech., Faculty of Engineering, University of Southern Denmark.

Photo Gallery

## China's 60<sup>th</sup> National Day Celebration

by Zhongli Pan, USDA/UC Davis



外交部在钓鱼台国宾馆举行欢迎晚宴



潘忠礼同外交部副部长宋涛在钓鱼台国宾馆举行的欢迎晚宴上



阅兵前在长安街上



国庆阅兵