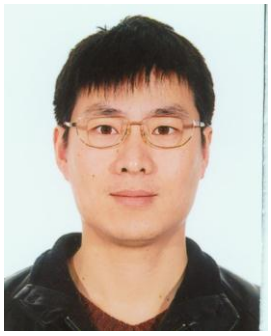
Curriculum Vitae

Qun-xing Huang



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Education:

- Ph.D., 09/2000~06/2005, Engineering Thermal Physics, Zhejiang University.
- B.Sc., 09/1996~06/2000, Thermal Engineering and Power Plant Automatic, Zhejiang University.

Professional Experience

- Visiting Research Scholar, 12/2010~12/2011, Mechanical Engineering department of University of Illinois at Urbana Champaign
- Associate Prof., 07/2008~date, State Key Laboratory of Clean Energy Utilization
- Lecturer, 07/2005~06/2008, Zhejiang University

Research Interests:

- Thermal based waste to energy utilization

- Image based combustion process diagnostics.
- Non-intrusive three-dimensional temperature measurement for combustion system
- Combustion optimization using flame imags.

Position Held:

- 2012-date, Qiushi Scholar of Zhejiang University,
- 2006-date, Undergraduate student class supervisor, Department of Energy Engineering, Zhejiang University.
- 2005-2006, Experiment Supervisor, "Velocity measurement of Bunsen burner flame front propagation based on image processing technology", Flame Image Processing lab in State Key Laboratory of Clean Energy Utilization, Department of Energy Engineering, Zhejiang University.

Honors and Awards:

- 2008, *Excellent Class Supervisor Award* of Zhejiang University
- 2005, *Excellent graduate Award* of Zhejiang Province.
- 2004, *First-class Award of Honor* and *Excellent Student Leader* for Graduate of Zhejiang University.
- 2003, *First-class Award of Honor* and *Excellent Student Leader* for Graduate of Zhejiang University.
- 2002, *Excellent graduate student* of Zhejiang University.

Research experiences:

- 01/2012-12/2015, *National Science & Technology Program (Grant No.* 2012BAB09B03), *"separation techniques and instruments development for oil recovery from petroleum sludge",* **Principle Investigator**
- 01/2011-12/2015, National Basic Research Program of China(Grant No. 2011CB201506), *"waste to energy system integration and optimization",* **Principle Investigator**
- 01/2009-12/2013, National Basic Research Program of China(Grant No. 2009CB219802-3), *"Measurement of temperature and particles concentration distribution in large coal-fired power plant ",* **Principle Investigator**
- 08/2007-12/2010, National High Technology Research and Development Program of

China (Grant No. 2007AA061302-3), "*Measurement of temperature distribution and optimization control in hazardous material combustion*", **Principle Investigator**

- 08/2007-09/2009, Industry project research, "*Industrial and medical hazardous waste incineration system development"*, **Principle Investigator**
- 06/2006-09/2008, Key project for industry, "*1025t/h pulverized-coal fired boiler performance improvement and flame temperature distribution measurement program in GuoDian Dongsheng power plant*", **Principle Investigator**
- 01/2007-12/2007, Program of National Natural Science of China (Grant No. **50606031**), "*3D particles trajectory reconstruction of gas-solid tow-phase flow based on bi-view high speed CCD*", **Principle Investigator**
- 2004-2006, Industry project research, "*Combustion optimization system based on the infrared radiation energy in 300MW Jiaxing power plant*", **Principle Investigator**
- 2000-2004, Industry project research, "*Combustion diagnostics system based on the flame image processing in 300MW Jiaxing power plant*", **Project Software system designer**

Publications:

1. **Qun-xing Huang,** Fei Wang, Jian huaYan,Yong Chi, Theoretical fast non-intrusive 3-D temperature distribution measurement within scattering medium from flame emission image analysis, Optics Communications, http://dx.doi.org/10.1016/j.optcom.2012.11.077
2. Jin-cai DU, Q**un-xing HUANG**, Jian-hua YAN, Method for determining effective flame emissivity in a rotary kiln incinerator burning solid waste, J Zhejiang Univ-Sci A (Appl Phys & Eng) 2012 13(12):969-978
3. **Hunxing Huang,** Fei Wang, Jianhua Yan, and Yong Chi, Simultaneous estimation of the 3-D soot temperature and volume fraction distributions in asymmetric flames using high-speed stereoscopic images, APPLIED OPTICS / Vol. 51, No. 15 / 20 May 2012
4. **Qun-xing Huang,** Fei Wang, Jian-hua Yan, Yong Chi, a two-step discrete method for reconstruction of temperature distribution, in a three-dimensional participating medium, **International Journal of Heat and Mass Transfer** 55 (2012) 2636–2646
5. Feng Yu-Xiao **Huang Qun-Xing**, Liang Jun-Hui Wang Fei, Yan Jian-Hua Chi Yong,Research on simultaneous reconstruction of the temperature distribution of a 3D participating medium and its boundary,Acta Phys. Sin. Vol. 61, No. 13 (2012)
6. **Qun-xing Huang**, Chun-yan chen, Dong Liu, Fei Wang, Jian-hua Yan, Yong Chi, Flame image based temperature distribution reconstruction of a rotary kiln hazardous waste incinerator in China, accepted, (***the 2nd W2W & 6th i-CIPEC Oral presentation,June,2010, Malaysia)***.,

7. D. Liu, **Q.X. Huang**, Z.Y. Ma, F. Wang, J.H. Yan, Y. Chi, K.F. Cen, Simultaneous measurement of three-dimensional soot temperature and volume fraction fields in axisymmetric or asymmetric flames with CCD cameras, ***ASME Journal of Heat Transfer, 2010, 132, JUNE 2010, Vol. 132 / 061202-1***
8. **Qun-xing Huang**, Fei Wang, Dong Liu, Zeng-yi Ma, Jian-hua Yan, Yong Chi, Ke-fa Cen, Reconstruction of soot temperature and volume fraction profiles of an asymmetric flame using stereoscopic tomography, ***Combustion and Flame***, 2009, 156: 565-573.
9. **HUANG Qun-xing,** WANG Fei, YAN Jian-hua,CHI Yong, Determination of Soot Volume Fraction and Temperature Distribution in Ethylene/Air Non-Premixed Based on Back-Projection Algorithm, ***Journal of Combustion Science and Technology,*** 2009,15:209-213
10. **Huang QunXing**, Liu Dong, Wang Fei, Yan JianHua, Chi Yong, Cen KeFa, Soot volume fraction and temperature reconstruction model research for asymmetric diffusive C-H flame, ***Acta Physica Sinica***, 2008, 57(12): 7928-7936.
11. Fei Wang, **Qunxing Huang**, Dong Liu, Jianhua Yan, and Kefa Cen, Improvement of Load-Following Capacity Based on the Flame Radiation Intensity Signal in a Power Plant, ***Energy & Fuels***, 2008, 22: 1731-1738.
12. D. Liu, F. Wang, J.H. Yan, **Q.X. Huang,** Y. Chi, K.F. Cen, Inverse radiation problem of temperature field in three-dimensional rectangular enclosure containing inhomogeneous, anisotropically scattering media, ***International Journal of Heat and Mass Transfer***, 2008, 51: 3434-3441.
13. Liu Dong, Wang Fei, **Huang Qun-Xing**, Yan Jian-Hua, Chi Yong, and Cen Ke-Fa, Simulation study on reconstruction model of three-dimensional temperature distribution within visible range in furnace, ***Chinese Physics B***, 2008, 17(4):1312-1317.
14. Liu Dong, Wang Fei, **Huang Qun-xing,** Yan Jian-Hua, Chi Yong, Cen Ke-Fa, Fast reconstruction of two-dimensional temperature distribution in participating medium, ***Acta Physica Sinica***, 2008 57 (8): 4812-4816.
15. **Huang QunXing**, Liu Dong, Wang Fei, Yan JianHua, Chi Yong, Cen KeFa, Study on three-dimensional flame temperature distribution reconstruction based on truncated singular value decomposition, ***Acta Physica Sinica***, 2007 56(11): 6742-6748.

Patents:

1. J.H. Yan, Y. Chi , **Q.X. Huang,** 'A combined moving grate waste thermal treatment system with bottom ash shredding ability', 2012, **PN:201210052901.6**
2. J.H. Yan, **Q.X. Huang**, F. Wang, Y. Chi, K.F. Cen, "non-intrusive temperature measurement method for hazardous waste incinerator", 2010, PN 200810162524.5

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1. . J.H. Yan, **Q.X. Huang**, F. Wang, Y. Chi, K.F. Cen, ‘Heat balance calculation system for Circulating Fluidized Bed boiler’, 2006SR10218