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EDUCATION:

Ph.D./1988/Civil Engineering/University of Missouri-Rolla
M.S./1981/Civil Engineering/the Ohio State University
B.E./1979/Hydraulic Engineering/Tamkang University

PROFESSIONAL LICENSE:

Professional Engineer, Washington, D.C., USA/1992/
Professional Engineer/Maryland, USA/1993/

PROFESSIONAL POSITIONS:

- Senior Engineer, Department of Engineering and Technical Services, District of Columbia Water and Sewer Authority
- Adjunct Professor and Graduate Faculty, Department of Chemical, Biochemical, and Environmental Engineering, University of Maryland, Baltimore County
- Member, Environmental Sustainability Board, Howard County, Maryland
- President-Elect, Chesapeake Water Environment Association, Water Environment Federation
- Vice Chair, Literature Review Committee, Water Environment Federation
- Steering Committee Member, Watershed Management Committee, Water Environment Federation
- Deputy Manager, Envision Task Force, Water Environment Federation
- Committee Member, Storm Water Committee and Collection Systems Committee
- Member, Water Environment Federation
- Member, American Society of Civil Engineers
- Member, American Water Works Association
- Invited International Scholar, College of Environment, Beijing Normal University, China.
- Visiting Professor, School of Municipal and Environmental Engineering, Harbin Institute of Technology, China.
- Guest Professor, College of Chemical Engineering, Huaqiao University, China.
- Guest Professor, College of Environmental Engineering and Science, Guilin University of Technology, China.
- Guest Professor, Nanyang Institute of Technology, China.
- Adjunct Professor, College of Environmental Science and Engineering, Hunan University, China
- Adjunct Professor, School of Environmental Science and Engineering, Zhejiang Gongshang University, China

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- Guest Professor, College of Environmental Engineering and Science, Tianjin University, China.
- Guest Professor, College of Civil Engineering and Architecture, Zhejiang University of Technology, China.
- Guest Professor, College of Civil and Architectural Engineering, Central South University, China.
- Guest Professor, College of Civil and Architectural Engineering, Sichuan University, China.
- Guest Professor, College of Civil and Architectural Engineering, University of Science and Technology Beijing, China.

SPECIALITY:

- System engineering, operations research, optimization, optimal structural design, project management
- Green infrastructure design, sewer systems design, water distribution systems design, water systems modeling, sewer systems modeling, storm water management, floodplain study, watershed management, hydraulic analysis, geographic information systems, remote sensing
- Civil and structural designs for water and wastewater treatment facilities, civil and structural designs for buildings and bridges

SELECTED PUBLICATION

1. Chang, C. C., Wei, L., Cui, Y. B., Schafer, P., Zhao W. Y. "Anaerobic Process" , Water Environment Research, 2014 Literature Review, 2014, 1198-1216.
2. Chang, C. C., Huang, M., Digiovanni, K., Yang, X. H., Peng, Y. Q., Zhao, W. Y. "Sustainability" , Water Environment Research, 2014 Literature Review, 2014, 1354-1386.
3. Chang, C. C., Chapman, T., Zhao, Y. N., Wei, L., Zhao, W. Y. "Mixing and Transport" , Water Environment Research, 2014 Literature Review, 2014, 1644-1650.
4. Zhang, P. P., Chang, C. C., Wang, R. Q., Zhang, S. P. "Agricultural Waste" , Water Environment Research, 2014 Literature Review, 2014, 1387-1415.
5. Ye, J., Zhang, P. Y., Zeng, G. M., Wu, Y., Chang, C. C., . "Thermal Effects" , Water Environment Research, 2014 Literature Review, 2014, 1955-1969.
6. Jiang, Z. Y. , Guo, P. Y. , Chang, C. C. , Gao, L. L. , Li, S. X. Wan, J. J. . "Effects of Allelochemicals from *Ficus microcarpa* on *Chlorella pyrenoidosa*". BRAZILIAN ARCHIVES OF BIOLOGY AND TECHNOLOGY , 2014 , 57 (4) : 595-605.
7. Kalua, A., Zhan, C., Chang, C. C., "GREEN BUILDING ADVOCACY FOR LEAST DEVELOPED COUNTRIES", CIB2014, International Council for Research and Innovation in Building and Construction, January 28 – 30, Lagos, Nigeria.
8. C. Wu, G. Zhang, P. Zhang, C-C. Chang, Disintegration of excess activated sludge with potassium permanganate: feasibility, mechanisms and parameter optimization, *Chemical Engineering Journal* (2013), doi: <http://dx.doi.org/10.1016/j.cej.2013.12.011>
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11. Mei Y., Yang X.H., Chang, C.C., He J., and Jiang R. "Comprehensive Assessment of Pollutants Removal in Bioretention", *Advanced Science Letters*, 2012,10: 698-699.
12. Mei Y., Yang X.H., Chang C.C., He J., and Jiang R., "Set Pair Analysis for Optimal Selection of Bioretention Media", *Advanced Science Letters*, 2012,10: 687-689.
13. Hu, S. Z., Li, F. Y., Fan, Z. P., Chang, C. C., "Enhanced photocatalytic activity and stability of nano-scaled TiO₂ co-doped with N and Fe", *Applied Surface Science*, 2011, Vol.258 (1),pp.182-188.
14. Guo, J. B., Wang, J., Cui, D., Wang, L., Ma, F., Chang, C. C., Yang, J., "Application of bioaugmentation in the rapid start-up and stable operation of biological processes for municipal wastewater treatment at low temperatures," *Bioresource Technology*, Volume 101, Issue 17, September 2010.
15. Li, J. H., Chang, C. C., Chen, Y., "Selected papers from the Third International Conference on Waste Management and Technology (ICWMT3) Beijing, China, November 5-7, 2009," *Environmental Engineering Science*, Volume 27, Number 1, 2010.
16. Li, J., Chang, C. C., Zhou, Y. N., Wei, S., "Status and Development for Municipal Wastewater Reuse in China," *The Sixth International Conference on Sustainable Water Environment*, University of Delaware, Newark, Delaware, USA, July 29-31, 2010.
17. Li, S. S., Guo, P. Y., Li, T. M., Chang, C. C., "Effects of different suspended particulate matter concentrations on the growth and photosynthetic physiological responses of *Chlorella pyrenoidosa*," *The Sixth International Conference on Sustainable Water Environment*, University of Delaware, Newark, Delaware, USA, July 29-31, 2010.
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21. 苏琳,王斌全,袁剑云,张建祺,郭纯岑,"系统化整体护理的研究进展,"*护理研究*,23卷15期,2009
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