# CHEN HUANG

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#### RESEARCH INTERESTS

Energy & Climate Policy and Technology Analysis

Energy & Climate Technology Innovation, Finance & Investment Decision

Environmental & Resource Economics

#### EDUCATION BACKGROUND

### University of Chinese Academy of Sciences, China

Sep 2018 - May 2021

Ph.D. of Management Science & Engineering

#### **Core Courses:**

Frontiers of Global Energy and Climate Governance; Methodology of Management Research; Management Science of Sustainable Development

#### Dissertation

Policy Research on Collaborative Climate Governance: The Case of China's Power Industry Transition (Supervisor: Prof. Yi Wang; Prof. Xianchun Tan)

## China University of Petroleum (Beijing), China

Sep 2016 - Jun 2018

Master of Economics in Applied Economics

#### **Core Courses:**

Technical economics; Environmental and Resource Economics; Energy Economics; Econometrics Dissertation

Research on the Metabolism of Oil& Gas Extraction Industry: From the Perspective of Huge Oilfields (Supervisor: Prof. Yinghua Xu; Prof. Lianyong Feng)

#### China University of Petroleum (East China), China

Sep 2012 - Jun 2016

Bachelor of Engineering in Mechanical Engineering

#### **Core Courses:**

Mechanical Design; Control Engineering; Electrical and Electronics; Theoretical mechanics; Mechanics of Materials; Fluid mechanics; Computer Simulation

#### Dissertation

The Design of Experimental Machine of Shale Shaker (Supervisor: Prof. Rong Shen; Prof. Mingxia Qi)

#### ACADEMIC & PROJECT EXPERIENCE

Research on the impact of climate change risks on China and China's future strategies for mitigation and adaptation, National Key R&D Program 2018 - 2020

Major Contributor

PI: Prof. Xianchun Tan

- · Investigated the low-carbon transition path of China's power industry under the impact of climate change, as well as the adaptive transformation path using *IEA*, *BNEF*, *OECD*, *Wind* Databases;
- · Participated in the national top-level design to realize the coordinated governance of climate mitigation and adaptation in China;
- · Familiar with scientific research process and community survey methods.

Research on the relationship between China's total carbon emission control system and the realization of high-quality development, Ministry of Ecology and Environment Consulting Project 2018-2020

Major Contributor PI: Prof. Xianchun Tan

- · Conducted quantitative analysis of the time and path of China's carbon emissions peak;
- · Demonstrated the necessity and feasibility of China's future carbon emission control system (to replace total energy consumption control) and evaluated its contribution to China's high-quality development.

# Research on China's policy guarantee system for low-carbon development, Energy Foundation Consulting Project 2018-2020

Major Contributor

PI: Prof. Yi Wang

- · Qualitatively studied the current status, problems and challenges of China's existing low-carbon policies and put forward countermeasures and suggestions to improve the low-carbon policy system;
- · Flexible conversation skills gained through conducting policy text analysis, expert interviews and policy department surveys.

# Research on Several Important System and Mechanism Issues of China's Ecological Civilization Construction, CAS Consulting Project 2018-2020

Major Contributor

PI: Prof. Xianchun Tian

· Gained a comprehensive understanding of the current status of China's ecological and environmental governance, identified key problems and made relevant policy recommendations.

# Analysis on the Economic Value of China National Petroleum Corporation's Patents and Technologies, CNPC Consulting Project 2016-2018

 $Major\ Contributor$ 

PI: Prof. Lianyong Feng

- · Used Clarivate Derwent World Patent Database and combined expert questionnaire survey to analyze CNPC's key patented technologies' economic value;
- · Quantitatively analyze the future development trend of patent technology in China's oil and gas industry.
- · Familiar with patent analysis and technology innovation.

### **AWARDS & HONORS**

#### China National Scholarship for Graduate Students, 2020

The highest academic honor for Chinese graduate students, only 0.2% of them can get it.

Awarded by the Chinese Ministry of Education

President Award, Chinese Academy of Sciences, 2020

The most essential award in the postgraduate scholarship of the Chinese Academy of Sciences

Nomination Award of Pollyanna Chu Excellent Doctoral Students, Chinese Academy of Sciences, 2020

Awarded by School of Public Policy and Management, University of Chinese Academy of Sciences

Merit Student, University of Chinese Academy of Sciences, 2020

Outstanding Graduate, China University of Petroleum (Beijing), 2018

Technology Innovation Advanced Award, China University of Petroleum (Beijing), 2017

Excellent Media Manager, China University of Petroleum (East China), 2016

#### SKILLS & INTERESTS

Language: English (Fluent), Mandarin (mother language)

Skills: Python (proficient), C, HTML, Origin

**Interests:** Photography, Swimming, Cycling, Listening to Chopin

**Huang C**, Tan X., Guo J. International comparative research and strategic implications of climate adaptation governance: Case studies from China, the United Kingdom, and Germany. Science Research Management (Accepted), 2020 (In Chinese).

**Huang C**, Tan X, Guo J, Gu B, Chen Y. Paths and biophysical impacts of low-carbon transformation in China's power sector: an exploratory analysis under uncertainty. (Reviewing in Applied Energy)

Chen Y, Feng L, Tang S, Wang J, **Huang C**\*, Höök, M. Extended-exergy based energy return on investment method and its application to shale gas extraction in China[J]. Journal of Cleaner Production, 2020: 120933.

Chen Y, Tang S, Wang J, **Huang C**, Höök, M. The Essence of Energy Return on Investment (EROI): An explanation from Entropy theory. Working Paper, 2020.

Guo J, **Huang C**. Feasible roadmap for CCS retrofit of coal-based power plants to reduce Chinese carbon emissions by 2050[J]. Applied Energy, 2020, 259: 114112.

Guo J, **Huang C**\*, Wang J L, et al. Integrated operation for the planning of CO2 capture path in CCS–EOR project[J]. Journal of Petroleum Science and Engineering, 2020, 186: 106720.

**Huang C\***, Gu B, Chen Y, et al. Energy return on energy, carbon, and water investment in oil and gas resource extraction: Methods and applications to the Daqing and Shengli oilfields[J]. Energy Policy, 2019, 134: 110979.

Li H, Tan X, Guo J, Zhu K, **Huang C**. Study on an implementation scheme of synergistic emission reduction of CO2 and air pollutants in China's steel industry[J]. Sustainability, 2019, 11(2): 352.

Tan X., Gu B., Zhu K., **Huang C**. Chapter 5, Green Transformation in China: Understanding China's Ecological Progress. Foreign Languages Press. 1st edition (August 1, 2019)

**Huang C**, Xu Y, Feng L, et al. Research on the metabolism of oil& gas extraction industry: from the perspective of huge oilfields. Master Thesis 2018 (In Chinese).

**Huang C.** Analysis on Development Trend of Patents in China Oil& Gas Industry. Science and Technology Management Research, 2018, 38(20), 164-169 (In Chinese).

#### PEER REVIEWER IN JOURNALS

Energy Policy Science of The Total Environment Journal of Cleaner Production

### REFERENCES

Prof. Yi Wang. Institutes of Science and Development, Chinese Academy of Sciences, China.

Email: wangyi@casisd.cn

Prof. Xianchun Tan. Institutes of Science and Development, Chinese Academy of Sciences, China.

Email: txc@casisd.cn

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