



**APEC Symposium on Capacity Building for  
Digital Innovation using Block-chain Technology**  
**区块链技术促进数字创新能力建设APEC论坛**

**聚焦数字经济发展、推进亚太低碳转型**

Guangzhou, China & Online

December 16-17, 2021

**Handbook**

**会议手册**

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# Welcome Address

Dear Delegates,

On behalf of the organizing committee, I warmly welcome you to participate the APEC Symposium on Capacity Building for Digital Innovation using Block-chain Technology.

APEC Forum on Capacity Building for Digital Innovation using Block-chain Technology was proposed through PPSTI and funded by APEC. Block-chain technology has great potential to transform our society, and this project is to deal with the challenges while using block-chain technology.

This symposium will focus on energy transition and low carbon development by taking full advantage of block-chain technology. Green development has become the trend of the world today, which represents the direction of scientific and technological revolution and industrial transformation in the current era. The key to taking the path of sustainable development is to facilitate energy transition. Block-chain technology has the characteristics of decentralization, openness and transparency, security and credibility, and its plays an important role in technical support for energy conversion and development of low-carbon green economy.

Together with our co-sponsor economies, including Australia; Malaysia; Chile; Peru; Korea; Hong Kong, China; Thailand; and Papua New Guinea, we warmly welcome all participants from APEC members and non-APEC economies and international organizations, to share stories, to exchange valuable experience, and to make synergetic actions for green and low-carbon development of block-chain.

Thanks for everyone's support and wish you a productive and pleasant experience in this symposium. Thanks!

Prof. Jiancheng Lv  
President  
Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences

# General Information & Warm Tips

## Time & Venue

**Time:** December 16-17, 2021

**Venue:** LIZ HOTEL, No. 136 Kaiyuan Main Road, Huangpu District, Guangzhou, China (广州市美豪丽致酒店, 广州市黄埔区开源大道 136 号 C 栋, Tel.: 8620-31705586)

**Online meeting room No.:** Zoom link

<https://us02web.zoom.us/j/86713178499?pwd=YUR3ZVRVUkVZN1RYRWs3TURtMmljZz09>

Room No.: 867 1317 8499 Password: 192229

## Organizers

- **Hosted by:**

Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences (中科院广州能源研究所)

- **Co-organized by:**

Guangdong Low Carbon Promotion Association (广东省低碳发展促进会)

- **Supported by:**

Guangdong Fin-tech Association (广东省金融科技协会)

- **Funded by:**

ASF Digital Innovation Sub-Fund (APEC 数字创新子基金)

Ministry of Science and Technology of People's Republic of China (国家科技部)

## Contact Information

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## Warm Tips for joining online

Please turn on your camera when joining. (请打开摄像头)

Please clarify specify your name and city; (标识姓名、国家)

Please turn off your microphone if not speaking (不发言时, 请关闭声音)

# Agenda

Dec.16,2021		Opening Ceremony 开幕式	
<p><b>Moderator:</b> <u>Prof. Yu Bai</u>, Director of Science and Technology Division, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences  <b>主持人:</b> <u>白羽</u>, 中国科学院广州能源研究所科技处处长</p>			
09:00-09:05	<p><b>Background Introduction</b>  <u>Prof. Yu Bai</u>, Director of Science and Technology Division, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences  <b>会议背景介绍</b>  <u>白羽</u>, 中国科学院广州能源研究所科技处处长</p>		
09:05-09:10	<p><b>Welcome Message</b>  <u>Prof. Jiancheng Lv</u>, President of Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences  <b>欢迎辞</b>  <u>吕建成</u>, 中国科学院广州能源研究所所长</p>		
09:10-09:15	<p><b>Greeting</b>  <u>Ms. Xuemei Yang</u>, Division Director, Department of International Cooperation, Ministry of Science and Technology, People's Republic of China  <b>致辞</b>  <u>杨雪梅</u>, 科技部国际合作司国际组织与多边合作处处长</p>		
Dec.16,2021		Topic 1: Blockchain Capacity Building 主题1: 区块链能力建设	
<p><b>Moderator:</b> <u>Mr. Zhigang Luo</u>, APEC Project Coordinator, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences  <b>主持人:</b> <u>骆志刚</u>, 中国科学院广州能源研究所 APEC项目协调员</p>			
09:15-09:35	<p><b>Blockchain principles, development trends and applications in energy and low carbon</b>  <u>Prof. Wu yongdong</u>, College of Cyber Security , Jinan University  <b>区块链原理、发展趋势及在能源、低碳中的应用</b>  <u>吴永东</u> 暨南大学网络空间安全学院教授, 区块链新科技(广州)有限公司首席专家</p>		
09:35-09:55	<p><b>Blockchain industry development trend and supporting policies of Guangzhou</b>  <u>Mr. Anso Luo</u>, Vice Secretary General, Guangzhou Blockchain Industry Association.</p>		

	<p>广州市区块链发展现状、支持政策</p> <p>骆思良，副秘书长，广州市区块链产业协会</p>
09:55 -10:15	<p><b>Climate-friendly cooling through digitization and blockchain</b></p> <p><u>Dr. Bo Shen</u>, Research Scientist, the Lawrence Berkeley National Laboratory (Berkeley Lab), U.S. Department of Energy national laboratory</p> <p>通过数字化区块链构建气候友好型致冷系统</p> <p><u>沈波博士</u>，美国国家能源部伯克利实验室</p>
10:15 -10:35	<p><b>Blockchain powers digitization forward</b></p> <p><u>Mr. Li Zhu</u>, Ecological Marketing Director, Intelligent Technology Business Group of Ant Group</p> <p>区块链驱动数字化、绿色化</p> <p><u>朱李</u>，市场总监，蚂蚁集团智能科技事业群</p>
10:35 -10:45	Q&A 问答
10:45- 11:05	<p><b>Blockchain Development in Papua New Guinea</b></p> <p><u>Mr Christopher Vagalia</u>, Agri-Tech Organics (ATO),PNG</p> <p>巴布亚新几内亚的区块链发展现状介绍</p> <p><u>Mr Christopher Vagalia</u>, Agri-Tech Organics (ATO),PNG</p>
11:05- 11:25	<p><b>Blockchain development and policy in Hong kong</b></p> <p><u>Ir Dr. Ivan LI</u>, Hong Kong Association of Energy Service Companies</p> <p>香港区块链发展现状及政策介绍</p> <p>李栩然博士工程师，香港能源服务协会秘书长</p>
11:25- 11:45	<p><b>Blockchain development and policy in Thailand,</b></p> <p><u>Dr. Junwei Wang</u>, Executive Director, Bangkok Centre of shanghai Institute of CAS</p> <p>泰国区块链发展现状及政策介绍</p> <p><u>王俊伟</u>，中科院泰国曼谷中心执行主任</p>
11:45 -12:00	Q&A 问答

**Dec.16,2021 Topic 2: Blockchain case sharing in green supply and finance field**  
**主题2：区块链融入绿色供应链的应用案例分享**

<p><b>Moderator:</b> <u>Prof. Guotian Cai</u>, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences  <b>主持人:</b> <u>蔡国田</u>, 副主任, 中国科学院广州能源研究所能源战略研究中心</p>	
14:00 -14:30	<p><b>Wal-Mart Supply Chain Management</b>  <u>Nicolas de Loisy</u>, President / Supply Chain Management Outsource - SCMO</p> <p>区块链在供应链管理中的应用案例  <u>Nicolas de Loisy</u>, 香港供应链管理外包公司</p>
14:30 -15:00	<p><b>Blockchain in Food Traceability</b>  <u>Dr. Suporn Pongnumkul</u>, National Electronics and Computer Technology Center (NECTEC), Thailand</p> <p>食品质量安全追踪系统在泰国的应用  <u>Suporn Pongnumkul</u> 博士, 泰国国立电子与计算机研究中心</p>
15:00 -15:20	Q&A 问答
15:20 -15:30	Tea Break 茶歇
<p><b>Dec.16,2021      Topic 3: Blockchain case sharing in Energy Transition</b>  <b>主题3: 区块链在能源转型中的应用案例分享</b></p>	
<p><b>Moderator:</b> <u>Dr. Pruk Aggarangsi</u>, Director Energy Research and Development Institute Nakhon Phanom University  <b>主持人:</b> <u>Dr. Pruk Aggarangsi</u>, 泰国清迈大学能源研究中心</p>	
15:30 -15:50	<p><b>Introduction to the background and work content of APEC projects</b>  <u>Mr. Luo Zhigang</u>, Senior Engineer, APEC PO, Guangzhou Institute of Energy Conversion, CAS.</p> <p>区块链在光伏整县建设中碳资产开发的应用  <u>骆志刚</u>, 高级工程师, 中国科学院广州能源研究所能源战略研究中心</p>
15:50 -16:10	<p><b>Potentials of Block-Chain Technology Application in Livestock and Poultry Production for full traceability of milk and meat and ensuring environmental safety and safe food supply in Bangladesh</b>  <u>Prof. AKM Ahsan Kabir</u>, Department of Animal Science, Bangladesh Agricultural University</p> <p>孟加拉家禽粪便利用、确保食物质量的区块链场景应用</p>

	AKM Ahsan Kabir 教授, 孟加拉农业大学动物学院
16:10 -16:30	<b>Carbon X: A Blockchain-based Decentralized Carbon Economy</b> <u>Ms. Shiyang Shao</u> , Executive Director, Gulian Supply Chain Management Co. Ltd.  <b>Carbon X: 基于区块链的分布式碳中和经济试验</b> <u>邵诗洋</u> , 总经理, 古莲供应链管理有限公司
16:30 -16:50	<b>Application exploration of blockchain technology in carbon trading</b> <u>Mr. Xuedu Lv</u> , Former Vice Director, National Centre for Climate Change Strategy and International Cooperation  区块链技术在碳交易上的应用探索 <u>吕学都</u> , 原副主任, 国家气候中心
16:50 -17:00	Summary 总结

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Topic 4: Blockchain case sharing in Carbon Neutral

主题4: 区块链推进碳中和的应用案例分享

**Moderator: Mr. Shiyang Shao**, Executive Director, Gulian Supply Chain Management Co. Ltd.  
主持人: 邵诗洋, 总经理, 古莲供应链管理有限公司

09:00 -09:20	<b>Blockchain-based green bond issuance</b> <u>Dr. Chen Yushi</u> , Hengqing digital blockchain institute, chief researcher.  基于区块链的绿色债券发行 <u>陈钰什博士</u> , 横琴数链数字金融研究院首席研究员
09:20 -09:40	<b>Blockchain-based carbon neutrality business model</b> <u>Mr. Xinyu Zhang</u> , President, Shenzhen Moke Technology Co. Ltd.  区块链推进碳达峰、碳中和的商业模式创新应用 深圳模科 张新宇 总经理
09:40 -09:50	Q&A 问答
09:50 -10:10	<b>Blockchain technologies to support renewable energy deployment,</b> <u>Prof. Benoit Couraud</u> , Heriot Watt University,UK  区块链支持可再生能源发展的英国几个案例 <u>Benoit Couraud 教授</u> , 英国 Heriot Watt 大学



10:10 -10:30	<p><b>Energy Demand-Side Management-Using Blockchain Technology</b> Dr. PengFei Li, China Communications Service Corporation Limited.</p> <p><b>区块链在电力需求侧中的管理应用</b> 李鹏飞博士，广东通服研究总院</p>
10:30 -10:50	<p><b>Block-chain technology to precisely account for renewable energy produced on site setting a goal to achieve carbon neutrality,</b> <u>Dr. Pruk Aggarangsi</u>, Director Energy Research and Development Institute Nakornping Chiang Mai University</p> <p><b>区块链在泰国推动可再生能源发展的案例介绍</b> <u>Pruk Aggarangsi</u> 博士，泰国清迈大学能源研究中心</p>
10:50 -11:00	Q&A 问答
11:00 -11:20	<p><b>PNG cases: BC for Agriculture</b> <u>Ms Christopher Vagalia</u>, Agri-Tech Organics (ATO),PNG</p> <p><b>巴布亚新几内亚利用区块链在农业中的应用</b> <u>Ms Christopher Vagalia</u>, Agri-Tech Organics (ATO),PNG</p>
11:20 -11:40	<p><b>PNG cases: BC for Forest</b> Ms.Pierre Elias, CEO, ICT Centre, PNG</p> <p><b>巴布亚新几内亚利用区块链在林业碳汇经营中的应用</b> <b>Pierre Elias, CEO, 数字创新中心</b></p>
11:40 -11:50	<p><b>Carbon didi--linking human and nature</b> <u>Ms. Nan Li</u>, Shanghai carbon didi company</p> <p><b>碳低低--链接人与自然的碳普惠应用</b> <u>李楠</u>,上海碳抵信息科技有限公司</p>
11:50 -12:00	Q&A 问答
12:00 -14:00	Lunch 午餐

**Dec.17,2021 Project Report discussion and Policy suggestions**  
**主题5：案例讨论和政策建议**

**Moderator:** Mr. Zhigang Luo, Guangzhou Institute of Energy Resources, Chinese Academy of Sciences

Strategic center

**主持人：**骆志刚，APEC项目协调员中国科学院广州能源研究所

14:00 -14:30	Discussion on the overall outline of the APEC project report (case writing, policy suggestions) 项目内部汇报（工作进展汇报、下步计划）
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14:30 -15:30	Case discussion 完善案例题写讨论
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15:30 -16:30	Policy suggestions discussion 政策建议讨论
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16:30 -17:00	会议总结
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# Biography of Speakers

## 1. Lv Xuedu

Mr. Xuedu Lv, Ph. D., is Lead Climate Change Specialist at East Asia Department, Asian Development Bank (ADB). He joined ADB in 2010, working on low carbon development, carbon market, climate finance, and low carbon technology. Prior to joining ADB, Dr. Lu took different positions including Deputy Director General of National Climate Center of China, Member of the Executive Board of Clean Development Mechanism under the Kyoto Protocol to UNFCCC, Deputy Head of Global Environment Office, Ministry of Science and Technology of China. He used to be Adjunct Professor of Tianjin University and Tongji University.

## 2. Benoit Couraud

Mr Couraud earned an engineering degree from Ecole Centrale de Lyon, France, in 2009, and a M.Sc. degree in electronic and electrical engineering from Shanghai Jiao Tong University, China, in 2009. His Ph.D. research focused on power transfer optimization for IoT solutions at the University of Aix Marseille, Marseille, France.

He is currently leading the data science team at IMREDD, university Cote d'Azur, and is a research associate at Heriot Watt University, working on artificial intelligence, local electricity market solutions and optimization tools for renewable energy integration and smart grids solutions.

## 3. Dr. Bo Shen

Dr. Shen is an Energy/Environment Research Scientist in the Energy Technology Area of the Lawrence Berkeley Domestic Laboratory (Berkeley Lab), a U.S. Department of Energy domestic laboratory managed by the University of California. His work covers a wide range of areas including energy efficiency policy and governance, techno-economic analysis of efficiency improvement and pollution reduction measures, clean energy transition, distributed energy resources, demand response, power market reform, green financing, carbon pricing, and emissions trading based on blockchain technology application.

Dr. Shen has over 25 years of experience working in the energy field. Prior to his employment at Berkeley Lab in 2010, Dr. Shen led the China Energy Efficiency and Demand-Side Management (DSM) Project at the Natural Resources Defense Council (NRDC) and worked as a Senior Public Utilities Analyst for the State of Delaware, respectively. Dr. Shen also served as an inter-domestic consultant in various technical assistance projects of the World Bank and the Asian Development Bank.

Dr. Shen has authored or co-authored over 50 papers in peer-reviewed journals and dozens of technical reports and peer-reviewed conference papers. Dr. Shen holds a doctorate in energy and environmental policy, an MBA in finance, a master's degree in environmental studies, and a bachelor's degree in mechanical engineering.

#### **4. Dr. Pruk Aggarangsi**

Dr. Pruk Aggarangsi is currently the director of Energy Research and Development Institute- Nakornping, Chiang Mai University and Assistance Professor in Mechanical Engineering Chiang Mai University, Thailand. He has a wide scope of expertise in renewable energy, wastewater treatment, numerical modeling, simulation and analysis and smart city environment management. For the past 14 years, he has overseen more than 200 biogas / biomethane projects supported by Thailand Ministry of Energy and private sectors. Dr. Pruk have had crucial roles in engineering of many biogas constructions projects and conducted more than 40 clean energy technical training workshops. Dr. Pruk is the co-author of the book Biomethane: Production and Applications and many renewable energy publications. He also plays an important role in driving Chiang Mai University's Smart City-Clean Energy Project aiming to initiate sustainable development for communities around the world. He employed block-chain technology to precisely account for renewable energy produced on site setting a goal to achieve carbon neutrality in his economy.

#### **5. Ms. Shiyang Shao**

Shiyang Shao is the Co-Founder of Carbon X, Managing Director of Goolun Capital, and an angel investor of Energy Blockchain Lab, Co-Chair of Renewable Committee / China Outreach Committee of Independent Power Producers Forum, and a member of Energy Investment Committee of Investment Association of China and Beijing Green Finance Association. Shiyang has held various positions related to climate change, green finance and investment at China Beijing Environmental Exchange (CBEE), Crystal Vision Energy Limited (CVE) and Goolun Capital. She has led the investment in both tech start-ups like Energy Blockchain Lab and alternative emissions trading market. She has also taken advisory roles for both government and private sectors, including participating in policy research of China's pilot carbon trade program in selected regions and sectors, carbon finance scheme design and application of blockchain technologies in green energy and relevant policy study. She graduated from Wuhan University in Environmental Sciences in 2003, and then Peking University in Master of Environmental Management in 2007, and University of Inter-domestic Business & Economics in Master of Applied Finance in 2017. She is also an alumna of Galilee Inter-domestic Management Institute (2007 summer school on Inter-domestic Agriculture Business Management in Israel) and International Carbon Action Partnership (2011 summer school on Emissions Trading for Emerging Economies and Developing Economies in Madrid).

#### **6. YUSHI CHEN**

Yushi research focuses on Blockchain for Climate Finance: Business models at the Nexus of Finance and Energy. His representative work: " Scaling Up Sustainable Investment through Blockchain-Based Project Bonds". His presentation will briefly show the three phases of blockchain-enabled digital green bond.

## **7. Mr. Zhang Xinyu**

Zhang Xinyu graduated from Shanghai Jiao Tong University, holds a bachelor's degree in automation and a second bachelor's degree in technical economics, a master's degree in engineering from Shanghai Jiao Tong University, and a certificate of financial risk manager and CFA charter holder. He has long been engaged in risk management solutions in the financial industry and is the first batch of risk consultants in China to fully serve the implementation of Basel II and Basel III. Engaged in the measurement and implementation of credit process management, credit risk, market risk, regulatory capital and economic capital. Served as risk consultant, financial engineer, project manager, business analysis, key account manager and other roles.

Zhang Xinyu has 15 years of work experience in consulting companies and product companies, and has served companies including BearingPoint, IBM Global Business Services (GBS), Capgemini Consulting, Sungard, IBM Algo and Moody's Analytics. At the same time, he has long paid attention to the development of financial technology. Since 2016, he has served as a blockchain solution design consultant in Jin Tong Technology, participated in the preliminary sales and design of several blockchain projects, provided lectures and training on blockchain, and participated in the writing of blockchain and big data.

At present, he is the CEO of Shenzhen Moke node network technology Co. Ltd. and serves as a consultant in many blockchain entrepreneurship projects.

## **8. Nicolas de Loisy**

Nicolas de Loisy is the President of Supply Chain Management Outsource, a global network of professional firms providing advisory in logistics, transportation, and supply chain management. Their experts help transform supply chain challenges into strategic and competitive advantage through 40 offices in 25 economies. He is also Co-Founder of The Belt and Road Blockchain Consortium – BRBC; and the Vice-Chairman Blockchain Committee / Independent Power Producers Forum – IPPF.

With 25 years of experience in the logistics industry and 20 years of experience in providing supply chain advisory services, Nicolas' experience includes the development of corporate and operational strategies, profit enhancement and cost reduction, as well as marketing & operational management. He is also a Blockchain expert, and frequently speaks at events on subjects related to Blockchain technology. He is a Co-Founder of The Belt and Road Blockchain Consortium (BRBC - [www.beltandroadblockchain.org](http://www.beltandroadblockchain.org)), and a Vice-Chairman of the Blockchain Committee at the Independent Power Producers Forum (IPPF - [www.ippfpowerasia.com](http://www.ippfpowerasia.com)).

Nicolas is the author of "Transportation and the Belt and Road Initiative", a book that contains the first-time-ever-published list of all BRI projects.

## **9. Ir Dr. Ivan LI**

Ir Dr. Ivan LI is the Honorary Secretary of Hong Kong Association of Energy Service Companies. He is an carbon, AIOT and smart grid expert. He is in carbon and energy industry for more than 12 years. He is the pioneer and researcher of carbon market. His

has extensive practical experience in carbon innovation areas, including global climate change, society response, low carbon consulting, carbon asset management, carbon fintech innovation. He has published more than 10 SCI papers, which won 4 times in essay contests. He founded and managed a team in Hong Kong for building of the platform for the trade of emission reduction products, which also known as the first trading platform in Hong Kong regarding emission. He was the task force of “study on emission trading in the mainland: option for Hong Kong” which funded by Central Policy Unit (CPU). The team under his management developed and invested to the first batch of CCER projects, that was also pledged as collateral for loans in China carbon sink project.

He has lead an innovation team in Electrical and Mechanical Services Department (EMSD) of Hong Kong Government. His key responsibility was to manage and administer of innovation and technology project. He successfully invented, developed and brought the AIOT project "Non-Intrusive Data Analytics System for Adaptive Intelligent Condition Monitoring of Lifts" from 0 to 1, which has filed Hong Kong patent (Patent No.: HK30012023) , US patent (Application No. 17/098,562) and PCT patent (Application No.: PCT/CN2020/128946), and won lots of Hong Kong and International awards.

#### **10. Anson Luo,**

CIO, Guangzhou ZTLM technology Co. chief specialist of Guangzhou Blockchain Industry Association and has been working as blockchain specialist for over 3 years. Anson has over 15 years of Finance Technology experience working in various sectors such as fund management, corporate banking, investment banking, security exchange, finance risk management etc.. Anson has extensive experience on application design development and technical project management in blockchain technologies.

#### **11. Mr. Christopher Vagalia**

Christopher Vagalia is a Financial Accounting and IT Professional. He graduated with a Bachelors in Business Studies & Accounting from Divine Word University and manages his own consultancy, Agri-Tech Organics (PNG) Limited. He is well versed in the areas of Financial Accounting, Audit, Taxation, Administration, Payroll, Human Resources and Information Technology. Christopher leads his team of vibrant trailblazers in the Development and Research into Blockchain/DLT, E-Commerce, Cloud Solutions, Web Development, Digital Marketing and other emerging Technologies. He was sponsored by Deloitte Touche' Tohmatsu (DTT) and later worked with the firm for three years upon completion of his studies. He later worked as the Financial Controller for the Hekari Group of Companies in the Southern Highlands, Mineral Resources Authority as Senior Account and Nestle as Management Accountant before pursuing his passion in ICT. He is the CEO of Agri-Tech Organics (PNG) Limited, a ICT/Software Development company, which he founded and manages. Agri-Tech specialized in the following services: Research & Development of Blockchain & Distributed Ledger Technology; E-Commerce Solutions & Internet Payment Gateway Integration; Cloud Based Solutions (Linux & Windows); Decentralized Application Development; Mobile App Development (for Android & iOS); Web Development; Digital Marketing; and Financial Risk Management.

## **12. Luo Zhigang**

Luo Zhigang is an Associate Researcher of Energy Strategy and Low Carbon Development Research Center of Guangzhou Institute of Energy, Chinese Academy of Sciences, a graduate of the senior president class of Block Chain EMB of Sun Yat Sen University, and holds a Master of Business Administration in foreign studies from the Guangdong University. His research interests include: low-carbon economy, carbon market system design, green finance, low-carbon blockchain, ecological compensation mechanism design, low-carbon business model innovation. He has successfully provided several policy consulting studies for the world bank, the Asian Development Bank, the British Foreign Office, APEC, domestic ministries and commissions, Guangdong Development and reform. As key researcher, he led the design of Guangdong Carbon Market System, the design of domestic carbon trading system, the design of domestic comprehensive ecological compensation pilot scheme, the coordinator of the Asia Pacific Economic Cooperation Low-carbon Blockchain Project, and the design of Guangzhou's Energy Right Trading System, and has provided business consulting for Jinan Iron and steel, Guangdong Electric Power Group, Domestic Energy Group, Guangzhou Development, Guangdong Nuclear Power and other enterprises, such as Energy Strategic Planning, Carbon Asset Management and Carbon Finance. At present, he is exploring the combination of carbon finance and blockchain to jointly promote enterprises to formulate carbon neutralization strategy.

## **13. PengFei Li**

Pengfei Li, is currently a Energy expert of the China Communications Service Corporation Limited. He got PhD degree in Energy Technology department from Aalborg University. He was a visiting scholar at the ETH in Switzerland and the University of Victoria in Canada. He has participated in many EU's projects such as the smart grid of the EU's "Horizon 2020" project, the project of Integration of the Nordic Regional Energy System, the project of National Natural Science Foundation of China, and many wind power generation projects in China. He is reviewer for many internationally renowned journals and top international conferences in the field of power and energy. He has published many SCI papers and international conference papers and has participated in many high-level international academic conferences to give lectures.

#### **14. Chen Linhao**

Chen Linhao is Deputy director of Inter-domestic Cooperation Department (Hong Kong, China, Macao and Chinese Taipei office) of the Ministry of Science and Technology.

#### **15. Ma Qiang**

Ma Qiang is the founder and CEO of Fudan Oceanwide Institute of Inter-domestic finance EMBA 2021, 55 interactive. 55 interactive, founded in 2013, is an integrated marketing service company focusing on the financial industry. Its perennial customers include Ping An Group, AXA insurance, Dadi insurance, Zhonghong insurance, Taiping group, Zhong'an insurance, etc. It has created a large number of excellent cases and best ROI practices in social marketing, technology development and data operation in financial industries such as insurance, credit and securities.

In 2021, in order to help green finance, 55 interactive launched the sub brand of "Carbon Asset Management and consulting services" - carbon offset technology. In cooperation with Guangzhou carbon trading market, which has the largest trading volume of domestic carbon quota, carbon credit technology has developed and operated the "personal carbon footprint management platform - carbon low (tandidi. Com)", the first professional carbon market certification in China. In the low-carbon applet, individual users can obtain points (carbon beans) through low-carbon behavior, which can be used to exchange various rights and interests; At the same time, users can directly purchase carbon quotas through online payment to offset the carbon footprint generated by their daily life, and obtain the "personal carbon offset" certificate issued by Guangzhou carbon trading market. All certificate data are saved on the blockchain, traced in real time and can not be usurped. On the enterprise service side, the enterprise version of "ant forest" created by carbon offset technology provides enterprises with one-stop solutions in the era of carbon neutrality, realizing corporate social responsibility and improving customer activity. At the same time, carbon offset technology can further provide enterprises with customized carbon asset development, management, consulting and training services.

#### **16. Wang Zhihong**

Wang Zhihong is Doctor of Information Security of Jinan University and CEO of Blockchain



New Technology (Guangzhou) Co., Ltd. He once served as an expert consultant to many provincial and municipal units and associations. He has more than 20 years of experience in R&D and company management. He has presided over the R & D of a series of cloud service products, including non book resource cloud service platform, copyright blockchain, traceability blockchain platform and so on, As the principal, he presided over or participated in a number of scientific research projects at or above the provincial and ministerial levels, including major provincial projects (blockchain based mobile digital copyright technology and platform), domestic projects (Research on blockchain based digital intellectual property protection system), domestic projects (Research on new cross chain system supporting heterogeneous Multi Chain interoperability), and domestic projects (Research on Internet of things security technology based on blockchain), provincial major projects (key technologies and application demonstration of data security protection in cloud environment), etc.

**17. Zhu Li**

Li Zhu Ant Group Smart Technology Group ecological market construction, leading the development of Ant Group's smart technology business and ecological cooperation development, and working with ecological partners to build a win-win business development system. He is exploring the research and application promotion of cutting-edge technologies such as 4G, 5G, IoT, cloud computing, artificial intelligence, chain, etc., has implemented business transformation and upgrading, has worked for Huawei and Ericsson for many years, and has obtained more than 30 authorized patents and basic patents.

**18. A.K.M. Ahsan Kabir PhD.**

Ahsan Kabir is a Professor of Animal Science Department at Bangladesh Agricultural University, Bangladesh. He holds a bachelor's degree in animal husbandry, a master's degree in Animal Science from Bangladesh Agricultural University, and a PhD in Animal Resource Sciences from the University of Tokyo, Japan. He has participated in multiple post-doctoral training courses in abroad in the fields of eco-friendly animal production; innovation and technology for quality of life and sustainable society; discussion and project planning on biomass energy research works; renewable energy technology and

industry development in road and belt economies; quality management along organic agri-value chains in developing economies etc. He is a member of DAAD Alumni Association, Japan Student Alumni Association, and Asia-Pacific Forum of Renewable Energy along with General Secretary of Bangladesh Society for Animal Production, Education and Research. Dr. Kabir has more than 19 years of teaching experience in a public university. In the Department of Animal Science, Bangladesh Agricultural University, he is Professor and Ex-Head of the Department. Professor Kabir is an author of more than 40 articles in leading journals. Moreover, he wrote two books about Animal Science which were published from Bangladesh and a book chapter named “Organic Animal Husbandry (Organic Farming: New advances towards sustainable agricultural systems) was published by Springer in 2019. He has actively participated in presenting more than 20 research findings at inter-domestic conferences/seminars mostly in Australia, Germany, Brazil, Japan, Thailand, India and China. He is currently using blockchain technology in the animal sciences.

**19. JunWei WANG,**

Ph.D., SN ENGR of the Chinese Academy of Sciences (CAS) and the Executive Director, CAS Innovation Cooperation Centre (Bangkok).

He received his PhD from the University of Bristol, United Kingdom in 2008. After his British time, Having acknowledged his academic background, he was involved into a few China’s domestic projects in the fields of policy research and international cooperation on science, technology and innovation. He is now working for “CAS Innovation Cooperation Centre (Bangkok)” which faces the multilateral STI collaborations between China and ASEAN. This center serves as a platform of the CAS in the ASEAN region and covers many collaborative aspects such as Talents, Start-ups, Technology Commercialization, Strategy Consultation, Scholar Scheme (under the support from CAS-TWAS) and etc.

**20. Suporn Pongnumkul,**

Ph.D, Senior Researcher. Human Behavior Analytics Research Team, Data Science and Analytics Research Group, National Electronics and Computer Technology Center (NECTEC), Thailand. She knows well about blockchain development in Thailand and

implement some cases about Blockchain in Food Traceability

**21. Pierre Elias,**

Source Pacifique Co-Founder [fair-grade.com](https://www.fair-grade.com). Global Business Services Executive. Held a succession of leadership positions in a mix of multinational assignments, industries. Passion for how private blockchain can transfer forest governance.