

IEEE Power and Energy Society Entity Annual Report

2025

Entity: IEEE PES STC SBLC
Website:
Chair: Jizhong Zhu
Vice-Chair: Changming Jiang
Secretary: Junbo Zhang, Yun Liu
Immediate Past Chair:

1. Significant Accomplishments:

- IEEE PES China STC SBLC Technical Committee has hosted and participated three IEEE standards and several other Standards in 2025. They are:
 - 1) IEEE P3436 Guide for Electric Vehicle Charging Load Prediction
 - 2) IEEE P3326 Substation Inspection-Infrared Online System
 - 3) IEEE P3230 Standard for blockchain based power system demand response technical specification
 - 4) ITU-TH.DLT-RFCEDM Reference framework for carbon emission data management platforms based on distributed ledger technology
 - 5) China Standard T-TBI 39 Trustworthy Blockchain: Carbon Peak and Carbon Neutrality Service Management Platform Architecture
 - 6) China Standard T/ABI-002 Blockchain Basic Services Digital Traceability Technical Specifications



- Power fingerprint technology Power fingerprint technology completed by China STC SBLC Technical Committee is being promoted and applied in China Power Industry.



- China STC SBLC Technical Committee engaged with 16 enterprises, facilitated with technical committee members, and advanced multiple pilot projects in 2025. Total contract amount of 120 million yuan, significantly improving the implementation rate of scientific research achievements.



- The IEEE Standard P 2781 Guide for Load Modeling and Simulations for Power Systems completed by China STC SBLC Technical Committee in 2022 (Published in 2022 by IEEE SA) has been adopted in several companies in China such as China Southern Power Company, and State Grid Zhejiang Electric Vehicle Company, etc. in 2024-2025. Consequently, China STC SBLC Chair was awarded China Power Innovation Prize.



- Annual Meeting of IEEE PES China STC SBLC Technical Committee was held at Guangzhou on Sept. 20, 2025. Over 100 members attended the annual meeting. Several STC SBLC Awards were presented to the STC SBLC members who have made outstanding contributions to China STC SBLC Technical Committee. These awards are: IEEE PES SBLCS-China Outstanding Secretary Award; IEEE PES SBLCS-China Outstanding Individual Contribution Award; IEEE PES SBLCS-China Outstanding Women in Science and Technology; IEEE PES SBLCS-China Outstanding Young Talent Award; IEEE PES SBLCS-China Outstanding Publication Award; IEEE PES SBLCS-China Outstanding Volunteer Award.





- On July 17-19, 2025, IEEE PES China STC SBLC organized an International Conference on Energy and Electric Power Systems (ICEEPS 2025) in Guangzhou, China. STC SBLC Chair Prof. Jizhong Zhu is Conference Chair of ICEEPS 2025. Over 100 people attended the Conference.



- On Sept. 12-14, 2025, IEEE PES China STC SBLC organized a 2025 7th IEEE International Conference on Energy, Power and Grid (ICEPG 2025) in Guangzhou, China. STC SBLC Chair Prof. Jizhong Zhu is Conference Chair of ICEPG 2025. Over 100 people attended the Conference.



- On Sept. 20-21, 2025, IEEE PES China STC SBLC organized an International Conference on Energy Science and Interdisciplinary (ICESI 2025) in Guangzhou, China. STC SBLC Chair Prof. Jizhong Zhu is Conference Chair of ICESI 2025. Over 100 people attended the Conference.





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- On October 24-26, 2025, IEEE PES China STC SBLC organized an International Conference on Low Carbon and Smart Energy (ICLCSE 2025) in Guangzhou, China. STC SBLC Chair Prof. Jizhong Zhu is Conference Chair of ICLCSE 2025. Over 100 people attended the Conference.



- On Nov. 14-16, 2025, IEEE PES China STC SBLC organized an International Conference on New Energy and Power Engineering (ICNEPE 2025) in Guangzhou, China. STC SBLC Chair Prof. Jizhong Zhu is Conference Chair of ICNEPE 2025. about 80 people attended the Conference.



- On December 19-21, 2025, IEEE PES China STC SBLC organized an 2025 International Academic Exchange Conference on Science and Technology Innovation (IAECST 2025) in Guangzhou, China. STC SBLC Chair Prof. Jizhong Zhu is Conference Chair of IAECST 2025. Over 300 people attended the Conference.



2. Benefits to Industry and PES Members from the Committee Work:

- IEEE P2783-Guide for the Application of Quick Response Systems of Customer-Side Loads in Modern Power Grids completed by China STC SBLC Technical Committee (Published in 2024 by IEEE SA) has been adopted by Jiangsu Power Grid Company in 2025. Consequently, Jiangsu Power Grid successfully has implemented large-scale source-grid-load friendly interaction system and obtained enormous economic benefits. Thus, our STC SBLC Committee's standard works benefit to China Power Industry.

The following products are applied in Jiangsu Power Grid that are benefited from the above SBLC Committee work.



- China STC SBLC Technical Committee has hosted over 10 science and technology forums in 2025. People from power industry and enterprises related power loads and customer support system attended the forums in person and/or online. These SBLC committee works benefits to China Power Industry as well as Architecture and Petrochemical Industry.



- China STC SBLC Technical Committee organized 5 times training courses to power load customers including the engineers of power supply authority, new energy related lawyers and bank investors. These energy related industries were benefited from our SBLC committee’s training work.



- China STC SBLC Technical Committee hosted an experience share of international standards to IEEE PES members in China on line, such as IEC standard and IEEE standard. IEEE PES members know the details on how to apply and complete IEC and IEEE standards from the experience share of SBLC committee.

3 相关的国际标准及经验分享

- 国际标准分类：
 - CAC (国际食品法典委员会标准)
 - ECSS (欧洲航空标准化协作组织)
 - EN (欧洲标准)
 - EC (欧盟法规)
 - IEC (国际电工委员会)
 - ISO (国际标准化组织)
 - ITU (国际电信联盟)
 - IEEE SA (电气电子工程师学会标准委员会)

3 相关的国际标准及经验分享



IEC SC 88/JWG 1 工作组成员一起合影

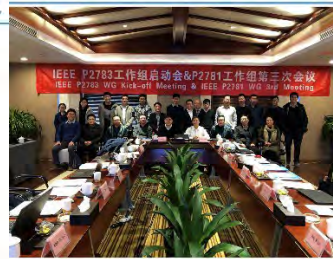


IEC SC 88年会线上举行

3 相关的国际标准及经验分享

- IEEE SA(标准委员会) 标准种类
 - IEEE标准成员有团体会员和个人会员两种，其中团体会员可以是公司企业、研究所和高校相关单位，单位需要每年缴团体会员费维持团体会员资格；个人会员可以在申请IEEE会员时加入IEEE标准委员会的会员。
 - 同样，IEEE标准有单位牵头的团体标准 (Entity) 和个人会员牵头的标准 (Individual)。
 - IEEE SA团体标准由多家单位组成标准工作组，完成的标准将由感兴趣的IEEE SA团体会员单位投票是否通过。
 - IEEE SA个人会员牵头的标准由IEEE SA个人会员组成标准工作组，完成的标准将由感兴趣的IEEE SA个人会员投票是否通过。
 - 通常来讲，IEEE SA团体标准相对容易协调和通过。

3 相关的国际标准及经验分享



本人主持的IEEE P2781和P2783标准工作组讨论会-工作经历专家合影。

- Organized Five International Conferences (mentioned in Item 1) by STC SBLC, which Benefits to Industry and PES Members.

3. Benefits to Volunteer Participants from the Committee Work:

- Through participating STC SBLC Committee and/or Sub-committee work, the following Volunteers received the awards from China STC SBLC Technical Committee. They are:
 - 1) Zhang Junbo, Liu Yun, Liu Bin, Li Hucheng received IEEE PES SBLCS-China Outstanding Secretary Award;
 - 2) Chen Yiping, Mo Weike, Han Yinghui, Li Shenglin received IEEE PES SBLCS-China Outstanding Individual Contribution Award;
 - 3) He Xiaomeng, Zhang Tong, Song Huihui received IEEE PES SBLCS-China Outstanding Women in Science and Technology;
 - 4) Cheng Lefeng, Yi Wenfei, Yan Yong received IEEE PES SBLCS-China Outstanding Young Talent Award;
 - 5) Tan Zhukui, Shao Wei received IEEE PES SBLCS-China Outstanding Publication Award;
 - 6) Dong Hanjiang, Qiu Zhi, Han Jingxuan received IEEE PES SBLCS-China Outstanding Volunteer Award.
- China STC SBLC Organized Six International Conferences in 2025. The Volunteer Participants including SBLC committee members and students prepared the materials, program, reception meeting guests, and were responsible for meeting registration, etc. They gained valuable experience. In



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In addition, the Volunteer Participants attended the conference for free, including free meals and free conference materials.

- 1) On July 17-19, 2025, IEEE PES China STC SBLC organized an International Conference on Energy and Electric Power Systems (ICEEPS 2025) in Guangzhou. The Volunteer Participants were working.



- 2) On Sept. 12-14, 2025, IEEE PES China STC SBLC organized a 2025 7th IEEE International Conference on Energy, Power and Grid (ICEPG 2025) in Guangzhou, China. The Volunteer Participants were working.



- 3) On Sept. 20-21, 2025, IEEE PES China STC SBLC organized an International Conference on Energy Science and Interdisciplinary (ICESI 2025) in Guangzhou, China. The Volunteer Participants were working.



- 4) On October 24-26, 2025, IEEE PES China STC SBLC organized an International Conference on Low Carbon and Smart Energy (ICLCSE 2025) in Guangzhou, China. The Volunteer Participants were working.



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6) On December 19-21, 2025, IEEE PES China STC SBLC organized an 2025 International Academic Exchange Conference on Science and Technology Innovation (IAECST 2025) in Guangzhou, China. The Volunteer Participants were working.



4. Recognition of Outstanding Performance:

- 1) China STC SBLC Chair Jizhong Zhu was promoted to a Member of the European Academy of Sciences and Arts, and received the Certificate at Salzburg, Austria, on March 8, 2025.



- 2) China STC SBLC Chair Jizhong Zhu was elected to Vice Chair of IEEE PES Guangzhou Chapter on May 17, 2025.





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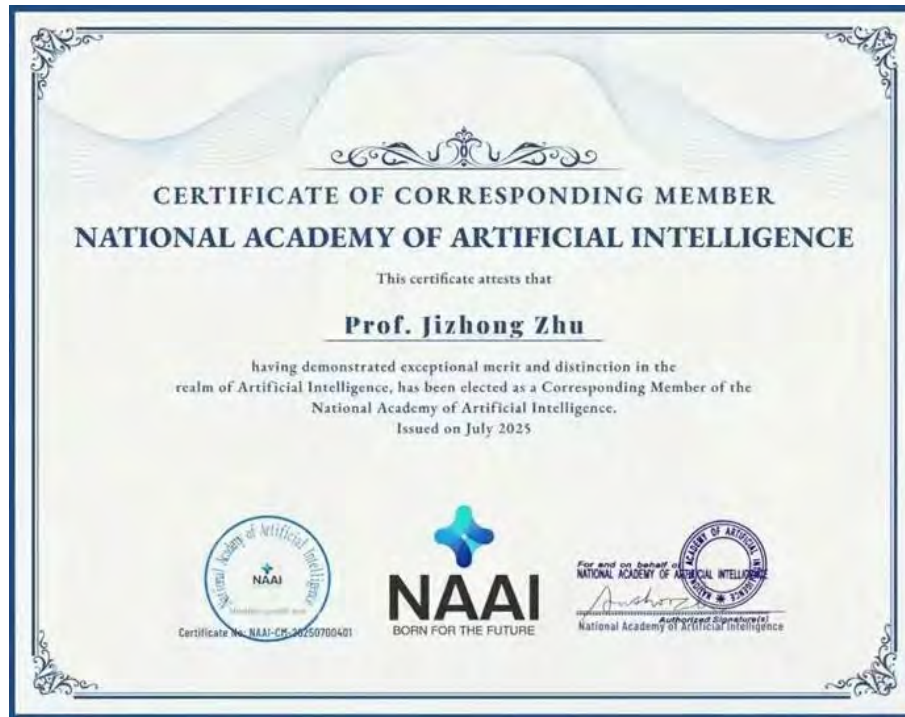
3) China STC SBLC Chair Jizhong Zhu received a Certificate of Appreciation from IEEE Press for a peer review of IEEE books on June 16, 2025.



4) China STC SBLC Chair Jizhong Zhu received a MPCE Excellent Associate Editor Award from Journal of Modern Power Systems and Clean Energy Journal (SCI Q1 Journal) in July, 2025.



- 5) China STC SBLC Chair Jizhong Zhu was promoted to a Corresponding Member of National Academy of Artificial Intelligence in July, 2025.



- 6) China STC SBLC Chair Jizhong Zhu was promoted to a Foreign Fellow of ASEAN Academy of Engineering and Technology, AAET on August 25, 2025.



25 August 2025

Prof. Dr Zhu Jizhong
South China University of Technology
Guangzhou, Guangdong, China

Dear Prof Zhu,

ADMISSION AS AAET FOREIGN FELLOW

It is our pleasure to inform you that ASEAN Academy of Engineering and Technology (AAET) AGM held on 14 June 2025 agreed to admit you as a **FOREIGN FELLOW** of AAET. We write to congratulate and welcome you into this family of AAET.


You can now use the abbreviation "FAAET(F)" after your name. Kindly download a copy of the AAET Constitution from: <https://1ink.dev/fo1r> for getting to know your Academy better.


As a Foreign Fellow, you are now a member of an eminent group of successful ASEAN engineers, technologists and industrialists who play an important role in the overall development of the ASEAN region.

The Academy welcomes your input and contributions to enhance the activities of AAET.

Thank you!

Yours sincerely,

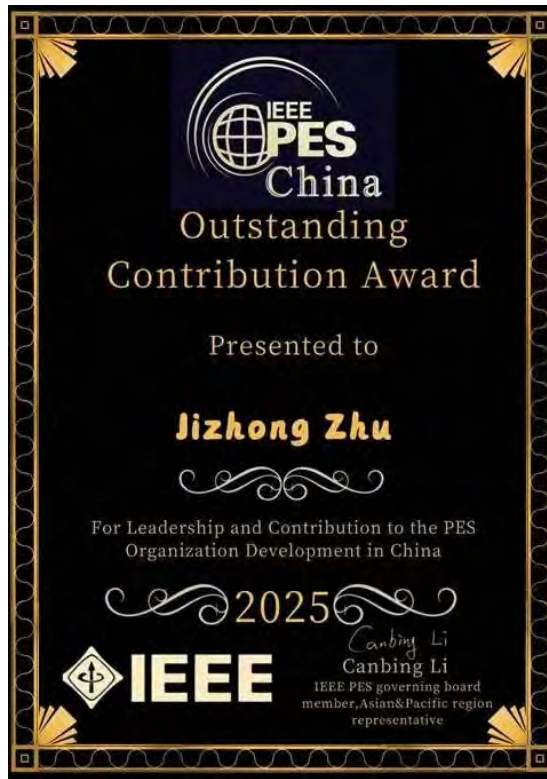

Datuk Ir. Yong Ah Huat
AAET Secretary-General


Ir. Prof. Dato' Dr. Ewe Hong Tat
AAET President



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- 7) China STC SBLC Chair Jizhong Zhu awarded IEEE PES China Outstanding Contribution Award for Leadership and Contribution to the PES Organization Development in China on Dec., 2025.



- 8) Annual Meeting of IEEE PES China Satellite Technical Committees was held in Beijing on Dec. 26, 2025. PES China STC SBLC members Liu Yun was awarded as Outstanding Secretary Award, Ziyu Chen was awarded as Outstanding Woman Women in Science and Technology Award, Hanjiang Dong was awarded as Outstanding Yong Expert.





5. Coordination with Other Entities (PES Committees, CIGRE, standards, etc.):

IEEE Standards Activities

- IEEE PES China STC SBLC Technical Committee has hosted and participated three IEEE standards and several other Standards in 2025. They are:
 - 1) IEEE P3436 Guide for Electric Vehicle Charging Load Prediction
 - 2) IEEE P3326 Substation Inspection-Infrared Online System
 - 3) IEEE P3230 Standard for blockchain based power system demand response technical specification
- IEEE PES China STC SBLC Technical Committee had coordination with IEEE SMC for IEEE P3436 Guide for Electric Vehicle Charging Load Prediction.
- As a member of IEEE SMC Standards Committee, China STC SBLC Chair Jizhong Zhu had coordination with IEEE SMC SC for evaluating IEEE standards submitted to IEEE SMC.

- Hosted a Third meeting on IEEE P3436 WG (Guide for Electric Vehicle load prediction) at Xiamen, China on June 21, 2025.



IEC Standards Activities

As a China National Expert of IEC, had some coordination with IEC, participating in the activities of IEC SB8 and IEC SC22.

- 1) On May 6-8, 2025, China STC SBLC Chair Jizhong Zhu attended IEC SC8B meeting in Xian, China.



- 2) On July 9, 2025, China STC SBLC TC member attended IEC SC22F/WG7 meeting in Xian, China.



- 3) On Sept. 15, 2025, China STC SBLC Chair Jizhong Zhu attended IEC SC22F MT36 work group meeting on-line.



- 4) China STC SBLC Chair Jizhong Zhu is a member of CIGRE, and participated in some activities of CIGRE

6. Coordination and Involvement with Young Professionals:

As a member of IEEE PES OYEA Committee (Outstanding Young Engineer Award), China STC SBLC Chair Jizhong Zhu have participated in the work with Young Professionals.

7. New Technologies of Interest to the Committee:

Apply Artificial Intelligence (AI) technologies to SBLC committee, such as load forecasting, demand response, and smart building.

8. Global Involvement

STC SBLC Chair Jizhong Zhu has participated in the Activities of IEC and CIGRE

9. Problems and Concerns:

N/A

10. Significant Plans for the Next Period:

- 1) Recruiting new members to join IEEE PES China STC SBLC Technical Committee.
- 2) Complete the draft of IEEE P3436 (Guide for Electric Vehicle load prediction) in 2026.
- 3) Prepare two new IEEE standard proposals (PAR) in 2026.
- 4) Host five International Conferences in 2026.
- 5) Annual meeting of IEEE PES China STC SBLC Technical Committee in 2026.

Submitted by: STC SBLC Chair: Jizhong Zhu

Date: Jan. 6, 2026