

2020 IEEE Chengdu Section Report Format

PART A - SECTION SUMMARY

A.1 Executive Summary – (Please follow the format given below)

- Section Executive Committee Member List

Name	Position	Email
Shaoqian LI	Chair	lsq@uestc.edu.cn
Pingzhi Fan	Awards & Recognition Committee Chair	p.fan@ieee.org
Dezhong RAO	Educational Activities	dyao@uestc.edu.cn
Qi HUANG	Liaison	hwong@uestc.edu.cn
Jianxiao ZOU	Membership Development	jxzou@uestc.edu.cn
Qingchun CHEN	Professional Activities	qingchunchen@foxmail.com
Li Li	Professional Activities	ll5e08@swjtu.edu.cn
Gang WU	Secretary	wugang99@uestc.edu.cn
Zheng MA	Secretary	zma@swjtu.cn
Lei Zhang	Secretary	leizhang@scu.edu.cn
Gang Wu	Treasurer	wugang99@uestc.edu.cn
Sheng SUN	Student Activities	sunsheng@ieee.org
Bo ZHAGN	Technical Activities	zhangbo@uestc.edu.cn
Fengwu Luo	Newsletter Editor/Webmaster	fwluo@uestc.edu.cn

- Section Highlights

- 1) On November 23, 2020, the second International Conference on sustainable power and energy (iSPEC 2020) was solemnly opened in Chengdu. iSPEC 2020 is co sponsored by China Society of Electrical Engineering (CSEE) and IEEE PES.



Figure 1. Mr. Ning HUA, Senior Director of IEEE Asia Pacific Region MGA attend the iSPEC 2020.

- 2) Professor Li Hongwei of Cyberspace Security Research Institute, of Electronic Science and Technology of China (UESTC), Chengdu, was elected secretary of IEEE communication society security branch

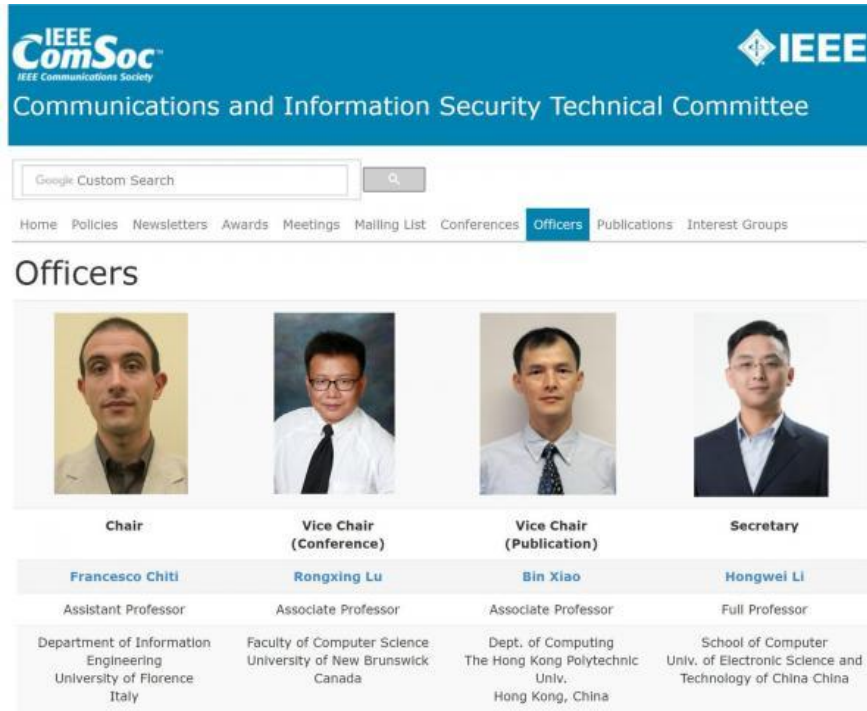


Figure 2. Hongwei Li was elected as Secretary of IEEE ComSoc CIS-TC

- 3) IEEE Signal Processing Society Chengdu Chapter (SPS Chengdu Chapter) receive the **SPS Membership Growth Reward** for Certified Chapters.
- 4) Prof. Chun-Min Li of University of Electronic Science and Technology of China (UESTC) was elected as Fellow of IEEE, for contributions to computer vision and medical image analysis.
- 5) The 17th ICCWAMTIP 2020 was held at UESTC, Chengdu, Sichuan online, which is TCS-ed by Chengdu Section and financially sponsored by UESTC.

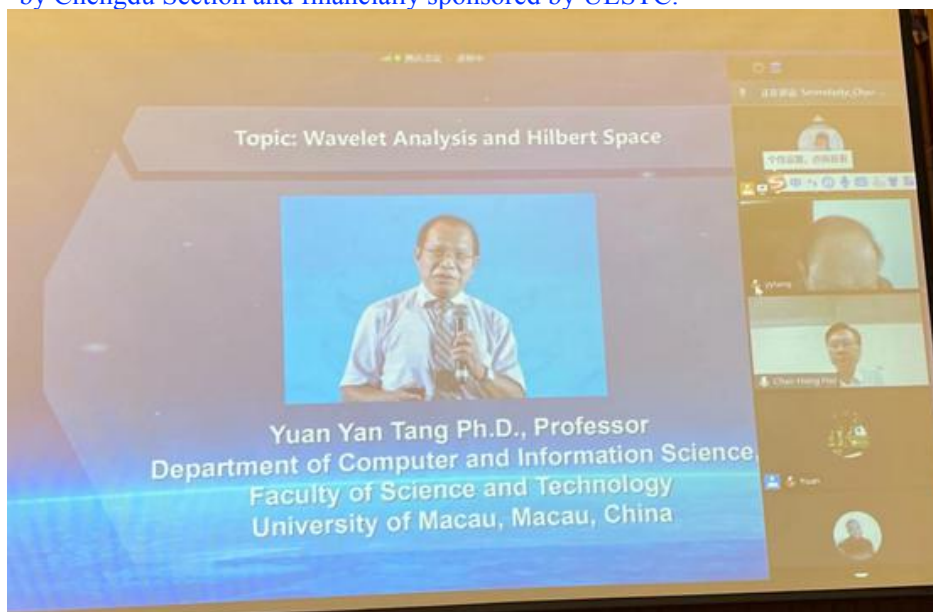


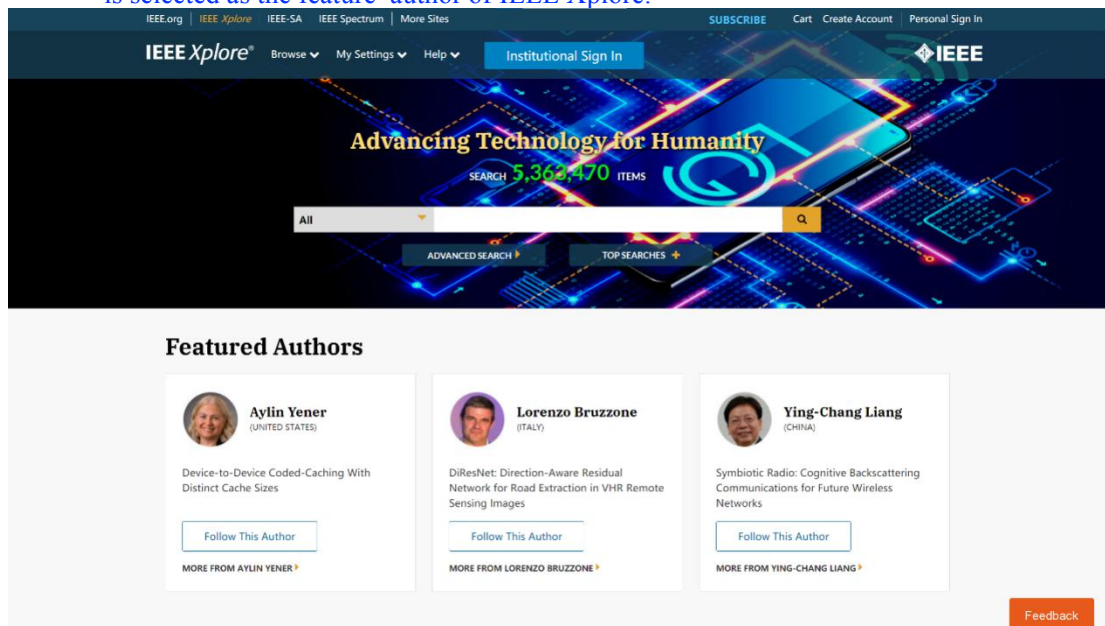
Figure 3. IEEE Life Fellow IAPR Fellow presented online for the Keynote talk on ICCWAMTIP 2020.

- Major Events (International, National)

- 1) On November 23, 2020, the second International Conference on sustainable power and energy (iSPEC 2020) was solemnly opened in Chengdu. iSPEC 2020 is co sponsored by China Society of Electrical Engineering (CSEE) and IEEE PES. It is a sister meeting of IEEE PES summer annual meeting. The theme of ispec this year is "energy transition and energy Internet", which is undertaken by Sichuan University, Tsinghua energy Internet Research Institute, Southwest Jiaotong University, University of Electronic Science and technology, State Grid Sichuan electric power company and Sichuan electrical engineering society. The conference attracted more than 500 experts, scholars and industry representatives from the power and energy related fields. In order to meet the needs of COVID-19's prevention and control, some guests attended the meeting through online video.



- 2) Professor Liang Yingchang, National Key Laboratory of S&T on Communications of UESTC, is selected as the feature author of IEEE Xplore.



- 3) With IEEE Chengdu Section as TCS role, during 2020, there are more than 6 IEEE conference/workshop being held online.

- Major Chapter Activities

- 1) iSPES 2020 was held at Chengdu by PES Chengdu Chapter.
- 2) On October 30, 2020, IEEE PES China Technology Council meeting was held in Wuhan East Lake International Conference Center. Many well-known enterprises including State Grid Corporation of China, China Southern Power Grid Corporation, NARI Group and many well-known scientific research institutions including China Electric Power Research Institute were invited to attend the conference, attracting over 1000 scholars and experts from enterprises, scientific research institutes and universities. This conference is a historic event for Chinese

scholars in the field of electric power and energy to fully exchange on the international stage of science and technology.



- 3) The school of electrical engineering of Sichuan University is the Secretary unit of the power grid operation control sub committee under the technical committee. Professor Liu Junyong, director of the professor committee of the school of electrical engineering, was invited to serve as the chairman of the sub committee, associate professor Xiang Yue as the secretary general, and Dr. Xu Lixiong as the secretary.



- 4) IEEE Signal Processing Society Chengdu Chapter (SPS Chengdu Chapter) receive the SPS Membership Growth Reward for Certified Chapters.
 - 5) On September 25, the IEEE International Standard proposal "guide for economic loss evaluation of sensitive industrial customers caused by voltage sags" (Chinese Translation: technical guidelines for economic evaluation of voltage sag loss for industrial sensitive customers) "led by Hubei Electric Power Research Institute of State Grid and participated by Sichuan University passed the international vote of IEEE SA Committee and was officially approved, The standard number is IEEE p2938. This is another important breakthrough in the internationalization of power quality standards after Sichuan University participated in the project of IET standard "impact of poor power quality on electrical equipment and power system".
- Major Student and Affinity Group Activities
 - 1) IEEE UESTC Student Branch embrace new IEEE Student member from undergraduates/graduates of UESTC and other University at Chengdu.
 - 2) Shu Yiyang and Wang Tianyi, the State Key Laboratory of electronic thin films and integrated devices, University of Electronic Science and technology of China, and Professor Luo Xun's team (ASIS & beam X-lab) of integrated circuit characteristic research center, University of Electronic Science and technology of China, won the 2020 IEEE MTT society graduate Fellowship Award and the 2020 IEEE MTT society graduate scholarship award respectively. These two important awards are the highest honors awarded by IEEE International Society for microwave theory and Technology (MTT Society) to doctoral students and master / undergraduate students respectively.

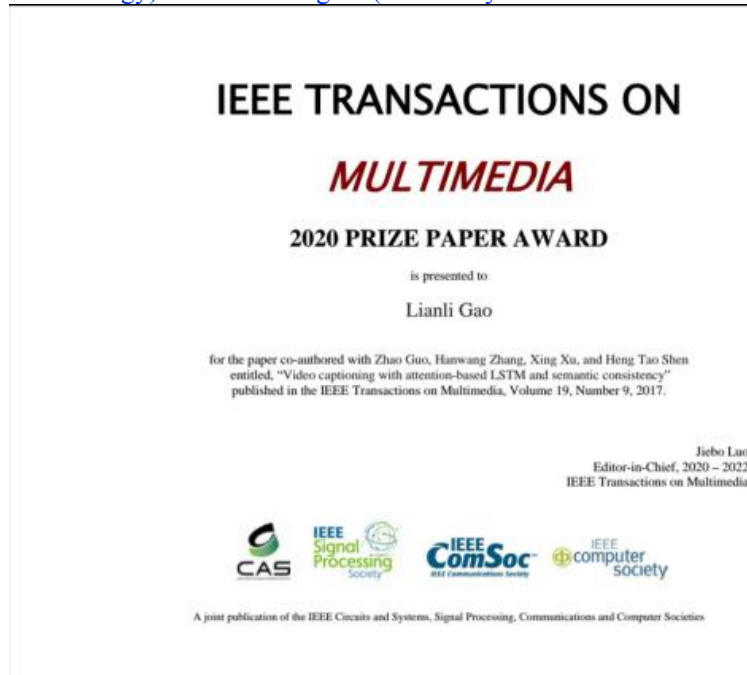
2020 Awardees: General Category			
Student	University	Country	Faculty Advisor
Mr. Amir Afshari	Polytechnique de Montréal	Canada	Prof. Ka Wu
Ms. Aline Eid	Georgia Institute of Technology	USA	Prof. Marco Tentzeris
Mr. João Gomes	University of Aveiro	Portugal	Prof. José Pedro
Mr. Tengfei Hao	Chinese Academy of Sciences	China	Prof. Ming Li
Ms. Elf Kaya	Texas A&M University	USA	Prof. Kamran Entesari
Mr. Ali Kourani	University of Illinois at Urbana-Champaign	USA	Prof. Songbin Gong
Mr. Jing-Yu Lin	University of Technology Sydney	Australia	Prof. Yang Yang
Ms. Aurea Edna Moreno-Mojica	ITESO Jesuit University of Guadalajara	Mexico	Prof. José Ernesto Reyes-Sánchez
Mr. Nguyen L. K. Nguyen	University of California, Davis	USA	Prof. Anh-Vu Pham
Mr. Daniel Rodriguez	Texas Tech University	USA	Prof. Changzhi Li
Mr. Yiyang Shu	University of Electronic Science and Technology of China	China	Prof. Xun Luo
Mr. Dmitry Zhvihin	ITMO University	Russia	Prof. Aleksey Slobodanovskiy

2020 Cycle 1 Awardees (October 2019 Competition)			
Student	University	Country	Faculty Advisor
Volkan Gurses	Georgia Institute of Technology	USA	Prof. Hua Wang
Man Ho Tsui	The Hong Kong Polytechnic University	China	Prof. Wai Yin Mung
Ildefonso Jiménez-Silva	Universidad de Sevilla	Spain	Prof. Maria José Madero-Ayora
Anna Kuzikova	ITMO University	Russia	Prof. Anna Vozianova
Justin Melkun	Rensselaer Polytechnic Institute	USA	Prof. Mona Hella
Tianyi Wang	University of Electronic Science and Technology of China	China	Prof. Huizhen Qian

Figure 2. Shu Yiyang and Wang Tianyi receive fellowship from MTT-S.

- Awards
 - 1) From May 28 to 31, the 2020 IEEE Asia energy and electrical engineering seminar was held in Chengdu. At the meeting, double deep Q-learning based approach for power flow optimization in distribution networks, a research achievement of Sichuan Provincial Key Laboratory of wide area measurement and control of power system, School of mechanical and electrical engineering, University of Electronic Science and technology of China, won the best paper award. The University of Electronic Science and technology is the first correspondence unit of the thesis, and the doctoral student Cao Di is the first author of the thesis. It is understood that more than 330 papers were received at this meeting, and 3 "best papers" were selected.
 - 2) In July 2020, the paper "Video captioning with attention based LSTM and semantic consistency", with researcher Gao LIANLI of future media research center of University of Electronic Science and technology as the first author, won the 2020 prize paper award of IEEE transaction on Multimedia (IEEE TMM). This is the first time that UESTC has won this award. The authors and their units are: Kao LIANLI (University of Electronic Science and

Technology), Guo Zhao (University of Electronic Science and Technology), Zhang Hanwang (Nanyang Polytechnic University of Singapore), Xu Xing (University of Electronic Science and Technology) and Shen hengtao (University of Electronic Science and Technology).



- 3) The 19th three-day PCIM Asia (power conversion and intelligent motion Asia) conference was held in Shanghai. At the meeting, Deng Gaoqiang, a doctoral student in school of Electronic Science and engineering, University of Electronic Science and technology of China, won the only "Best Paper Award" for his thesis "thermal management for buck converters using CO packaged Gan power HEMTs". The University of Electronic Science and technology is the first unit of the paper, and Deng Gaoqiang, a doctoral student, is the first author of the paper. The cooperation units of the paper include the University of Toronto and Gan power international of Canada. This is the first time that UESTC has won the award.

pcim
ASIA
Shanghai, China, 16-18 November 2020



Best Paper Award PCIM Asia 2020 Conference

Thermal Management for Buck Converters Using Co-Packaged GaN Power HEMTs

Gaoqiang Deng, Xiaorong Luo, University of Electronic Science
and Technology of China, China
Weiye Zhang, Jingyuan Liang, Rophina Li, Namjee Kim, Wei
Tung Ng, University of Toronto, Canada
Fred Fu, GaN Power International, Canada

This paper has been chosen for PCIM Asia 2020 conference
Best Paper Award

A handwritten signature in black ink, appearing to read 'Leo Lorenz'.

Prof. Dr. Leo Lorenz
General Conference Director PCIM Asia



- 4) From December 2 to 3, the 26th IEEE International Conference on parallel and distributed systems (ICPADS 2020) was held in Hong Kong. The paper "deep learning framework supporting model ownership protection and traitor tracing" of the Institute of Cyberspace Security won the "Best Paper Award". The doctoral student Xu Guowen is the first author and corresponding author of the paper, who is with University of Electronic Science and Technology of China. The instructor is Professor Li Hongwei. The authors of the paper also include associate researcher Zhang Yuan of University of Electronic Science and technology, Professor Robert H. Deng of University of management of Singapore, Professor Xiaodong Lin of University of Guelph of Canada and Professor Sherman Shen of University of Waterloo of Canada. This is the first time that UESTC has won an award at the conference.



- 5) From September 12 to 14, the 5th International Conference on power and renewable energy (icpre2020) was held in Shanghai. At the meeting, the research achievement "deep reinforcement learning based optimization strategy for hydro governor PID parameters to suppress ulfo" of Sichuan Provincial Key Laboratory of "wide area measurement and control of power system" of School of mechanical and electrical engineering of University of Electronic Science and Technology of China won the "best student paper award". The doctoral student Zhang Guozhou, also as corresponding author, is the first author of the paper, who is with University of Electronic Science and Technology of China. It is understood that a total of 227 papers were received at the conference, and 6 "best student papers" were selected.



- 6) On February 24, IEEE Conference on computer vision and pattern recognition (CVPR) officially announced the results of the papers. Under the guidance of Prof. Hanwang Zhang of Nanyang Polytechnic University of Singapore and the financial support of Alibaba Damo college, Wang Tan, a 2016 undergraduate of School of information and communication engineering of University of Electronic Science and Technology of China (UESTC), wrote the paper "visual commonsense r-cnn" as the first author, which was accepted by cvpr2020.

This is the first undergraduate in University of Electronic Science and Technology of China (UESTC) to publish articles on CVPR as the first author.

A.2 Financial Report – (Please follow the format given below)

- Summary (as per submitted on NetSuite)
- Any other financial activities
No.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Total number of active members in the past 3 years.
2506 until Feb. 28, 2021 for all region (R2, R6, R7, R8, R10).
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members
 - ✧ By connecting with professors in UESTC, SWJTU, and SCU (majorly three universities in Chengdu), we encourage and develop the student membership by IEEE Chengdu student branches with various events and publicity.
 - ✧ By holding more technical international conferences and workshops, the IEEE Chengdu Section receive more interest of undergraduate student and graduate students to join IEEE.

B.2 Chapter Activities

- Total number of Chapters in the Section
14
- Number of Chapters formed in the current year
1
- Number of active Chapters (Chapters who have reported required number of meetings during the year)
10
- Summary of Chapter activities (Chapter wise with attachment table/information)
See <https://events.vtools.ieee.org/>

B.3 Professional and Continuing Education Activities

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information

- 1) Prof. Geoffrey Ye Li, IEEE Fellow, was invited to give an online talk on deep learning for communications, by IEEE Chengdu Section and ComSoc Chengdu Chapter, May, 2020
- 2) On November 23, Professor Qiu Caiming, Dean of School of electronic information and communication of Huazhong University of Science and Technology, IEEE Fellow, was invited to visit the "famous teacher lecture hall" of teacher development center of human resources department, bringing an academic report entitled "industrial big data theory and application exploration" to our teachers and students. The report was presided over by Professor Wan Qun of the school of information and communication engineering. Teachers and students of relevant majors listened to the report and participated in relevant exchanges and discussions.



B.4 Students Activities

- Total number of Student Branches in the Section
2
- Number of Student Branches formed in the current year
0
- Section level student activities (student congress, paper and other contests, awards etc)
N/A
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)
2
- Summary of Student Branch activities (Student Branch wise with attachment table/information)
Due to COVID-19, many events are canceled and turned into online, which affect the activities.

B.5 Affinity Group Activities

- Young Professional (YP)
none
- Women In Engineering (WIE)
none
- Life Member (LM)
none

B.6 Awards & Recognition Activities

- Award constituted by the Section

Planned in February, 2021. However, due to the epidemics of “COVID-2019”, the meeting for awards and ExCom will be held online during March 2021.

- Please list all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year

N/A

B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

- Newsletter (name and number of issues in the year)
None/Available
- Home Page of the Section (give the URL and how often it is updated)
<https://r10.ieee.org/chengdu/> .
- Other means of contacts with Section members including social media

None

B.8 Industry Relations

- Membership growth and retention
No statistical data
- Activities for/with industrial members

N/A

B.9 Humanitarian Technology Activities

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs.
None
- SIGHT Activities
None

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)”
None

PART C - OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved
None
- Funding secured from the IEEE and external sources including sponsorships
None

C.2 Relationship with National and International Societies and Non-Government Organizations (NGO)

- Nature of relationship and details of any formal agreement signed
None
- Details of joint activities
- Benefit to IEEE members (for example discounts, access to technical information etc.)
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)

C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections
None
- Joint activities with any other Section
None

C.4 Support extended to Sub-sections & Society Chapters within the Section

- Support extended for organising technical, educational and professional activities
None
- Joint activities for membership development
By collaborating with Sichuan Institute of Electronic,
- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section
None

C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)

None

C.6 Problems anticipated and suggestions for solutions, if any

None

PART D - GOALS AND PLANS

D.1 Continuation of project/activity in progress and their implementation plans

Organizing more high-level technical conferences, and serving as the bridge to all IEEE members in Chengdu. Leveraging more activities including competition and salon for students.

D.2 Goals and Future Plans

Reach the goals for retention and growth of IEEE membership and student membership. In particular, publicity for membership development, we will focus on local exchange and international workshop by inviting more IEEE distinguished lectures to give talks. Our goal is to serves our members better and better by more academic activities, including conferences, workshops, seminars, visit exchanges etc.

D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

To hold joint events, such as workshop and salons, with local institute and industrial companies, and develop professional and carrier training.

D.4 Business Plan for Sustainable Growth and Financial Stability.

Hold at least 1 Training and courses to maintain the sustainable growth and financial stability.