IEEE | BDL

IEEE Computer Society Blockchain and Distributed Ledger Standard Committe

IEEE | BDL
ANNUAL REPORT
2021

Message from the BDL Chair & Vice Chair

2020 was a very important year for BDL, one in which our standard committee prepare itself for the next major step in its journey. At the same time, as we looked at ways to meet future challenges, we didn't slacken the pace for a minute.

For an organization to succeed, it must align behind common goals. At the IEEE C/BDL, we have a clear purpose **– to manages the development of standards within the area of blockchains and distributed ledgers, the development and implementation of blockchains and distributed ledger systems, and for applications of blockchains and distributed ledgers to specific sectors, industries, and processes**. Our standards together with conformity assessment provide the method to achieve this mission. On the occasion, we would like to take you through some of the year's achievements of which we are most proud.

In 2020, we continued to meet, and even surpass, expectations. For example, we published IEEE 2418.2-2020, and we have 17 standards under development. You can find out more about these and other standardizing successes in this report.

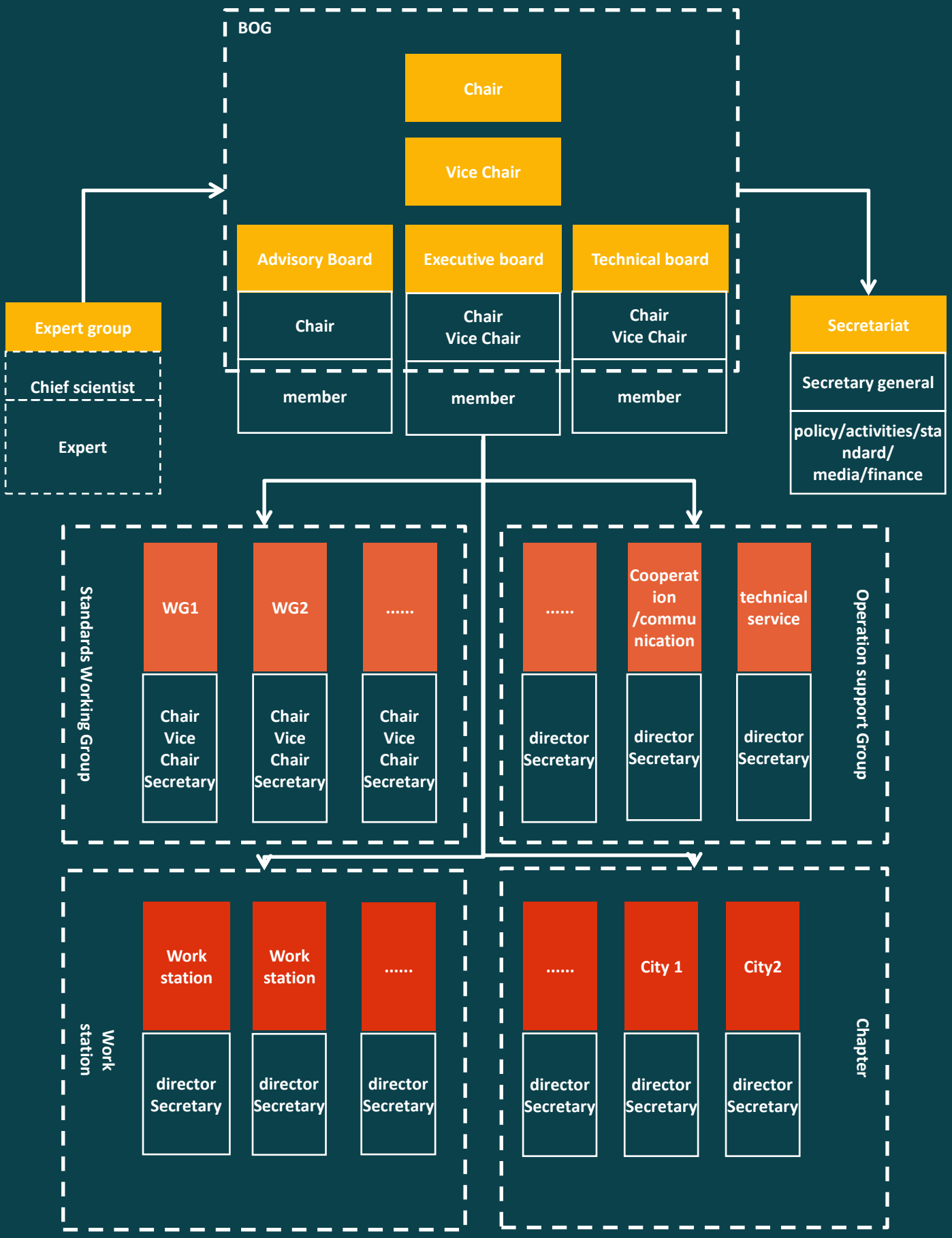
At a time when we are experiencing an unprecedented global health crisis, many challenges stand ahead of us. We are proud to be a part of the IEEE C/BDL as we are adapting to the future on this journey, and we know that, together, we are on our way to create the digital world by blockchain.

Ming Li, Chair of BDL

Yu Du, Vice Chair of BDL

OUR MEMBERS

IEEE BDL STRUCTURE



1 HONORS ACADEMIC ADVISOR

4 SUBCOMMITTEES

17 WORKING GROUPS

2

MEMBERS OF ADVISORY BOARD, WHO RESPONSIBLE FOR RECHNICAL REVIEWING ON STANDARD CONTENT

8

MEMBERS OF TECHNICAL BOARD, WHO RESPONSIBLE FOR STRATEGIC DEVELOPMENT PLANNING AND CONSULTING

1 TREASURE

4 SECRETARIES

17

MEMBERS OF EXECUTIVE BOARD, WHO RESPONSIBLE FOR DECISION-MAKING ON MAJOR ISSUES

18 AVERAGE VOTING MEMBERS FOR EACH WORKING GROUPS

40+ ENTITIES AS BDL CONTRIBUTORS, LISTED HERE BELOW BY CATEGORY.

Honors Academic Advisor: Jifeng He, Academician of Chinese Academy of Sciences, East China Normal University

Advisory Board	Executive Board	Technical Board
• Susan Corbisiero, Australian Trade and Investment Commission • Hock Lai Chia, Singapore FinTech Association	• Bin Li, Webank • Danny Deng ,Gongyilian • Fangwei He, Zhongke Fuyun • Fred Du, Bytom • Han Hao, Annie • Haobo Ma, Hoopox • Hongfei Da, Distributed Technologies • Jose Antonio Costa, Nokia • Linhui Gao, NBI Interchain Fintech • Tiancheng Liu, Easy Visible Sky Tree • Wei Xiao, Baidu • Wenpeng Song, Zhongan • Xiaojun Zhang, Huawei • Xinlei Zhai, JD Digits • Yaling Liao, ZhangXingBao • Ying Yan, Ant Financial • Yuming Yuan, Hainan Huochain Technology Co., Ltd	• Haibin Kan, Fudan University • Jianming Zhu, Central University of Finance and Economics • Liang Cai, Zhejiang University • Qiang Tang, New Jersey Institute of Technology • Yan Zhu, Tsinghua University • Yifeng Zhang, Zhongchao Blockchain • Yi Sun, Institute of Computing Technology Chinese Academy of Sciences(ICT/CAS) • Z.Chan, Map Protocol

IEEE BDL STANDARDS AT A GLANCE

ACTIVE PROJECTS OF WORK OF BDL

17

THE BREAKDOWN WAS AS FOLLOWS:

1 PROJECTS AT PUBLIC BALLOT STAGE

16 PROJECTS WORKING GROUP DRAFTS

RECORD NUMBER PUBLISHED IN 2020

1

THIS OUTPUT REPRESENTS A TOTAL OF 32 PAGES

IEEE BDL STANDARDS BY TECHNICAL SECTOR

- **23.5 %** TECHNICAL
- **17.6%** INTEROPERABILITY
- **17.6%** SERVICE
- **17.6%** ASSET
- **6%** APPLICATION
- **6%** DATA
- **11.7%** OTHERS

The smooth development of IEEE C/BDL 2020 cannot be separated from all member's strong support. We will continue to make efforts on making all working groups voices heard in 2021 and beyond.

IEEE 2418.2-2020 Standard Data Format for Blockchain Systems

P2418.7 Standard for the Use of Blockchain in Supply Chain Finance

P3201 Standard for Blockchain Access Control

P3202 Standard for Capability Evaluation Requirements of Blockchain Practitioners

P3203 Standard for Blockchain Interoperability Naming Protocol

P3204 Standard for Blockchain Interoperability - Cross Chain Transaction Consistency Protocol

P3205 Standard for Blockchain Interoperability - Data Authentication and Communication Protocol

P3206 Standard for Blockchain-based Digital Asset Classification

P3207 Standard for Blockchain-based Digital Asset Identification

P3208 Standard for Blockchain-based Digital Asset Exchange Model

P3209 Standard for Blockchain Identity Key Management

P3210 Standard for Blockchain-based Digital Identity System Framework

P3211 Standard for Blockchain-based Electronic Evidence Interface Specification

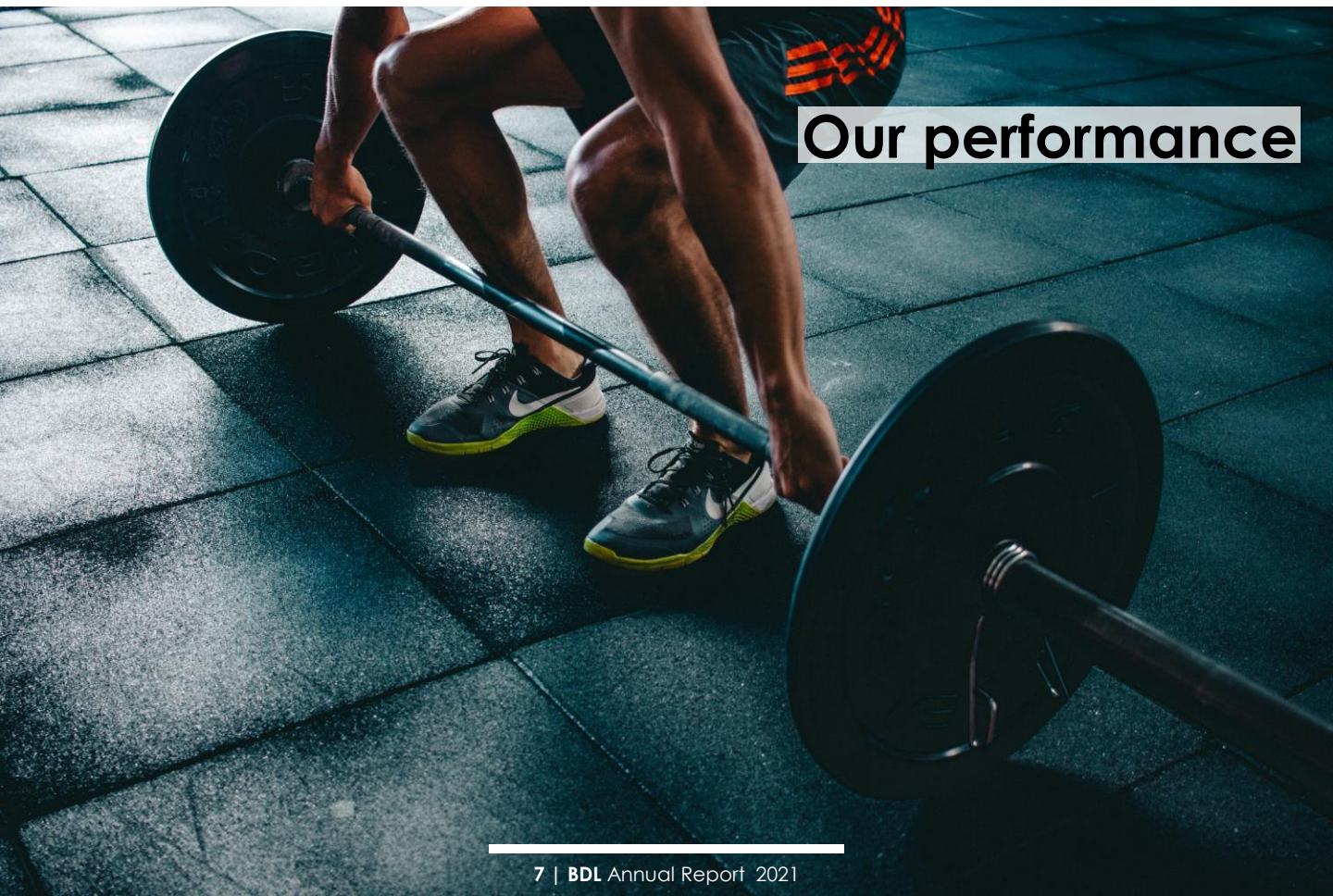
P3212 Standard for Blockchain System Governance Specification

P3214 Standard for Testing Specification of Blockchain Systems

P3215 Standard for Consensus Framework for Blockchain System

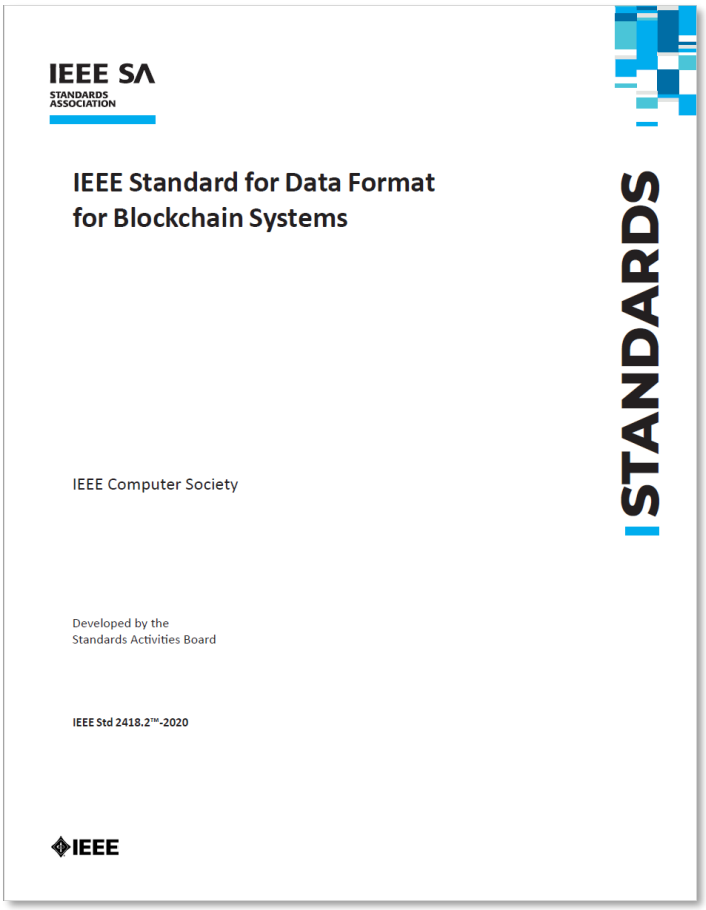
P3216 Standard for Blockchain Service Capability Evaluation

P3217 Standard for Application Interface Specification for Blockchain Systems



Our performance

Our highlights



The **2418.2-2020 IEEE Standard for Data Format for Blockchain systems** establishes data format requirements for blockchain systems. This standard addresses data structures, data types, and data elements.

This standard provides data format reference for organizations planning to use blockchain technology for constructing blockchain systems, while guiding blockchain service organizations on building data structures in blockchain system(s), and provides references about data formats for middleware service organizations during constructing blockchain systems(s).

Data Format for Blockchain Systems Working Group Participants

Name	WG Position	Affiliation
LI Ming	Chair	China Electronics Standardization Institute
SONG Wenpeng	Vice Chair	Zhong An Information Technology Services Co. Ltd
HAO Han	Secretary	Xiamen Anne Corporation Limited
SUN Lin	Editor	China Electronics Standardization Institute
KAN Haibin	contributor	Fudan University
GUO Huizhen	contributor	Zhong An Information Technology Services Co. Ltd
YANG Sheng	contributor	Xiamen Anne Corporation Limited
Reda Kerouicha	contributor	Xiamen Anne Corporation Limited
ZHANG Kaixiang	contributor	Shenzhen Qianhai Weizhong bank Limited
LI Bin	contributor	Shenzhen Qianhai Weizhong bank Limited
WEI Siyuan	contributor	Shenzhen Qianhai Weizhong bank Limited
PANG Yinming	contributor	Linkeychain Intelligent Technology (shanghai) Co. Ltd.
LIU Tiancheng	contributor	Yi Jian supply chain management Limited
ZHU Zhenbo	contributor	Yi Jian supply chain management Limited
SUN Haibo	contributor	Jd.com
YANG Meng	contributor	BGI
ZOU Tao	contributor	Alipay(China) Technology Co., Ltd
JI Zhoudong	contributor	Onchain
GU Chen	contributor	Alipay(China) Technology Co., Ltd
CAI Liang	contributor	Zhejiang University
ZHANG Shaohua	contributor	Shanghai Development Center of Computer Software Technology
LIU Erwu	contributor	Tongji University
SONG Jundian	contributor	Shanghai Development Center of Computer Software Technology
SUN Yi	contributor	Institute of Computing Technology, Chinese Academy of Sciences
DAI Bingrong	contributor	Shanghai Development Center of Computer Software Technology
ZHOU Ziheng	contributor	Shanghai Weilian Information Technology Company Limited
LIANG Xiubo	contributor	Hangzhou Qulian Technology Co., Ltd.
ZHOU Mengmeng	contributor	Beijing Huawei Digital Technology Co;Ltd.
DING Hui	contributor	Chaincomp Technologies Co. Ltd.

BDL PLENARY IN HANG ZHOU

——Special Thanks to Wanxiang Blockchain for sponsorship with the conference.

IEEE SA STANDARDS ASSOCIATION

IEEE Computer Society Blockchain and Distributed Ledger Standards Committee Plenary
&
IEEE P3200 Series Standards Working Group Kick-off Meeting

Closing Plenary

Location: Hangzhou, China
万向信托西溪扶志堂 阶梯教室，杭州市余杭区五常街道西溪艺术集合村
Date: 5th August 2020

Document type: Resolutions

Title: Resoultions - IEEE C/BDL, August 2020 Hangzhou

Date of document: 2020-08-05

Expected action: INFO

Email of secretary: sunlin@cesi.cn

Committee URL: https://sagroups.ieee.org/bdlsc/

Attendees
Chair:
Ming Li

Vice Chair:
Yu Du

Secretaries:
Yukun Hao
Dingfeng Jiang
Dapeng Zhang
Lyn Sun

Attendees:
Members of Advisory Board
Members of Executive Board
Members of Technical Board
P3200s Working Group members

standards.ieee.org IEEE

IEEE SA STANDARDS ASSOCIATION

IEEE Computer Society Blockchain and Distributed Ledger Standards Committee
3rd - 5th August 2020, Hangzhou, China
RESOLUTIONS

All Resolutions were approved unanimously unless otherwise noted.

1.Project Officers Appointed

Project	Working Group	Chair	Vice Chair	Secretary
P3201	**C/BDL/AC** (Access Control Working Group)	**Leo Chen**, 万向	-	陈桦瑜，好扑
P3202	**C/BDL/BP** (Blockchain Practitioners Working Group)	**Xin TIAN**，四院	-	李超，上海软件中心
P3203	**C/BDL/IN** (Interoperability Naming)	程思雷，百度	蚂蚁金服	趣链
P3204	**C/BDL/ICC** (Interoperability Cross Chain)	达鸿飞，分布	-	李超，上海软件中心
P3205	**C/BDL/IDAC** (Interoperability Data Authentication and Communication)	**Qiu honglin**，蚂蚁	百度	深识科技
P3206	**C/BDL/DAC** (Digital Asset Classification)	**Lyn SUN**，四院	-	黄德俊，长虹
P3207	**C/BDL/DAI** (Digital Asset Identification)	**Haobo Ma**，好扑	-	万向区块链
P3208	**C/BDL/DAE** (Digital Asset Exchange)	**Chenhui WANG**，四院	-	李弩锲，易见
P3209	**C/BDL/IKM** (Identity Key Management)	**Jian DU**，比原	-	长虹
P3210	**C/BDL/DI** (Digital Identity)	**Danny DENG**，公易联	李恒，亦来云	高雅，太一云
P3211	**C/BDL/EE** (Electronic Evidence)	**Fangwei HE**，中科浮云	宇链科技	众享比特
P3212	**C/BDL/BT** (Blockchain Testing)	**Lei HU**，四院	-	卢学哲，中百信

2.Work Program

Resolution	Item	Working Group
001	1. IEEE P3201 Access Control Working Group appoints Huayu CHEN, Hoopox, as WG Secretary. 2. The WG reviews the IEEE P3201 PAR, presents the IEEE SA Corporate Membership and Standards Development Process, establishes Working Group Membership, and presents the technical	**C/BDL/AC** (Access Control Working Group)

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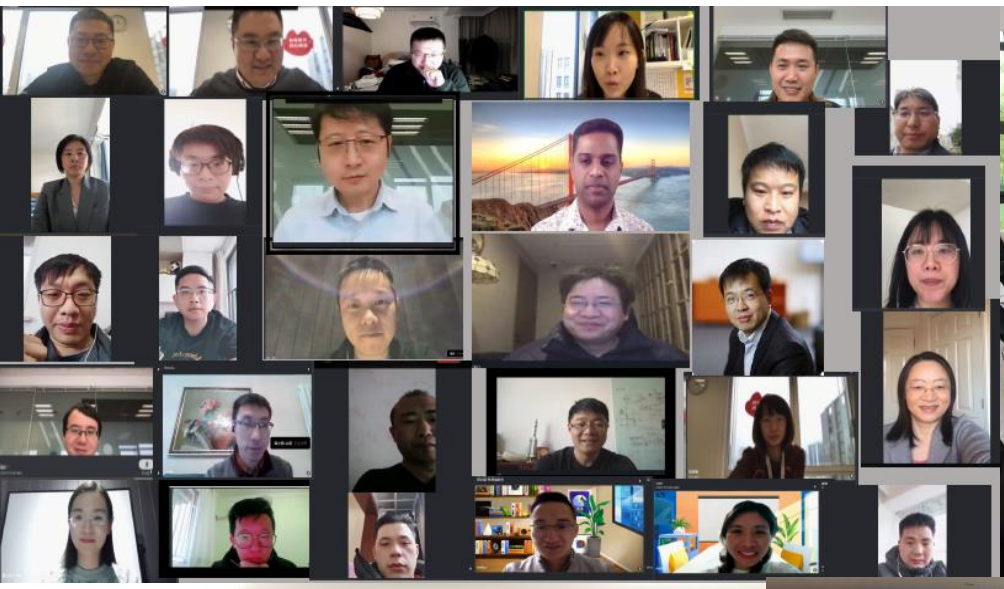
PLENARY MEETING

23

MEETINGS OF WORKING GROUPS

6

MEETINGS OF EXECUTIVE BOARD



OUR INFLUENCE

IEEE中国

IEEE区块链国际标准化工作开启新篇章

By yihesun

08 August, 2020

2019年9月5日，电气电子工程师学会（IEEE）宣布成立IEEE计算机协会区块链和分布式记账委员会(IEEE Computer Society Blockchain and Distributed Ledger Standards Committee，IEEE C/BDL)，负责编导、管理和监督区块链标准研制及产业推广工作。IEEE C/BDL年度启动会于2020年3月10日顺利召开。会议宣布了IEEE C/BDL第一届指导委员会、执行委员会和技术委员会的主要成员，审议了区块链互操作、数字资产、数字身份等多项标准提案，确定了2020年度标准规划和成员招募等工作事项。

专访IEEE计算机协会区块链和分布式记账标准化委员会主席李鸣：区块链标准之道

巴比特资讯

区块链标准是驱动区块链产业发展的重要力量，关乎到一个国家区块链产业发展的话语权。

围绕区块链标准，国际上早已展开了激烈的争夺，美国、日本、德国、英国、法国等发达国家纷纷摩拳擦掌,ISO、W3C、ITU等国际化组织均展开区块链标准制定工作。

2019年9月，全球最大的专业技术组织、有着130余年历史的IEEE（电气和电子工程师学会）设立IEEE计算机协会区块链和分布式记账委员会（IEEE C/BDL），激烈的区块链国际标准争夺战再添变数。

中国电子技术标准化研究院区块链研究室主任李鸣是IEEE计算机协会区块链和分布式记账标准化委员会（IEEE C/BDL）的主席，近日，巴比特对李鸣主任做了独家专访，围绕IEEE C/BDL的成立背景、标准化布局，相比其他国际区块链标准化组织的不同、标准对产业发展的价值、中国如何把握区块链机遇等话题展开对话。

作者最新文章

把头矿！如何完入一步玩转OKExChain（附挖矿教程）

从NBA到世界500强，Flow如何引领NFT浪潮？

Web3基础设施平台Ankr与波卡二层扩容协议Plasm Network集成

相关文章

PI年度前沿区块链主网，这将意味着数字货币突破性成果

加密经济参与者：从零到百万只用三个月

比原链基金会成为IEEE区块链标准委员会成员单位,参头IEEE区块链新标准提案

2020-03-10 15:44:42

IEEE Blockchain and Distributed Ledger Standards Committee Appoints Chia Hock Lai to Advisory Board

Leave a Comment / Media Release / By Editorial Team / March 19, 2020

SINGAPORE, 19 March 2020 – The IEEE Computer Society/Blockchain and Distributed Ledger Standards Committee (C/BDL) has appointed Chia Hock Lai, Chairman of the Singapore Blockchain Association (SBA), to the Advisory Board.

Apart from Mr Chia, IEEE C/BDL Advisory Board is also represented by representatives from China and Australia.

The formation of the Advisory Board follows the establishment of the IEEE C/BDL, which was founded on 5th September 2019. The aim is to promote the standardisation and application of blockchain and distributed ledger technology.

The main responsibility of the Advisory Board Member role is to provide professional advice and guidance for the strategy development of IEEE C/BDL.

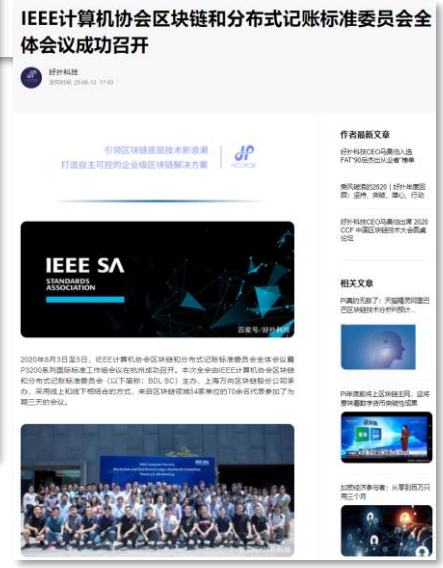
Mr Chia, Chairman of SBA, said, "On behalf of SBA, I am honored to be a part of IEEE C/BDL, alongside other esteemed global blockchain experts. This is a strong recognition of the work we do at SBA in building a vibrant, scalable and safe ecosystem to advance blockchain technology for our members and international partners. Our various initiatives are aligned with IEEE C/BDL's work in promoting the standardisation and application of blockchain and distributed ledger technology."

IEEE（电气电子工程师学会）成立区块链标准委员会

来源 | IEEE电气电子工程师学会

美国东部时间2018年12月5日，在IEEE总部举行的IEEE标准协会理事会议上，经过长时间的讨论，最终以理事会决议（resolution）的形式批准成立了区块链标准委员会（CES/BSC）。

IEEE的标准委员会（Standards Committees）在组织架构上相当于ISO等其他国际标准组织的技术委员会（Technical Committees）。下辖具体负责标准制定工作的各个工作组（Working Groups）。新标准立项和新工作组成立，必不可少的步骤之一就是要向相应技术领域归口主管的标准委员会申请，并在标准的整个制定过程和工作组的整个生命周期受到该标准委员会的监管。根据IEEE标准项目管理平台myProjectTM的数据显示，目前IEEE旗下一共有95个标准委员会，分管1270个工作组，其中有9个工作组在制定与区块链相关的标准（包括IEEE P825，IEEE P2418.1 ~ IEEE P2418.7，IEEE P2140.1）。但上升到标准委员会级别并以区块链作为其归口主管的技术领域的，区块链标准委员会（CES/BSC）是唯一的一个。


IEEE计算机协会区块链和分布式记账标准委员会全体会议成功召开

好外科技

引领区块链底层技术新浪潮
打造自主可控的企业级区块链解决方案

2020年8月3日至5日，IEEE计算机协会区块链和分布式记账标准委员会全体会议暨P3200系列国际标准工作组会议在杭州成功召开。本次全会由IEEE计算机协会区块链和分布式记账标准委员会（以下简称：BDL SC）主办，上海万向区块链股份公司承办。采用线上和线下相结合的方式，来自区块链领域54家单位的70余名代表参加了为期三天的会议。

作者最新文章

好外科技CEO马晨收入选FAT"90后创业人物"榜单

相关文章

PI年度前沿区块链主网，这将意味着数字货币突破性成果

加密经济参与者：从零到百万只用三个月

BDL OFFICERS

Ming LI, BDL CHAIR

Mr. Li is Chair of IEEE Computer Society Blockchain and Distributed Ledger Standards Committee, Member of IEEE SA CAG, SMDC, RevCom, AsiaPac Regional Advisory Group, AI/SC, Chair of IEEE P2418.2 Standard Data Format for Blockchain Systems, Chair of IEEE P2841 Framework and Process for Deep Learning Evaluation, Editor of ISO/IEC TR 38505-2:2018 Governance of data, Member of ISO/TC 307, ISO/IEC JTC1 SC40, DAMA, ISACA, SAC, Associate Editors of IET BLOCKCHAIN

Yukun HAO, BDL CHIEF SECRETARY

Mr. Hao is the Senior Director of Wanxiang Blockchain Inc., blockchain expert serving the Ministry of Industry and Information Technology of China, and visiting researcher of Imperial College London. Mr. Hao took in charge of an R&D project of a blockchain based intelligent container operation management system; the project won the Grand Award at The First China Blockchain Development Contest. Mr. Hao has also possessed several authorized patents on blockchain and distributed system.

Yu DU, BDL Vice Chair

Mr. Du is the Vice General Manager of Wanxiang Blockchain Inc. and General Director of Wanxiang Blockchain Labs. Since joining China Wanxiang Holdings in 2015, Mr. Du has been in charge of the operations of Wanxiang Blockchain Inc. and the management of Wanxiang Blockchain Labs, including New Chainbase, investment and strategic cooperation, and product development. Mr. Du has been serving as the Under-Secretary-General of CBD Forum since 2016. He is also member of the author group of the MIIT white papers. And he has a proven track record of blockchain technology, product development, and investment.

Lin SUN, BDL SECRETARY

Lin Sun served as IEEE BDL secretary since 2019. Ms. Sun works as a standardization engineer in China electronics institute standardization blockchain research office. Ms. Sun is also and expert of ISO TC307, and participated in the compilation and release of 'China Blockchain Technology and Application Development Research Report 2018' and 'Shenzhen Blockchain Technology and Industry Research and Development Report 2018'.

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IEEE Computer Society Blockchain and Distributed Ledger Standard Committe

https://sagroups.ieee.org/bdlsc/

IEEE C/BDL SC Secretariat

Email: sunlin@cesi.cn