主办单位:上海市绿色建筑协会
Organizer: Shanghai Green Building Council

协办单位: 同济大学 **Co-Organizer:** Tongji University

支持单位:上海市城乡建设和管理委员会

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2015 Shanghai International Green Building Forum

2015.5.7

|会|议|手|册| Forum Directory





"2015 上海绿色建筑国际论坛"背景

根据国家对上海提出的"建设全球科技创新中心,加快向具有全球影响力的科技创新中心进军"的要求, 上海将建设科技创新中心目标纳入了新一轮的城市总体规划。科技创新也掀起了建筑业转型升级的新浪潮。 建筑业的转型升级,带来了行业的利益格局和生产方式的大变革,"建筑绿色化、建筑工业化、建筑信息化" 作为建筑业转型发展的方向已经越来越明朗,成为实现行业"蝶变"的必经之路。

近年来,上海市政府以"创新驱动、转型发展"为指导,将建设资源节约型、环境友好型社会作为城市 建设发展的重要目标,积极推进绿色建筑发展。2014年6月上海市发布了《上海市绿色建筑发展三年行动 计划(2014-2016)》,要求全面推进上海绿色建筑发展。为落实《三年行动计划》要求,充分发挥行业协 会作用,上海市绿色建筑协会定于2015年5月7日在上海锦江饭店小礼堂举办"2015上海绿色建筑国际 论坛"。

围绕"建筑绿色化、建筑工业化、建筑信息化"主题,邀请国内外有影响力的院士、专家对绿色建筑的 先进理念、成功案例、创新技术和发展态势进行交流。力求关注行业发展重点,聚焦行业热点,开启高端对话, 分享绿色建筑前沿信息,打造一个具有权威性、专业性、前瞻性、高层次的国际交流平台,推进上海市建筑 业转型发展。

Background of Shanghai International Green Building Forum 2015

According to the government requirement that build shanghai as a global science and technology innovation center, accelerate its development and expand its international impacts of technology, Shanghai set this requirement as the goal of its general urban planning. Innovation of science and technology has led to transformation and upgrading of the construction industry. The transformation and upgrading brought a great revolution of the industry interests patterns as well as the way of production. It was much clear that "being greener, more industrial and informational" as the direction of construction industry; which was also the only way of industrial metamorphosis.

In recent years, government of shanghai followed the guidance of "innovation drives transformation development", trying to build a resource-conserving and environment-friendly society, and actively promoting development of green buildings. In June 2014, Shanghai has published three years plan of green building development in Shanghai (2014-2016), requiring speed the full-scale progress of green buildings development. In order to satisfy the requirement, and give full play role of the industry association, Shanghai green buildings council decided to hold shanghai green building international forum on May 7th in Jinjiang Hotel, Shanghai.

The forum will be surrounded with a topic of "being greener, more industrial and informational", will invite influential academicians and experts at home and abroad to talk about the advanced concept, successful cases, innovation technology as well as the trend of development. The event will try to focus on key points and hot spots of industry development, open a deep communication, share advanced information of green buildings, and finally build an authoritative, professional, forward-looking and high-level international communication stage, which will promote the development of construction industry transformation in Shanghai.

主要议程

2015年5月7日(星期四)下午14:00

主持: 甘忠泽, 上海市绿色建筑协会会长

14:00-14:30 主旨报告

新型城镇化发展中的绿色建筑

吴志强

同济大学副校长

14:30-15:00 主旨报告

> 德国绿色社区治理的经验分享 Michael Waibel (德国)

汉堡大学博士

15:00-15:30 主旨报告

绿色建筑材料的研究与应用

缪昌文

中国工程院院士

15:30-15:45 茶歇

主旨报告 15:45-16:15

> 中德可持续建筑特点与比较 Dirk Schwede (德国) 斯图加特大学博士

16:15-16:45 主旨报告

基于绿色建造的建筑装配化思考

肖绪文

中国工程院院士

16:45-17:15 主旨报告

全球 BIM 发展现状与未来发展趋势

Martin Fischer (美国) 斯坦福大学教授

17:15-17:45 主旨报告

被动房: 中德的成就与挑战

Bernd Franke (德国)

海德堡大学能源与环境研究所 (IFEU) 科研总监

Agenda

May 7th, 2015 (Thursday) 2pm

Host: GAN Zhongze, Chief of Shanghai Green Building Council

14:00-14:30 Keynote Speech

Green Building in the Development of New Urbanization

Prof. Wu Zhiqiang

Vice President of Tongji University

14:30-15:00 Keynote Speech

Governance of German Green Communities

Dr. Michael Waibel Hamburg University

15:00-15:30 Keynote Speech

Research and Application of Green Building Materials

Miao Changwen

Member of China Academy of Engineering

15:30-15:45 Tea Break

15:45-16:15 Keynote Speech

Comparison and Characteristics of Sustainable Buildings in China and Germany

Dr. Dirk Schwede Stuttgart University

16:15-16:45 Keynote Speech

Reflection on Construction of Fabrication based on Green Construction

Xiao Xuwen

Member of Chinese Academy of Engineering

16:45-17:15 Keynote Speech

The Past and Future of BIM

Martin Fischer

Professor of Stanford University

17:15-17:45 Keynote Speech

Passive House: Achievments and Challenges of China and Germany

Bernd Franke

Chief of IFEU, University of Heidelberg





吴志强 教授 副校长 同济大学

Prof. Wu Zhiqiang

Vice President Tongii University

吴志强教授, 德国柏林工业大学工学博士, 瑞典皇家工程科学院院士, 美国建筑师学会荣誉会员, 现任同济大学副校长、 建筑与城市规划学院教授、博导,中国 2010 年上海世博会园区总规划师,中国 2014 年青岛世界园艺博览会总规划师,兼 任全球规划教育组织联席主席、联合国科教文组织 - 国际建协世界建筑教育委员会终身委员、联合国开发计划署南南合作 特设局创意经济顾问、中国城市规划学会副理事长、中国建筑节能协会副会长、中国绿色建筑与节能专业委员会副主任委 员兼绿色校园学组组长等职务。

Prof. Wu Zhiqiang gets his Doctor degree from Technical University of Berlin and currently is Vice President of Tongji University, professor and doctoral tutor of College of Architecture and Urban Planning, Academician of Royal Swedish Academy of Engineering Science, and Honorary Fellow of American Institute of Architects. He also serves as Chief Planner of EXPO 2010 Shanghai, Chief Planner of EXPO 2014 Qingdao, Co-Chair of International Steering Committee of World Planning School Congress, Permanent Member of UNESCO-UIA World Architectural Education Council, Member of Advisory Committee - Creative Economy-United Nations Special Unit for South-South Cooperation, UNDP, Vice President of Urban Planning Society of China, Vice President of China Association of Building Energy Efficiency, Vice President of China Green Building Council and Director of CGBC Green Campus Committee.





新型城镇化发展中的绿色建筑

过去的一个世纪,是城市形态及其发展模式发生巨变的世纪。以高耗能为主要特征的,不可持续的经济发展模式带来 了巨大的碳排放、生态环境问题和各种城市病。目前,传统发展模式与新型城镇化之间的突出矛盾已经威胁到了人类未来 的生存模式。自工业革命以来人们一直遵循的城镇化法则,在新的时代已经鲜有用武之地,对下一代城市的互换已经成为 时代的主题。

处于快速城镇化过程中的中国,正面临着发达国家在上个世纪面临的一系列问题:严重的生态环境破坏,低效的经济 发展结构都阻碍着中国梦成真之日的到来。建筑节能是节约能源,保护环境,提升人民生活水平和贯彻可持续发展政策的 重大举措。随着越来越多的中国人进入城市生活,城市需要的能源总量也逐渐提高。建筑节能已经不仅仅是一项新兴技术, 而是一项必须付诸实施的方针。

Green Building in the Development of New Urbanization

In the past century, the form of cities and paths of their development had changed drastically.

Depended on energy consumption, the unsustainable economy growth brings us stronger carbon density, poorer air condition and what we called city disease. Now, the sheer contradiction between new urbanization and old developing philosophy is challenging the world we lived in. It is the right time to review the rules of urbanization established as early as industrial revolution, and move forward to the "Next Generation Cities".

China is in the middle of rapid urbanization right now and she is facing the same problems once bothered the developed countries 100 years ago. Severe environment problems, inefficient economy structure are threatening the Chinese's dream. Energy conservation in buildings is a significant act of saving resources, protecting environment, improving living standard and realizing sustainable development strategy. As more and more Chinese people moves into cities in the process of urbanization, an increased energy demand initiated by new city residents had emerged. Energy conservation of buildings is more a fashionable technique now, but a policy that must be carried out.



Michael Waibel 博士 汉堡大学

Dr. Michael Waibel Hamburg University



Michael Waibel 博士自 2007 年始担任汉堡大学人类地理学部讲师,也是该部门的资深研究员和项目负责人之一。他拥 有人类地理学博士学位、国家经济地理学硕士学位,在城镇化、建筑、城镇治理、绿色增长、能源地理、调查式研究方法、 气候变化应对方面有突出的研究实力。

2007 年至 2009 年间, Michael Waibel 在欧盟支持的"越南城市规划计划"中承担了数个课题的研究任务, 并于 2009 年获聘"2030年河内首都建设计划"顾问。目前,他正以顾问身份参与"2030年湄公河三角洲计划"的修订工作。2007 年至 2014 年间,他主导了德国研究基金会的 1233 号优先项目:"巨大型城市 - 巨大的挑战",在这一项目中他着重研究 了中国经济空间升级中的城市治理问题。2008 年至 2013 年间,他参与了德国联邦教育部资助的"明日大型城市的可持续 发展问题研究",具体负责协调一项由 BTU Cottbus 主导的绿色建筑研究,该研究的主要成果是越英双语的"绿色建筑手 册 (2011)"和"绿色产品手册 (2013)"。

Michael Waibel 博士发表的学术论文常为众多国际学术期刊和科研院所录用,他自 1999 年起担任太平洋地理杂志的主 编,自2002年起亦担任太平洋论坛丛书的主编。

Dr. Michael Waibel is working as senior researcher, lecturer and project leader at the Department of Human Geography of the University of Hamburg, since 2007. He holds a Ph.D. in Human Geography and a M.Sc. on economic geography, geography and national economy with key competencies in urbanism, housing, urban governance, green growth approaches, energy geography, empirical research methods, climate change mitigation and development research.

From 2007-2009 he worked on several missions as consultant for the EU-funded project Vietnam Urban Environmental Planning Programme. In 2009 we was consultant in regard of the development of the Hanoi Capital Construction Master Plan to 2030. Currently he is consultant in regard of the Revised Mekong Delta Regional Plan 2030. From 2007-2014 he was project leader within the Priority Programme 1233 of the German Research Foundation (DFG-SPP 1233) "Megacities - Megachallenge". Within this programme he did research on questions of urban governance related to economic-spatial upgrading in China. From 2008-2013, he was recognized research partner within the research programme "Research for the Sustainable Development of the Megacities of Tomorrow" funded by BMBF. Within a project led by BTU Cottbus he coordinated a work package on green housing. Major outcomes of his project activities have been the "Handbook for Green Housing" (2011) and the "Handbook for Green Products" (2013), both in Vietnamese and English language.

Regularly, he publishes academic papers, serves as peer-reviewer for various international academic journals or for scientific organisations. He is editor-in-chief of the scientific journal PACIFIC GEOGRAPHIES since 1999 as well as of the book series PAZIFIK FORUM since 2002.

德国绿色社区治理的经验分享

通过三个德国案例,分析了气候友好型社区治理当中遇到的问题。社区治理被认为是对决策过程中各利益相关方的分析。首 先介绍了德国节能建筑的推广模式及其三大主要支柱: (1)清晰而有效地联邦层面的法律框架 (2)通过公共投资银行方式提供以补 贴和贷款为形式的金融激励 (3) 由区域和地方支持的,为转变能源行为模式而进行的各类宣传(包括可执行标准、能源认证和示范 案例的宣传)。这些努力都是行之有效的。

因为更多利益相关方的存在,绿色社区治理的难度要远大于绿色建筑的构造。这需要多层次的沟通,包括建筑师、工程师、 建筑商、装备供应商、开发商和最为重要的终端用户,都应被纳入决策的制定过程中。所有这些复杂的要素都挑战着中国和世界 绿色建筑的实践。此外,绿色社区的治理不应仅限于绿色建筑,而应是一个集合了城市交通规划、高密度地区绿地和通风规划等 要素的综合体。来自德国的三个案例描绘了从不同途径实现成功绿色社区治理的方式,正说明绿色社区的治理并无统一的方式。 在德国案例中,我们看到了很多自下而上的草根组织在支持环保领袖开展自治的民间环境运动,组织之间各具特色。与中国不同 的是,德国的社区一般是低层高密度或低层低密度型的,而中国的社区多是高层高密度或高层低密度的,这使得中国绿色社区治 理的决策相关方较为同质,决策过程偏重于顶层设计。这对中国来说或许是个机会,但也可能会面临发展过快的问题。最后,也 提及技术知识的缺乏或许会影响绿色社区的推广,但是对治理机制的重视也许会有更强的规范性意义。

The Governance of Green Neighbourhoods: Experiences from Germany

This speech is analysing the governance of climate-friendly neighbourhoods by introducing about three case-studies in Germany. Thereby, governance is understood from an analytical perspective looking at stakeholders, stakeholder relations and the way how decisions are taken. At first, the governance of promoting energy-efficient buildings in Germany is briefly introduced because the German approach based on three pillars, namely 1) a clear, legal framework and tight regulation at federal level, 2) strong financial incentives through subsidies and loans (mainly via a public investment bank) and 3) campaigns to change behaviour as well as involving regional and local bodies (backed by enforceable standards, energy performance certificates and model projects) has turned out to be very successful.

Then it will be discussed that decision-making is much more complex on neighbourhood level compared to the level of buildingsamong others - because more stakeholders are involved. This requires more communication between planning authorities on various municipal levels, architects, engineer offices, construction companies, technical equipment companies, developer companies and, most important of all, the end-users. All this highlights the need for integrated approaches given the complex realities of green building practices in China - and else where. Further, it has to mentioned that the erection of green neighbourhoods is not only about energy-efficient buildings, but should - among others - integrate sustainable modes of urban transport, the provision of adequate green spaces and exhibit high densities without giving up an adequate air ventilation. Three case studies of green neighbourhoods in Germany illustrate various modes of governance to achieve a climate-friendly settlement. It will be shown that there is no blueprint (standardized procedure) available yet. Indeed, the German experience often shows green neighbourhoods as a bottom-up effort of civic leaders and self-organized civil movements (so-called construction communities). Green neighbourhoods in Germany are usually are low-rise-high-density or low-rise-low density types. This might be in contrast to China where highdensity-high-rise or high-rise-low-density types are prevalent. In China, the stakeholder landscape is less diverse and the governing logic is more top-down. This might also be seen a chance, because it may increase the development speed. Finally, the thesis will be postulated that it is not so much the lack technological knowledge limiting the widespread erection of green neighbourhoods, but the lack of implementation knowledge - or of governance, this time meant in a more normative sense.



缪昌文 院士 董事长 江苏省建筑科学研究院有限公司

Miao Changwen

Chairman
Construction Science Research Institute Company of Jiangsu Province
Member of Chinese Academy of Engineering

缪昌文,中国工程院院士,建筑材料专家,江苏姜堰人,东南大学教授,博士生导师。1982 年毕业于南京工学院(现东南大学)土木工程系。现任高性能土木工程材料国家重点实验室主任兼首席专家,江苏省建筑科学研究院有限公司董事长,第九届、第十届、第十一届全国人大代表,江苏省人民政府参事。长期从事土木工程材料理论与技术研究,在混凝土抗裂关键技术、重大基础设施工程服役寿命及耐久性能提升技术、多功能土木工程材料的研发等方面作出了重大贡献,获国家技术发明二等奖 1 项,国家科技进步二等奖 3 项,部省级科技进步奖 15 项,何梁何利基金科学与技术创新奖,全国杰出专业技术人才奖,获得国家发明专利 61 项,出版专著 4 本,发表论文 100 余篇,在国内外学术界享有较高的声誉。

Miao Changwen was born in Jiangyan, Jiangsu Province, Member of Chinese Academy of Engineering, Construction Materials Expert, Professor of Southeast University, and Doctoral Supervisor. He graduated from Nanjing institute of technology (now Southeast University) in 1982. He is now the Chief Director of High-Performance Civil Engineering Materials Laboratory, chair of board of the construction science research institute company of Jiangsu province, The 9th, 10th, the 11th National People's Congress representative, and the Government Adviser of Jiangsu province. His research is mainly in the realm of the key technologies in the concrete cracking, major infrastructure engineering service life and improvement in durable performance and multi-function civil engineering materials. Those achievements made great contribution to engineering construction enterprise in China. Long engaged in theoretical research and engineering application research on civil engineering materials, he has more than twenty years of experience in major construction projects in China. He was awarded for 2nd class one national technological invention award, three times for the 2nd class national scientific and technological progress prize, and fifteen class provincial scientific and technological progress award. He was awarded the Hong Kong He Liang Li prize, the national outstanding professional and technological personnel with 61 patents, 4 books and over 100 essays. MIAO enjoys high academic reputation worldwide.



绿色建筑材料的研究与应用

随着我国经济的不断发展以及现代化建设步伐的加快,基础设施建设也在如火如荼的进行之中。而空前规模的基础设施建设,却给环境带来了巨大的压力。

土木工程材料是土木建筑的基础,合理地使用土木工程材料,充分发挥材料的性能不仅对土木工程的安全,实用,美观,舒适等有重要影响,并且还会对自然环境产生很大的影响,因此对于建筑行业来说践行低碳经济,发展绿色建材是促进可持续发展,减轻环境压力的必由之路。

针对当前大规模基础设施建设中大量应用的建筑材料的现状,我国建筑材料的绿色化关键技术瓶颈亟需突破。报告从提高钢筋混凝土的使用寿命、提升混凝土的性能、推广建筑工业化制品等方面阐述绿色建筑材料的研究与应用。

Research and Application of Green Building Materials

With the rapid development of our country's economy and acceleration of modernization, infrastructure construction in China become busy. And under the unprecedented scale of infrastructure construction, great pressure had been put to the environment.

Civil engineering materials is the foundation of civil construction, the reasonable use of civil engineering materials enables engineers to make full use of its potential. This leads to the improvement of safety as well as feasibility, beauty, comfort, and it can produce notable effect on the natural environment.

So, application of green building material is the key to promote sustainable development, and to reduce environmental pressure, it can also be regarded as the practice of low carbon economy in the construction industry.





Dirk Schwede 博士 斯图加特大学

Dr. Dirk Schwede Stuttgart University



Dirk Schwede 博士曾在布伦瑞克工业大学和斯图加特大学土木专业学习。在其学习期间,从事建筑物能源系统综合分 析的研究。从那时开始对可持续建筑和综合分析感兴趣,尤其是以需求为基础的规划。硕士毕业后 Dirk Schwede 博士在斯 图加特意波贝氏股份公司(IFB Dr. Braschel)工作,之后任职于斯图加特 STEINBEIS—能源、建筑和太阳能技术转移中心 (STZ-EGS)。从 2002 年到 2006 年 Dirk Schwede 在澳大利亚悉尼大学读博,然后在迪肯大学吉隆校区从事建筑内用户 行为和用户满意度的研究。

2007 年 Dirk Schwede 博士和 M.N. Fisch 教授以及 R. Himmler 博士一起在斯图加特成立了设能建筑咨询有限公司。并 且从 2008 年到 2012 年底, 在他创建的设能建筑咨询上海分公司担任首席执行官。从 2010 年到 2013 年 Dirk Schwede 博 士担任同济大学中德工程学院的客座教授。从 2013 年初开始 Dirk Schwede 博士成为斯图加特大学轻质建筑设计与结构所 青年教授,同时担任 OSBEE 有限公司(设能建筑咨询有限公司的母公司)的首席执行官和合伙人。Dirk Schwede 博士和设 能建筑咨询公司一起在中国和其他亚洲国家(越南、印度尼西亚)从事许多和节能建筑、可持续建筑有关的项目。除此之外, 他的公司参与第一个 DGNB 在中国的项目,并且积极参与 DGNB 体系在国外适用性应用,尤其是在中国的应用。

Dirk Schwede 博士在斯图加特大学从事在亚洲国家(比如中国和越南)如何实现适应不同气候、适应不同市场的可持 续发展的研究。

Dr. Dirk Schwede once studied at the department of civil engineering in Brunswick industrial University and the University of Stuttgart. During his study he was dedicted to the study in building energy system analysis. Since then, he focused in Sustainable Building and Comprehensive Analysis, especially in the field of Demand Oriented Planning. After getting his master degree, Dr. Dirk Schwede worked in IFB Dr. Braschel and then STZ-EGS in Stuttgart. He Sydney University for his doctor degree, and furthered his study on building users' behavior and satisfaction in Geelong Campus, Deakin University afterwards.

In 2007, Dr. Dirk Schwede, Professor M.N. Fisch and Dr.R. Himmler started OSBEE in Stuttgart. Dr. Dirk Schwede was the CEO of OSBEE Shanghai Office from 2008 to the end of 2012. Form 2010 to 2013 Dirk Schwede was also the guest professor in Sino-German College Applied Sciences of Tongji University. Since 2013 Dr. Dirk Schwede had been Youth Professor of Sustainable Building in University of Stuttgart, and also the CEO and Partner of OSBEE. Dr. Dirk Schwede and OSBEE had conducted several projects in building energy conservation and building sustainability in Asia countries like Vietnam and Indonesia. Further, his company is in charge of the first DGNB project in China, and plays an important role in the promotion of DGNB system abroad, especially in China.

Dr. Dirk Schwede's field of study in University of Stuttgart is the feasibility of sustainable buildings in Asian countries.

中德可持续建筑特点与比较

中国和德国在不同的背景条件下讨论可持续建筑。中国的特点是社会和经济的迅速发展,这个特征改变了人们的生活和物质 要求,并且造成了环境压力。而德国处于一个环境破坏有所降低并且人们生活质量不断提高的阶段。虽然对比现在的标准中国建 筑物的质量、建筑物的效率和功能性在提高,但是中国的建造体量十分庞大,产生的总负荷(能量,土地,资源消耗和空气污染) 不断增加。对比中国来说,采用各自质量标准,德国建筑成本是中国的二倍左右。与此同时,由于建筑设备增加,建筑物的生态 足迹也显著增加。在德国每年只有少量建筑物会更新,而在中国现在建筑物的各个部分经常性更换,建造环境也经常重新设计。 这提供一种机遇,也存在一种危险:迅速并且盲目地实施一些达不到全面可持续发要求的措施。

两个国家的人们在不同的背景条件下讨论能源效率和从可再生能源中生产能源。例如,德国的电价是中国的 4 倍左右。在这 种情况下,节能措施和分布式能源的吸引力就少得多。但是通过细致的观察提高能源效率和实现可持续建筑的措施在经济上也是 很有意义的。目前在德国焦点从节能建筑转移到能源产出大于需求的建筑。而德国建筑类型和建筑密度比中国更小,这种情况下 以这种规模生产可再生能源对于中国的城市结构是不合适的,然而分布式能源和综合式可再生能源生产对于中国是一个正确的战 略。此外,考虑的焦点越来越多的从单体建筑转移到城市城区级别,以邻里的协同效应和提高城市设计达到提高城市生活质量和 减少资源需求。德国目前也开始讨论关于生命周期评价,工业预制建筑,可回收和资源节约型的构造和建造。因为当前建筑产业 变化,这些主题对中国现在尤其重要。

Comparison and Characteristics of Sustainable Buildings in China and Germany

People in China and Germany discuss sustainable buildings in quite different circumstances. The characteristics of China is the rapid development of society and economy. This characteristic changed people's lifestyle and elevated their material requirements, and at the same time, caused the environmental stress. But in Germany though the life equality of the people are improving, the environment is actually getting better at the same time. China's building guality, building efficiency and functionality is developing, but due to the large size of China's construction, the total load (energy, land, resource consumption and air pollution) generated by the industry is still increasing. Calculated under their own quality standard, the German construction cost is about twice of China's. At the same time, due to the increase of construction equipment, the structure of the ecological footprint also increased significantly. At the same time, only a few buildings will be renovated every year in Germany, but now in China building compartments are going through frequent replacement, the general construction environment are also redesigned. This provides an opportunity and a danger: rapid and blind implement of some measures may not meet the requirements of the comprehensive sustainable development.

The two countries (Germany and China) are different in the development of energy efficiency and renewable energy For example, Germany's electricity price is 4 times of China. In this case, the energy saving measures and distributed energy production is much less attractive in China, since the energy price is low. But to improve energy efficiency and to promote sustainable construction measures through careful investigation is also very meaningful. The current focus of green building in Germany is shifting form energy-efficient buildings to building whose energy output is greater than demand. German buildings are simpler in types and lower in density, in this case in this mass production of renewable energy is not suitable for China's urban structure, however, the promotion of distributed and integrated renewable energy production devices in China seems to be the right strategy. In addition, considering the shift of focus from single building to the level of city urban area, and in order to improve the quality of urban life and reduce the use of natural resource, neighboring effect and improved urban design should also be used. Germany has also started to discuss the buildings' life cycle assessment, industrial prefabricated buildings, the construction of the recycling and resource saving methods etc. These ideas are important for China's changing construction industry now.





中国丁程院 Xiao Xuwen Member of Chinese Academy of Engineering

肖绪文,中国工程院院士,建筑施工领域专家。陕西商洛市人。1977年毕业于清华大学土木工程系。现任中建股份首 席专家、中建技术中心顾问总工、中建协专家委常务副主任、绿色施工分会常务副会长。曾任中建八局总工,中建科技部 经理。先后主持了山东农行综合楼工程、武汉体育馆工程等近百个工业与民用建筑工程设计和施工,在复杂混凝土结构施工、 预应力钢结构施工和绿色施工等方面具有一定造诣,为推进我国建筑工程绿色施工和技术进步做出了积极贡献。

肖绪文院士曾主编《建筑施工手册(第五版)》、《建筑工程绿色施工》等专业书籍 10 余部, 主(副)编《建筑工 程绿色施工规范》等国家、行业标准6部,获国家科技进步二等奖3项,省部级科技进步一等奖5项。曾发表过著作:建 筑施工手册(第五版)、建筑工程施工技术标准(1-4 册)、建筑节能工程施工技术要点、建筑业 10 项新技术(2010)、 体育场施工新技术、污水处理系统成套施工新技术、建筑施工操作工艺手册、建筑装饰装修工程施工操作工艺手册、建筑 业 10 项新技术(2010)应用指南。

Xiao Xuwen, Member of China Academy of Engineering, specialist in construction. Graduated from the civil engineering department of Tsinghua University in 1977, XIAO is the Chief Specialist of and Chief engineer of CSCEC, standing deputy director of China Construction Council, deputy director of green building sub-council.

Xiao was the Chief of 8th Bureau and manager of technology department of CSCEC, he was responsible for hundreds of major civil and industrial construction projects such as the main building of Agricultural Bank of China Shandong Branch and the Wuhan Stadium. He is specialized in complex concrete construction pre-stressed steel structure construction, green building construction, and offered great contribution in China's green construction and technological progress.

Xiao compiled several handbooks, instructions and books in the field of green construction and six national or industrial standards. He was awarded three 2nd class National Prize for progress in Science and Technology, and five 1st class Provincial Prize for progress in Science and Technology. He had published Construction Handbook (5th Edition), Standard of Construction Techniques(Vol.1-4), Key points for Energy Conservation Construction, Ten new techniques in construction (2010) and its application guide, Construction Techniques for Sport Stadiums, Sewage System Construction Techniques and several other books.



基于绿色建造的建筑装配化思考

我国建筑业在促进国民经济发展、提升人们生活水平的同时,也消耗了大量的资源,产生大量污染物。面对我国加快 改革开放和生产方式转变的新形势,党的十八大为我们描绘了未来中国发展的宏伟蓝图和美好前景,新型工业化、信息化、 城镇化、农业现代化和绿色化的目标位建筑业的持续健康发展提供了更为广阔的前景,基于绿色建造角度的建筑装配化有 利于环境保护、节约资源、减轻劳动强度、改善作业条件,推进建筑装配化已是大势所趋。

报告首先介绍了绿色建造和工业化的概念及其关系。建筑装配化则包括建筑标准化,构配件生产工厂化,施工机械化 和组织管理科学化:绿色建造包括规划、设计和施工等建筑物生成的全过程,基于绿色建造角度有利于从更好角度来审视 工程建设,明确相关方责任,更好地推进和实施装配化。但由于我国体制和机制问题,我国建筑装配化推进仍存在设计与 施工脱节、标准体系不完善、技术创新不足、推进环境尚未形成等问题,建议从顶层设计、全面布局、政策支持、管理保证、 技术创新、系统推进等方面进行重点推进。

Reflection on Construction of Fabrication based on Green Construction

China's construction industry has been consuming a large number of energy and producing plentiful contamination while developing national economy and promoting the lining standards. China is now speeding up reform and innovation as well as changing production mode, thus the promising future of the development of China is showed in 18th CPC National Congress. A bright prospect of a sustainable development is offered with a goal of new type of industrialization, informatization, urbanization, agricultural, modernization and greening. Based on green architecture, construction assemblage does good to environment protection, energy-saving, labor intensity reduction and improvement of working condition. This promoting trend is irreversible.

In the report, we know the concept of and the relationship between green architecture and industrialization. Construction assemblage includes construction standardization, factory production of architectural components construction mechanization and scientific organization. Green Architecture includes plan, design, construction and other process in the architecture. Based on green architecture, it does better to examine construction, to know each other's responsibility and to promote and implement assemblage. However, there remain some problems such as disconnection between design and construction, incomplete standard system, insufficiency of technology innovation, a lack of enabling environment etc. due to China's system and mechanism. Emphasis should be laid on top level design, overall arrangement, policy support, excellent management, technology innovation and system promotion.



BIO

Martin Fischer 土木工程及环境学院教授、计算机科学学院礼任教授 斯坦福大学



Professor of Civil and Environmental Engineering and (by Courtesy) Computer Science Stanford University

Martin Fischer 教授一直相信:一个优秀的项目团队应能够将各类资源随时进行恰当的安排,以尽量使其项目具有可建造性、可使用性、可运营性和可持续性。通过与斯坦福大学和行业同仁的合作,他成功的在有关工程和管理领域贯彻了这一理念,并构建了概念基础。他的研究主要在于建筑的构型、预测、测量以及全周期内建筑环境的改善。

Martin Fischer 教授的成果和领导地位使其在 4D 建模领域具有全球性的影响力,特别是在提升项目设计能力、增进构件性能、提高设计效率、强化建筑环境可持续性等方面,更是具有举足轻重的地位。世界各国的大小设计团队、政府组织都乐于选用其研究成果,这也使之屡获殊荣。迄今为止,他在其研究领域发表了上百篇学术论文和著作专章,并做了 60 余场专题报告。

他丰富的工作生活经历遍布欧洲、美洲、中东和亚非地区。他同时还是综合设施工程研究中心主任,能源研究所的高级研究员,拥有瑞士联邦洛桑理工学院工程硕士学位以及斯坦福大学工业工程专业理学硕士和土木工程专业博士学位。1996年,他荣获美国国家科学基金会颁发的 CAREER 奖,并入选美国工程界 25 大新闻人物。2002 年其有关土木工程领域中计算机应用的论文荣获美国土木工程师协会最佳学术论文奖。2012 年,Martin Fischer 教授又当选瑞典皇家工程科学院外籍院士。

Martin believes that project teams should be able to decide every day on the best allocation of resources to make their projects as buildable, usable, operable, and sustainable as possible. With his collaborators at Stanford and in industry, he is creating the conceptual foundation for the corresponding engineering and management methods. In particular, his research focuses on modeling, predicting, measuring, and improving the life-cycle performance of the built environment.

Martin is known globally for his work and leadership in developing virtual 4D modeling methods to improve project planning, enhance facility performance, increase the productivity of project teams, and further the sustainability of the built environment. His award winning research results have been used by many small and large industrial and government organizations around the world. He has published well over 100 refereed journal articles and book chapters and given over 60 keynote lectures on his research.

He has lived, worked, consulted, and taught in Europe, South America, North America, the Middle East, Asia, and Africa. He is also the Director of the Center for Integrated Facility Engineering, a Senior Fellow of the Precourt Institute for Energy. He holds a Diplômed' Ingénieur in Civil Engineering from the Swiss Federal Institute of Technology in Lausanne, a M.S. in Industrial Engineering and a Ph.D. in Civil Engineering from Stanford University. He received the CAREER award from the National Science Foundation and was named a top 25 Newsmaker by Engineering News Record in 1996, won the best paper award from the ASCE Journal on Computing in Civil Engineering in 2002, and was elected as a Foreign Member of the Royal Swedish Academy of Engineering Sciences in 2012.

全球 BIM 发展现状与未来发展趋势

绿色建筑的广泛应用迫切需要建造和使用环节各个关键学科专家迅速全面的合作。这一应用不仅要求设计、建造、施工和使用环节的精深知识, 还要求从经济、环境和社会的角度, 快速提高对建筑性能的认识, 并在上述各环节不断实践创新。

在 BIM(全称:建筑信息模型)投入工程的前二十年里,业主、设计师和各类建筑的建造师已经平衡了 BIM 的可视化和协调能力。信赖 BIM 的建筑团队现在能够实现给所有者和使用者"所见即所得"的效果。并且,在这一过程中,他们可以减少 20%-30% 的资源使用量,与使用传统的模拟和沟通设计方案的团队相比,他们能在更短时间内找到更佳解决方案。这样,降低资源消耗,减少时间和材料的浪费,提出更佳解决方案——BIM 为十几个建筑市场,上干个项目成功实现了节能减排目标。同时,BIM 还可以将建筑设计建档入册,以供建筑、施工和修改提高效率。

若使用得当,BIM 可呈现一栋建筑的所有精确部位及全面细节,可作为项目的模拟和交流工具。因此,BIM 要求并实现了所有关键学科和支柱领域的同步参与——而非先后参与。没有 BIM,没有对建筑设计、建造、施工过程的重组,全面实现绿色建筑简直是天方夜谭。

The Past and Future Importance and Contributions of BIM to Green Buildings

The widespread deployment of green buildings requires the rapid and thorough collaboration of professionals from all the key disciplines and stakeholders involved in creating and using buildings. The widespread deployment of green buildings does not only require the application of the best knowledge about designing, building, operating, and using buildings, it also requires the rapid learning about the performance of buildings and the development and implementation of ever more innovative practices to design, build, operate, and use buildings in their specific economic, environmental, and social contexts.

In the first 20 years of use of BIM (Building Information Modeling) on projects, owners, designers, and builders of all kinds of buildings have leveraged the visualization and coordination power of BIM. Project teams that truly embrace BIM can now offer WYSIWYG (what you see is what you get) construction to building owners and users. They can do so by using 20-30% less resources and by finding better solutions more rapidly than project teams working with traditional means of representing and communicating designs. In these ways – reduction of resource use, reduction of time and materials wasted, identification of better solutions – BIM had already contributed to making buildings greener on thousands of projects in dozens of construction markets. BIM also offers the potential to document the building design for efficient construction, operation, and repurposing.

When used correctly, a BIM represents all components of a building accurately and with full detail so that it serves as the main simulation and communication tool on a project. Therefore, BIM requires and enables the simultaneous – not sequential – engagement of all key professional disciplines and building stakeholders. It is unconceivable that the vision of full deployment of green buildings can be realized without a thorough use of BIM and reorganization of the building design, construction, and operations processes.



BIO

Bernd Franke 科研总监 海德堡大学能源与环境研究所 (IFEU)

Bernd Franke

Scientific Director Institute for Energy and Environmental Research (IFEU)

Bernd Franke 拥有海德堡大学生物学和地理学硕士学位。在其超过三十五年的职业经历中,Bernd Franke 先生参与了 许多研究项目,这些项目大多致力于环境风险的控制和可持续发展目标的最终实现。他参与了海德堡大学能源与环境研究 所 (IFEU) 的创立,目前系该研究所的首席科学家。与此同时,Bernd Franke 先生亦参与了位于美国马里兰州塔科马的能源 与环境研究机构 IEER 的设立,并于 1981 年至 1998 年期间担任该机构执行主任一职。除此之外,他还在各类机构组织的 环境评估项目中承担了大量实质性的调研工作。

2006年到2014年间, Bernd Franke 先生负责了 RECAST (RECAST 是干旱地区大城市的能源效率需求应对计划的缩写) 在乌鲁木齐进行的能源效率研究工作,这项名为"干旱地区城市可持续发展中的敏感循环管理"的研究,是"明日特大城 市的可持续发展问题"研究框架下的一部分,该研究整体由德国联邦教育部支持。RECAST 在乌鲁木齐的研究将室内的一 栋旧有建筑改造成了乌鲁木齐的第一座"零碳建筑",这也是中国西部的首座"被动式住宅"。

目前, Bernd Franke 先生是"迅捷规划——亚非城市可持续发展中心研究"的科研团队成员之一,这项为时五年 (2014-2019)的计划同样由德国联邦教育部支持,目前已有卢旺达基加利、埃及艾斯尤特,越南岘港和德国法兰克福参与了 这项计划。

Bernd Franke has the German equivalent of master's degrees in biology and geography from the University of Heidelberg. He has more than 35 years of professional experience in practical research project mitigating environmental risks and achieving sustainable development. He was a co-founder of the IFEU where he currently holds the position of Scientific Director. He also was a co-founder of the US-based Institute for Energy and Environmental Research (IEER) in Takoma Park, Maryland, where he served as Executive Director from 1984 to 1998. He was the principal investigator in a substantial number of environmental assessment projects for clients from the public and private sector.

From 2006 to 2014, Franke was responsible for energy efficiency work in RECAST Urumqi: Managing interconnected sensitive cycles for sustainable urban development in an arid environment within the framework of the program Research for Sustainable Development of the Megacities of Tomorrow, funded by the German Federal Ministry of Education and Research (BMBF). RECAST Urumqi achieved the retrofit of an existing building into the first zero CO2 emission building in Urumqi, the first passive house in West China.

Franke is currently member of the Scientific Management Team of RAPID PLANNING, Research for sustainable development of urban growth centers in Africa and Asia, a 5-year research programme (2014-2019) funded by the German Ministry of Education and Research BMBF. The partner cities in this project are Kigali/Rwanda, Assuit/Egypt, Danang/Vietnam and Frankfurt/Germany.



被动房:中国与德国的成就和挑战

被动屋的年均调温能耗远低于一般建筑,每平米仅需 15 干瓦时左右。目前在欧洲有上万座建成的被动屋,但在中国还 很少。在演讲中,将介绍位于德国海德堡的欧洲最大被动屋建设功能。中国的首个被动屋于 2014 年 9 月在新疆的乌鲁木 齐建成,这项工程能够完全应对极寒环境带来的挑战。而被动屋也可以针对中国湿热地区气候特点进行改造。

Passive Houses: Accomplishments and Challenges in Germany and China

Passive houses with a heating or cooling demand of 15 kWh per m2 and year use up far less energy than conventional buildings. While more than 10,000 passive houses have been realized in Europe, the experience in China is still limited. Examples from Germany including the largest passive house construction area in Heidelberg are presented; they cover a variety of technical approaches and building usages. The first passive house in in West China was completed in September 2014 in Urumqi/Xinjiang and successfully addressed the challenge of a climate with very cold winters. The different climate zones in China require that the passive house design needs to be carefully adapted to realize the benefit in hot and humid areas are as well.







上海市绿色建筑协会

2013年6月,经上海市社团管理局和上海市城乡建设和管理委员会(原上海市城乡建设和交通委员会)批准,在原上 海市绿色建筑促进会和上海市绿色建筑与节能专业委员会的基础上合并重组,成立了上海市绿色建筑协会。协会由从事绿 色建筑的科研、规划、设计、开发、施工、教育、信息、管理、服务及相关设备、材料生产企业自愿参加的非营利性社会团体。

协会的成立受到各级政府部门的指导与重视,杨雄市长专门做出批示:"推进绿色建筑的发展,是上海创新驱动、转 型发展的一项重要措施。希望协会的组建能促进该项工作的深入,不断创新工作机制,推动绿色建筑发展上新台阶"。上 海市第十三届人大常委会主任刘云耕特意题词"推广绿色建筑,建设美好家园"。协会成立至今,根据政府要求和企业需求, 积极开展工作。

协会宗旨

——以服务会员需求为宗旨,以落实政府要求为导向

依据国家相关法律、法规和政策,在建筑领域内,团结、组织广大会员,全面落实科学发展观;

坚持绿色、节能、循环、低碳理念,努力把生态文明建设融入城乡建设全过程,不断提高建筑的安全性、舒适性和健康性;

在推进新型城镇化建设和新农村建设中,为绿色建筑的规划、设计、开发、建设、管理和服务等企业提供发展平台, 发挥桥梁纽带作用,促进绿色建筑的可持续发展。

协会主要任务

- 1. 宣传贯彻党和政府关于"节能减排、生态文明建设"的法规、方针和政策;宣传绿色建筑理念、技术和经验;提高 公众意识,普及相关常识,促进绿色建筑新技术、新产品、新材料、新工艺的应用。
- 2. 协助政府相关部门,组织、编制本市绿色建筑发展规划。
- 3. 组织开展本专业领域内科学研究和课题研究,为政府管理部门提供决策依据,促进行业技术进步。
- 4. 根据发展需求,受政府部门委托,组织或参与绿色建筑相关技术标准的编制工作及相关宣传培训工作。
- 5. 根据会员需求,组织市场拓展、发布市场信息、推介和展示绿色建筑相关技术与产品、开展业务培训、提供咨询服务。
- 6. 受政府相关部门委托,开展本专业领域内的调查研究、产品推荐、材料备案、专项评审和统计等工作。
- 7. 承担绿色建筑标识评定的组织和实施工作。
- 8. 组织开展国内外各类先进的绿色建筑理念、产品和技术的交流与合作工作。

Shanghai Green Building Council Introduction

In June 2013, after the approval of shanghai community administration and shanghai urban and rural construction and management committee (the original shanghai urban and rural construction and traffic committee). The Shanghai Green Building Council was merged on the basis of the original Shanghai municipal council for the promotion of green building and Shanghai green building and resource-conserving committee. It's the association of non-profit social group which enterprises voluntarily engage in the research, planning, design, development, construction, education, information, management service and related equipment and materials production and related equipment and material production of green building.

The establishment of the council gets guide and high attention from government department at all levels. Mayor Yangxiong specially made written instructions and comments that promoting the development of green building are an important measure for shanghai innovation driven and transformation development. Hope the establishment of the council promotes to deepen the task, innovate new working mechanism constantly, and promote the development to go upstairs. The director of the 13th Shanghai standing committee, Mr Liu Yungeng specially wrote an inscription "Promoting the green building to establish a better country." Since the establishment of the council, we work positively according to the requirement of the government and enterprises.

The Purpose of Council

- To satisfy the demand of members is our mission
- To implement the requirement of the authorities is our guideline

According to the national laws, principles and policy in the field of construction, unify and organize broad members to fulfill scientific development perspective.

Stick to the concept of green energy-saving, circulation, low carbon concept, tried to build ecological civilization into the whole urban and rural construction, constantly improve the safety, comfort and health of the construction.

In the construction of promoting the new urbanization and new rural, providing the development platform for the green building planning, design, development, construction, management and service, playing the role of bond and bridge, stimulating the sustainable development of green building.

The Main Task of Council

- 1. Propagandize and fulfill the laws, regulations, policy and principles of "energy conservation and emission reduction, ecological civilization construction". Propagandize the green building concept, technology and experience. Raising public awareness and popularizing related knowledge to promote green building new technology, new products, new materials, and new technology application.
- 2. Assist related government's department to organize and edit the plan of green building development.
- 3. Organize the scientific and subject research in professional field, provide the decision-making basis for government management development to promote the advancement of industry technology.
- 4. According to the need of development and authorization by government development, organize and participate in related propaganda and training work about relevant technical standard of work.
- 5. According to the need of members, organize the development of market, publish the market information, introduce and show related technique & products of green building, launch business training and provide business services.
- 6. Authorized by related government department, launch the investigation and research, product recommendation, materials for record, the special review and statistics work.
- 7. Undertake the work of the organization and implementation of green building logo rating.
- 8. Organize and launch the communication of green building advanced concept, techniques and products at home and abroad.

协会介绍 ASSOCIATION INTRODUCTION





主要工作

培训宣贯 配合政府相关部门,宣传绿色建筑法律法规、政策措施、标准规范、典型案例、先进经验,促进社会树立绿 色建筑理念,并组织相关的培训,指导会员单位积极参与绿色建筑实践。

行业调研 开展行业调研活动,了解各行业在绿色建筑方面的发展情况,加强对优秀项目的推介和先进技术的总结,并 通过调研了解企业发展瓶颈,帮助企业解决实际问题,促进企业绿色建筑活动的开展。

推广展示 开展推介活动,推广四新技术,搭建交流合作平台。在政府有关部门的指导下,每年10月上旬举办上海绿 色建筑与建筑节能科技周活动,集中展示上海地区以及华东地区绿色建筑的特色,表彰对推动上海绿色建筑做出突出贡献 的单位、个人及示范性绿色建筑项目。

标准科研 组织开展本专业领域内科研课题研究,为政府管理部门提供决策依据。开展上海市绿色建筑标准化专业技术 委员会工作,为制定适宜上海地区的绿色建筑标准提供支撑。同时开展上海市建筑产品企业应用标准(图集)相关工作, 推进"四新技术"在本市工程建设领域的推广与应用。

信息服务 通过协会网站、微信平台、简讯、短信群发、会员系统信息化等建设,多层面为会员单位提供信息服务渠道, 及时为会员单位提供协会动态、行业资讯、国际动态、政策法规等信息。

合作交流 加强与兄弟省市的同行交流联系,吸取先进的实践经验及技术成果,同时配合政府相关部门开展国际交流工 作,通过引进国外绿色建筑发展的先进理念、最新信息前沿技术,继续保持上海在绿色建筑方面的领先地位。

Key Focus Area

Train and propagandize related government department, propagandize the principles, laws, policies and measures, political methods, standard specification, typical cases, advanced experience. Promote the concept of the establishment of green building and organize related training, guide the membership take part in green building practice positively.

Industry Investigation launches the activities of industry research, know the development of green building in different fields, strengthen to promotion of good event and the summary the high-tech. Know the problems in the development of enterprises through investigation, helping to solve to problems, promoting the activities of green building.

Popularization and Display carry out the promotional activities to promote the four new technologies, build the platform of communication and cooperation. Under the guidance of government departments, we will hold shanghai green building and energy conservation science and technology week in early October every year, showcase the specialties of the green buildings in shanghai and east China. Reward the units, individuals and green building demonstration projects which have made outstanding contributions to promoting the Shanghai green buildings.

The standard Research conduct scientific research in this field of research, provide the decision-making basis for government department. Organize the standardization work in shanghai green building professional technical committee to provide appropriate support for the development of green building standards in shanghai. At the same time, carrying out the shanghai building products Apps standard related work, promoting the promotion and application of the 'four new technology in the city in the construction field.

Information Service Through the website of council, we hat platform, messages and the construction of the members' information, providing the way of information service for membership. To provide timely news, industry information, international developments, policies and regulations and other information for members.

Cooperation and Communication Strengthen cooperation and exchanging links with other provinces and peers, absorb the advanced experience and technical achievements, in conjunction with the relevant government to carry out international exchange, through the introduction of foreign advanced concepts of green building development, the latest information on cutting-edge technology, making shanghai take the lead of green building.

协会介绍 ASSOCIATION INTRODUCTION





协会机构

专业委员会:协会下设规划与建筑设计专业委员会、绿色建材专业委员会、绿色建造专业委员会、绿色住宅专业委员会、 绿色建筑运行管理专业委员会、绿色建筑设备设施专业委员会、节水与水资源利用专业委员会、建筑绿化专业委员会等分 支机构。

专家委员会: 由魏敦山院士、江欢成院士、叶可明院士、郑时龄院士领衔组成的专家委员会, 包含工程建设、高校、科研、 监督、检测、监理、管理等绿色建筑行业不同专业的专家共 112 人,均为建设部及上海地区的绿色建筑评审专家,具有较 高的专业水平及丰富的实践经验,形成了强有力的专家智囊团队。

上海市绿色建筑标准化专业技术委员会: 经上海市城乡建设和交通委员会同意由上海市市场管理总站会同上海市绿色 建筑协会共同组建成立,拥有委员 73 位。工作范围主要为涉及规划、设计、施工、运营、评估、能效测评、新材料、新 能源等标准的技术管理工作。

上海建筑信息模型技术应用推广中心: 受上海市建设和管理委员会委托,由上海市绿色建筑协会组织成立的专门机构, 负责支持市 BIM 技术应用联席会议办公室的工作。充分发挥协会在政府与企业之间的桥梁和纽带作用,利用协会所拥有的 各种资源、专业技能和专门知识,在 BIM 技术推广应用上为政府当好参谋,在 BIM 技术应用过程中为企业反映诉求和维护 权益。将中心发展成为提供技术支撑的智囊,协助政府管理的支持机构,促进行业健康发展的社会平台。

华东地区绿色建筑基地:该基地由中国城市科学研究会绿色建筑与节能专业委员会授牌成立。由上海市绿色建筑协会, 会同同济大学、上海市建筑科学研究院(集团)有限公司、华东建筑设计研究院有限公司、上海朗诗建筑科技有限公司、 上海国际航运服务中心开发有限公司、中节能实业发展有限公司共同组建,旨在打造绿色建筑理念推广、技术研发、项目 展示、培训教育、合作交流的平台。

南方中心:由中国建筑节能协会牵头成立,旨在探索中国绿色建筑以及建筑节能减排在南方气候和环境条件下的应对 方法。南方中心将以国家建设领域节能减排工作为中心,在南方地区开展调查、研究、咨询、宣传、培训,组织绿色建筑 以及建筑节能相关技术开发及推广应用,在政府、行业和企业之间发挥桥梁作用,通过网站互动、会议展览、考察组织、 案例收集与展示等形式,促进南方地区企业绿色建筑以及建筑节能减排技术发展。

The Institutions of Council

Professional Committee: There are planning and architectural design committee, green building material professional committee, the professional committee of green construction, green residential professional committee, green building professional committee of operation and management, green building equipment professional committee, water-saving and water use professional committee, green construction professional committee and branches in the council.

The professor committee is led by Wei Dunshan academician, Jiang Huancheng academician, Ye Keming academician, Zhang Shilin academician, including 112 professors in different fields of green construction such as engineering construction, colleges and universities, scientific research, supervision, inspection, supervision and management. These all the evaluation experts who have high professional level and rich practical experience from the powerful professor think tank.

Shanghai Green Building Standardization Technical Committee: After the permission of shanghai urban and rural construction and traffic committee, it's established by the shanghai market management station and shanghai green building council, having 73 members. The range of work mainly about planning, design, construction, operation, evaluation, assessment of energy efficiency, new materials, new energy, management job and other kinds of standard technical job.

Shanghai Building Information and Model Technology Promotion Center: Authorized by shanghai construction and management committee, it's the specialized agency set up by shanghai green building association, taking charge of the job of the application of BIM associate with meeting office in the city. Give a full play to be the band and bridge between the government and companies. Using different kinds of resources in council, professional skills and knowledge, being a good adviser for the management in the field of spreading the application of IBM, reflecting the companies' appeal and maintaining the rights and interests, developing the center to be the think rank for providing technical support, the association for assisting government management, promoting the healthy development of the industry social platform.

Green Building base in East China: The base was established by the city research association, green building and energysaving professional committee. It's consist of shanghai green building council, in conjunction with Tong Ji University, Shanghai Building Scientific Research Institute CO. LTD, East China Architectural Design and Research Institute CO. LTD, Lang Shi Construction Technology CO. LTD, Shanghai International Shipping Service Center Development CO. LTD, the Energy Conservation Industry Development CO. LTD, aiming at building the green building concept platform for idea promotion, technology research and development, project demonstration, training, education, cooperation and communication.

The Southern Center: Established by china building energy efficiency association, aiming at exploring the methods of Chinese green building and building energy conservation and mission reduction in the condition of southern weather and climate. The center focus on energy conservation and emission reduction in the field of country construction, launch investigation, research, consulting, publicity and training, organization of green building and the development and application of energy-saving technology. Play the important role in the government, industry and enterprise. Through the website interaction, convention and exhibition, investigation organization, case collection and display to promote the development of green building and building energy conservation and emission reduction in southern regions.

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