**2015新加坡清洁技术创新企业**

**(长沙)对接洽谈会**

**时间**: 8:30 - 17:00, 5月22日(周五) 2015 (上午8:30 开始注册)

**地点**: 长沙市国家高新技术产业开发区 文轩路27号麓谷企业广场C2栋创业服务中心一楼大会议室

**主办单位：**长沙市科技局 ([www.cssti.cn/html/cskjw/index.html](http://www.cssti.cn/html/cskjw/index.html))

 长沙高新区管委会([www.cshtz.gov.cn/](http://www.cshtz.gov.cn/))

承办单位：长沙高新区创业服务中心（[www.cnibi.cn](http://www.cnibi.cn/) ）

 TechBridge Ventures Pte Ltd ([www.tbv.sg](http://www.tbv.sg/)), 新加坡

支持单位：新加坡标新局([www.spring.gov.sg/Pages/Home.aspx](http://www.spring.gov.sg/Pages/Home.aspx))

 新加坡南洋理工大学（[www.ntu.edu.sg](http://www.ntu.edu.sg/) ）

作为一个资源有限的城市型国家，新加坡自建国以来既高度重视节能环保产业建设，政府不断增加投入，从支持开发创新技术到协助企业扩大生产，从人才培养到项目扶持，从满足本国需求到开拓国际市场，新加坡在海水淡化，废水利用，垃圾处理和绿色节能建筑等领域成绩斐然。中国作为世界上的人口和能源消耗大国，环境问题日益成为社会关注的焦点，也同时带来巨大的产业发展空间，市场潜能持续释放。针对当前热点的环境和能源话题，包括有机废水和重金属废水的治理，雾霾问题，绿色和智能建筑等，藉此次企业路演之契机，十一家新加坡创新企业和机构将分享他们在以上领域的创新技术和成果，加强同中国同行的交流，并寻求同中国上下游企业的合作，共同开拓并完善产业链。能源和环保产业是资金和技术密集型产业，希望藉此次活动，加强国际合作和PPP合作（政府和企业的合作），促进技术和资本的嫁接，实现环境和经济双效益。

**活动议程**

|  |  |  |  |
| --- | --- | --- | --- |
| **时间** | **报告人及职务** | **公司或机构名称** | **演讲主题** |
| 9:00-9:05 |  | 长沙市科技局 |  |
| 9:05-9:10 |  | 长沙市国家高新技术产业开发区管委会 |  |
| 9:10-9:20 | 何文逸总监 | TechBridge Ventures |  |
| 9:20-9:30 |  |  | 签约 |
| 9:30-9:45 | 谢兴文董事长 | 长沙南方宇航环境工程有限公司 | 抓住机遇、创新机制、治污净水 |
| 9:45-10:00 | 蒋晓云副总经理兼总工程师 | 长沙华时捷环保 | 工业污染资源化的探索 |
| 10:00-10:15 | Tan Soon Keat教授，副院长 | 南洋环境与水源研究院，南洋理工大学 | 成为解决方案的一部分 |
| 10:15-10:30 | 茶歇及互动交流（这个时间可能不单列） |
| 10:30-10:40 | 刘军, CEOWang Echo, 财务和商务总监 | Century Water Systems & Technologies | 新型中空纳滤膜的应用及产业化 |
| 10:40-10:50 | 程久华，CEO | Joyce River High-Tech | 适用于不可生物降解的高污染工业有机废水的膜反应器 |
| 10:50-11:00 | 许仕良, 董事总经理 | LiquidGold Enterprise  | 金萃取和回收绿色技术 |
| 11:00-11:10 | Roger Rosche, CEOLiu Haobing, CTO | WiseWater | “创新技术及解决方案” – 水处理产品，解决方案，技术授权，代理合作 |
| 11:10-11:20 | Kelvin Lam, 项目总监Christopher Low, 研发总监 | EnviChem Technologies | 新型隔膜电解技术在金属回收和工业废水处理中的应用 |
| 11:20-11:30 | Sean Tan, CEO | The GoodWater Company | 便捷、有效、经济的饮用水技术和解决方案 |
| 11:30-11:40 | Tan Soon Keat教授，董事 | NE4Technology | 分离，生物反应，水力空化和建模等技术的咨询服务 |
| 11:40-11:50 | Mahesh Patel, CEO | ShayoNano | 纳米技术– 小小材料，大大未来 |
| 11:50-12:00 | Lloyd Soong, CEO | Pasture Pharma | 雾霾天出行必备– 美国药监局认证产品 |
| 12:00-12:10 | Daneil Tong, 总经理 | Salus Nanotechnologies | 简单、有效、经济的空气清洁技术 |
| 12:10-12:20 | Zhang Yiyang, Darrell, CEO | Intraix | Intraix能源管理解决方案 |
| 12:30-14:00 | 自助午餐及互动交流 |
| 14:00-17:00 | 一对一交流 |

**华时捷环保简介**

长沙华时捷环保科技发展有限公司成立于2000年，现有员工400余人，是一家集研发、制造、设计、咨询、施工、运营于一体的综合性环境服务企业。

作为“环境卫士”、“环境医生”，公司承载着重金属水质监测与治理技术研究的伟大使命和责任感。公司立足于企业治污目标和环保技术提升,不做“豆腐渣”工程，涵盖全国60%铜冶炼产能、50%黄金冶炼产能和40%铅锌冶炼产能的废水治理工程。

拥有一支以留学归国博士、高级工程师等一流人才为核心的人才队伍，先后承担国家“863”计划、国家重大科技专项“水专项”等多项国家级科研课题，获得2013年有色金属工业科学技术一等奖等荣誉。

公司始终坚持以市场为导向，加速科技成果转化与产业升级，广泛进行产学研合作和国际交流合作，并建立了遍及全国的客户营销网络。目前公司的技术与产品已在全国30多个省区的2300多家客户处得到成功应用。

环保事业，功在当代，利在千秋。长沙华时捷环保科技发展有限公司秉承“让每一位客户满意”的宗旨，不断加快自主知识产权开发和应用步伐，并为客户提供最优质的服务，创造最卓越的价值。

**About Hasky Company**

Hasky was founded in 2000. It’s one of High-tech enterprises, which specialized in the environmental online monitoring system, the environmental engineering technology and the complete set of equipment research, manufacture and application with high technology and new technology enterprises.

Hasky owns a technical research and development team, which is consisted of Doctors who studied abroad and returned and industry experts. Hasky has assumed the national major science and technology projects "water project", the national "863" plan, the “torch plan” of the Ministry of science and technology, Ministry of science and Technology Innovation Fund, the provincial key science and technology program and many other research projects.

Hasky is a member of the council unit of China Environmental Protection Industry Association Executive, the vice-president unit of Hunan Environmental Protection Industry Association, and it is selected as a key enterprise of China Environmental Protection Industry Association, one of the “hundred” enterprises of the province strategic emergent industry.

**主题报告嘉宾：蒋晓云简介**

蒋晓云，长沙华时捷环保科技发展有限公司副总经理兼总工程师、博士、高级工程师、湖南省青年企业家协会副会长, 国家环保部特聘教师，德国洪堡基金会会员。

2008年加入华时捷之后带领公司技术人员采用电化学技术成功解决有色冶金领域高浓度含砷硫酸废水处理、冶炼行业砷碱渣处理与资源化利用的难题，在有色冶炼、固废处置、土壤修复、烟气脱硝等领域完成相关工程二十余项，同时将电化学技术推广应用到采选矿、电镀、涉重金属工业园等领域，完成工程项目二十余项，积累了大量工程实施经验和工程管理经验。带领公司技术人员大胆创新，主持研发了垃圾渗滤液的电催化氧化处理技术，并成功得到应用。

工作以来先后获得湖南省优秀企业家、长沙市优秀创业女企业家、中国环境科学“优秀青年科技奖”、长沙市青年科技奖、全国优秀科技工作者、长沙市三八红旗手，湖南省总工会“芙蓉百岗明星”等荣誉称号。

2013年研究的“重金属高砷酸性废水电化学处理技术开发及工业化应用”获得中国有色金属工业科学技术一等奖。

Jiang Xiaoyun is the Deputy General Manager and Chief Engineer in Changsha Huashijie Environmental Protection Co., Ltd; senior vice president of the Young Entrepreneurs Association of Hunan Province, distinguished teacher of the Ministry of Environmental, members of the German Humboldt Foundation.

Dr Jiang joined Huashijie at 2008, ever since that, she successfully solved the arsenic containing sulfuric acid wastewater treatment via electrochemistry method. Dr Jiang also resolved the arsenic disposal in melting industry and resource utilization issues. She successfully completed more than 20 projects in areas such as non-ferrous metallurgy, solid waste disposal, soil repair, flue electrochemical techniques. Moreover, she finished another more than 20 projects in other field such as mining mineral processing, electroplating, and industrial park construction and so on. She has accumulated a wealth of engineering experience and project management experience. She promoted innovation among the company, presided over the development of the electro-catalytic oxidation of landfill leachate treatment technology, which has been successfully applied in real application.

Dr Jiang has received Outstanding Entrepreneurs Award in Hunan Province, Changsha Outstanding FemaleEntrepreneurs Award, China Environmental Science "Outstanding Youth Science and Technology Award", Changsha City Youth Science and Technology Award for outstanding scientific and technological workers, Women's Federation in Changsha City, Hunan Province, General Trade of Hunan Province "Lotus Baigang Star" honorary title.

In 2013, his study of "development and industrial application of electrochemical wastewater treatment in heavy metalcontaining and high arsenate concentration acid waste" has won the 1st award in China Nonferrous Metals Industry Science and Technology Award.

**长沙南方宇航环境工程有限公司简介**

长沙南方宇航环境工程有限公司是中国航空工业集团公司（世界500强）的下属企业，隶属于中航工业湖南南方宇航工业有限公司，公司前身为长沙中绿环境工程设计建设有限公司和株洲南方宇航环保工业有限公司。长沙中绿环境工程设计建设有限公司创建于1997年，原由长沙市环保局、长沙市公用事业局和省建筑设计院组成。为适应市场经济发展的需要，2012年湖南南方宇航工业有限公司将所属全资子公司株洲南方宇航环保工业有限公司的股权增资至长沙中绿环境工程设计建设有限公司，完成重组。2013年12月，更名为长沙南方宇航环境工程有限公司。

公司具备市政行业 (排水工程) 专业甲级、环境工程（水污染防治工程）专项甲级；市政行业(环境卫生工程) 专业乙级、环境工程（大气污染防治工程、固体废物处理处置工程）专项乙级的专业设计资质，还拥有环境工程专业承包叁级资质、环境污染治理设施运营乙级资质（生活污水、工业废水），可为市政工程和环境保护工程提供全方位服务。

公司致力于市政给水、市政污水、工业废水、垃圾渗滤液处理、固液分离设备等环保领域的工艺研究、产品研发、工程设计、工程总包等，形成了设计、制造、集成、工程安装、调试运营等一条完整的污水处理产业链。公司注重基础研究和技术创新，是国家认定的高新技术企业，并且通过了IS09001质量体系及ISO14001环境管理体系国际认证。

公司秉承中航工业“敬业诚信、创新超越”的经营理念，坚持“专注环保，造福人类”的企业价值观，信守承诺，优质服务。不推广不成熟的工艺，不使用性能不合格的设备，不承接没有把握达标的工程，争取把每一个工程都做成优秀示范工程。

营造碧水蓝天，建设美丽中国！

**About Changsha Nanfang Aviation Environmental Engineering**

Changsha Nanfang Aviation Environmental Engineering Co. Ltd. is affiliated to the AVIC Hunan Nanfang Aviation Industry Co.Ltd, which is the subordinate enterprises of Aviation Industry Corporation of China (Fortune Global 500). The company was formerly known as Changsha Green Environmental Engineering Design and Construction Co. Ltd and Zhuzhou Nanfang Aviation Environment-Protection Industry Co.Ltd. Changsha Green Environmental Engineering Design and Construction Co. Ltd was founded in 1997, which was composed by the Environmental Protection Bureau, the Public Utilities Bureau of Changsha and the Architectural Design Institute of Hunan Province. In order to meet the needs of the development of market economy, the AVIC Hunan Nanfang Aviation Industry Co.Ltd increased the equity capital of Zhuzhou Nanfang Aviation Environment-Protection Industry Co.Ltd into Changsha Green environmental Engineering Design and Construction Co. Ltd, the reorganization completed in 2012. In December 2013,the company was renamed as Changsha Nanfang Aviation Environmental Engineering Co. Ltd.

The company has professional design qualifications as follows: Professional Grade A qualification in Municipal professional (Drainage engineering) and environment engineering (Water pollution prevention and control engineering), Professional Grade B qualification in municipal professional (Environmental Sanitation Engineering) and environment engineering (Air pollution prevention and control engineering, Solid waste disposal projects), in addition, the company has Professional Grade C qualification in environmental engineering professional contracting and Grade B qualification in environment pollution control facilities operation (sewage, industrial waste water). The company can provide a full range of services for municipal engineering and environmental engineering.

Our company dedicates to the environmental protection technology research，product development，engineering design，project total package in the fields of municipal water supply, municipal sewage and industrial wastewater，landfill leachate treatment, solid-liquid separation equipment etc. We have already formed a complete sewage treatment industry chain operation by design，manufacture，integration，engineering，installation，debugging etc. Our Company lay emphasis on basic research and technological innovation. And the company is the high-tech enterprises recognized by Nation，and has passed the IS09001 international quality system and ISO14001 environmental management system certification。

The company obeys to the business philosophy of AVIC by “Dedication, Sincerity， Innovation, Surpassing”，and adheres to the Company Values of "Focusing on environmental protection，Conferring benefits on society"，keeps promise and provides high quality service. We promise that we would never promote immature technology， use unqualified equipments，and won’t undertake engineers that we have no confidence to finish. We’ll try our best to make every project to be an outstanding demonstration project。

Our goal is to provide clean water, blue sky and build a beautiful China!

**主题报告嘉宾：谢兴文简介**

谢兴文，长沙南方宇航环境工程有限公司董事长，男，湖南宁乡人，1964年出生，研究生，研究员级高级工程师， 1986年7月参加工作。1990年参加湖南省科学技术协会会员。2009年2月任中航工业长沙南方宇航环境工程有限公司总经理，2015年1月任公司董事长。在谢兴文的带领下，公司从零开始创业，从创立初的几个人发展成为营业规模过亿、湖南省水处理行业的优秀企业。公司具备市政行业 (排水工程) 专业甲级、环境工程（水污染防治工程）专项甲级；市政行业(环境卫生工程) 专业乙级、环境工程（大气污染防治工程、固体废物处理处置工程）专项乙级的专业设计资质，还拥有环境工程专业承包叁级资质、环境污染治理设施运营乙级资质 （生活污水、工业废水），可为市政工程和环境保护工程提供全方位服务。

**新型中空纳滤膜的应用及产业化**

***Commercialization and Application of New Hollow Fiber Nanofiltration Membrane***

**内容提要**

作为在八百多个公司中入围新加坡2014年新兴企业的唯一一间自来水公司，世纪水处理系统及技术一直致力于研发工业净化和废水处理领域的最新技术和产品。近日，世纪水与一个世界一流大学的团队成功研发出中空纤维纳米过滤器（HFNF）膜并成功通过了在不同领域的应用测试。相比市场可用的螺旋缠绕式和以PA为基础的NF膜，我们HFNF膜具有以下优点：

* 与市面上可见的螺旋缠绕/平板型NF膜相比，3：4的比例增大了表面积
* 相比聚酰胺NF许多更强的抗结垢性。
* 抗氯化性能
* 工作压力可以从0.5 Bar到10 Bar ，使其可在饮用水和工业用水的净化和污水处理方面得到应用。
* 还有很多其他潜在的应用例如可以做为溶剂药物分离剂在化工/制药等行业有所应用。

基于HFNF在水处理市场上存在巨大的应用潜力，我们坚信会大幅度改变水处理传统模式。我们正在积极寻找潜在的合作伙伴和战略投资者，希望可以尽快将我们的产品推向市场。合作方式可以包括分销商，OEM以及制造业等很多不同方式。

***Abstract***

As the only water company who has been awarded 2014 Emerging Enterprise Finalist in Singapore among 800 plus contester's, Century Water Systems & Technologies has endeavored to apply latest technologies and products for industrial water purification and waste water treatment. Recently, Century Water has developed together with one first-class University new type of Hollow-Fiber Nano-Filter (HFNF) membrane with several successful pilot tests in different industries. Compared to market available Spiral Wound type and PA based NF membrane, our HFNF membrane has the following advantage:

* 3-4 fold more surface area compared to market available spiral wound/flat sheet type NF from competitors
* Much stronger anti-fouling property compared to Polyamide NF.
* Anti-chlorination property
* Wide operating pressure from 0.5- 10 bar make it possible to be used for both drinking water and industrial water purification and waste water treatment.
* Many other potential applications like as solvent drug separation from chemical/pharmaceutical industries etc and more to explore.

With the huge potential application of this HFNF in future water market, which, we strongly believe will change many conventional way of water treatment, we are actively looking for potential partners and strategic investors to commercialize the product and push to market as soon as possible. There are many ways of collaboration including distributors, OEM as well manufacturing etc.

***About the Speaker –Mr. Eugene Liu***

Mr. Eugene Liu is the founder and CEO of Century Water Systems & Technologies Pte Ltd with the branch offices in Malaysia, China and distributors in Indonesia, Myanmar.

Mr. Eugene Liu has more than 20 years of experiences in water industries from semiconductor, pharmaceutical, desalinization to drinking water. He has installed and operated more than 30 water treatment systems in pure water, ultrapure water, biological waste water treatment, Advanced Oxidation Process for waste water reclaims, seawater desalination and ultrafiltration in drinking water. Mr. Eugene Liu holds Master of Chemical Engineering from National University of Singapore. His previous positions including Engineering Manager in STMicroelectronics （意法半导体）, Senior Project Manager in Christ Water Technology Shanghai (可瑞水上海高级项目经理), Head of Service and Process Engineering in Christ Water Technology Singapore （可瑞水新加坡工艺设计及售后部主任）, and Technical Director (技术总监) in Ovivo (Christ Water Technology) Taiwan Co. Ltd. （沃威沃台湾).

***Target for China***

1. Look for business partners and JV partners for China market
2. Look for investment/funding (50 million RMB) for commercialization
3. Look for projects and clients

**适用于不可生物降解的高污染工业有机废水的膜反应器**

***The Membrane Bio-reactor for Non-Biodegradable Organic Chemical Pollution in Industrial Wastewater***

**内容提要**

久瑞高科2010年成立于新加坡，由程久华博士领军。程博士先后获得国立大学原创科研基金300万新元（Initiative）和新加坡政府的科技创业基金 (SPRING TECS-POC, POV) 72万新元的支持。所开发的无支撑电泳纯化工艺（IEM-FFIEF），电驱动分顿有机污染降解技术（E-Fenton），有机溶剂回收技术都是基于薄膜材料的创新应用，对于合成制药、化学工艺、纺织印染、石油化工、地沟油的回收和转化、工业废水废油的处理都有重大贡献。因此，E-Fenton 技术获得新加坡公用事业局(PUB) 的项目支持，意在解决新加坡的废水系统中有机药物、有机化学品污染的问题。我们认为E-Fenton技术同样也是解决中国类似问题的出路，是实现12.5规划中要求地方环保控制COD (化学需氧量)降低8%的目标的关键技术。该技术对于难以降解的水溶性有机化学污染，高污染乳化液、荧光剂、染料等都具有高效率的降解功能，不产生二次污染, 处理沉降后的废水可直排或继续生化处理。该项技术在新加坡的市场测试中获得良好反响，革兰素史克（GSK）、MSD、Pratt&Whitney等跨国公司都表示对该技术的强烈兴趣并已开始试用我们的E-Fenton系统进行线外处理。

该项目的宗旨在于为E-Fenton技术寻找在中国的着陆点，使该技术在工业领域的应用实现规模化、产业化，为全球的环保技术再添动力，为中国的工业可持续发展提供技术上的可行性，挽救即将关停并转的地方小企业，为地方的经济发展创造新的增长点。

Various toxic and harmful chemicals have been extensively used in pharmaceutical industries. Human being has not found a proper post treatment method for most of these chemical pollutants remained in water source and land. Once they are discharged into environment, they will affect all biological in the environment in generations. Phenol (polyphenols) groups and other aromatic groups are commonly appear in synthetic drugs, thus they frequently appear in the waste water from pharmaceutical industry as well. It has been proven that phenols have both an anticarcinogenic-proapoptotic effect and a carcinogenic, DNA damaging, mutagenic effect, inducing DNA mutations in the MLL gene, which are common findings in neonatal acute leukemia (blood cancer). Once the phenol is discharged into municipal water system, not only human being suffers the un-prescript dosage, but also the anaerobic bacteria in MBR system will be deactivated and mutated, leading to the whole MBR in waste water treatment plant (WWTP) lost functions.

Membrane technology provides huge potential for removal of these pollutants from pharmaceutical industry discharges. However, the water soluble small organic molecules such as phenol or organic acid seemingly are bottle-necks of membrane based filtration technology. For example, somebody claimed that NF membrane could remove dyes from water under low concentration, when the concentration reaches to above 200ppm COD, the NF will not continuously work. In order to bridge the gap for membrane application in industries, we, Joyce River Hi-Tech engage our business in membrane technology research, developing E-Fenton technology for organic chemical removal from industrial wastewater. The E-Fenton technology is particularly effective for the decomposition of aromatic chemicals, such as phenol, aniline, biphenol and polyphenols, without secondary waste produced. We have received the POV fund from SPRING, and verified the value of membrane based E-Fenton technology in pharmaceutical industry.

In this Testing Bed proposal, we plan to repacking and branding our E-Fenton equipment for commercialization. Automation, instrumentation, outlook design and advertisement will be studied through the government fund. We use phenol as indicator for organic chemical removal, because it is more difficult to decompose than alcohol, acetate and other organic solvents. We target a full solution for COD removal from industrial waste water, providing high performance, lower cost, compact fitting, higher loading and user friendly process to the industries. If the PUB testing bed is approved, a series of matured E-Fenton equipment can be manufactured and supplied by our company. In that way, Joyce River will be proud of SPRING’s support, and PUB makes a great impact in the scope of green technology.

***About the Speaker - Dr Cheng Jiuhua, Monica***

Dr Monica Cheng Jihua, CEO and founder of the membrane company Joyce River High Tech, is an expert on membrane-based electro-reactor and solvent recovery processes. In the treatment of industrial waste water, Joyce River Hi Tech differentiates from the usual approach in water treatment. The company focuses on membrane-based chemical treatments and provides customized purification technologies for specific industrial applications. A mother of two and a proponent of green technology, Dr Cheng advocates prudent investment in upstream manufacturing processes for savings downstream, likely in folds of tens. Successful outcome from the initial SPRING proof-of-concept (POC) grant led to a subsequent proof-of-value (POV) grant which her company champions to deliver a brand-new chemical oxygen demand (COD) removal process for high chemical pollution and PTFE hollow fiber membranes for solvent recovery and water desalination.

***Target for China***

1. Look for clients who wants their highly durable membrane, e.g. PTFE membrane for distillation and filtration especially for the extreme environment.
2. Look for investors and/or business partners to take off the China market
3. Look for clients who are facing the problem with high COD wastewater treatment.

**金萃取和回收绿色技术**

***Green Technologies for Gold Leaching and Recovery***

**内容提要**

随着电子产品的增幅生产，也带来了越来越多的电子垃圾，而其中往往含有很多可以回收的金银贵金属。以往，工业上采用王水（硝基盐酸）金浸出方法。它使用王水从原材料中浸出金，银，铜，镍等元素。然而，由于王水没有办法区别出不同的金属元素，使得这种传统的方法效率很低。与此同时，其他贵金属都浪费了在黄金回收的过程中。自2009年开始，LGE电子实施了锌粉置换法回收金。 2010年，他们成功地推出了一个更加环保，可靠，便捷的技术。他们设计的一台可以在一个封闭的环境中循环回收金的仪器，已经实现了99.9％的回收效果。第一次使用时，可产生纯度高达90％海绵状的金。最重要的是，这种技术完全不含氰化物等有害化学物质，更方便了废水废物处理。

***Abstract***

With the current increasing trend of electronics production, more and more e-waste is being produced. These unwanted products, in bulk, contain vast deposits of gold and silver which are worth recovering. Conventionally, gold recovery aqua regia (nitro-hydrochloric acid) leaching method is industrially employed. It uses aqua regia to leach metal elements from raw components followed by the recovery of gold, silver, copper, nickel, etc. from the resulting electrolyte. This method is inefficient as aqua regia dissolves metal elements indiscriminately, making it difficult to isolate gold from the mixture of metal ions. Likewise, other precious metals are wasted in the process of gold recovery. At the start of 2009, LGE implemented the zinc replacement method for gold recovery. In 2010, they successfully came out with a more environment friendly, reliable and convenient technology. They design a machine that provides a closed environment to circulate gold recovery and it has achieved an efficacy of 99.9% in gold recovery. With first time usage, it can produce a sponge gold with purity up to 90%. On top of that, this technology absolutely rules out use of cyanide containing chemicals and making waste management easy.

***About the Speaker Mr Xu Shiliang, Jimmy***

Mr Xu Shiliang has 25 years of working experience in food and chemical industries. He founded LGE in 2011, which is the amalgamation of his lifelong experience complemented by my professional knowledge, optimism and spirit for progression. Before becoming an entrepreneur, Mr Xu worked for China Tian Hu Group, T&W Garment Process Finishing Pte Ltd, Finest Gold & Silver Refinery Pte Ltd (Finest Gold), SCA Specialty Chemical Pte Ltd and UTC (Shenzhen) Specialty Chemical Pte Ltd as Engineer, Sales and R&D team leader.

***Target for China***

1. Look for business partners including representatives/distributors for China market
2. Look for investment/funding (5 million RMB) to start the pilot production line

**“创新技术及解决方案” – 水处理产品，解决方案，技术授权，代理合作**

 ***“Innovative technology with new Solutions” - Products, Solutions, Licensing, Distribution for Water Treatment***

**内容提要**

WiseWater是一家新加坡注册的公司，IP由麻省理工学院和新加坡国立大学共同研发。这项技术可以达到120％的电流效率和单个多达99％的离子减少率。我们正在努力利用离子浓度极化新技术（ICP）和偏振电渗析技术（PED）来为客户提供从海水，苦咸水，污染水到优质水的低成本低耗能转化。与此同时，这项技术还解决了在反透析和传统电透析方法中无法去除的有机物和重金属离子。

安全饮用水一直具有巨大的市场。据估计，全世界超过二十亿人还并没有安全饮用水。因此，我们面临的挑战是可以通过一个极其简单的装置实现从海水，苦咸水，污染水到安全清洁饮用水的转化。

***Abstract***

WiseWater Pte. Ltd. is a Singapore registered company with innovative new IP from MIT and NUS which uses a new concept for water purification. We are using the research work from MIT and NUS to design and market a commercial version that is an acceptable product for the marketplace. This technology can achieve 120% current efficiencies and see as much as 99% ion reduction in a single pass. We are developing breakthrough products into the marketplace using this new technology called Ion Concentration Polarization (ICP), and Polarized Electro Dialysis (PED), to provide low cost, low energy consumption, high quality fresh drinking water from seawater, brackish water, and contaminated water. This technology also strengths not available in Reverse Osmosis or traditional Electro Dialysis in the removal of organics and heavy metal ions.

The market for safe drinking water is huge. It is estimated that over 2 billion people worldwide do not have adequate access to this resource. The challenge is to provide a user easy, almost idiot proof device that can take seawater, brackish water, or contaminated heavy metal water and provide safe and clean drinking water.

***About the Speaker –Mr Roger Rosche and Dr Liu Haobing***

Roger started WiseWater as an incubatee of Small World Group as CEO and Director since Sept. 2012. Found and hired 5 full time staff dedicated to the commercialization of this Ion Concentration Polarization technology. Applied for and received a Singapore $235,000 research grant from PUB and SPRING for Waste Water Heavy metal treatment using our technology. They have also closed on an additional $586K U.S. investment in the form of a convertible debt. They have filed two patent application and U.S. National and PCT for a new version of the technology we are commercializing, awarded a $145.3K Spring PACT grant for a Cooling Tower recovery project with Keppel.

Before founded WiseWater, Roger was also a founder and CEO of Remind Cap Pte. Ltd from 1998 - August 2012. They secured 11 initial investors and $500,000 U.S for Remind Cap. The company focuses on adherence products for the Pharmaceutical industry. Helps people take medication correctly and timely for directed programs for chronic medication users. Five pills/month improvement. Their primary market is U.S. Have also generated sales in Asia Pacific for blister case version with Novartis. Roger have personally closed on over $4.5 million from 79 qualified new and original investors. His responsibilities included all aspects of operation, research, production, marketing, sales, and investor development.

 Roger is also a very experienced and successful Finance Business Planning Management, Nortel (1984-1998), US, Japan, Singapore. He has 13 years in Finance with Northern Telecom Corp, 5 years at corporate headquarters rotating through numerous job responsibilities including a year as Senior Cost Manager for a Manufacturing division located in Nashville and a year as dotted line Finance support for the Senior VP of Operations, Nashville, TN. 3 years as Nortel’s business finance manager for Japan. 2 years in Japan as the accounting and business planning consolidations Finance manager for Nortel World Trade organization, consolidating and reporting financial results monthly for Europe and Asia. Last 3 years with Nortel as the Asia South Pacific Finance Business Planning Manager, and prime for regional country specific audits, based in Singapore.

Dr Liu Haobing received his PhD from Mechanical Engineering, Nanyang Technological University (NTU). Five Year Research Fellow in NTU, designed and micro-fabricated the micro-fluidic systems. 10 major projects, 5 awards, 15 publications and 6 patents filed.

***Target for China***

1. Look for business partners and JV partners for China market
2. Look for investment/funding (2.5 to 15 million RMB) for commercialization

**新型隔膜电解技术在金属回收和工业废水处理中的应用**

***Metal Recovery and Wastewater Treatment Using Novel Partition Electrolysis Technology***

**内容提要**

Envichem最近研发了一种隔膜电解技术(MET), 这是一项针对污水处理，电镀，采矿及贵金属回收等产业而研发的高适应型而且可以满足复杂环境要求的高新技术，并已收到SPRING TECSPOV的项目资助。目前专利还在申请中。

***金属回收***

这项技术用作金属回收湿法冶金工业。由于其工艺特殊性，使得其选择性和效率都高于传统方法。

另外一个关键优势是再生化学浸出的同时回收高纯度金属，可以应用于例如在催化剂中回收废镍，电镀夹具中回收废镍，印刷电路板回收铜刻蚀剂等等。

相对于其他金属的浸出/回收技术，MET技术没有显著的二次污染问题，同时有可观的经济效益。目前，MET试验工厂废镍催化剂回收已建成并投入运行2年之久，并呈现出可喜的成果。

***废水处理***

在废水处理的的领域中，根据污水不同性能，MET可以作为已有系统的补助也可以单独运用。目前的测试工作主要集中于利用MET来处理酚类化合物和降低COD参数，来满足下游生物系统正常运行。

MET也作为单独系统在染料污水中进行测试，测试结果表明他可以成功地降低色度，COD去除率高于85%。

***Abstract***

Envichem would like to introduce their newly developed partition membrane electrolysis technology termed as (MET), which is targeted at wastewater treatment, electroplating, mining and precious/base metal recovery industries. With a modular set up, durable membranes and an innovative electrochemical cell design, the MET is highly adaptable either as a complementary or standalone technology for a multitude of complex wastewater and metal separation/recovery applications. The MET technology received the SPRING TECS fund in 2013 and featured by “The Straits Time”. The MET technology is currently patent pending, with continuing development for a wider range of applications.

***Metal Recovery***

The MET is used as a hydrometallurgical process in metal recovery. Due to the presence of the special membrane cells, the selectivity of the target metal and electrical efficiency is significantly higher than conventional electroplating and electrowinning cells.

Another key advantage is the ability to regenerate the leaching chemical while simultaneously recovering high purity metal. Some possible applications are, selective recovery of nickel from spent nickel from spent nickel-alumina catalyst, nickel stripping from plating jigs, PCB copper etching and etchant recycling, and electro-winning in mining industries.

Compared to other metal leaching/recovery techniques, the MET technology does not generate significant waste chemical or air pollution, while providing an economically feasible process for metal recovery. Currently, a MET pilot plant for the recovery of spent nickel catalyst has been built and been in operation for 2 years, showing promising results.

***Wastewater***

In the field of wastewater, MET can be used as a complementary or standalone process depending on the wastewater characteristics. Currently, trial tests are being conducted to use MET to treat phenolic compounds and reduce COD level for pharmaceutical wastewater, to complement a downstream biological treatment system.

MET has also been trialed as a standalone treatment solution for dye penetrant wastewater, successfully showing in test results of reducing color and COD by over 85%.

***About the Speaker – Christopher Low Hwee Chiang and Kelven Lam Jian Xiong***

Christopher is the co-inventor of the novel MET technology. He has 15 years of working experience in metal finishing and electrochemical processes. He is also a Senior Research Engineer in the Singapore Institute of Manufacturing (SIMTech), A\*STAR. He co-designed the MET pilot plant and is assisting EnviChem in commercialization of the new technology.

Kelven graduated from Nanyang Technological University in 2012, earning a 1st class honors degree in Environmental Engineering. He has been involved in the research and development of the MET technology for 4 years, and is also responsible for business development and commercialization of the technology.

***Target for China***

1. Look for business partners and JV partners for China market
2. Look for investment/funding (10 to 20 million RMB) for commercialization

**便捷、有效、经济的饮用水技术和解决方案**

***Empowering Bottom of Pyramid (BoP) with Simple Technology***

**内容提要**

以独特的商业模式，用最简单的创新方式满足基本需求。打造社会和环境的综合平台，逐步满足更多的人基本基础设施的需求（例如水，能源，教育，健康等）。

作为GoodWater公司，我们着重于解决根本问题， 例如：

1. The GoodBottle
* 陶瓷过滤，可以去除小于0.2um的细菌。
* 活性炭竹炭去除细菌和异味
* 村民或难民可以直接在河流中舀脏水，经过进入瓶内处理可以即时转化为干净的饮用水。
* 应用地区：菲律宾，雅加达（印度尼西亚）
1. 水净化袋

- 轻便并且功能强大的便携式过滤套件

- 简单的组装，几乎不需要任何准备时间

- 膜系统能够在不添加任何化学品生产清洁水

- 维护工作简单便捷

1. 生物降解

- 使用100 ％环保的聚谷氨酸

- 有效去除重金属离子，化学需氧量，胶体颗粒，色素

- 低剂量/有效去除污染物

- 适用于长期使用于雨水和地表水等的净化

- 应用地区：丹戎槟榔（印度尼西亚， Pangkalan太平清醮（印度尼西亚，勒克瑙（印度），孟加拉国，柬埔寨

 4. 便携式水泵过滤柱

 - 便携式吸泵与混合滤波器

 - 旨在消除胶体和小颗粒

 - 按下抽帽，按步骤进行污水处理，有效生产清洁饮用水

 5. 易读注射器（急救用品）

 - 可以控制吸收和注射药液量

 - 帮助视障人士克服在紧急情况下药液注射方面的困难

 6. 护腕手表（可穿戴）

 -可以感知音量过高警告，并有闪烁灯和振动提醒

 - 为听力受损用户提醒潜在的危险

***Abstract***

A unique business model to empower and exceed BoP increasing needs with simple innovations. A social and environmental integrated platform to create symbiosis and help more people gain access to basic infrastructure needs (i.e. water, energy, education ,welness, etc...) progressively.

At The GoodWater Company, our focus is on simple, intuitive and affordable solutions for the Bottom of the Pyramid (BOP). To name a few examples:

1. **The GoodBottle**
	* Ceramic Filtration designed to remove up to 0.2 micron sized bacteria
	* Activated Carbon Charcoal to remove both bacteria and odour
	* Villagers or disaster refugees can scoop dirty water from rivers or other sources into the bottle & immediately pump out clean water for drinking
	* Applications: Philippines, Jakarta (Indonesia)
2. **Water Purification Bag**
	* Light, powerful, portable filtration kit
	* Simple assembly with virtually no setup time
	* Membrane system capable of producing clean water without addition of any foul tasting chemicals
	* Simple maintenance and care
3. **Bio-degradable Flocculent**
	* 100% eco-friendly flocculent using Polyglutamic Acid
	* Effectively removes heavy metal ions, COD, colloidal particulate, colour
	* Low dosage /  contaminant removal
	* Applicable for long-term usage in purification as part of rainwater harvesting and for surface water
	* Applications: Tanjung Pinang (Indonesia), Pangkalan Bun (Indonesia), Lucknow (India), Bangladesh, Cambodia
4. **Portable Water Pump Filter Column**
	* Portable suction pump with hybrid filters
	* Designed to remove colloids & small particles
	* By pressing the pumping cap, polluted water is treated “step by step” to produce clean drinking water
5. **The Readable Syringe (packed into our first aid supplies)**
	* Draws and dispenses the right amount of liquid medicine
	* Helps the visually-impaired in overcoming challenges faced during self-administration of liquid medicine
6. **The BRACER Watch (Wearable)**
	* Senses loud audio warning signals and uses flashing lights and vibrations
	* Alerts hearing-impaired users of potential dangers

***About the Speaker -Sean Tan***

Sean Tan is the Founder and CEO of The GoodWater Company (TGWC). Born in 1977, Mr Tan has spent half his life on a career in the software and banking industry. He has held various global management positions upon graduating from the University of Tasmania with a BA in International Business.

Sean has exactly what the world needs – TGWC is an integrator of social and environmental solutions to address communities residing at the Bottom of The Pyramid (BoP). In just 3 years, he has transformed TGWC into an enterprise ESR, Environmental and Social Solutions Company with offices in 4 countries. Currently headquartered in Singapore, at Biopolis, TGWC is also present in Shanghai and has a second center of excellence in Jakarta & Malang, Indonesia. The company has also been nominated as top SME 500 in Singapore 2014.

It was at the middle of 2011, that he decided to pursue an entrepreneurial path in the social and environmental impact & innovations sphere for the BoP. Since then, he strives to catalyse positive changes in the ecosystems at the BoP.

Sean, in his late 30s, envisions TGWC to be a global aggregator for social and environmental innovations and services. He has been invited to speak in events organised by universities, forums and international social entrepreneurship conferences. He is also a regular speaker in many workshops that TGWC organizes.

Outside of work, Sean enjoys spending quality time with his wife and adorable 3-year old daughter.

***Target for China***

1. Look for business partners including representatives/distributors for China market
2. Look for investment/funding (5 million RMB) to start the pilot production line

**纳米技术– 小小材料，大大未来**

***Nanotechnology: The Next "big" Thing is Really "SMALL”***

**内容提要**

产品结合纳米技术的全球市场规模估计到2015年将高达2万亿美元。然而，帮助用户了解纳米材料并根据其应用有效直接的提供最合适和最经济的纳米材料仍然是一个利基市场。根据这个市场，ShayoNano开发创新工艺/产品，开拓实质性的服务，目标直接在这个价值数十亿美元的市场及其不可多得的商机。

通过针对非常具体的客户问题，ShayoNano已经创造了很多创新应用和相关技术，其产品已经可以随时进行商业化。

基于该公司专有的制造工艺，经过验证的产品已经得到有效发展，目标市场在2017年可达 40亿美元。

ShayoNano新加坡私人有限公司旨在展示我们在清洁技术领域的相关产品。特别是：

•SmartHideTM→一种新颖的纳米添加剂的遮光剂，作为涂料，它可以减少高达25％的TiO2的使用，降低了6％的生产成本并提高40％的产品性能。

•SmartCaroSorbTM→一种新颖的纳米材料，以一种环境友好的方式提取并净化自然资源，例如棕榈油β和胡萝卜素营养制品。

ShayoNano产品的特征在于我们一直采用对环境友好的生产方法，这满足了最重要的可持续性发展。我们希望能够利用我们的专业知识来积极影响纳米技术的行业，经济和发展环境。

***Abstract***

The global market for products incorporating nano-technology is estimated to be up to US$2 trillion by 2015.

However, there is an unmet need to help users best leverage the power of nanomaterials for their specific applications and to supply these nanomaterials at competitive prices.

ShayoNano has developed innovative process/products that directly solve these challenges, opening up substantive, multi-billion dollar market opportunities.

Through targeting very specific customer issues, ShayoNano has already created a leading portfolio of innovative applications and associated technologies that are immediately ready to be commercialized.

Based on the company’s proprietary manufacturing process, a proven product portfolio has already been developed to serve industry needs in global markets worth >USD $40 billion by 2017.

ShayoNano Singapore Pte Ltd seeks to showcase our offerings in the CleanTech area. Specifically

• SmartHideTM → A novel nano additive opacifier to paints that allows a reduction of up to 25% TiO2, reduces manufacturing costs by 6% and improves bottom line by 40%

• SmartCaroSorbTM → A novel nanomaterial that allows for extraction and purification of nutraceuticals like β carotene from natural sources like palm oil, without causing damage to the primary source and while being environmentally friendly.

ShayoNano offerings are characterized by an environmentally friendly manufacturing process and most importantly sustainability. We hope to leverage on our nanotechnology expertise to positively impact industries, economies and the environment.

***About the Speaker -Mr Mahesh Patel***

Mr. Mahesh Patel is a design thinker with a deep interest in harnessing the power of nanotechnology to address problems and challenges in area like Environment, Energy, Coating, Composites and Material Science. He holds several patents associated with nano synthesis & applications, isolation of carotenoids from natural sources, environmentally friendly flame retardant composites etc. His core expertise is taking disruptive ideas to commercialization. In addition to his deep technical expertise, he brings wide ranging managerial and entrepreneurial expertise garnered from launching, and successfully operating a company in India and now in Singapore. His qualifications encompass the study of technology, management and entrepreneurship at world leading universities such as Harvard, Kellogg etc.

Mahesh founded ShayoNano Singapore Pte Ltd in 2006. He has built a strong team with diverse expertise, ranging from Chemistry, Chemical Engineering, Finance, Marketing and Entrepreneurship, but the common thread that binds them is a collective quest to create game-changing, high-performance nano materials that address the pressing needs across many of today’s industries, in an environmentally friendly way.

***Target for China***

1. Investment & Funding (45 million RMB) towards setting up a manufacturing site in USA
2. Sourcing raw materials, particularly anhydrous zinc compounds in large quantity.

**雾霾天出行必备– 美国药监局认证产品**

***PM2.5 Protection – FDA Approved Solution***

**内容提要**

人可以一时不吃饭不喝水，却一刻也不能停止呼吸。据报道空气污染– PM2.5 – 已经成为致肺癌的头号杀手，而附着于这些微尘粒子表面的H7N9 and H1N1甲流病毒更是雪上加霜。

公司自主研发的纳米抗菌口罩，N95口罩，特别适合儿童和老人使用的PM2.5抗菌口罩，以及适用于医护人员和灾难救援时使用的四合一头罩，在东南亚和北美拥有良好的市场口碑。全球N95口罩获得美国药监局认证的，只有3M和Pasture Pharma两家公司。

***Abstract***

“You can choose not to eat, choose not to drink, but you cannot choose not to breathe”

It is reported that the Number 1 killer in China today is Lung cancer due to air pollution – PM2.5.

To make matters worse, the H7N9 and H1N1 bird flu is circulating in the atmosphere.

The time is NOW to seriously look into getting protected – with US approved medical devices and products tested to block PM2.5.

Pasture Pharma look forward to present unique, patented medical devices to our Chinese Interests

***About the Speaker –Lloyd Soong***

**Lloyd Soong** is the President & CEO of Pasture Pharma. Mr Soong has 33 years’ experience in the medical and pharmaceuticals industry, having started career with Ciba-Geigy (Novartis) in 1982 and Syntex (Roche). He continue his career with Swiss giant Sandoz (now known as Novartis) where he was Head of Singapore operations. He later joined Guardian Pharmacy franchise in Indonesia as General Manager and finally CEO of Pasture Group of companies.

He obtained his MBA in Strategic Marketing (UK) and in the course of his work in Sandoz, was trained in Basic Immunology and Organ transplantation, University of Texas Medical School (US). He is involved in research & development of Personal Protection Equipment, and prime mover in the US FDA approved NIOSH approved respirators. The company is also the Global Business Development hub for their finished products.

**Business Profile**

Actively involved with the medical and pharmaceuticals industry for the last 30 years. Having started career with Ciba-Geigy (Novartis) in 1982, and Syntex (Roche), joined Sandoz (Novartis) and eventually was Head of Singapore operations.

Graduated with an MBA from the University of Hull in UK, major in Strategic Marketing, was responsible for the launch of the world-renown anti-rejection drug Ciclosporin, in Singapore and Brunei. Trained in and had preceptorship training in Basic Immunology and Transplantation with the Texas Medical School in Houston. Board of Director on the Singapore Association of Pharmaceuticals Industries (SAPI), and Chairman of Program Committee for 4 years.

Joined Guardian Pharmacy as General Manager, the largest pharmacy chain in Indonesia.

Pasture Pharma Distribution and Procurement Business

Led Pasture into global pharmaceuticals procurement - specializing in vaccines, transplant and oncology products, and also represented medium-size Multinationals as Exclusive Distributors in the Asia region.

Mask Manufacturing – US FDA approved products, R&D in nanotechnology and respiratory products

Immediately after the 2003 SARS, set up manufacturing partnership with Taiwan partner focusing on R&D into respiratory and filtration products, and also responsible for liaising with US-FDA and NIOSH for regulatory matters.

The company embarked on this unique requirement by the US Government to develop respirators that do not require Fit Test for use by the general public during Medical Emergencies. Pasture developed the respirators, which were then submitted to authourised independent Medical Centers for Fit Testing on hundreds of de-novo subjects. In 2009, the company was accorded approval of this General Public Use (GPU) respirators, not one, but two respirators by the US FDA, one of two companies approved by US FDA

During the May 2009 H1N1 pandemic, the only 2 companies’ respirators product were recommended by US FDA for use by Americans, Pasture and 3M..

Continuing to work on antimicrobial coated respirators. Have also presented the company’s R&D products to the WHO, IAEA, IATA, various Health Ministries globally, in the US - the FDA, NIOSH, BARDA, CDC, DOD and DHS agencies, to name a few.

Currently working closely with the various Singapore government agencies such as Spring Singapore, International Enterprise Singapore, and SEDB in collaboration with our innovative R&D projects!

***Target for China***

1. Look for business partners including distributors, representatives and/or JV partners for China market
2. Look for organizations who have needs for the NIOSH Approved Protective Hood for Medical and Occupational Use

**简单、有效、经济的空气清洁技术**

***Simple, Effective, Low Cost Air Purification***

**内容提要**

室内空气质量是使用空调的时候的一个重要健康问题。有研究表明，员工因为空气传播的细菌而生病已经成为公司的重大成本损失之一。虽然有过滤器等空气处理设备，可是目前的装置都不足以防止细菌进入空调的缝隙当中。结果导致空气过滤器捕集很多灰尘，污垢和细菌。更加不幸的是，空气过滤器可以提供理想的细菌滋生和繁殖环境，最终细菌会进入气流而被人体吸收。 UV灯有时可以被用来杀死在过滤器上的细菌。但是，这些紫外线灯价格昂贵，同时耗能严重。还有一种就是红外灯，它使用热量杀死细菌，但是它仍然还需要定期更换灯泡，而且消耗一定的电量能源。

我们提供了一个简单，有效的低成本的解决方案–一种喷雾，可以通过空气固化的水性溶液银基复合材料。该材料成本低廉，而纳米复合材料在抗微生物剂甚至在及其低的ppm范围内效率都很客观。

在日常维护清洗过滤器的过程中，抗菌性能可以通过简单地喷洒抗菌得到延续。

而且作为纳米复合材料它直接固定在过滤器表面上，并不会随着空气气流流动。

***Abstract***

Indoor Air Quality is an important health issue in air conditioned spaces where air is recirculated.Studies have shown that employees falling sick because of air borne bacteria is a major cost for companies. Although there are filters in the building Air Handling Units, these are not adequate in preventing air borne bacteria from entering the air conditioned spaces. The air filters trap dust, dirt and bacteria. Unfortunately, these are ideal breeding grounds for bacteria, which multiply and eventually 'breakthrough' the filter into the air stream. UV lamps are sometimes used to kill bacteria on the filters. However, these UV lamps are expensive to replace and also consume energy. IR lamps, which use heat to kill bacteria, also require periodic lamp replacement and consume electrical energy

We offer a simple, effective low cost solution – a spray on, air cured aqueous solution containing silver based nanocomposites. The cost is low because the nanocomposites are extremely effective as antimicrobials even in the very low ppm range.

When the filters are washed during routine maintenance, the antimicrobial properties can be renewed by simply spraying antimicrobial solution.

As the nanocomposites are well secured on to the filter surface, they are not carried into the air stream.

***About the Speaker -Mr Daniel Tong***

Electrical engineer/certified energy manager. He has managed large scale electrical &instrumentation projects in the public and private sector. He is founder of Blueline Technologies which performed the design, supply, installation and maintenance of energy saving equipment for a 6 year energy performance contract. Co-founder of Salus Nanotechnologies in 2013

***Target for China***

1. Look for business partners for product development and commercialization
2. Investment & Funding (2.5 million RMB)

**Intraix能源管理解决方案**

***Intraix Energy Management Solutions***

**内容提要**

传统的家庭能源管理系统都有所欠缺，因为他们要么只提供能源数据可视化收集/只显示传感器的工作情况，或者可以提供一个所谓的“创新”平台可以允许用户通过手机等进行远程控制。在我们看来，以上两点并不能算作智能系统而只是自动化而已，而且经常无法满足家庭节能减排的需要。为了能够给家庭提供更加合格合理的建议，并有效的降低排耗，我们需要更多的投入，例如一些第三方数据（如天气情况）或环境数据（如温度，湿度，房间人数等）以及一定的执行系统（例如红外控制器）加上优质的系统设计。而以上便是Intraix能源管理解决方案的基本思想。

***Abstract***

Conventional Home Energy Management Systems lack intelligence as they either 1) Only provides visualization of Energy Data Collected / Shows only the States of Sensors or 2) Has a platform that sells on the novelty factor and allows users to remotely control appliances / operations via a Mobile/Web App. In our opinion, this does not qualify as Intelligence but merely Automation and are often unable to achieve tangible energy reductions for the Home User. To make qualified and justified decisions/recommendations to the Home User to effectively reduce energy consumption, there needs to be additional inputs such as Third Party Data (e.g. weather data) or environmental data (e.g. temperature, humidity, occupancy, etc) and the presence of Actuators (e.g. Infra-red Controllers) coupled with Machine Learning Optimization Algorithms. This forms the basis of Intraix Energy Management Solutions.

***About the Speaker – Zhang Yiyang, Darrell***

Darrell Zhang firmly believes that energy saving starts with better information and that energy data is still not properly mined for valuable information with current systems. Along with a long-time buddy, he started Intraix, a multi-platform energy management system that spans across different market domains of data centers, building and homes through carefully designed web and mobile applications with the aim of reducing energy consumption and better energy management through Data Intelligence and Smart Controls.

***Target for China***

1. Look for OEM suppliers in China for reducing the project coast
2. Look for investment/funding (15 million RMB) for commercialization
3. Look for business and JV partners for China market