

Curriculum Vitae

Full Name: Mr. Paisan Jiranuntarat

Date of Birth: December 4, 1964

Nationality: Thai

Education: B.Eng. (Electrical Engineering) Chulalongkorn University, 1987
M.Eng. (Electrical Engineering) Chulalongkorn University, 1992
Mini MBA, Thammasat University, 1994



As a Trainee

1. Energy Management System ISO 50001 : 2011 (Thai Industrial Standard Institute) , 2012
2. Business Consultant Training for upcoming AEC (Department of Industrial Promotion) ,2012
3. Training Workshop for AEMAS (Asean Energy Management Scheme) Trainers ,2011
4. Expert Training Program on Energy Management System (ISO 50001) , 2015 ; Organized by Ministry of Industry and UNIDO.

As a Trainer

1. Energy Manager Training for AEMAS (Asean Energy Management Scheme) , 2012

Overall experiences: 20 years of experience in electrical engineering, energy conservation
Analysis and evaluation of energy use.

Work experience:

1992 to present

Specializing in energy conservation, as a consultant with Energy-related projects within the company.

Working companies: EM Group Co., Ltd.

Energy Research Institute, Chulalongkorn University.

Works:

1. Consultant for Energy Management System Development (2010 – Present)

As a consultant for Energy Management System Development of the following :

- 1.1 Bangkok University (Kluai Nam Tai Branch)
- 1.2 Bangkok University (Rangsit Branch)
- 1.3 South East Packaging Industry Co.,Ltd.
- 1.4 Rojana Power Co.,Ltd.
- 1.5 Siam Makro Co.,Ltd. (40 branches)
- 1.6 Pinklao Department Store Co.,Ltd. (Pata Pinklao)
- 1.7 Phayathai 1 Hospital
- 1.8 Tang Hua Seng Department Store Co.,Ltd.
- 1.9 Si Praya Printing Co.,Ltd. (Daily News)
- 1.10 APEX Circuit (Thailand) Co.,Ltd.
- 1.11 Saha Asia Metal Co.,Ltd.
- 1.12 Sanmina-SCI System (Thailand) Co.,Ltd.
- 1.13 Thachana Palm Oil Co.,Ltd.

2. Independent Engineering Services for Commercial Bank for the following

projects :

- 2.1 Independent Engineering Services for TRC Clean Energy Company Limited, 9.9 MWe Rice Husk Fired Power Plant, Nakhonratchsima Province ,2009
- 2.2 Independent Engineering Services for Clean Energy 2 Company Limited, 9.4 MWe Rice Husk Fired Power Plant, ChiangRai Province ,2010
- 2.3 Independent Engineering Services for Mungcharoen Biomass Company Limited, 17 MWe Rice Husk Fired Power Plant, Surin Province ,2011
- 2.4 Independent Engineering Services for Impress Ethanol Company Limited, 200,000 Litre/day Ethanol Plant, Chachoengsao Province ,2011
- 2.5 Independent Engineering Services for Well Korat Energy Company Limited, 9.9 MWe Wood Bark Fired Power Plant, Burirum Province ,2012
- 2.6 Independent Engineering Services for Clover Power Company Limited, 9.4 MWe Rice Husk Fired Power Plant, Phrae Province ,2014

Other work experiences are as follows:

Responsibility/job: Responsible for supporting the activities of the Energy Research Institute, Chulalongkorn University, To preparation Develop monitoring engineering standards, safety and performance of Energy business manual that has been license for natural gas as this follows:-

1. Natural gas transmission through pipeline system license
2. Natural gas provider and wholesaler license
3. Natural gas retailer through a natural gas distribution system license
4. Natural gas Storage and conversion from liquid into gas license
5. Electricity Generating license
6. Electricity transmission system license
7. Electrical distribution system license
8. Electrical distribution license
9. Electrical control system license

2008 – 2009

Project: Study the impact of natural gas pipeline network in Bangkok and Perimeter (City Gas)

Project owner:

Market Development and Commercial gas sales, Department of natural gas distribution pipeline system, PTT Public Company Limited..

Position: Energy Experts

Responsibility/job: Responsible for supporting the activities of the Energy Research Institute, Chulalongkorn University.

1. Study and assess the impact of City Gas Project.
2. Oriented macroeconomic impact assessment in dimensions of the energy from City Gas Project in Bangkok and Perimeter

2007

Project: Develop Industry regulatory standards manuals (2)

Fiber dyeing industry and fabric, Gas filling, Printed fabric, Rubber Cement and color

Project owner: Department of industry works, Ministry of Industry

Position: Energy Experts

Responsibility/job: Responsible for producing the industry regulatory standards, Safety of machinery used in the production process. Industries care as this follow:-

1. Rubber Industries
 - Wong Bundit Co., Ltd.
 - Chalong Latex Industry co .,ltd
2. Colour Industry
 - J.B.P International Paint Co., Ltd.

- 2006 – 2007** **Project:** Study for energy consumption benchmark in Department Store
Project owner: Department of Alternative Energy Development and Efficiency
Position: Energy Experts
Responsibility/job: Energy auditing and evaluation of Department Store, By considering the building envelope, Energy consumption for each system to Specific Energy Consumption of 8 buildings.
- 2005 – 2007** **Project:** Pilot project for tax incentives for energy conservation.
Project owner: Department of Alternative Energy Development and Efficiency
Position: Energy Experts
Responsibility/job: Auditing and analysis in a variety of topics as this follows:-
1. Measure energy consumption in one year
 2. Evaluate the Energy management system in the factories. And certify the results of energy management
 3. Prove the measuring plan , to prove the energy conservation according to international standards and approved audit plans and verify the energy conservation.
 4. Prove the measurements result of energy saving of equipments or system before and after retrofit.
 5. Check how to assess the savings from data measurements, according to international standards.
- 2005 – 2006** **Project:** Study for energy consumption benchmark in the electronics industry.
Project owner: Department of Alternative Energy Development and Efficiency
Position: Energy Experts
Responsibility/job: Analysis and evaluation energy consumption in factory by considering each process and assessment of factory production to Specific Energy Consumption in 15 electronic factories.
- 2005 – 2006** **Project:** Study for energy consumption benchmark in the steel industry.
Project owner: Department of Alternative Energy
Position: Energy Experts
Responsibility/job: Analysis and evaluation energy consumption in factory by considering each process and assessment of factory production to Specific Energy Consumption in 7 steel factories.
- 2005 – 2006** **Project:** Participated Energy Conservation in factory in year 2005
Project owner: Department of Alternative Energy Development and Efficiency
Position: Energy Experts

Responsibility/job: To provide and advice the factory's team to develop energy conservation system. Brainstorm the leader team of the factory to find measures for energy saving, Measurement and analysis of energy consumption with a team of at least 5 times a place (1 time a day) for 15 factories.

2005 – 2006 **Project:** Participated Energy Conservation by industry factory, small and medium enterprise business factory.

Project owner: Department of Alternative Energy Development and Efficiency

Position: Energy Experts

Responsibility/job: To provide and advice the factory's team to develop energy conservation system. Brainstorm the leader team of the factory to find measures for energy saving, Measurement and analysis of energy consumption with a team of at least 5 times a place (1 time a day) for 10 factories.

2005 – 2006 **Project:** Analysis the energy consumption of Automatic Voltage Regulator

Project owner: Cresco Corporation Co.,Ltd.

Position: Electrical engineer

Responsibility/job: Operate the energy consumption analysis of Automatic voltage regulator in order to analyze the result of energy saving by decreasing voltage in following factory

1. Thai Citric Acid Co.,Ltd.
2. Kulthorn Co., Ltd.
3. Union Nifco Co., Ltd.
4. Sky Weaving Co., Ltd.

2006 **Project :** Target and plan manipulation of factory and controlled building energy conservation

Project Owner :

Position : Energy conservation specialist

Responsibility/job: Operate the measurement and analysis of energy consumption of factory and building for energy conservation measures by monitoring systems such as production data, energy consumption , machine and equipment and auditing the operation and measuring the energy consumption and energy loss of system machines and equipments by 12 following factories and buildings

1. Sanshin High Technology (Thailand) Co., Ltd. factory
2. Advance Manufacturers Co., Ltd. factory
3. Colgate-Palmolive (Thailand) Co., Ltd factory (Klong Toey)
4. Colgate-Palmolive (Thailand) Co., Ltd factory (Bang Pakong)
5. Times Square Building
6. Ratchathani Hospital
7. Bangna Garden Building

8. Natural Park Building
9. Siam Me Me Co., Ltd.
10. Thai Life Assurance Co., Ltd. (Rattathibet)
11. Kruang Nung Hom Co., Ltd. Factory (Bangkok)
12. Lamp Industry Co., Ltd. Factory

2002 – 2006

Project: Instructor of Energy Conservation for Energy research Institute, Chulalongkorn University

Project owner: Energy research Institute, Chulalongkorn University

Position: Instructor

Responsibility/job:

Training for energy conservation in electricity courses as this follows:-

1. Energy Management.
2. Energy conservation in electrical systems and lighting.
3. High-performance motor and variable speed drive.
4. Power factor correction.

2004

Project: Project of Study the production efficiency increase and Industrial Pollution Prevention for Starch Branch. (Clean Technology , CT)

Project owner: Department of industry works, Ministry of Industry

Position: Manufacturing industry expert

Responsibility/job:

To provide and advice the factory's team to conservation of energy in a systematic way. Brainstorm the leader team of the factory to find measures to save the energy, Measurement and analysis of energy consumption with 8 factories' team.

1998 - 2005

Project: Project review and analysis of power plant control

Project owner: Energy Research Institute, Chulalongkorn University

Position: Electrical engineer

Into the meter, analysis and evaluation energy consumption in factory for finding energy conservation measures by auditing each system. Example : Information about production, System power consumption, Utilization of equipment and machinery in the factory.



สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม

ได้ประกาศนียบัตรฉบับนี้ไว้เพื่อแสดงว่า

นายไพศาล จิรนนตรัตน์

ได้เข้ารับการฝึกอบรม

หลักสูตร

มาตรฐานระบบการจัดการพลังงาน ISO 50001 : 2011

วันที่ 26-27 เมษายน 2555

(นายชัยยง กฤตผลชัย)

เลขาราชการ

สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม



AEMAS

Certificate #: LT-TH-004-0311

ASEAN Energy Management Scheme

AEMAS Certified Trainer

This Certificate ascertains that

Mr. Paisan Jiranuntarat

Is an AEMAS Certified Trainer and has the authority to deliver training courses under the AEMAS as well as to perform the necessary evaluation as part of the AEMAS Certified Energy Manager training and certification

[Signature]

Director,
ASEAN Centre for Energy

[Signature]

Country Coordinator
Copper Development Centre
Southeast Asia

AEMAS is co-funded by
the European Union



CERTIFICATE

THIS IS TO CERTIFY THAT

Mr. Paisan Jiranuntarat

has fully participated and completed the
EXPERT TRAINING PROGRAM ON
ENERGY MANAGEMENT SYSTEM (ISO 50001)

Held from February 2014 to March 2015 in Bangkok, Thailand

Organized by Ministry of Industry and UNIDO

[Signature]

Mr. Arthit Wuthikaro
Permanent Secretary
Ministry of Industry

[Signature]

Mr. Edward Clarence-Smith
UNIDO Representative
Regional Office in Bangkok, Thailand

[Signature]

Mr. Tawat Polcuandee
Secretary-General
Thai Industrial Standards Institute