

2010 INNOVATION FINEP AWARD

1<sup>o</sup> Position National Phase  
MID-SIZE COMPANY



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## Treetech Sistemas Digitais

### THE COMPANY

Treetech Sistemas Digitais is the only company in Latin America that specializes in electric energy substation online management. Based on proprietary technology and innovative at an international level, Treetech has developed a complete solution, consisting of smart electronic sensors (IEDs) integrated to the specialized SIGMA software.

With real-time transference and analysis of the information about electric asset operation, Treetech provides early, short-notice failure detection. This feature avoids inconvenient or programmed power outages, which increases the system's reliability.

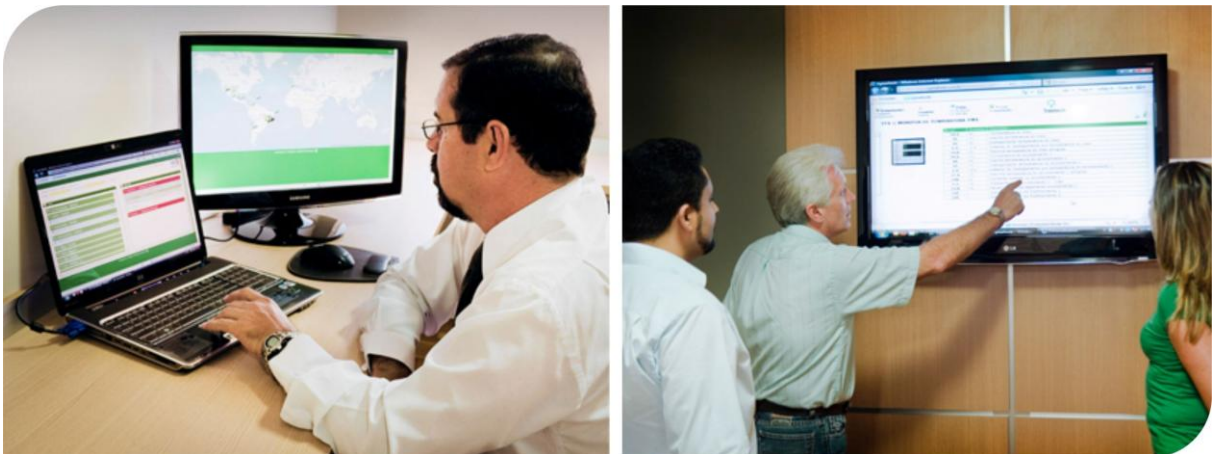


**Award CNI**  
The recognition of who does Brazil grow

*Treetech's online monitoring system complies with the latest international trend, Smart Grid, because it is based on Decentralized Architecture and cloud computing (web 2.0).*

Treetech also offers specialized advisory services provided by engineers for the purpose of SIGMA-generated diagnostics, to support the operating and administrative decisions of clients. The following are among the positive outcomes from Treetech solution:

- Significant power outage probability reduction;
- Increased electric asset service life;
- Postponement of financial disbursements to invest on assets;
- Agility and accuracy on preventive and corrective actions;
- Increased operating efficiency;
- Maintenance cost reduction;



*The aforementioned attributes account for Treetech's leadership  
as benchmark in its segment  
both in the national and the international markets.*

## CLIENTS AND REPRESENTATIVES

Established 1992 as an outsourced supplier to ABB (Asea Brown Boveri), Treetech currently has as its clients electric energy generation, transmission and distribution utilities in Brazil, in addition to high-voltage equipment manufacturers and electro-intensive industries. It is also present in over 33 countries with more than 50 thousand sensors and 180 installed software.



Through its distributing and representative network, Treetech supplies products and services to the electric system of countries like Sweden, Germany, France, Russia, Ukraine, Canada, USA, Mexico, Venezuela, Colombia, Peru and Argentina. As part of the internationalization strategy, Treetech will open its first international branch. The chosen country was the United States, a country which has elected Treetech as the Single Source for IED, due to its technical performance in a comparative analysis done in 2007 with products from prestigious and traditional competitors in the sector. In addition to that the company intends to open another office in the Iberian Peninsula.

In the Brazilian market, Treetech's client portfolio includes, among others, the most representative electric energy utilities, such as Furnas, Eletronorte, Cemig and CPFL. The company also serves, either individually or in partnership with those companies, great electric energy consumer industries like Alcoa, Petrobras and Vale do Rio Doce.

## Energy Utilities



Western



Entergy



SDGE



ISA CTEEP



Kahra MAA



Furnas



Cemig



Eletropaulo



Endesa



CFE



L.F



EPM



CPFL Energia



ITAIPU Binacional



Eletrosul



Eletronorte



Kesc



Odessaoblenergo



Ande



UTE



EDP



Elektro



Bandeirante

## Power Transformer Manufacturers



ABB



WEG



Toshiba



Hyundai



Waukesha



IEM



Prolec



Voltran



Siemens



Trafo



Areva



Efacec



Faraday



TTE



Hyosung



ZTR



Tadeo Czerweny s.a



Los Concesa

## Industries



## Partners in R & D - I



## Market Recognition

Some prizes, partnerships and initiatives are evidence of the technical and market recognition obtained by Treetech:

### 2011

Commander of the Order of Merit for Labor Getúlio Vargas: By appointment of President of the Republic of Brazil (Decree No. 6,247/07, art. 2, paragraph III), Treetech was awarded by the Minister of Labor and Employment the title of Commander of the Order of Merit for Labor Getúlio Vargas.

SESI Quality at Work Award – PSQT: Treetech received the trophy of 1st place in the Innovation category from the Industry Social Service (SESI / CNI), that recognized the new management values which, by including concept and practices of Social Responsibility and Sustainability at Work, result in greater productivity and efficiency.



## 2010

FINEP's Innovation Prize: For the first time in 13 years, FINEP's Innovation Prize, which is considered to be the Oscar of Brazilian innovation, has been awarded to an electric equipment company. Competing in the Mid-size company category, Treetech, which specializes in online management of electric substation assets, was recognized for its philosophy and practice of innovation both in the national and regional phases.

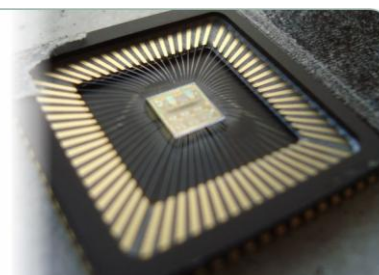
ISO 9001, 2008 Recertification In February, Treetech has been ISO 9001-2008 recertified by the SGS (Société Générale de Surveillance). The audit report did not include any nonconformity. The first certification was obtained in 2004.

CE (Conformité Européene) Certification: Treetech products will leave the factory with the CE tag. This means there is no technical restriction to exporting these products to the European Community. The whole Treetech range of products will have this tag, starting with the following devices: TM1 and TM2 (oil and coiling temperature monitors); AVR (voltage regulator relay); BM (bushing monitor) and MO (humidity monitor).

## 2009

Technical Cooperation Protocol: In August, Treetech signed a Protocol of Intent to supply Brazilian technology to Corpoelec (Corporación Eléctrica Nacional) in a ceremony with the President of Venezuela, Hugo Chavez and the Development, Industry and Commerce Minister of Brazil, Miguel Jorge.

**In late 2009, the Treetech in partnership with the Integrated Systems Laboratory of the University of São Paulo (LSI - USP), has completed development of its exclusive chip, the integrated circuit SoC (System on Chip).**



## 2008

Exporta São Paulo Award In October 2008, Treetech's internationalization efforts were recognized with the Exporta-SP award, given by the SDES - SP (State of São Paulo Development Office), FACESP and ACSP.

CNI Award: In October, Treetech received the CNI Award (Brazilian National Industry Federation's award) for developing the Sigma4web™ software in the Innovation and Productivity for Big and Medium Industry category, placing 1st in the State of São Paulo and in 3rd at the national level. "Treetech is among the companies that put good ideas into practice, innovate, overcome obstacles and help to conduct Brazilian industry in an efficient and sustained way", as stated by the State of São Paulo Development Office.

**2008**  
CNI prize Exporta  
São paulo and  
Single Source EUA  
prizes



**2007**

Single Source: Treetech's IED was awarded the Single Source (sole source) for WAPA (USA) projects due to the proven superiority of the product in relation to the competition.

**2004**

ISO 9001: Since February 2004, Treetech was certified for the scope of "Development Engineering, Industrialization and Commercialization of Smart Electronic Devices and Software dedicated to the Management, Maintenance and Monitoring of Power Transformers and High Voltage Equipments." ISO 9001 certification, recommended by SGS, is valid in more than 30 countries that signed the IAF (International Accreditation Forum) Mutual Recognition.

**2002**  
Reference in  
Inovation and  
Monitoring of  
substation



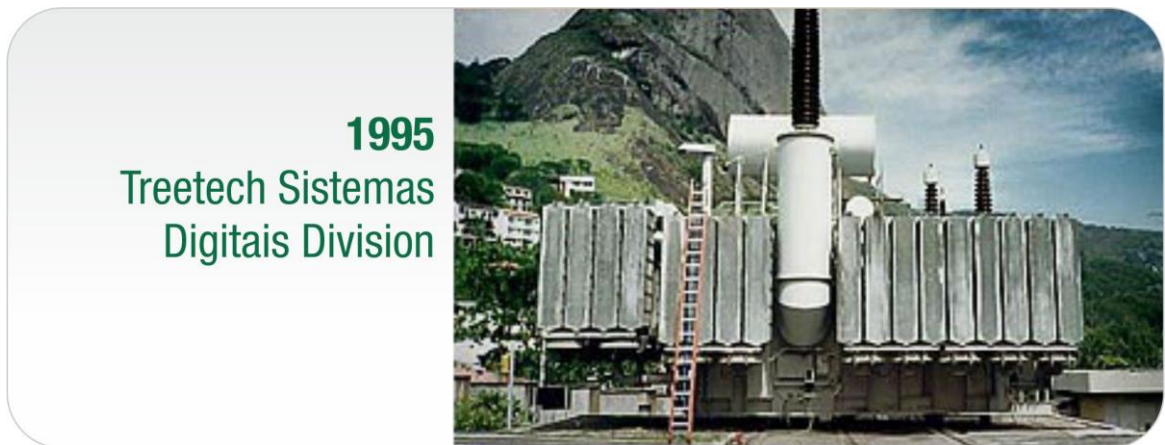
**2001**

ETET/Furnas 2001 Prize; Out of over 40 technical presentations, specialists from Brazil and abroad which attended the 2nd Transformer Equipments Technical Meeting (ETET 2001), sponsored by Furnas Centrais Elétricas in Itumbiara/GO (Brazil), elected Treetech's as best presentation about the New Technology and Monitoring theme.



**1999**

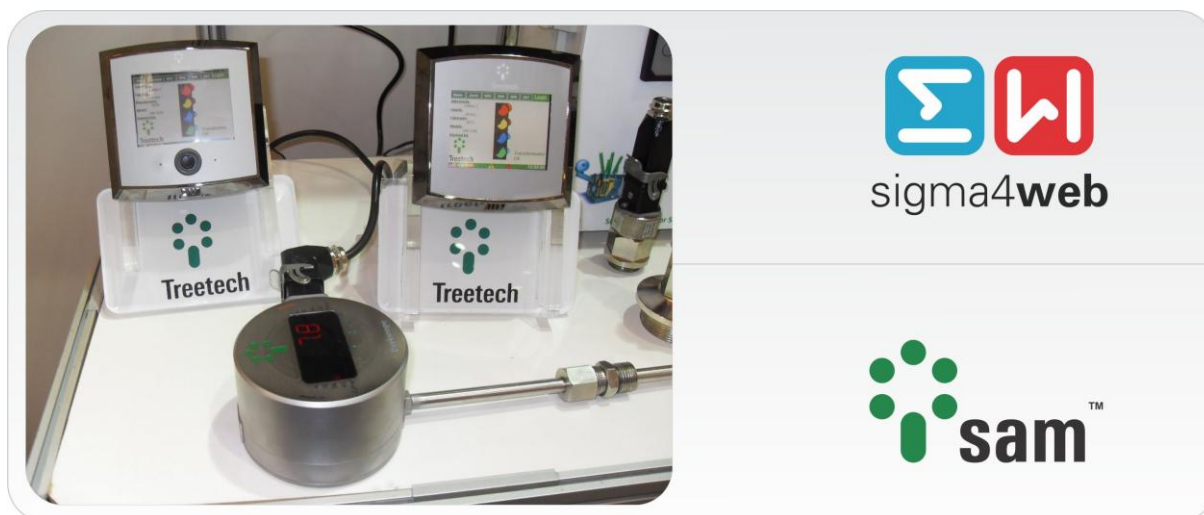
ETET/Furnas 1999 Prize; The solution for transformer monitoring presented by Treetech was elected the best by over 200 engineers and specialists who attended the 1st Transformation Equipments Technical Meeting (ETET 1999), in Poços de Caldas /MG.



## 2010

### Treetech releases a new service and a new sensor family

In April 2010, Treetech released a new family of smart sensors (Smart Devices™) for the detection of failures in equipments as transformers, circuit breakers, isolating switches and voltage regulators. It introduced to the market, as well: 1) an improved version of the modular SIGMA software, used in managing the collected information and doing the respective diagnostics; 2) advisory service rendering for analysis, data management and proposal of solutions for eventual failures.



Smart sensors + SIGMA + specialized advisory services = SAM™ (Smart Asset Management™)

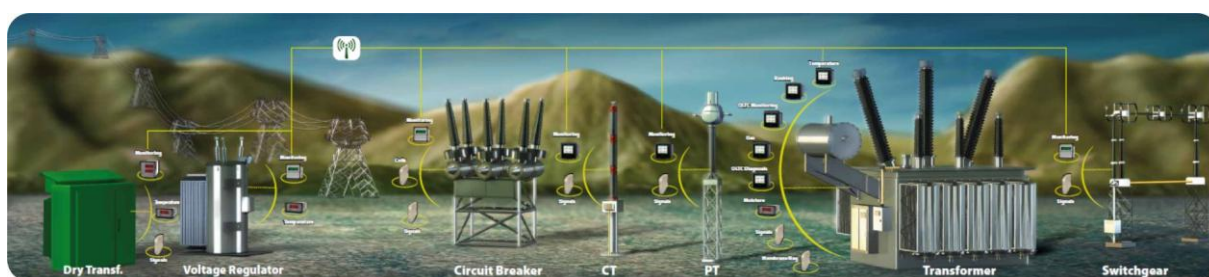
**Effective solution for the utility and electro-intensive industry substations.**

Those new products and services were introduced to the market for the first time in the 2010 IEEE T&D Conference & Exposition, main and more traditional event in the sector of Generation, Transmission and Distribution of Electric Energy of the Americas, from 19 through 22 April in New Orleans, Louisiana, USA. Plus, between days 25 and 28 April, they were part of the exhibition set up at the international Workshop on Power Transformer - Workspot - sponsored by Cigré Brasil, in Foz do Iguacu - State of Paraná - Brazil.

Management of Treetech assets is compatible with the Smart Grid concept and based on preventive maintenance, which allows early detection of failures in initial stages, which substantially reduces the number of electric power outages.

## The New Products

The new Treetech family encompasses 10 models divided into 3 groups of products. Incorporating significant technological innovations which imply new functionalities, they stand out in the market for having greater connectivity - with resources for Web pages and on board databases, and for being compact, cost-effective and easy to install. With a complete line, the new sensors are used in transformers, circuit breakers, isolating switches and others.



## SIGMA software

The diagnosis and prognosis SIGMA software integrate all substation equipments into the same corporative platform. The engineering mathematical models and the artificial intelligence monitor the operating conditions of the system, providing increased efficiency, cost reduction and a higher level of safety, with positive impact on the automatic performance indicators, reliability, quality and electric power supply continuity.

The Sigma4web™ software allows the assets to be managed in *Cloud Computing* with applications run in a remote IDC at the Web 2.0. In the Sigma4Net™ version, the applications are installed in the client's own Data Processing Center. The optional Sigma Mobile™ module makes the information available in smartphones and mobile devices connected to the Internet.

### **SAM – Smart Asset Management™**

The SAM™ asset management service aims at maintenance engineering, operation, planning and construction of utilities and electro-intensive industries. With global reach and cases of success in Europe, Brazil and other Latin America countries, the SAM™ offers:

- Online monitoring of the transformers, circuit breakers, isolating switches and other assets
- Interpretation of alarms and warnings
- Maintenance, Operation and planning recommendations
- Recommendations to improve asset efficiency
- Advisory services involving asset manufacturers
- Performance reports and asset status.



**For further information, visit our website:**

[www.treetechusa.com](http://www.treetechusa.com)

Or contact us directly at:

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