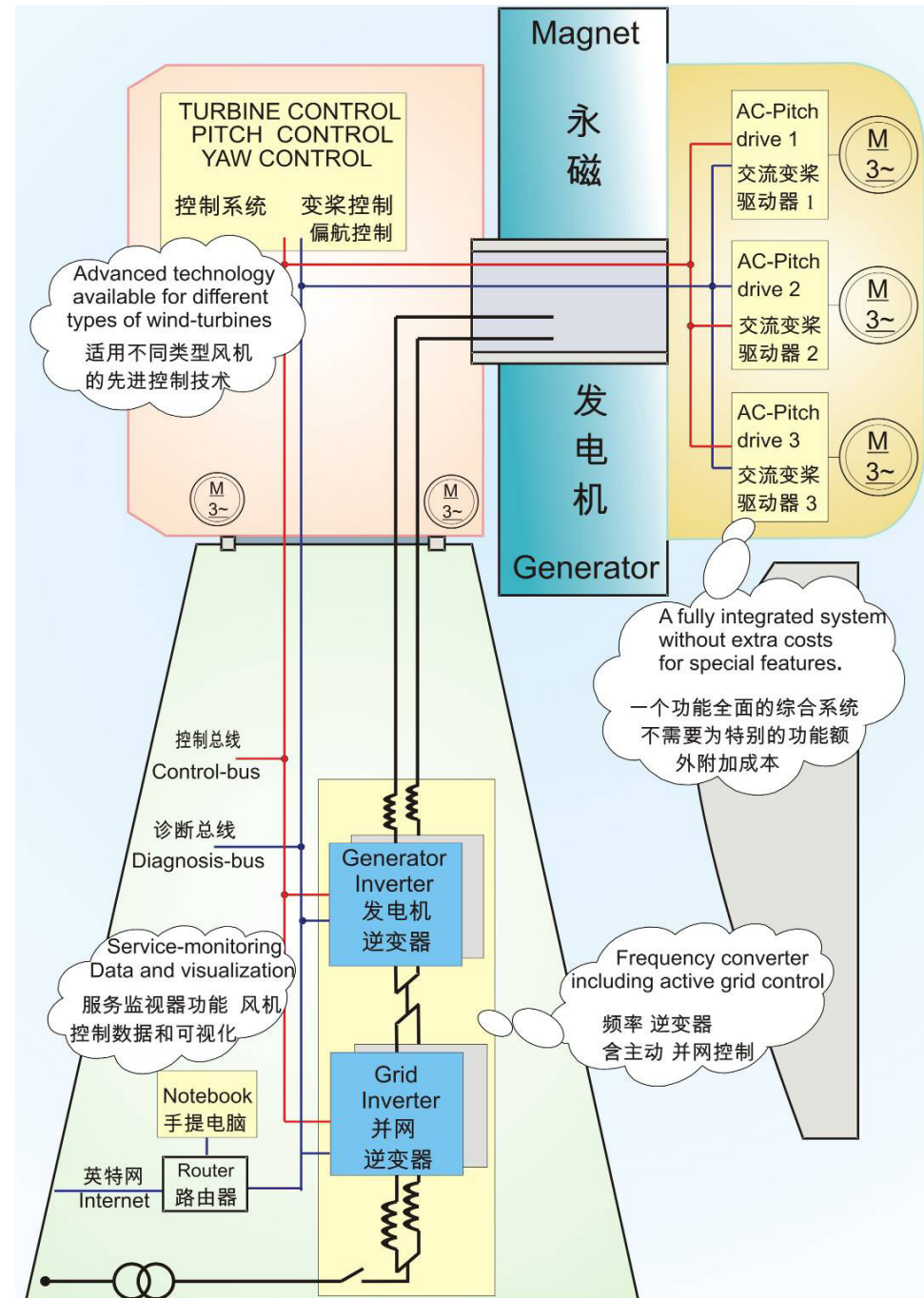# The Brilliant Wind-turbine Control and SCADA System

Direct-Bus connection

with stations of

- Turbine and Yaw Control

- IGBT- Converter

- Pitch System

- Remote Control

WIND-POWER COMPETENCE
by EXPERIENCE since 1995

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info@setec-dresden.de

TURBINE CONTROL
PITCH CONTROL
YAW CONTROL

控制系统   变桨控制
偏航控制

Advanced technology available for different types of wind-turbines

适用不同类型风机的先进控制技术

Magnet

永磁

发电机

Generator

AC-Pitch drive 1
交流变桨驱动器 1

AC-Pitch drive 2
交流变桨驱动器 2

AC-Pitch drive 3
交流变桨驱动器 3

M 3~

A fully integrated system without extra costs for special features.

一个功能全面的综合系统不需要为特别的功能额外附加成本

控制总线
Control-bus

诊断总线
Diagnosis-bus

Generator Inverter
发电机逆变器

Grid Inverter
并网逆变器

Frequency converter including active grid control

频率 逆变器
含主动 并网控制

Service-monitoring Data and visualization

服务监视器功能 风机
控制数据和可视化

Notebook
手提电脑

英特网
Internet

Router
路由器

WIND-TURBINE CONTROL and SCADA System

- SETEC presents control hardware and software including the wind-farm visualization. Therefore online modification and set-up of parameters or exact diagnoses will be possible.

- Trouble shooting for each function inside turbine equipment and for power management of the complete wind-farm is available.

- Remote diagnosis shows the parameters of inverter, tower-control, pitch-control and pitch-drives. Response time of data-logging can be selected from "very fast" to "cycles with long time refreshing" mode.

- The system **neither needs PLC nor a PC for turbine control**. Therefore it is much cheaper.

- A password which protects VPN (Virtual Private Network) allows connection to wind farm network from outside. Within this network, it is possible to be connected to every wind turbine. Access from outside the wind park is controlled and monitored by a central wind park server.
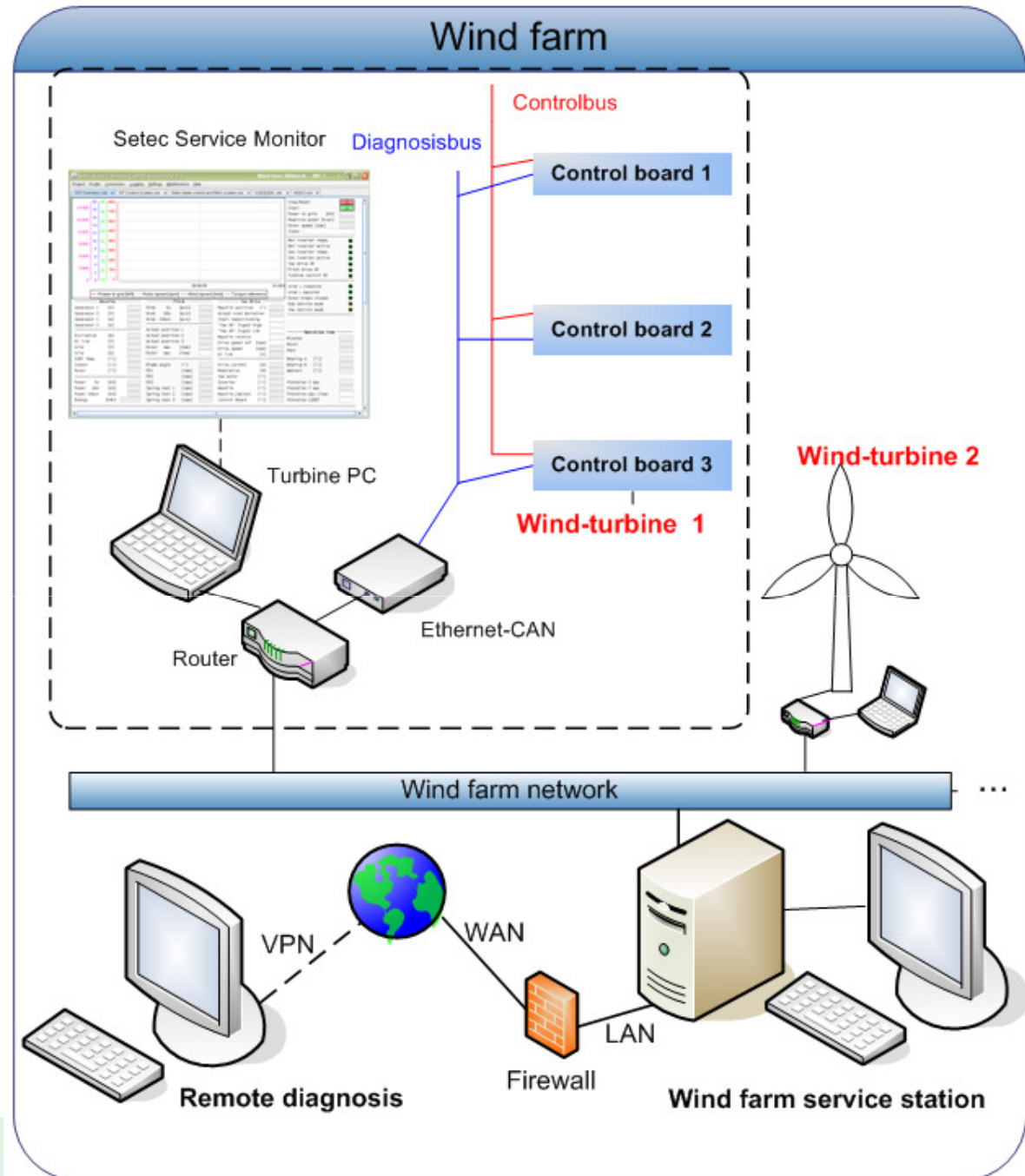

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The Perfected
Wind-Farm
Visualisation
and
Data Monitoring

Wind-turbine control
and diagnosis system,

Direct-bus connection
with stations of
- IGBT- converter
- Pptch system
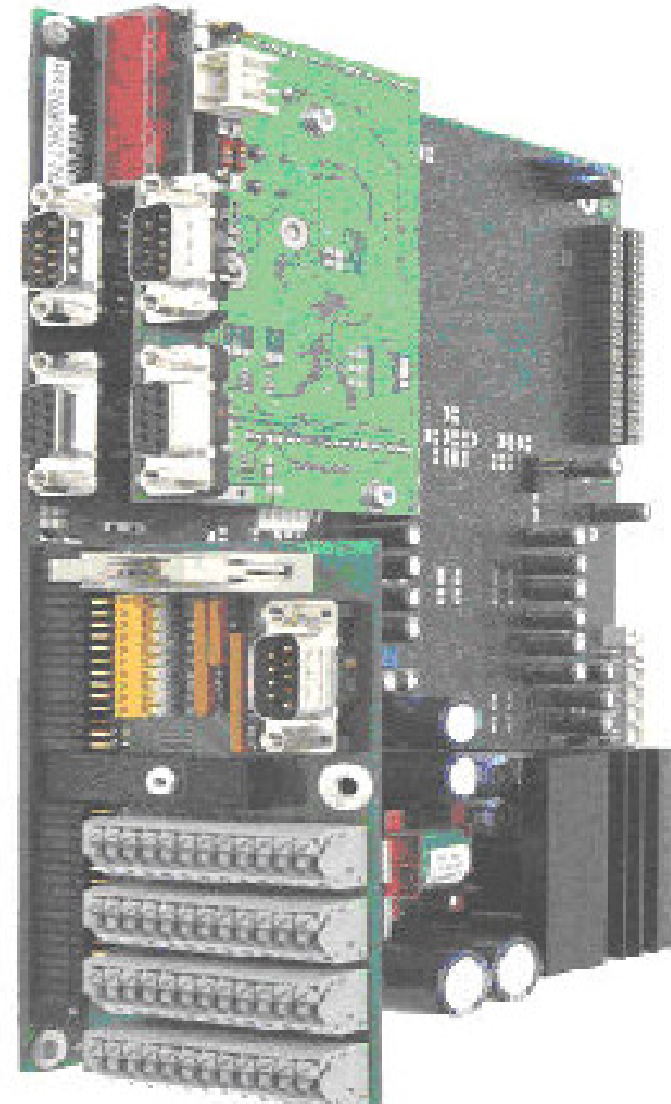- turbine and yaw control

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Improving Reliability
of the Wind-Turbine
by Condition Monitoring

Features of Diagnosis Monitor
- **User accounts:**
- Configuration of different levels.
- **Project administration:**
- design projects (wind-farm)
- open/close projects
- change project properties
  specific files of project
- **Administration of connection:**
- Configure connections of project
- Configure monitor connections
- Password protected handling
- **Profile administration:**
- Create profiles by profile builder.
- pushbuttons, switch...plot
- **Data/Event logger:**
- Log parameter to database
- Event logging of conditions
- View as a table or graph

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ENGINEERING and LICENSING for
MECHANICS, GENERATOR,   The likely best PITCH-SYSTEM,
The IGBT-CONVERTER; The CONTROL and SCADA SYSTEM