



TIEMAC - CAPABILITY STATEMENT

Revolutionizing Manufacturing with TAAIB - vCPPS Platform

OUR EXPERTISE:

Tiemac stands at the forefront of Industry 4.0, harnessing the power of AI to revolutionize manufacturing processes. Our proprietary (Tiemac Applied Artificial Intelligence for Business Virtual Cyber-Physical Production System) TAAIB vCPPS Platform integrates advanced technologies to deliver unparalleled efficiency and innovation in your operations.



INDUSTRIES SERVED

- ✓ Automotive
- ✓ Aerospace
- ✓ Pharmaceuticals
- ✓ Consumer Goods
- ✓ Mining
- ✓ Packaging
- ✓ Energy
- ✓ Others

KEY CAPABILITIES:



AI-Driven Predictive Maintenance:

Use AI to predict machinery failures before they occur, reducing downtime and extending equipment life.



Process Optimization:

Leverage AI to analyze data from sensors and actuators, dynamically adjusting PLCs for optimal production settings, enhancing throughput, and minimizing waste.



Digital Twins and Simulation:

With our platform, create detailed digital twins of your production environment. Simulate scenarios to test changes in a risk-free virtual space, ensuring optimal strategies before physical implementation.



Real-Time Data Integration:

Seamlessly connect with all your sensors and actuators, providing a live stream of data that powers our AI models for immediate process adjustments.



Modular and Scalable Design:

TAAIB - vCPPS Platform is built on 11 specialized modules, each designed to tackle specific manufacturing challenges:

- ✓ Production and Planning
- ✓ User Training and Simulation
- ✓ Environmental Impact Analytics
- ✓ Advanced Simulation
- ✓ Security and Compliance
- ✓ System Health and Maintenance
- ✓ Energy Efficiency Optimization
- ✓ Dynamic Bottleneck Detection
- ✓ Continuous Improvement Feedback
- ✓ Real-Time Profitability
- ✓ Advanced Dynamic Bottleneck

MARKET DIFFERENTIATION:



TIEMAC



Integrated AI Control

Unlike competitors who might only monitor, our platform uses AI to actively control manufacturing processes through PLCs, providing agentic, real-time decision-making.



Flexible Modular Architecture

Our modular approach allows for tailored solutions, adapting to the unique needs of your manufacturing setup without requiring an overhaul of existing systems.



Switching Mechanism:

Unique to our platform is the capability to switch between virtual and physical environments, enabling you to test and refine processes virtually before real-world application.



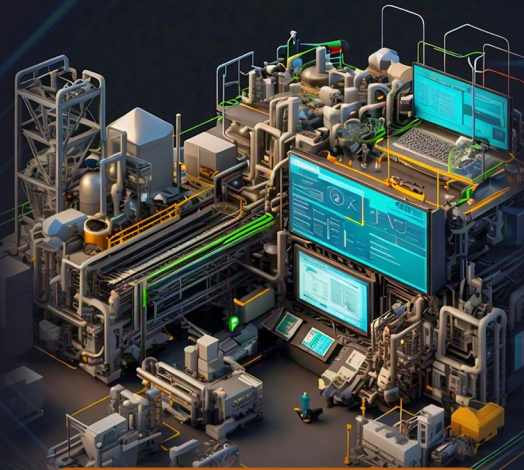
Holistic Optimization

TAAIB - vCPPS Platform doesn't just focus on one aspect; it optimizes across all facets of production, from energy use to quality control, providing a comprehensive solution.



User-Centric Design

Designed with the end-user in mind, our platform offers intuitive interfaces and visualization tools, making AI technology accessible and actionable for all levels of your organization.



Why Tiemac?



Proven Results

With our solution stacks clients have seen reductions in unplanned downtime by up to 30%, energy savings of 15%, and significant improvements in production quality and speed.



Future-Proofing:

As manufacturing technologies evolve, our platform grows with you, ensuring your operations remain at the cutting edge of efficiency and innovation.



Support and Expertise:

Our team of AI, engineering, and manufacturing experts provides end-to-end support, from implementation to ongoing optimization.

Take the Next Step in Manufacturing:

Embrace the future of manufacturing with TAAIB – vCPPS Platform. Contact Tiemac to see how we can transform your production lines into smart, efficient, and adaptive systems.

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Tiemac - Elevate your manufacturing operations with TAAIB - vCPPS Platform. Experience the future of Industry 4.0 today!