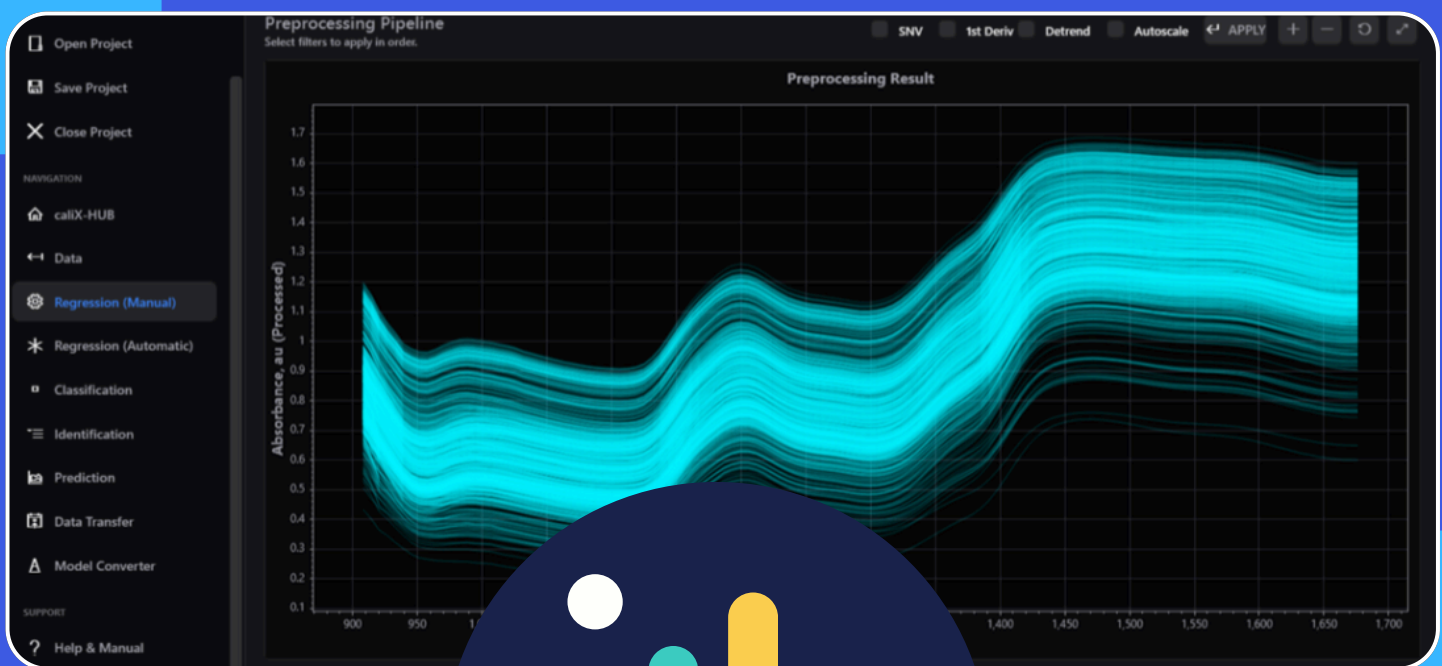


caliX

Spectral
Intelligence
System

20 26



Welcome to USTECH Innovations LLC, a forward-thinking company dedicated to delivering innovative spectral intelligence solutions across industries. We combine cutting-edge AutoML technology, expert talent, and strategic vision to help laboratories and enterprises turn raw spectral data into reliable chemical predictions instantly, allowing businesses to grow and thrive in a digital-first world.

SOFTWARE

FEATURES & BENEFITS

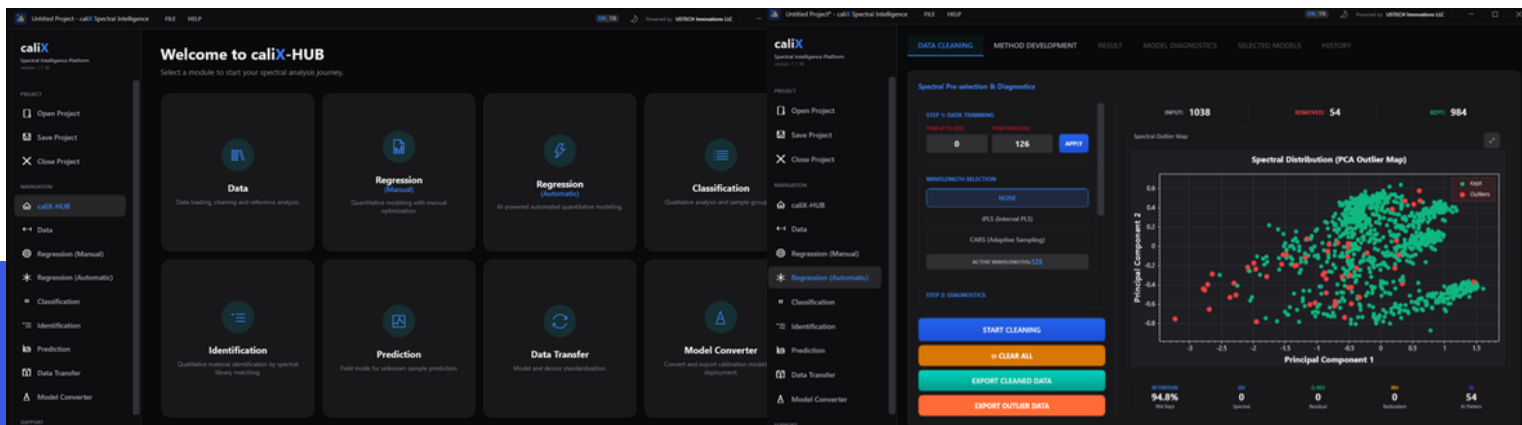
KEY FEATURE

A powerful, intuitive application designed to streamline your workflow and maximize productivity at every level.



HIGHLIGHTS

- Lightning-fast modeling performance and computing times
- One-click professional reporting and automated Excel data export
- Role-based access control and adaptive expert workflows
- Seamless third-party chemometric app integrations (Solo, PLS_Toolbox XML)



SYSTEM FEATURES

Explore the full range of features our application offers:

Smart Automation

Evaluates dozens of preprocessing paths, tests variations automatically, and ranks the best models based on cross-validation accuracy.

Stunning UI/UX Graphics

Interactive "Predicted vs. Reference" scatter charts and component optimization grids engineered for a premium tracking experience.

Advanced Spectral Cleaning

High-performance filters (SNV, MSC, 1st/2nd Derivatives) that mathematically strip light scattering and baseline shifts.

Prediction Diagnostics

Advanced tracking via Global Hotelling (GH) and Neighbor Hotelling (NH) indicators to red-flag out-of-range samples instantly.

CORE CAPABILITIES

caliX delivers powerful tools and seamless experiences that help teams collaborate, automate, and interpret spectral data efficiently.

Full Transparency

Complete transparency in data usage, model validation parameters (R^2 , RMSEC, RMSECV), and system metrics.

Continuous Updates

Continuously updated with new chemometric features based on user feedback and evolving spectroscopy needs.

Dedicated Support

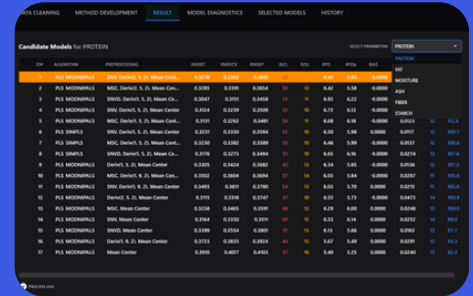
Dedicated onboarding engineering specialists and rapid technical support within 24 hours.

Team Collaboration

Genuinely shared project files (.clx) allow laboratory teams to sync and transfer calibration data anywhere in real time.

User-Centric Design

Every mathematical model and option is designed around user needs to deliver maximum industrial value.



Model	Algorithm	Preprocessing	RMSEC	RMSECV	RMSEP	R ²	R ² _{CV}	R ² _{SEP}	MAE	MAE _{CV}	MAE _{SEP}	MAE _{SEP}
1	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
2	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
3	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
4	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
5	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
6	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
7	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
8	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
9	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
10	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
11	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
12	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
13	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
14	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
15	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
16	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00
17	PLS	MIDC	0.0000	0.0000	0.0000	1.0	1.0	1.0	0.00	0.00	0.00	0.00



WHY USE OUR SPECTRAL INTELLIGENCE SYSTEM?

Our system is built for enterprise performance and ease of use. Here is what makes it stand out:

- **Cross-Instrument Support:** Completely hardware-agnostic; seamlessly processes spectral formats from any NIR, FTIR, Raman, or UV-Vis spectrometer.
- **Real-Time Synchronicity:** All your calibration models are instantly saved, exported, or packed into native .clx or standalone .ihb files.
- **Advanced Validation & Security:** Built-in Robust PLS and Huber regression algorithms aggressively downweight outliers and prevent model overfitting.
- **Custom Dashboards:** Personalize your workspace with a simple toggle between professional Light and Dark themes to match your preferred workflow.
- **Offline Mode:** Continue optimizing algorithms, processing datasets, and predicting unknown samples without an active internet connection.

OUR TEAM

Our team consists of passionate professionals with expertise in software development, data science, and chemometrics, delivering exceptional analytical and digital experiences.

Team Strengths:

- Chemometrics & Model Developers
- UX/UI Interface Designers
- Product & Analytics Strategists
- Agile Collaboration

OUR SYSTEM

Our system is built to streamline workflows and enhance productivity. It combines an intuitive user interface with powerful mathematical engines to serve laboratories and production lines across various industries.

App Features:

- Intuitive Interface
- One-Click Optimization (AutoML)
- Real-Time Spectral Analytics
- Secure & Scalable Platform

MEASURABLE IMPACT

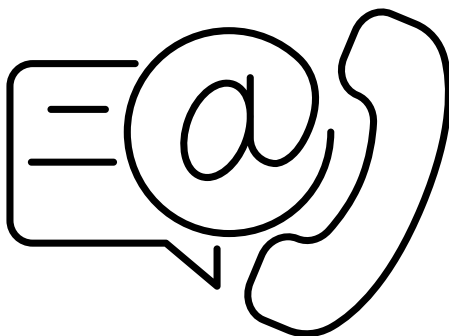
Optimizing calibration models for the instant prediction of Protein, Moisture, Fat, and other critical parameters across automated production lines.

Streamlining complex spectral data from NIR, FTIR, and Raman spectrometers with absolute mathematical precision and zero hardware restrictions.

95%
User & Model Accuracy
Satisfaction

90%
Calibration & Analysis
Time Savings

85%
Operational Productivity
Boost



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Let's build something extraordinary together.

