



Mishima Kosan Co., Ltd.

AI Transformation in Manufacturing to Address Labor Shortages

Redefine Skills Transfer with FPT AI Mentor





CUSTOMER STORY

Mishima Kosan Co., Ltd.

Japan's manufacturing industry is facing a serious challenge, with an estimated labor shortage of approximately 11 million workers by 2040. To overcome this crisis, Mishima Kosan and FPT agreed to collaborate on building a next-generation manufacturing foundation utilizing AI.

One of the key pillars of this project is **FPT AI Mentor**, a system designed to transform tacit on-site knowledge into structured digital assets and establish a scalable workforce training model. By complementing and streamlining conventional OJT-based education, FPT AI Mentor aims to **improve operational efficiency and knowledge transfer**.

We spoke with the team about the background behind their collaboration with FPT, the practical applications in the field, and their future vision.





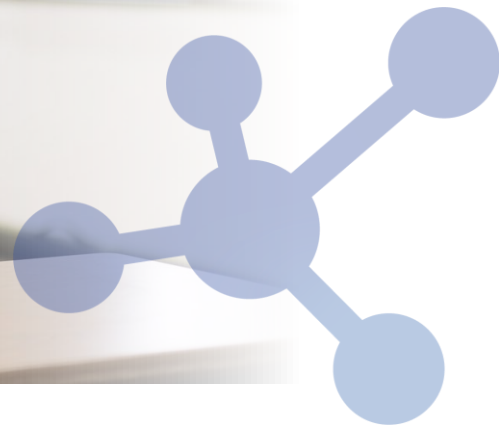
What led you to choose FPT as your partner?



Mr. Yoshifumi Mizomoto

Senior Executive Officer

Mishima Kosan



Mr. Yoshifumi Mizomoto:

Mishima Kosan's core business is process outsourcing, where we gather people to work directly at our customers' sites. In addition, we also develop proprietary products and engineering services.

One of the major challenges in these operations is the time required to acquire site-specific skills. Unlike forklift operation, where a license can be used universally, each worksite has its own specialized terminology and strict safety and quality standards. It often takes six months to a year, or even longer, for new employees to become fully operational. This results in significant training costs and has remained an ongoing operational challenge.

To address worsening labor shortages and increasing workforce demands from customers, we recognized the importance of leveraging AI to improve training efficiency in a shorter timeframe.

What made FPT stand out?

At first, we honestly did not believe such complex field knowledge could be converted into AI. However, after hearing FPT's proposal regarding the possibilities of the service, we thought, "Let's take on this challenge together."

The deciding factors were the ability to implement the solution quickly and at a reasonable cost. In addition, FPT's agility and speed of response were extremely appealing. As an owner-operated company, we are able to make decisions quickly and are relatively willing to take risks. That approach matched very well with FPT's fast-paced working style.

The engineers were young, highly motivated, and sincerely committed to meeting demanding requirements. We see FPT as a strategic partner willing to take risks and move forward together with us.

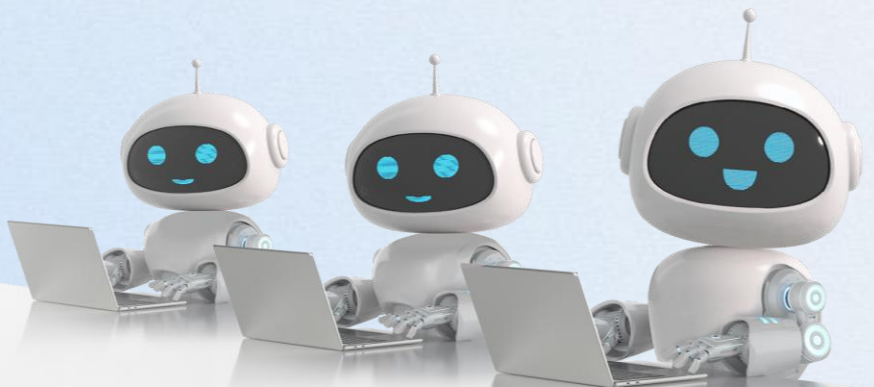
What are your expectations for FPT AI Mentor?

Toward 2028, we expect approximately **50 employees to take on new production processes**. By allowing them to study these processes in advance using FPT AI Mentor, we believe the onboarding process can be significantly smoother.

Of course, there are still challenges in encouraging widespread adoption on-site. However, if we can establish a system where employees can learn repeatedly while also incorporating gamification elements, it may become an opportunity to rethink the entire approach to workplace training.

We are also considering introducing additional functions such as chat features to support on-site communication, facial recognition for identity verification, and AI-generated daily report creation.

In the future, we hope to securely train AI using vast collections of standard documents on a highly secure cloud platform, further developing FPT AI Mentor into a foundation that supports skills transfer and operational information sharing.



Before Implementation

Conventional Analog Training

- Paper-based manuals
- No evaluation methodology for knowledge retention
- Skill proficiency became a “black box”
- Only on-site coaches could accurately understand each worker’s skill level



After Implementation

FPT AI Mentor - Hybrid Guidance Through AI and Human Collaboration

AI-Based Learning & Quiz Assessments

- AI supports learning and checks comprehension through quizzes
- Basic training can now be automated

Centralized Management & Sharing of Skill Proficiency Data

- Managers can check worker proficiency whenever necessary
- Coaches can spend more time on practical OJT training
- Training plans can be optimized based on each worker’s progress



Key Benefits

- Improved operational efficiency
- Faster onboarding and workforce readiness
- More transparent and trackable skill management
- Better collaboration and information sharing across departments and shifts



Dashboard Layer

- Visualize learning progress and Q&A results
- Utilize insights for skill improvement and workforce development planning



Interface Layer

- Intuitive and user-friendly UI/UX
- Learn operational standards and verify understanding through Q&A



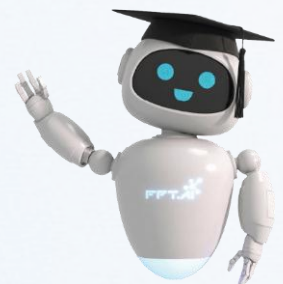
AI Model Layer

- Conduct company-specific fine-tuning based on FPT's AI Factory



Data Layer

- Work standards, drawings, manuals, training videos, etc.
- Convert documents into AI-recognizable structured data

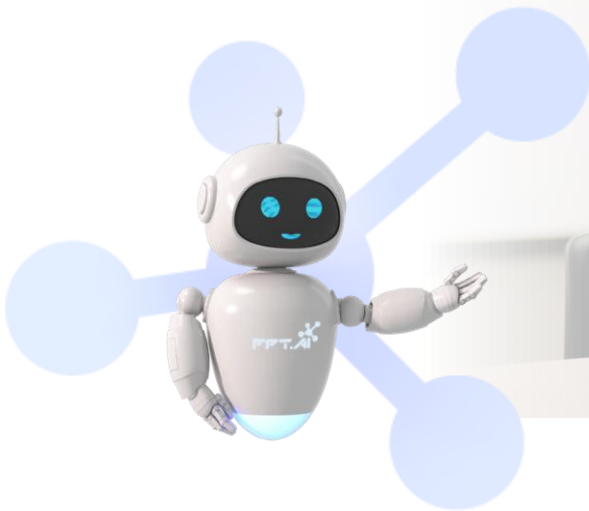




We heard that organizing and structuring data for FPT AI Mentor was particularly challenging.

Mr. Yuichiro Kono

Assistant, New Business Development Office
Mishima Kosan



Mr. Yuichiro Kono:

Yes, it was quite difficult. Previously, training **relied heavily on hundreds of pages of paper manuals and OJT**, with an average learning period of one year, and up to two years for some sites.

The manuals used on-site were created independently by supervisors and team leaders, resulting in inconsistent formats, including photo-heavy manuals and text-heavy manuals. To enable AI learning, all of this data first had to be organized and structured.

FPT supported us greatly in handling complicated Excel formats as well. Together, we categorized forms prone to errors and improved the process so data could be imported efficiently. We also extracted specialized terminology and trained the AI accordingly, which improved answer accuracy.



How has your collaboration with FPT been?

This is the first time we have worked so closely with an overseas vendor. Initially, we were concerned about whether our intentions would be communicated properly. In reality, communication was extremely close and smooth.



What impressed me most was not only FPT's ability to respond to our requests, but also their strong proposal capabilities. When we communicated "1," they often responded with "1.5." For example, they prepared highly visual materials using diagrams and illustrations and quickly reflected site requests through weekly meetings.

Being able to move forward as "one team" working toward the same goal was a major strength.



What operational changes have you experienced after implementation?

On-site employees have responded positively, saying they can now instantly search manuals and procedures. Beyond convenience, one of the greatest achievements is establishing systems for horizontal knowledge sharing and pre-learning.

Previously, support staff from other departments only began training after arriving on-site. Now, they can study in advance, making it easier to accelerate readiness before deployment. AI's ability to centrally manage data has helped solve challenges that were previously difficult to address through traditional training methods.

Additionally, there were cases where employees hesitated to ask veteran workers questions and ended up continuing work without fully understanding procedures. With FPT AI Mentor, they can ask questions freely at any time, reducing those psychological barriers.

As a result, instructors are now freed from repetitive basic training tasks and can focus more on deeper technical skills and building trust-based relationships, which has transformed the way education is delivered.



What challenges existed at the worksite?

Mr. Go Kishimoto:

In my department, we manage part of our customers' factory lines while also improving operations and introducing equipment. Many of the products handled on-site are highly customized, involving small-lot production with a wide variety of product types. Some products only reappear every six months, making it difficult for anyone except workers with previous experience to handle them effectively.

In addition, the site operates on a three-shift system covering 24 hours a day. This creates situations where information known by the daytime team is not shared with the nighttime team, and vice versa. As a result, transferring skills and sharing information across shifts has always been challenging, leading to differences in knowledge among workers.



Mr. Go Kishimoto

Technical Office Manager
Mishima Kosan

How does FPT AI Mentor address these issues?

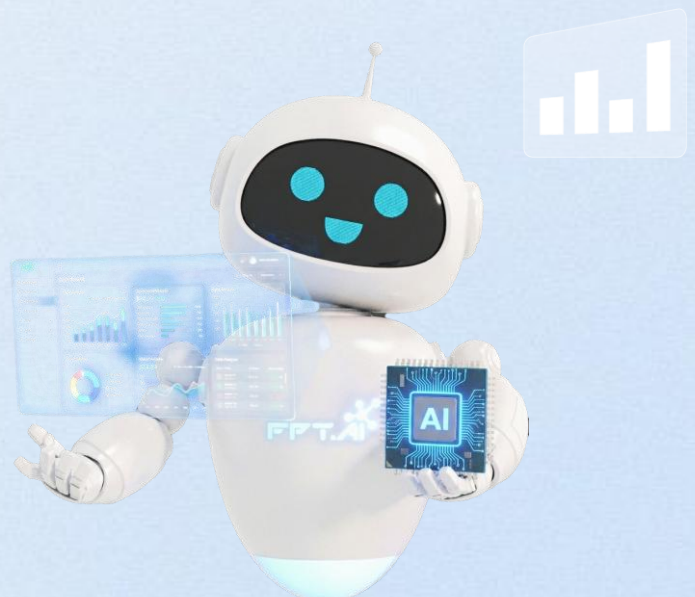
FPT AI Mentor learns the knowledge, procedures, safety regulations, and specialized terminology required on-site, allowing anyone to access the necessary information whenever needed. By supplementing expertise that previously required years of experience to acquire, FPT AI Mentor enables faster skill development for new workers.

One particularly important feature is its flexibility in adapting to site-specific cultures and complex operational rules. FPT AI Mentor is designed as an evolving system that continuously improves through practical use on-site. Workers can even provide feedback such as "This answer is incorrect," allowing the system to grow by incorporating real workplace knowledge and experience.

How would you expect FPT AI Mentor to evolve in the future?

We hope FPT AI Mentor will contribute not only to skills transfer but also to improving on-site communication. Many workers do not have email addresses or PCs, which makes information sharing across shifts difficult. By utilizing FPT AI Mentor's chat function, events occurring during the day shift can easily be shared with the night shift.

Our ideal vision two or three years from now is to create an environment where anyone involved in manufacturing can produce products with the same quality, safety standards, and efficiency. We aim for FPT AI Mentor to become an indispensable part of the workplace.





What changes have you personally experienced after using FPT AI Mentor?

Mr. Hiroshi Ishii

Thick Plate Section
Shift Supervisor

I manage a workplace with around 60 employees, and I feel that waiting time between tasks can now be used much more effectively. Previously, training mainly relied on paper manuals and face-to-face OJT, making it difficult to secure training time during operations. Now, employees can easily learn using smartphones they are already familiar with.



The quiz-based learning format is especially effective because it feels like a game and provides immediate feedback, helping knowledge settle naturally. Workers can also review procedures on their smartphones before actual operations, dramatically improving training efficiency.

FPT AI Mentor is a very user-friendly tool, and I hope it continues to evolve.



Mr. Cho Cho We

Thick Plate Section

I am from Myanmar, and before I had to spend a lot of time translating and understanding Japanese instructional materials. With FPT AI Mentor, I can now accurately check complicated procedures and safety rules in my native language.

What helps me most is being able to quickly search for answers on my smartphone even when my supervisor is not nearby. I hope to continue using FPT AI Mentor to work safely going forward.



Contact us

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