

# Manufacturing

Based on our localization policies (local design, local production, and local consumption), Fuji Electric has adopted a manufacturing framework with three hubs, where production bases in Japan act as the mother factories for global manufacturing operations, with two other hubs in China and Asia. To further enhance our manufacturing capabilities, in addition to focusing on our on-site capabilities through supply chain innovation activities, we also work to strengthen our capabilities in terms of production technology and human resources, with the view to honing our competitiveness further.

## Three Pillars Supporting Manufacturing

### On-Site Capabilities

The ability to achieve higher productivity, lower costs and other goals by enhancing technical skills needed at production sites



### Production Technology

The ability to develop and apply manufacturing methods, production processes, and production equipment to achieve customer satisfaction

### Human Resource Development

The handing down of our accumulated technologies and skills that are necessary for innovation in manufacturing

## Major Initiatives in Fiscal 2013

### Strengthening Production Technology Capabilities

Fuji Electric is bolstering its production technology capabilities in order to ensure highly-competitive manufacturing. Core production engineers are concentrated at the Facility Technology Center in Saitama Prefecture to develop facility technologies and core fundamental technologies. In collaboration with factories, the achievements of their work are applied to actual manufacturing facilities and production process improvements.

Specifically, with the aim of automating production facilities, production lines, and testing and evaluation facilities, we have taken steps to enhance the facility technologies of manufacturing sites by converting tasks and concepts at these manufacturing sites into simple automated equipment. At the same time, we are using robot technology to develop automated production lines capable of handling a wide variety of products and varying quantities, enabling shorter lead times and higher productivity.

#### Assembly Automation (Azumino Factory, GE Fuji Meter Co., Ltd.)

In fiscal 2013, we worked on automating the assembly process, with the aim of expanding orders for smart meters. We are automating the printed circuit board test process by developing conveyors for the testing, soldering, and coating processes, which were formerly performed manually.



Automated printed circuit board inspection line

## Bolstering Human Resource Development

To strengthen manufacturing capabilities, which are fundamental to manufacturers, our factories in Japan are working as mother factories to amass technologies and expertise while nurturing production engineers and technicians who can succeed at overseas manufacturing bases. At overseas production bases, we are improving both operational quality and efficiency by developing technicians, upgrading quality management systems, and pursuing supply chain improvements, which are the roots of manufacturing.

### Manufacturing Training System

	Engineering	Technical
<b>Management</b>	Management training	
<b>Regular employees</b>	Practical training on core technologies Application Manufacturing technologies Management technologies	Supervisor training Assistant manager Supervisor Leader
	Basic Manufacturing technologies Management technologies	
<b>Young employees / new hires</b>	Basic technology training (IE*1, QC*2, VE) 2nd year	New technician training (1 year)
	Production engineers training for new employees*3	National Skills Competition (3 years)
	Production engineers training for experienced employees*3	

\*1 IE: industrial engineering  
\*2 QC: quality control

\*3 Newly established

### Production Engineers Training for New Employees

In fiscal 2013, we held group training lasting three months for new employees in the production technology division. The trainees spent the first two months learning fundamental knowledge such as core technologies and essential skills. Following this, the trainees split into teams and made an automated conveyor. They learned the series of facility construction processes, from planning, design, procurement, assembly, adjustments, and evaluation, which are needed to handle production technology.



Making an automated conveyor

### Winning a Prize at the National Skills Competition

At the 51st National Skills Competition held in November 2013, three employees from Fuji Electric F-Tech Co., Ltd. participated in the die-cutting category and won the silver and bronze medals. Fuji Electric will continue to strengthen its manufacturing capabilities by making sure that talented technicians grow to become central figures at manufacturing bases.



National Skills Competition

## Voice A Message from an Employee



**Natee Naratnkul**  
Senior Manager of Manufacturing Department  
Fuji Electric Manufacturing (Thailand) Co., Ltd.

### Launch of Asian Production Base

When launching the new production base in Thailand, we tried to minimize operation loss by formulating and executing a fine-tuned carry-in plan for materials and equipment, and by preparing facilities and a production system to handle a wide variety of products. More than anything else, we focused on developing personnel who will be passionate about manufacturing. The Suzuka Factory and other mother production bases took the lead role in educating, instructing, and certifying personnel with respect to important basic tasks for ensuring product quality. They conduct task training and work systematically to improve the frontlines, and pass along our manufacturing DNA to our future leaders. As an Asian product base, we will continue to grow for providing low-priced, high-quality products to our customers.



Production line of factory in Thailand