



**Feature** Amidst a growing market in emerging countries and a shortage of engineers in the manufacturing and service fields

## Supporting the Training of Engineers in Emerging Countries through Industry-Government-Academia Collaboration

### DAIKIN'S APPROACH

#### Contributing to Expansion of India's Air Conditioning Market with Engineers Training

Among emerging countries, India has shown particularly rapid growth. With economic expansion the country's air conditioner market grows a 1.2-times in the past five years. Fiscal 2016 sales of Daikin Airconditioning India Pvt. Ltd. (Daikin India) were up 20% over the previous year. The market is expected to continue growing. However, air conditioners operate under extreme conditions because infrastructure, such as transportation, is still developing; power outages and voltage fluctuations appear frequently; and heat exchangers get clogged with dust.

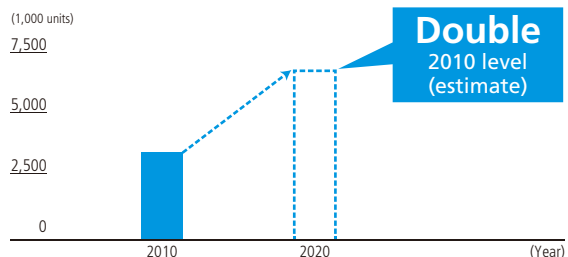
Against this background, it is essential that we make air conditioners capable of withstanding such extreme conditions and train technicians to carry out installation, maintenance, and repair. By contributing to solving problems in India such as the shortage and lack of skill of technicians, we can help raise overall skill levels in the country. Ultimately, we believe that such contributions will lead to sustainable growth for Daikin.

### DAIKIN'S PERFORMANCE

#### Training Service Engineers of All Companies' Products

Since 2000, Daikin India has not only been conducting technical training for its own service engineers but has also been training service engineers of dealers and service outlets that handle other companies' products also. This training is run by a dedicated team that teaches necessities such as air conditioner basics and techniques related to periodic inspections and breakdown diagnosis at the company's training center in the factory. In fiscal 2016, the training hosted a cumulative total of more than 20,000 mandays. Daikin India has expanded the number of training centers in India to five to allow service engineers in regions around the country to be easy to join the training. In fiscal 2016, approximately 1,200 participated.

#### Estimated Air Conditioner Demand in India



Source: "World Air Conditioner Demand by Region," published by the Japan Refrigeration and Air Conditioning Industries Association

## Human Resource Training Programs of Daikin India

	Technical training/ Training for trainers	Technical training for service engineers	Air conditioning technology workshops	Air conditioning technology workshops at JIM
Participants	Employees of Daikin India		Technical fields students	Youngsters hoping to become engineers
Role of Daikin India	Guidance on manufacturing technologies, theoretical explanations	Guidance on techniques for air conditioner installation, maintenance, etc.	Guidance for workshop instructors, and free-of-charge provision of the air conditioners needed for teaching	Guidance on air conditioner basics and techniques
Sponsor	Daikin India	Daikin India	Daikin India, 8 local vocational training schools	Daikin India, Japanese and Indian governments

## Industry-Government-Academia Collaboration supports to Train Young Technical Engineers and Helps Raise Technical Skills Nationwide

Daikin India is expanding its human resource training to include not just current technicians but also those who will contribute to technological advancement in the future.

In August 2016, the company began air conditioning technology workshops for university students in collaboration with vocational training schools. Students learn the knowledge and practice the skills needed to become a service engineer. The company dispatches employees to guide the workshop instructors, and it provides the air conditioners needed for teaching purposes free-of-charge. The collaboration currently encompasses eight vocational training schools, and in the past half year more than 250 students have taken part.

Since November 2016, Daikin has been taking part in the Manufacturing Skill Transfer Promotion Program, a joint initiative of Japan's Ministry of Economy, Trade and Industry (METI), the Ministry of Skill Development and Entrepreneurship (MSDE) of India, and Japanese private companies. The program aims to train 30,000 engineers over the next 10 years. In August 2017, Daikin India launched the Japan-India Institute for Manufacturing (JIM) to train engineers for the field of air conditioner manufacturing. The school will accept students whose financial situation makes it difficult for them to go to university, and they will learn not only practical skills but also the spirit and culture of Japan manufacturing, including improvement activities and the 5S method.



An air conditioning technology workshop at a vocational training school

### Stakeholder's Comment

#### High Hopes for Improved Student Skills through Practical Training with Daikin

What's special about this course is that it brings the students close to Daikin's industry-leading technologies and provides them with training that allows them to acquire the skills and knowledge they need for working. We know the course is effective because of the praise our graduates have received from the front lines. I hope that in the future the course will incorporate even more advanced training.



**Dr. Vikram Singh**  
Professor  
YMCA University of  
Science and  
Technology, Faridabad

## NEXT CHALLENGE

### Growing Worldwide with Communities through Human Resource Training

As you can have seen above, we are conducting technical training in India's manufacturing and service fields in order to foster the personnel who will be the core of the country's air conditioning industry. In other countries as well, we will strive to train human resources in Daikin and in other companies so that local industry can advance and prosper.

By continuing to foster human resources inside and outside our company worldwide, contributing to growing engineers and local development, Daikin can achieve sustainable growth.