

# Highlights of 2021

## 1. Participation in JSAE Annual Spring and Autumn Congresses

JATCO Group company employees presented a total of four technical papers at the Annual Spring and Autumn Congresses of the Society of Automotive Engineers of Japan, Inc. (JSAE).

The Spring Congress was held May 26-28, 2021. Because of the impact of the novel coronavirus (COVID-19), the Spring Congress was held online. A JATCO employee presented a paper entitled “Development of mass-production die-casting technology for heat-resistant, high-strength magnesium alloy.” He talked about the mass-production die-casting technology developed for manufacturing the magnesium alloy case of JATCO’s new 9-speed automatic transmission for rear-wheel-drive vehicles. A JATCO Korea Engineering Corp. employee presented a paper entitled “Development of a method for suppressing CVT chain noise.” He described the method developed for mitigating noise, based on a clarification that the balance between chain stiffness and pulley clamping force correlates with chain noise.

The Autumn Congress was held October 13-15, 2021 and was also convened online like the Spring Congress. A JATCO employee presented a paper entitled “Clarification of the mechanism reducing torque capacity due to differences between the ideal and actual CVT chain path.” He explained that deviation of the CVT chain from the ideal path was the mechanism causing torque capacity to decline. Another JATCO employee also presented a paper entitled “Stabilization of Gear Machining Accuracy by Controlling Gear Honing Machine Vibration.” He explained that suitable control of honing machine vibration leads to suppression of ghost noise.

## 2. Participation in JFPS International Symposium on Fluid Power

The 11th JFPS International Symposium on Fluid Power was held online October 12-13, 2021. A JATCO employee presented a paper entitled “Clarification of Parameters and Development of a Method for Estimating Loading Forces Acting on The Spool Valve of a Hydraulically Controlled Automotive Transmission.” He explained that the forces acting on the spool valve inside the control valve were calculated by

a fluid analysis and their accuracy was verified experimentally.

## 3. Participation in the planning of JAMBE

Ten domestic vehicle manufacturers and parts makers, including JATCO, and the Japan Automobile Research Institute (JARI) agreed to establish the Japan Automobile Model-Based Engineering Center (JAMBE) to promote the nationwide diffusion of model-based development (MBD) in Japan’s automotive industry. A briefing to explain JAMBE to the media was held on September 24, 2021 as an inaugural event. A JATCO company officer participated in the event online and talked about his thoughts and expectations of JAMBE as a member of the steering committee.



Source: JAMBE

## 4. Jatco CVT7-equipped vehicle named Compact SUV of the Year by a leading car magazine in India

The Nissan Magnite, equipped with the Jatco CVT7, was named Compact SUV of the Year by BBC TopGear India, one of that country’s leading car magazines. The Jatco CVT7 contributes to the vehicle in the following three ways.

- D-step control(1) reduces the rubber-band feeling(2).
- The auxiliary transmission provides a wide gear ratio

range that delivers a feeling of powerful acceleration.

- Smooth, responsive shifting that distinguishes a CVT.

- (1) Control procedure that provides AT-like shift performance.
- (2) With accelerator-on, a condition where the engine speed flares first with vehicle acceleration catching up later.



##### 5. Recipient of Superior Quality Award given by GMMC

GAC Mitsubishi Motors Co., Ltd. (GMMC) gave JATCO (Suzhou) Automatic Transmission Limited (JSZ) a Superior Quality Award on March 22, 2021. GMMC presented this award to just ten companies among the more than 300 suppliers it does business with. GMMC commented that, “JSZ’s product quality was outstanding in FY 2020. JSZ always resolves quality issues promptly and efficiently and actively responds to our customers’ requests. With its strong customer awareness, JSZ delivers outstanding products and at the same time it values the importance of providing high-quality service.”



##### 6. Certified as “Health and Productivity Management Organization 2021 (White 500)”

JATCO Ltd and JATCO Engineering Ltd (JE) were certified as a “Health and Productivity Organization 2021 (White 500).” This certification is given by the Ministry of Economy, Trade and Industry (METI) to commend enterprises that practice superior health and productivity management. JATCO and JE have been certified as “White



500” organizations for three consecutive years now, including 2019 and 2020.

JATCO and JE conduct nutrition education, health promotion activities such as walking and other events, along with in-house efforts to raise employees’ health consciousness through wall posters and other means. Health is positioned as one of management’s activities, and managerial-level people actively issue health messages both within and outside the company. The recognition of these activities resulted in the certification.

##### 7. Certified as a “Sports Yell Company 2021” by the Japan Sports Agency

Companies that actively undertake sports activities to promote the health of their employees are certified by the Japan Sports Agency as a “Sports Yell Company.” The purpose of this recognition is to encourage the installation of sports facilities for the prime working generation and to foster a social momentum towards sports. Four JATCO Group companies were certified this year as a “Sports Yell Company 2021”: JATCO Ltd, JATCO Engineering Ltd, JATCO Tool Ltd and JATCO Plant Tec Ltd, out of a total of 623 certified organizations. The four companies were highly evaluated for undertaking activities to promote employees’ health by providing opportunities for exercising



such as doing radio calisthenics before work, holding gymnastic and stretching events led by an instructor, and sponsoring walking events, among other things.

#### 8. Recipient of the Silver Prize at the National Congress for Excellent Improvement Examples 2021

The National Congress for Excellent Improvement Examples 2021 was held online on October 28, 2021. At this event all the examples of outstanding improvements that were selected for Excellent Improvement Awards at the



district qualifying round held in June for the 2021 National Congress were presented at the same time. Twenty teams from across the country participated in this event. JATCO was the sole entrant in the National Congress from Nissan Group companies. Over 1,000 attendees watched the presentations and voted in the contest in which JATCO was awarded the Silver Prize.

#### 9. Torque Rechecker Circle receives Area Head's Prize at Shizuoka Area QC Circle Satsuki Convention



JATCO Engineering's Torque Rechecker Circle participated in the Shizuoka Area QC Circle Satsuki Convention that was held on May 21, 2021 for the 6,311th time. They received the Area Head's Prize, securing the right to attend the Tokai Branch's Championship Conference held in September as the representative of the Shizuoka area. Their theme this time was "elimination of the breaking of the torque wrench tie band." This improvement example was put together by the vigorous efforts of a young female employee who served as the team leader for the first time in her second year with the company.

#### 10. Cooperation with Fuji City's local vaccinations against the novel coronavirus

JATCO's medical staff cooperated with a local program undertaken by Fuji City to vaccinate senior citizens aged 65 or older. This cooperation contributed to the accomplishment of the government's goal to "complete vaccinations by end-July" in cooperation with the administration.



