

# DAIMLER

## Industry-Education Collaboration with Tohoku University Internship Program

24th Nov



# Internship Program will be implemented this year

## Concept

The objective of the internship program is to provide an opportunity for young students to collect first workplace experience by observing business activities as well as social behavior in a professional corporate environment.

## Details

- **Internship Details:**
  - All year-round internship
  - Long-Term Internships
- **Duration:**
  - From 2 weeks
- **Other Learning Experience during internship:**
  - Factory Tour
  - Fireside Chat (Executive Talk)
- **Departments**
  - R&D, Production Office, Customer Services

## Policy Program

### ▪ Support to Interns:

**Recommended** →

Duration	Allowance
2 weeks	JPY 65,000
1 month	JPY 130,000

### Assumptions (2-week business model):

Transportation: 25,000 (roundtrip)  
Accommodation: 40,000 -65,000 / month

### Sample Sharehouse:

[www.ekichika.co.jp](http://www.ekichika.co.jp)  
[www.oakhouse.jp](http://www.oakhouse.jp)

**We recommend students to enjoy a 1 month internship program**



# 34 internship opportunities offering the chance to work on actual projects

	Department	Project	Number of Interns
1	R&D	Internship in Diesel Engine Development	4
2	R&D	Internship in TF Japan Project	2
3	R&D	Steering, Front Axle Team Electric Power Steering Development	1
4	R&D	Rear Axle, Final Drive System Team eAxle Development	1
5	R&D	Suspension Team Front/ Rear Suspension Development	1
6	R&D	Air Brake Team: Air Brake Development for Heavy Duty Vehicles	1
7	R&D	Internship in HV battery hardware R&D	1
8	R&D	Internship in R&D Competitiveness Improvement	2
9	R&D	Internship in TP/ PAT to support gearbox and PTO development for e CANTER Project	1
10	R&D	Internship in Testing – Data Analysis Automation	1
11	R&D	Internship in TP/ ATC 4P10 Euro VI stepE Project	1
12	R&D	Internship in TP/ ATC 4P10 engine testing	1
13	R&D	Internship in TP/ ATC CFD 1D cooling Project	1
14	TA/O	Internship in Wiring Piping Production Preparation	1
15	TA/O	Internship in Manufacturing Engineering Trucks : Introduce Deep learning in robotics au	1
16	TA/O	Internship in Manufacturing Engineering Trucks : Introduce work support system with n	1
17	TA/O	Internship in Manufacturing Engineering Trucks : Efficient and effective introduction of	1
18	TA/O	Internship in TOS* Kaizen project in direct area (* Truck Operating System)	1
19	TA/O	Internship in Manufacturing Engineering Powertrain.	1
20	TA/O	Internship in Logistics Digitalization Project	1
21	TA/QM	Internship in QM New Projects team	1
22	TA/QM	Internship in Product reliability and warranty FUSO	1
23	TA/QM	Internship in Quality Management in the area of - Connected truck data analytics	1
24	TA/QM	Internship for Product Reliability and Warranty Fuso in DTA QM ( TA/ QMR , TM and FU	1
25	TA/QM	Internship in PST (Problem Solving Team) Activity	1
26	TA/QM	Application for 1 intern on Tohoku University Project	1
27	TA/QM	Internship in Kaizen project for management of COP inspection record	1
28	TA/QM	Internship in material laboratory of quality department	1
29	TA/CS	Internship in CS Business Development, Customer Satisfaction Program in Japan.	1
	<b>TOTAL</b>		<b>34</b>

Department	Number
R&D	18
Production	7
Quality Management	8
Customer Services	1



# DAIMLER

## R&D Department

# Job Description -1/14

Department TP/PAE

Required No. intern  
trainee

4

## 1 Title of the internship

Internship in Diesel Engine Development

## 2 Required skill

- Study: Mechanical Engineering knowledge
- Language: Japanese and/or English

## 3 Main task

- Task1 Design and Project Management ( @Kawasaki )
- Task 2 Simulation and Engine dynamo Testing ( @Tochigi Sakura city)

# Job Description –2/14

**Department** TP/AVL (Kandori))

**Required No. intern  
trainee** 2

## 1 Title of the internship

<e.g.> Internship in TF Japan Project

## 2 Required skill

- Study: Basic automotive technology. Mechanical engineering or Electronic engineering knowledge.
- Language: Japanese is main language. (English capability is not required)
- Other: Excel and Power point skill is preferred.

## 3 Main task

- Vehicle specification calculation. (Weight , Performance etc.)
- Management of funding and timeline
- Strategy making for next generation vehicle.

# Job Description – 3/14

**Department**

TP/ACA Axle Brake

**Required No. intern  
trainee**

Suspension

1

## 1 Title of the internship

Steering, Front Axle Team  
Electric Power Steering Development

## 2 Required skill

- 3D Modelling by Siemens NX, CATIA or similar program
- 2D Drawing dimensioning.
- Knowledge of Driving dynamics/ Vehicle dynamics, knowledge of main steering components & Front Axle
- Excel and Power Point
  - Study: Mechanical Systems Engineering, Mechanical systems
  - Language: Japanese native

## 3 Main task

- Design support and data acquisition for electric power steering design
- 3D digital mockup packaging study
- Part maturity tracking; Design status, prototyping and testing

# Job Description - 4/14

**Department**

TP/ACA Axle Brake

**Required No. intern  
trainee**

Suspension

1

## 1 Title of the internship

Rear Axle, Final Drive System Team  
eAxle Development

## 2 Required skill

- 3D Modelling by Siemens NX, CATIA or similar program
- 2D Drawing dimensioning.
- Knowledge of Driving dynamics/ Vehicle dynamics, knowledge of Rear Axle and Final Drive
- Excel and Power Point
  - Study: Mechanical Systems Engineering, Mechanical systems
  - Language: Japanese native

## 3 Main task

- Design support and data acquisition for eAxle design
- 3D digital mockup packaging study
- Part maturity tracking; Design status, prototyping and testing



# Job Description 5/14

**Department**

TP/ACA Axle Brake

**Required No. intern  
trainee**

Suspension

1

## 1 Title of the internship

Suspension Team  
Front/ Rear Suspension Development

## 2 Required skill

- 3D Modelling by Siemens NX, CATIA or similar program
- 2D Drawing dimensioning.
- Knowledge of Driving dynamics/ Vehicle dynamics, knowledge of main components of Vehicle suspension
- Excel and Power Point
  - Study: Mechanical Systems Engineering, Mechanical systems
  - Language: Japanese native

## 3 Main task

- Design support and data acquisition for suspension design for various Vehicles from LDT to HDT
- 3D digital mockup packaging study
- Part maturity tracking; Design status, prototyping and testing

# Job Description - 6/14

**Department**

TP/ACA Axle Brake

**Required No. intern  
trainee**

Suspension

1

## 1 Title of the internship

Air Brake Team: Air Brake Development for Heavy Duty Vehicles

## 2 Required skill

- 3D Modelling by Siemens NX, CATIA or similar program
- 2D Drawing dimensioning.
- Knowledge of Brake system and braking force calculation, knowledge of main components of Air brake system
- Excel and Power Point
  - Study: Mechanical Systems Engineering, Mechanical systems
  - Language: Japanese native

## 3 Main task

- Design support and data acquisition for air brake design for various Vehicles ( Heavy duty Truck and Bus)
- 3D digital mockup packaging study
- Part maturity tracking; Design status, prototyping and testing

# Job Description – 7/14

Department TX/EP5

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in HV battery hardware R&D

## 2 Required skill

- Study: Mechanical/electrical/materials engineering or related
- Language: English, Japanese
- Other:
  - Ability to work and communicate effectively in an international, cross-functional environment
  - Ability to solve problems and tasks independently
  - Interest in NEV and battery development
  - Experience with MS office tools

## 3 Main task

- Work closely with electrical vehicle project members and assist in project management and documentation
- Support in the analysis and full-vehicle integration of 3D battery models
- Support the preparation of component/vehicle test plans using Excel
- Participate in supplier meetings and support technical alignments
- Apply and follow up on processes for parts ordering and releases
- Keep track of latest trends in battery system development

# Job Description - 8/14

**Department** TP/AVL (Adit)

**Required No. intern  
trainee** 1~2

## 1 Title of the internship

Internship in R&D Competitiveness Improvement

## 2 Required skill

- Study: Mechanical Engineering / Mechanical Systems / Management Science & Technology
- Language: Japanese and English ( Both in Good Speaking Level)
- Other:
  - Automotive and Vehicle Components Knowledge
  - Data Automation and Programming Skills
  - MS Excel, Powerpoint

## 3 Main task

- To invent Entire Vehicle Research and Development System to support projects pre-study and decision
- To improve R&D competitiveness by reducing documentation time and improving R&D information/data management.

# Job Description – 10/14

Department TP/PAT

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in TP/PAT to support gearbox and PTO development for e CANTER Project

## 2 Required skill

- Study: Mechanical Engineering knowledge
- Language: Japanese native, English basic
- Other: general pc operation skill, e.g. Microsoft word, excel, powerpoint

## 3 Main task

- To support design validation by engineering analysis
- To support documentation of technical report

What a trainee can take out through the main tasks are

- a) Get first insides to R&D Work of FUSO (TP/PAT)
- b) See real project work of engineers
- c) Participate in project meetings/prepare or support AGENDA or meeting minutes
- d) Understand function of gearbox and PTO for eCanter
- e) Understand how to prepare and support technical reports/presentations



# Job Description – 11/14

Department TP/ATR

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in Testing – Data Analysis Automation

## 2 Required skill

- Study: Material Mechanics, Mechanical dynamics, Electrical engineering
- Language: Native Japanese
- Other:

## 3 Main task

- Learning data analysis processes for durability testing and/or EV testing
- Implement their automation

# Job Description – 12/14

**Department**

TP/ATC 4P10 design/  
application

**Required No. intern  
trainee**

1

## 1 Title of the internship

Internship in TP/ATC 4P10 Euro VI stepE Project

## 2 Required skill

- Study: “General Engineering” especially engine combustion, and after treatment system chemical reaction
- Language: Japanese native, English : communication level
- Other:
  - Better to have
    - material mechanics, fluid mechanics knowledge
    - Engine emission knowledge
    - 3D drawing skill

## 3 Main task

- TF 4P10 stepE project, spec definition for future engine and ATS
- Meeting organization support
- 3D drawing support

# Job Description – 13/14

**Department** TP/ATC 4P10 Testing

**Required No. intern  
trainee** 1

## 1 Title of the internship

Internship in TP/ATC 4P10 engine testing

## 2 Required skill

- Study: “General Engineering” especially engine combustion, and after treatment system chemical reaction
- Language: Japanese native, English : communication level
- Other:
  - Better to have
    - material mechanics, fluid mechanics, electric knowledge
    - Engine emission knowledge
    - Simulation knowledge

## 3 Main task

- Engine bench testing optimization
- Vehicle testing support
- Hardware in loop simulation support
- Meeting organization support

# Job Description - 14/14

**Department** TP/ATC CFD

**Required No. intern  
trainee** 1

## 1 Title of the internship

Internship in TP/ATC CFD 1D cooling Project

## 2 Required skill

- Study: Fluid dynamics, heat transfer and computational fluid dynamics(CFD)
- Language: Japanese native, English : communication level
- Other:
  - Better to have
    - Knowledge of simulation tools Star-CCM+, GT-Suite
    - Knowledge of heat exchanger model

## 3 Main task

- Creation of 1D underhood cooling model
- Data management of cooling modules(intercooler, radiator, cooling fan)
- 3D Underhood airflow simulation support

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## Production Department



# Job Description -1/7

**Department** TA/OTP W3P

**Required No. intern  
trainee**

1

## 1 Title of the internship

Internship in Wiring Piping Production Preparation

## 2 Required skill

- Study: General Engineering knowledge
- Language: Japanese Native or Basic
- Other: Microsoft office

## 3 Main task

- Our group task -  
To prevent the productivity issues about wiring and piping circulation.  
To decrease assembly workload by proposing new design from production point of view.
- Task for internship -  
To create 3D drawing for some components.  
To assemble Muck up (sample trucks) on garage area by self.

# Job Description – 2/7

Department TG/MAJ

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in Manufacturing Engineering Trucks : Introduce Deep learning in robotics automation

## 2 Required skill

- Study: Robotics / Mechanical systems Engineering
- Language: Japanese native, English Conversational
- Other: Brief experience in robotics automation, robot programming  
Experience of team activities, achieve target by communicating and cooperate with team members

## 3 Main task

- Support to introduce statistics feedback loop into prioritize parts picking pattern in existing picking robot system
- Support to research and develop to setup automated parts picking pattern creation, automated labeling systems

# Job Description - 3/7

Department TG/MAJ

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in Manufacturing Engineering Trucks : Introduce work support system with motion capturing technologies

## 2 Required skill

- Study: Robotics / Mechanical systems Engineering
- Language: Japanese native, English Conversational
- Other: Brief experience in robotics automation, Visual recognition, Motion capturing  
Experience of team activities, achieve target by communicating and cooperate with team members

## 3 Main task

- Research and comparison system (camera types, software)
- Research actual cases in Market
- Proposal use case in FUSO production (e.g. integrate work installation and POKA-yoke, safety work)

# Job Description - 4/7

Department TG/MAJ

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in Manufacturing Engineering Trucks : Efficient and effective introduction of EV manufacturing

## 2 Required skill

- Study: Mechanical systems Engineering
- Language: Japanese native, English Conversational
- Other: Design object models in 2D / 3D cad.  
Experience of team activities, achieve target by communicating and cooperate with team members

## 3 Main task

- Support to plan assembly process and facilities for main components of EV trucks
- Support to create prototype of process facility and coordinate test and report

# Job Description – 5/7

**Department** TA/OTT, TOS management

**Required No. intern trainee** TA  
1~2

## 1 Title of the internship

Internship in TOS\* Kaizen project in direct area (\* Truck Operating System)

## 2 Required skill

- Study: General engineering knowledge
- Language: Japanese (native or business level) and English (preferred, not mandatory)
- Other skills: MS office (Excel, Word, Powerpoint) intermediate
- Preferred characteristics: Ready to work on shop floor, Communicative, Openness, Curiosity, Positive to use English
- Duration: 4 weeks or more in July / August (before Obon holiday)

## 3 Main task

- Through participation of TOS Kaizen project in direct (production) area,
  - Learn basics of TOS / lean management
  - Understand production process in the project area
  - Visualize production process and investigate weak points
  - Analyze work contents in terms of value added / non-value added / waste
  - Prepare presentations for report



# Job Description – 6/7

**Department** TG/MPJ (ME Powertrain)

**Required No. intern  
trainee** 1

## 1 Title of the internship

Internship in Manufacturing Engineering Powertrain.

## 2 Required skill

- Study: Mechanical Engineering
- Language: Japanese
- Other:

## 3 Main task

- Project support for Factory of Future
- Project support for Site strategy

# Job Description – 7/7

**Department**

Supply Chain Planning & Operations (TA/OS)

**Required No. intern  
trainee**

1

## 1 Title of the internship

Internship in Logistics Digitalization Project

## 2 Required skill

- Study: General Engineering
- Language: English, Japanese
- Other:
  - Programming / IT skills
  - Process understanding

## 3 Main task

- Support Digitalization project LES (Logistic Execution System)
- AI process roll out and small programming

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## Quality Management Department

# Job Description – 1/8

**Department** Quality Management

**Required No. intern  
trainee** 1

## 1 Title of the internship

Internship in QM New Projects team

## 2 Required skill

- Study: Mechanical Engineering
- Language: Japanese and English
- Other:  
compute skill with MS office

## 3 Main task

- Accomplish New product development activities as per CVDS (商用車開発システム) process
- Drive stake holders for completing Maturity Level Report for every month of all projects
- Identify improvement areas in Product development process and propose new ideas to improve Quality or Efficiency
- **Expected duration 6 months from Jan-2020**

# Job Description – 2/8

Department TA/QMR

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in Product reliability and warranty FUSO

## 2 Required skill

- Study: General Engineering
- Language: Japanese and English (Beginner)
- Other: Microsoft Powerpoint, Excel, word

## 3 Main task

- Establish/update and optimize problem solution process for field complaints



# Job Description - 3/8

**Department** Quality Management

**Required No. intern  
trainee** 1

## 1 Title of the internship

Internship in Quality Management in the area of - Connected truck data analytics

## 2 Required skill

- Study: Computer Science
- Language: English (Basic level)/Japanese (Business level)
- Other: Basic understanding on data science and R Studio programming

## 3 Main task

- Analyze failure codes and identify sequences in failure code occurrences on the trucks
- Analysis of repair done and cost incurred for repair due to failure code
- Generate forecasting model to predict next possible failure code and associated cost

# Job Description – 4/8

**Department** TA/QMR

**Required No. intern  
trainee**

1

## 1 Title of the internship

Internship for Product Reliability and Warranty Fuso in DTA QM ( TA/QMR , TM and FUSO legacy ENG)

## 2 Required skill

- Study: Mechanical Engineering knowledge
- Language: Japanese native and Basic English skill ( for creating report written in English)
- Other: Basic PC skill (Excel, Power point, Word)  
Basic technical knowledge for Engine and component of the automobile  
Communication skill and good motivation

## 3 Main task

- Task 1: Quick and accurate Quality issue resolution for TM and FUSO Legacy Engine  
PQR (Product Quality report) processing  
Parts investigation and actual vehicle onsite investigation  
SHIWAKE meeting and Tech table operation with related department (RD/CS/PO...)
- Task 2: Analyze Quality information data and create summary report  
Data Analysis (PQR/Warranty/Service parts)  
Create the report to upper management and update regularly

# Job Description – 5/8

Department TA/QM

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in PST (Problem Solving Team) Activity

## 2 Required skill

- Study: Mechanical Engineering knowledge
- Language: Japanese, English(read/write)
- Other:
  - General skill of making report
  - General software operation skill

## 3 Main task

- Join PST (Problem Solving Team) Activity (Coordinate 1 or 2 items)
- Propose of improvement the process

# Job Description – 6/8

**Department** TA/QMR\_HDE & GATS

**Required No. intern  
trainee**

1 Team

## 1 Title of the internship

Application for 1 intern on Tohoku University Project

## 2 Required skill

- Study: In general Engineering
- Language: Japanese native, Interesting in communication in English at least
- Other:
  - Study: Interesting in quality management is better
  - Language: English middle level is better (e.g. TOEIC 600 or more)
  - Required 1 intern from TA/QMR\_HDE & GTAS Team

## 3 Main task

- Build problem solving for quality issue in field on powertrain
- Big data analysis of field quality and field part investigation on powertrain

# Job Description – 7/8

**Department** TA/QMM (COP team)

**Required No. intern  
trainee** 1

## 1 Title of the internship

Internship in Kaizen project for management of COP inspection record

## 2 Required skill

- Study: General Engineering
- Language: Japanese (native level), English (fluent level is not required)
- Other: PC skill (MS office is mandatory, and macro creating, visual basic and Power BI is preferable)

## 3 Main task

- Research and consideration for Kaizen items
- Develop and construct of new management process and structure for COP inspection record

# Job Description – 8/8

Department TA/QM

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in material laboratory of quality department

## 2 Required skill

- Study: metallurgy, mechanic engineer, material science, material processing
- Language: English, Japanese
- Other: familiar to ISOs e.g ISO9001:2015

## 3 Main task

- Daily task support in material Laboratory with the basic related technical knowledge.
- Preparing documents for decision making.

*Leadership comment: As an intern, you will work in a team with pricing experts, and opportunities to learn out of different technical issues, which is related to automotive industry*

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## Customer Services Department

# Job Description

Department TA/SCS

Required No. intern  
trainee

1

## 1 Title of the internship

Internship in CS Business Development, Customer Satisfaction Program in Japan.

## 2 Required skill

- Study: Business administrative, System engineering background or equivalent
- Language: **Japanese in native**, English writing (Intermediate) and speaking (Basic)
- Other:  
Advanced Microsoft office skills; Excel, Power Point  
Excellent interpersonal, cross functional teamwork and communication skills

## 3 Main task

- Support administrative tasks on Customer Satisfaction Index(CSI)/Instant Feedback project in Japan
  - E.g. Weekly status report, Update required data maintenance
- Support monthly team KPI's report creation